Global "sukima" ideas

NIPPON KAYAKU



Nippon Kayaku Group Integrated Report 2024

Nippon Kayaku Group Corporate Vision

KAYAKU spirit

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

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.

Corporate Slogan

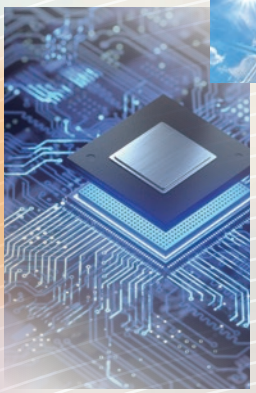
Global "sukima" ideas

At the Nippon Kayaku Group, we strive to deliver value through the pursuit of originality, rather than relying on scale.
To realize this ambition, each employee must strive to improve his or her capabilities while continuing to create products that deliver added value.
We are developing Nippon Kayaku into a company that the world truly needs, by accumulating unique technology that stands outs in niche markets and elsewhere.













CONTENTS

Nippon Kayaku Group Integrated Report 2024

Introduction

page 01

About the Nippon Kayaku Group

KAYAKU spirit and Basic Policy on Sustainable Management 1

Contents 5

Upon Publication of Nippon Kayaku Group Integrated Report 2024, Editorial Policy, Information Disclosed by the Nippon Kayaku Group, External Evaluations and Awards 7

At a Glance 9

The History of Value Creation 13

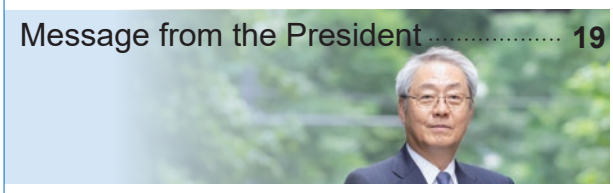
Global Business Expansion 15

Chapter 1

page 17

Business Results and Strategy

Message from the President 19



Nippon Kayaku Group's Value Creation Process 27

Focus Six Forms of Capital Serving as the Source of Competitiveness 29

The Comfortable Future Society with Peace of Mind That the Nippon Kayaku Group Hopes to Realize 31

Nippon Kayaku Group's Sustainable Management 33

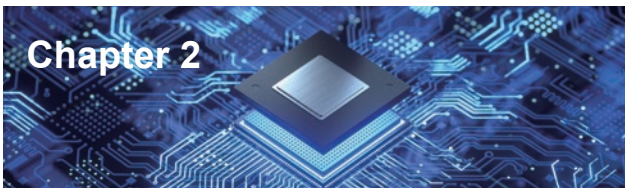
Stakeholder Engagement 39

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

Message from Chief Financial Officer 47

Disclaimer

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



page 51

Businesses

Mobility & Imaging Business Unit 53
Feature on Promising Products and Businesses
Safety Devices for Drones, PARASAFE® 56
Fine Chemicals Business Unit 58
Feature on Promising Products and Businesses
Semiconductor-related Products 61
Life Science Business Unit 63
Development pipeline of Pharmaceuticals business 65



page 67

Management Foundation to Support Sustainable Growth

Research & Development 69
Environmental Initiatives 73
DX 82
Focus Human Resources and Creation of a Comfortable Workplace Environment .. 85
Respect for Human Rights 91
Supply Chain Management 93
Quality Management 95
Contributing to Local Communities 97
Corporate Governance 99
Directors, Audit & Supervisory Board Members, and Executive Directors 103
Outside Directors Roundtable 110
Compliance 115
Risk Management 117
Information Security 120



page 121

Data Section

Financial and Non-Financial Highlights 123
11-Year Summary of Consolidated Financial Data 125
Nippon Kayaku Group Status 127
Company Overview / Investor Information / Communication with Shareholders and Institutional Investors 128
Nippon Kayaku Group Product Keywords 2024 129
Independent Assurance Statement 130

About Cover Design

This design in a tranquil space illuminated by soft rays of light expresses our creativity as well as the new technologies and approaches born from the plentiful three business units of the Nippon Kayaku Group. It shows our stance of transforming ourselves toward our vision while seeking harmony with society.



Upon Publication of Nippon Kayaku Group Integrated Report 2024



Yoshitsugu Ishida

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

The Nippon Kayaku Group publishes the 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. The Integrated Report 2024, our seventh issue, has been structured in a way to convey—in a manner that is easy to understand—our story of all employees creating value united as one under the new structure that includes the three business units of Mobility & Imaging, Fine Chemicals, and Life Science, as well as the Technology Unit, which supervises our technical divisions. We have also expanded and enhanced the overall content so that we can provide our stakeholders with specific information that is easy to understand.

The Corporate Communications Division took the lead in preparing this report, in cooperation and collaboration with related divisions and departments. As the officer responsible for the production of the report, I hereby state that the production process is legitimate, and the information contained in the report is accurate. We hope this report will help you better understand the Nippon Kayaku Group's efforts. We will continue to improve the content of the report by placing emphasis on dialogue with our stakeholders. We would appreciate your frank opinions and requests.

Editorial Policy

Organizations Covered

This report covers 27 out of the 48 companies in the Nippon Kayaku Group, in principle. The 27 companies covered are Nippon Kayaku Co., Ltd. and its 26 consolidated subsidiaries (as of March 31, 2024).

Time Period Covered

Fiscal year 2023 (from April 1, 2023 to March 31, 2024).
However, the report also contains some information from outside of this time period.

Date Published

October 29, 2024

Online version

URL: https://www.nipponkayaku.co.jp/english/ir/library/annual/index.html

Guidelines Referenced

- International Integrated Reporting Framework
- GRI Standards
- Recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)
- Guidance for Collaborative Value Creation
- IP and Intangible Assets Governance Guidelines

Environment Social Governance
Guidance for Collaborative Value Creation

知財・無形資産ガバナンスガイドライン
Intellectual Property and Intangible Asset Governance Guidelines

Information Disclosed by the Nippon Kayaku Group

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

Investor Relations	https://www.nipponkayaku.co.jp/english/ir/
Sustainability	https://www.nipponkayaku.co.jp/english/sustainability/
■ GRI Index	https://www.nipponkayaku.co.jp/english/sustainability/other/gri/
Reports	
■ Annual Securities Report for the 167th Period (Japanese)	https://ssl4.eir-parts.net/doc/4272/yuho_pdf/S100TTFJ/00.pdf
■ Corporate Governance Report	https://www.nipponkayaku.co.jp/sustainability/pdf/governance/corporate-governance/corporate_governance_report_202406_en.pdf
External Evaluation and Awards	https://www.nipponkayaku.co.jp/english/sustainability/other/evaluation/

External Evaluations and Awards

ESG Index Inclusions and Ratings (as of July 2024)

FTSE Blossom Japan Sector Relative Index*1

This index reflects the performance of the Japanese companies with outstanding environmental, social, and governance (ESG) practices relative to others in their sector.

S&P/JPX Carbon Efficient Index

This index weights and ranks TOPIX companies based on how well they disclose environmental information, and on carbon efficiency (carbon emissions per unit of sales).

Morningstar Japan ex-REIT Gender Diversity Tilt Index

This index ranks companies based on the extent to which their gender diversity policies have been instilled throughout the organization, and on how they provide employees with equal opportunities regardless of gender.

*1 FTSE Russell (the trading name of FTSE International Limited and Frank Russell Company) confirms that Nippon Kayaku Co., Ltd. has been independently assessed according to the FTSE Blossom Japan Sector Relative Index, and has satisfied the requirements to become a constituent of the FTSE Blossom Japan Sector Relative Index. Created by the global index provider FTSE Russell, the FTSE Blossom Japan Index is designed to measure the performance of companies demonstrating strong Environmental, Social and Governance (ESG) practices. The FTSE Blossom Japan Sector Relative Index is used by a wide variety of market participants to create and assess responsible investment funds and other products.

MSCI ESG Ratings*2

A global rating index with seven levels of ESG risk and opportunity management from "AAA," the highest rank, to "CCC," the lowest rank (the Nippon Kayaku Group was rated AA in 2024).

MSCI Nihonkabu ESG Select Leaders Index*2

2024 CONSTITUENT MSCI NIHONKABU ESG SELECT LEADERS INDEX

This index has the MSCI Japan IMI Top 700 Index as its parent index. It comprises companies with outstanding ESG evaluation.

MSCI Japan Empowering Women Index (WIN)*2

2024 CONSTITUENT MSCI JAPAN EMPOWERING WOMEN INDEX (WIN)

This index has the MSCI Japan IMI Top 700 Index as its parent index. It comprises companies with outstanding records of promoting women's empowerment.

*2 The inclusion of Nippon Kayaku Co., Ltd. in any MSCI index, and the use of MSCI logos, trademarks, service marks or index names herein, do not constitute a sponsorship, endorsement or promotion of Nippon Kayaku Co., Ltd. by MSCI or any of its affiliates. The MSCI indexes are the exclusive property of MSCI. MSCI and the MSCI index names and logos are trademarks or service marks of MSCI or its affiliates.

Recognition and Awards

CDP

The Nippon Kayaku Group earned an A- in the CDP Climate Change Report and a B in the CDP Water Security Report from CDP, an international NGO that carries out environmental examination and evaluation.

EcoVadis

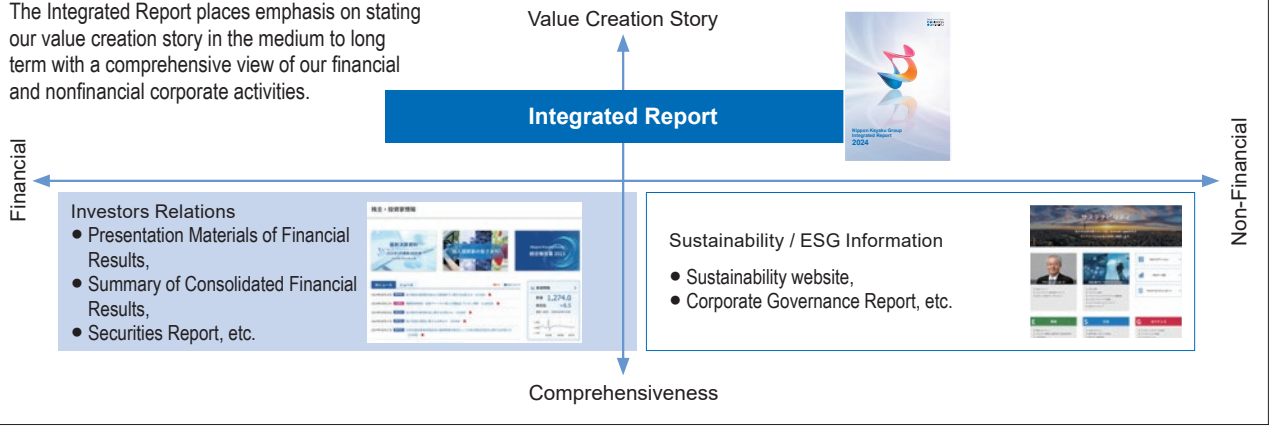
The Nippon Kayaku Group earned a bronze medal from EcoVadis, which carries out comprehensive evaluations of companies in the four fields of environment, labor and human rights, ethics, and sustainable procurement.

BroadBand Security (Gomez ESG Site Ranking)

The Nippon Kayaku Group was selected as an Outstanding Company in this ranking, which rated companies from the five perspectives of website user-friendliness, ESG sharing, E (environment), S (social), and G (governance).

Positioning of the Integrated Report

The Integrated Report places emphasis on stating our value creation story in the medium to long term with a comprehensive view of our financial and nonfinancial corporate activities.



At a Glance

Mobility & Imaging Business Unit



Micro gas generators and squibs for external sales

Micro gas generators for seatbelt pretensioners (winding device) and squibs (ignition component) produced as automotive safety components make up the top global share, as products for external sales, due to their performance and reliability.

Global "sukima" ideas

Basic Data of the Nippon Kayaku Group

Net Sales
201.8 billion yen*1

Global Business Expansion
12 countries and regions*1

Founding
108 th anniversary

Operating Income
7.3 billion yen*1

Scale of Growth Markets Where the Nippon Kayaku Group Engages in Business

Estimated based on market surveys by the Nippon Kayaku Group

Mobility & Imaging Business Unit



Expected Markets

Airbag inflators

250 to 300 billion yen

(Automotive Safety Components of Safety Systems Business)



New Markets

Global market for safety components for drones

5 to 7 billion yen

(Safety Components for Drones of Safety Systems Business)

Fine Chemicals Business Unit



Expected Markets

Semiconductor manufacturing-related product groups

200 to 250 billion yen

(Semiconductor-related Products of Functional Chemicals Business)

Fine Chemicals Business Unit



Epoxy resins for environmentally friendly semiconductor encapsulation

We provide epoxy resins with high electrical reliability that are compliant with environmental regulations—such as those on halogen—as products for semiconductor encapsulation and package substrates, and maintain the top global share for these products.

Life Science Business Unit



Number of cancer related products' lineups

We have a lineup of 51 products, including anti-cancer drugs deemed as essential drugs, generic anti-cancer drugs, and oncology pharmaceuticals (as of March 2024).

Paid-in Capital
14.9 billion yen

R&D Expenses
19.8 billion yen*1

Group Employees
5,902 people*2

*1 Net Sales, Global Business Expansion, Operating Income, R&D Expenses in FY2023
*2 Number of employees as of Mar 31, 2024



Expected Markets

Industrial inkjet inks

100 to 140 billion yen

(Industrial Inkjet Inks of Color Material Business)

Life Science Business Unit



Expected Markets

Unmet needs oncology drugs

5 to 10 billion yen per product

(Oncology Pharmaceuticals for Medical Use of Pharmaceuticals Business)



Expected Markets

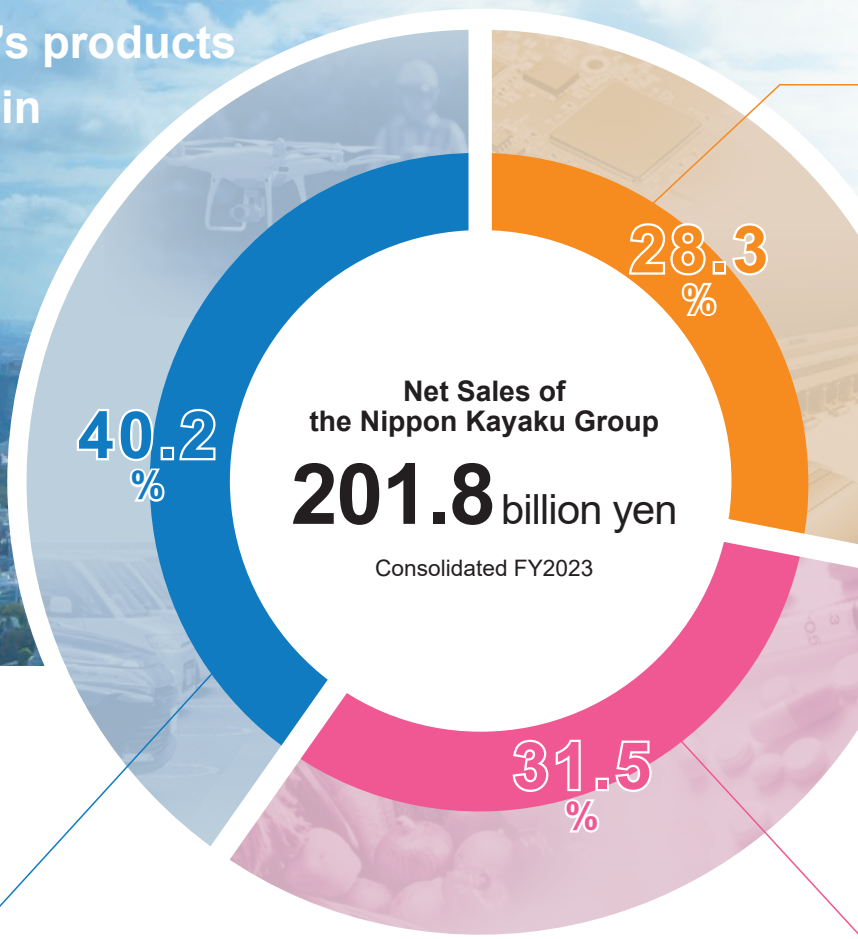
Global market of insecticides for lepidopterous insects

Approximately 230 billion yen

(Agrochemicals of Agrochemicals Business)

At a Glance

The Nippon Kayaku Group's products are used in various places in our daily lives while being transformed into final products.



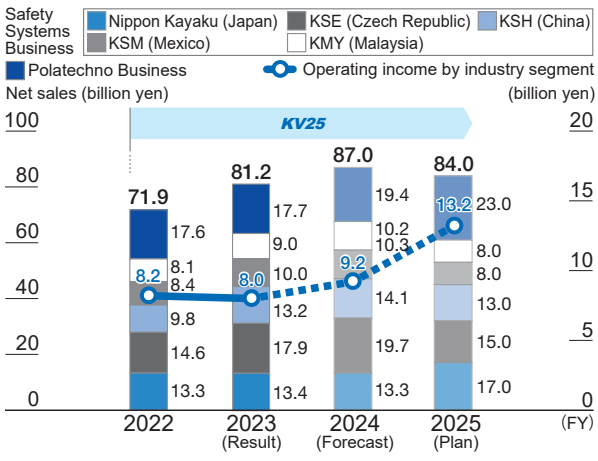
Mobility & Imaging Business Unit

Nippon Kayaku provides automotive safety components that contribute to improving automotive safety, ensuring safety in the event of collision. Furthermore, besides polarizers for vehicles that use the core technology of dyes, we also provide components for X-ray analysis systems that apply sophisticated optical technologies.

Core Technology

- Pyrotechnic safety technology
- Light control
- High-performance component development capabilities
- Dye design and synthesis

Trends in Operating Results*











Handy type fluorescent X-ray analysis system

Safety Systems Business

- Airbag inflators 1
- Micro gas generators for seatbelt pretensioners* 2
- Squibs (ignition components found in inflators and micro gas generators)
- "PARASAFE®" Emergency Parachute System for Drones

* A device that rewinds the seatbelt to ensure safety of passengers in the event of an emergency

Polatechno Business

- Dye-type polarizers (cluster panels, etc.) 3
- Components for X-ray analysis systems (rare metals detectors, etc.) 4

* Forecasts and planned values are based on the financial results material released on May 14, 2024.

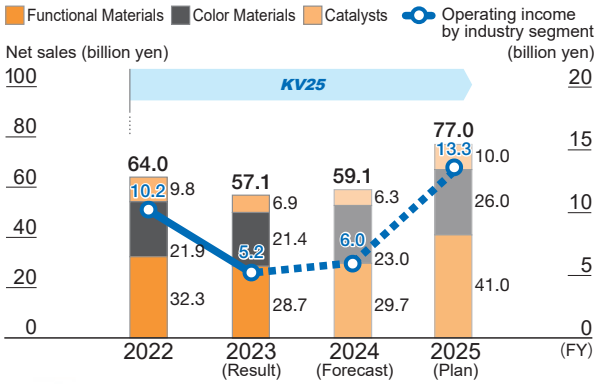
Fine Chemicals Business Unit

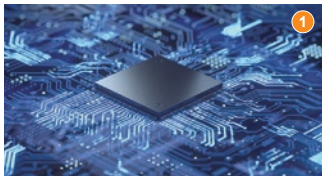
Nippon Kayaku provides chemicals with characteristics, including functional materials used in semiconductor-related products for which significant growth is expected in the future; color materials that bring colors to rich and convenient lives; and catalysts for the production of acrylic acid and methacrylic acid which are used in the production of disposable diapers and transparent resins.

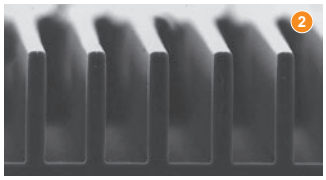
Core Technology

- Molecule design
- Precise organic synthesis
- Catalyst design
- Characteristic evaluation of compounds, composites, and products

Trends in Operating Results*




1


2


3


4

Functional Materials Business

- High-end epoxy resins 1
- UV-curing type resins
- Resist materials for MEMS 2

Color Materials Business

- Consumer inkjet colorants
- Industrial inkjet inks and dyes 3
- Dyes for textiles and paper pulp
- Developers for thermal paper and functional colorants

Catalysts Business

- Catalysts for the production of acrylic acid and methacrylic acid 4

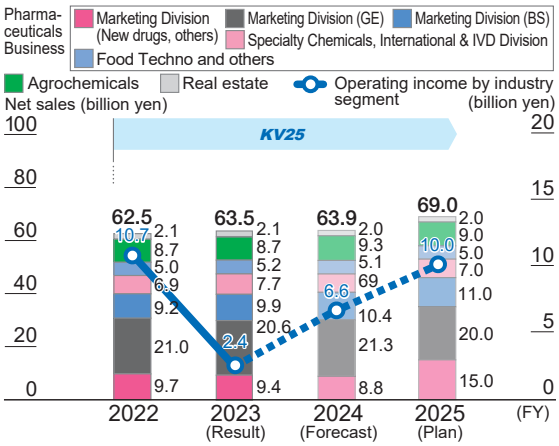
Life Science Business Unit

Nippon Kayaku reduces the burden on patients and contributes toward maintaining the universal healthcare system in Japan by providing generic drugs—which contain the same amount of active ingredients as the original products but at a lower price—and biosimilars, which are subsequent products of biopharmaceuticals. We also strive to improve the level of healthcare through the introduction and development of new drugs and a stable supply of medical pharmaceuticals. In addition, products of our Agrochemicals Business include insecticides for fruits and vegetables, and soil fumigants.

Core Technology

- System that allows processes, from drug creation to production and sales, to be carried out in an integrated manner
- Manufacturing and management of active pharmaceutical ingredients
- Ingenuity in the development and formulation of new agrochemicals

Trends in Operating Results*




1


2


3


4

Pharmaceuticals Business

- Generic drugs 1
  (Pemetrexed: Drugs for lung cancer and other indications / Paclitaxel: Drugs for breast cancer and other indications, etc.)
- Biosimilars 2
  (Bevacizumab BS: Drugs for rectal/colon, ovarian cancer and other indications, etc.)
- New Drugs 3
  (DARVIAS® for treatment of peripheral T-cell lymphoma; ALAGLIO®, a photodynamic diagnostic agent for bladder cancer, etc.)
- Portrazza®, a therapeutic agent for squamous non-small cell lung cancer
- Active pharmaceutical ingredients
  (Volk powder of Voglibose: Alphaglucosidase inhibitors, etc.)
- Diagnostic agents
  (LANA MAMMOCARD CEA®: Reagent for fetal cancer antigen assay, etc.)

Agrochemicals Business

- Insecticides and soil fumigants 4
  (FINESAVE® for thrips, Kayaku chloropicrin, etc.)

The History of Value Creation

Providing the best products while evolving core technologies in s

Mobility & Imaging Business Unit

● Automotive safety components ★ Emergency parachute system for drone ▲ Polatechno

●★1917
Began production of Japan's first industrial dynamite

A pioneer in Japan



●1989
Began production of squibs

Technology changes

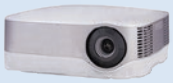
Applying safety pyrotechnics to automotive safety components





▲1992
Began shipments of a polarizing film used in projectors and in vehicles

Polatechno products on the market



●1992
Began production of disk-type aluminum inflators



●1998
Began production of micro gas generators



Fine Chemicals Business Unit

● Functional materials ★ Color materials ■ Catalysts

★1916
Succeeded in producing sulfur black dye in Japan

A pioneer in Japan



★1951
Launches the direct dye, Kayarus, intended for use with cotton, hemp yarn and other cellulose fibers



■1963
Entered into a contract with U.S. firm, Standard Oil Co. (Ohio), concerning the introduction of acrylic acid technologies (catalysts)

●1979
Began pilot production of the ultraviolet curing resin DPHA

●1969
Began production of epoxy resins

■1972
Began manufacturing catalysts used in the production of acrylic acid used as a raw material for the high water absorption resin used in diapers, etc.

Catalysts products on the market

★1984
Launched TG-SA® developer used for thermal paper such as those for boarding passes



Life Science Business Unit

● Ethical pharmaceuticals Active pharmaceutical ingredients / Diagnostic agents
◆ Insecticides for vegetables and fruits, Soil fumigants

●1932
Launched the anti-inflammatory drug, ASPIRIN



●1948
Began production of the antibiotic, PENICILLIN

●1969
Launched the antitumor antibiotic, BLEO®

Began focusing on oncology

●1994
Launched the prostate cancer drug, ODYNE

◆1934
Began production of the soil fumigant, CHLOROPICRIN

Technology changes

Started production of agrochemicals using dye synthesis technology.



●1984
Launched the anti-cancer drug, RANDA®

◆1964
Began production of the insecticide, DIAZINON® granules



◆1992
Launched the bite damage prevention agent, R-731

◆2005
Launched the epidemic prevention agent, SAFROTIN® MC

Corporate History and Trend in Net Sales

■ Mobility & Imaging Business Unit ■ Fine Chemicals Business Unit ■ Life Science Busine

1916
Founded Nippon Kayaku Seizo Co., Ltd. (Head office: 1-1 Yurakucho, Kojimachi-ku, Tokyo)
Morizo Oshiage assumed the position of president

1928
Buyout of Teikoku Senryo Seizo Co., Ltd.

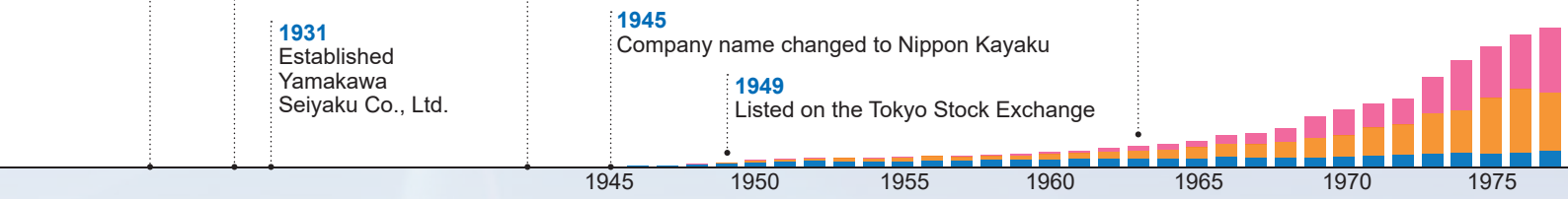
1931
Established Yamakawa Seiyaku Co., Ltd.

1943
Merged and absorbed Teikoku Senryo Seizo Co., Ltd. and Yamakawa Seiyaku Co., Ltd.

1945
Company name changed to Nippon Kayaku

1949
Listed on the Tokyo Stock Exchange

1963
Received the Deming Prize



1916-
Formation of Core Technologies

1945-
Development as an Integrated Chemical Manufacturer

1965-
Growth and Developme of New Fields

step with the needs of the times

●2000
Began production of cylinder-type steel inflators

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

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

●2018
Began mass production of new types of inflators

Weight reduction and smaller diameter

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



PARASAFE® attached to drone



Safety Systems

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

Polatechno

We are expanding high durability dye-type polarizers, including use in vehicle head-up displays, and focusing on initiatives to achieve growth of components for X-ray analysis systems.

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

Conversion of applications of color materials



●2002
Launched the NC-3000 epoxy resins used for semiconductor encapsulation, etc.

Resins for semiconductors, still the main product



●2018
Launched maleimide resins for 5G substrates

★2020
Launched TG-MD®, a phenol-free thermosensitive color developer

Functional Materials

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

Color Materials

We focus on the growth of industrial inkjet inks and dyes, and develop thermosensitive color developers and functional dyes.

Catalysts

In addition to catalysts for the production of acrylic acid and methacrylic acid, we develop catalysts that contribute to a hydrogen energy society.

●2014
Launched the biosimilar, INFLIXIMAB BS

A pioneer in Japan

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

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

●2022
Launched DARVIAS®, an anticancer drug

●2022
Launched BEVACIZUMAB BS, a biosimilar

●2023
Launched Adalimumab BS, a biosimilar

◆2016
Launched the insecticide/miticide, FUHMON®

Evolution of formulation technology

◆2018
Launched the insecticide, FINESAVE®

Launch of agrochemicals with medicinal ingredient developed in-house

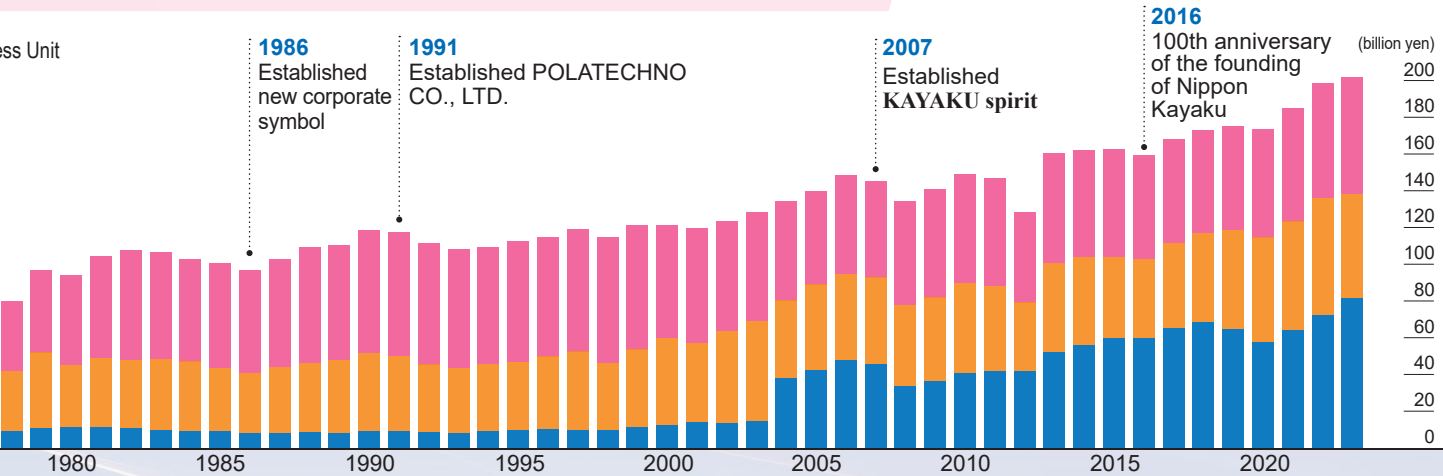


Pharmaceuticals

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

Agrochemicals

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



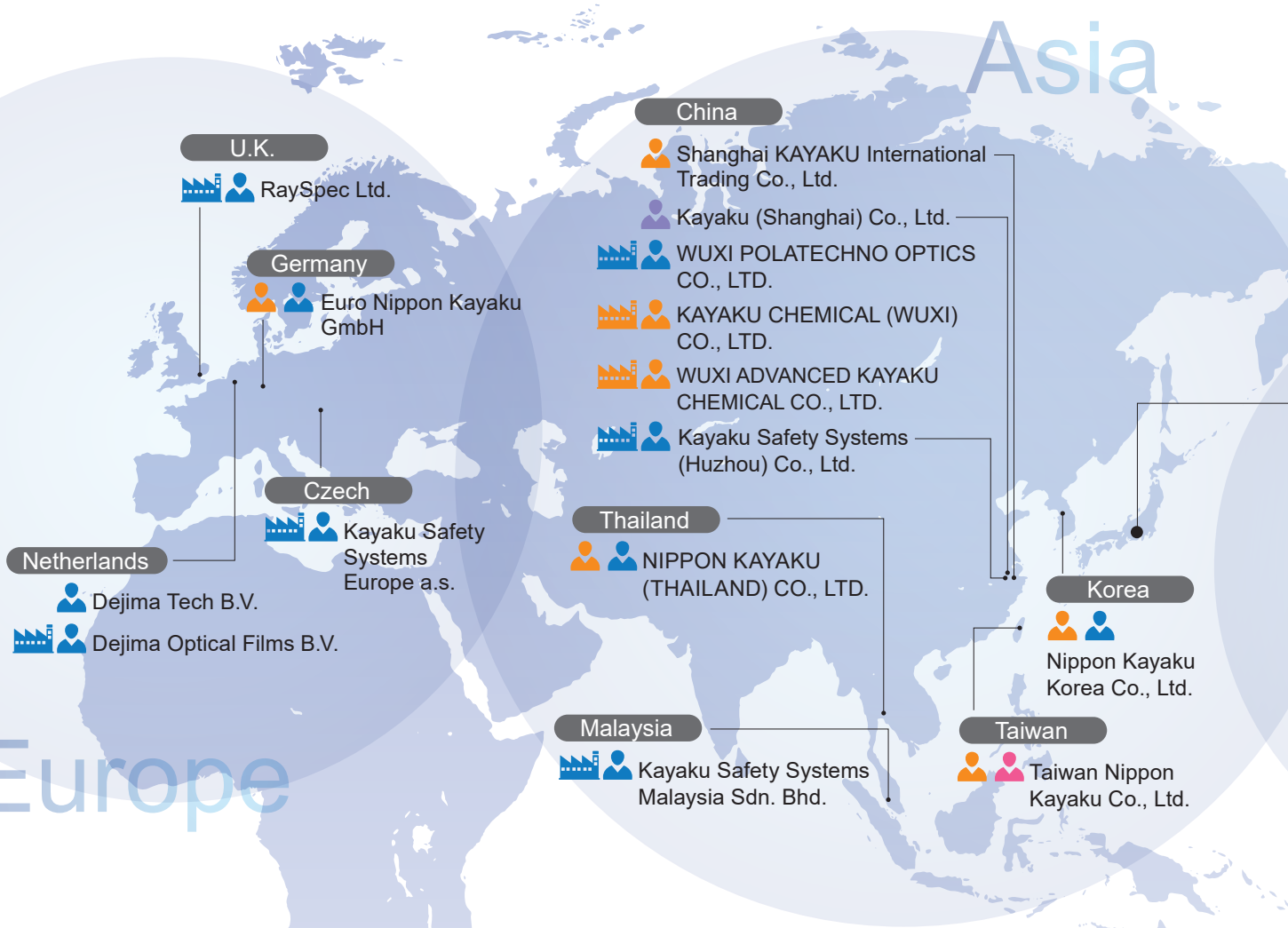
ent through Development

1990-
Providing Solutions to Changing Customer Needs

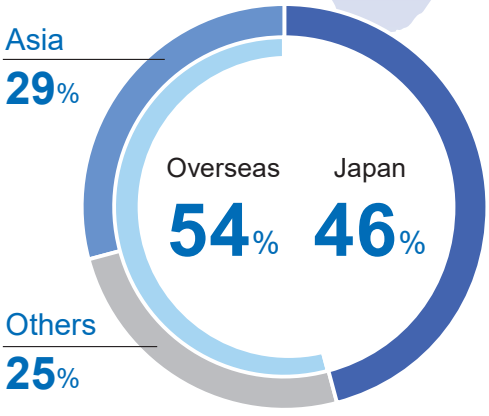
2010-
Development of Sustainable Management

Global Business Expansion

Global expansion of the “best products, technologies and servic



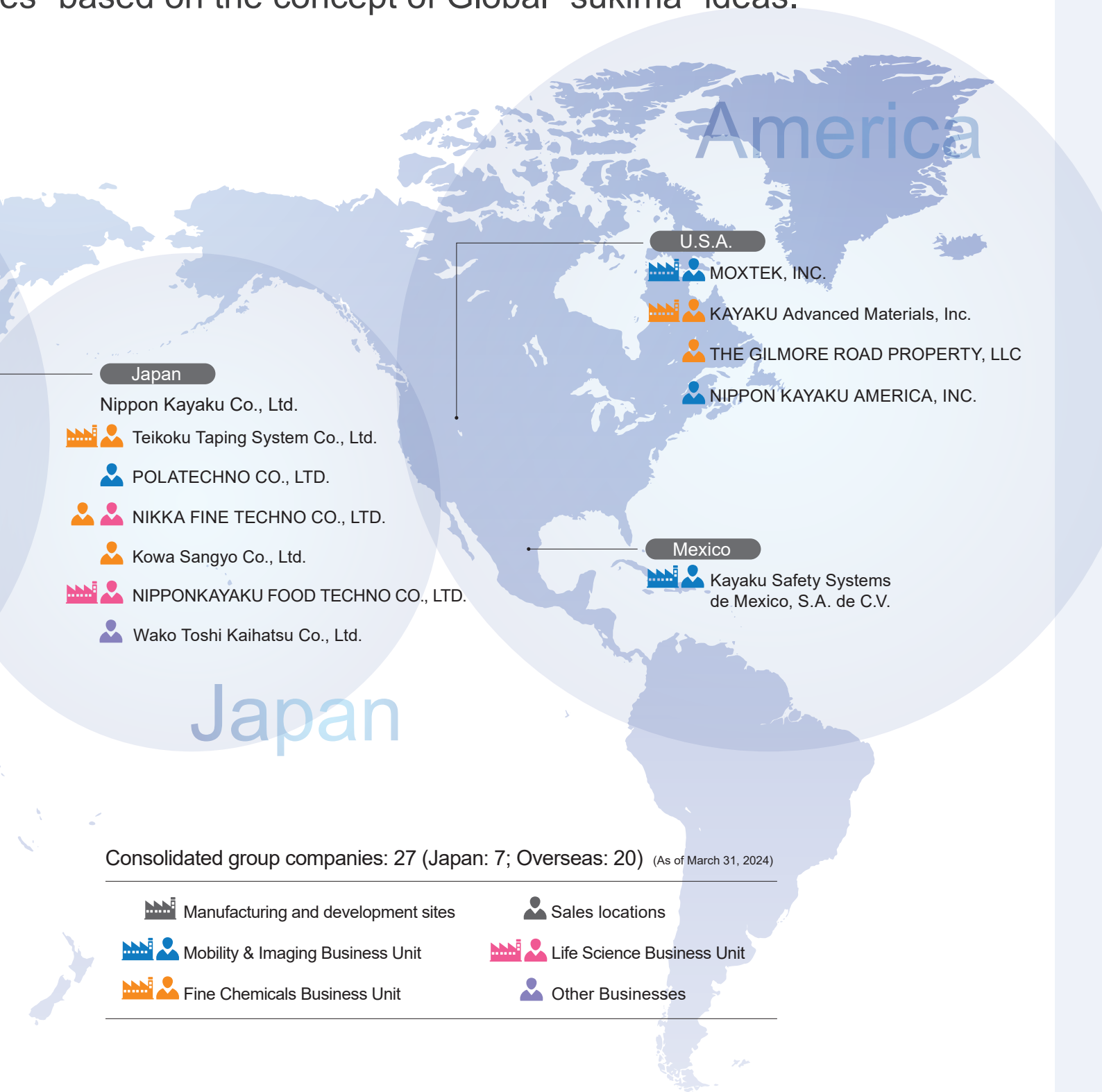
FY2023
Composition ratio of net sales by region



As of end of March 2024
Number of global employees



es" based on the concept of Global "sukima" ideas.



Consolidated group companies: 27 (Japan: 7; Overseas: 20) (As of March 31, 2024)

- Manufacturing and development sites
- Sales locations
- Mobility & Imaging Business Unit
- Life Science Business Unit
- Fine Chemicals Business Unit
- Other Businesses

The Nippon Kayaku Group operates in three business units—Mobility & Imaging, Fine Chemicals, and Life Science—through 27 consolidated group companies in Japan and 11 other countries and regions. Nippon Kayaku strives to be an invaluable global company by applying core technologies, technologies which may even come to prominence in niche areas, to deliver the "best products, technologies and service" to fill out "sukima (gaps)" in the global market.

Chapter

1

Business Results and Strategy

To continue providing new value to a sustainable society



CONTENTS


Message from the President 19

Nippon Kayaku Group's Value Creation Process 27

Focus Six Forms of Capital Serving as the Source of Competitiveness 29

The Comfortable Future Society with Peace of Mind That the Nippon Kayaku Group Hopes to Realize 31

Nippon Kayaku Group's Sustainable Management 33

Stakeholder Engagement 39

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

Message from Chief Financial Officer 47

Message from the President



Achieving sustainable growth and increasing corporate value by steadily improving earning power and transforming the organization

Member of the Board,
President, Representative Director
Atsuhiro Wakumoto

Learning from Characters in Historical Novels

I love historical novels, and am especially fascinated by the ways of life of characters who lived in ages past, from the Spring and Autumn and Warring States periods in Chinese history, and the subsequent Qin and Han dynasties, to the Three Kingdoms. There is so much we can learn from history books such as Juuhachi Shiryaku (Eighteen History Outlines) and Records of the Three Kingdoms through the knowledge and actions of people who lived through turbulent periods. I am extremely interested in and drawn to the true nature of humanity, as depicted in the story telling of the intellectual and negotiating battles of Wu Zixu (of the Wu kingdom) and Fan Li (of the Yue kingdom), who supported their respective kings in the power struggle between King Fuchai of Wu and King Goujian of Yue, who are well known by the Chinese proverb “Gashin Shotan” (enduring unspeakable hardships for the sake of vengeance).

Wu Zixu, who excelled at politics and diplomacy, lost his standing with King Fuchai due to a clever trick by Fan Li, and was forced to commit suicide. Wu Zixu, who strove for the expansion of Wu, had misjudged the character of his king. It was not long afterwards that the Wu kingdom, bereaved of Wu Zixu, would be destroyed. In contrast, Fan Li, a key figure in the victory of Yue, retired from his service under King Goujian of Yue, became a merchant after changing his name, and amassed enormous wealth. Fan Li escaped before his king, who was often very paranoid of others, became wary of even himself, and “boiled the hound once the rabbit is caught, and put the bow away once all the swans have been shot” (examples of how unnecessary things are quickly disposed of).

I keenly felt that looking at others with a level-head was so important that it could save lives, and I believe we can learn from the lessons in the ways of life of the people of ancient China, which have been passed on through the ages and across countries, and apply them to our business world.

Message from the President

Business Results of FY2023 and Progress of the *KAYAKU Vision 2025* (*KV25*)

Now I would like to report the current status of the Nippon Kayaku Group. In the four-year Medium-term Business Plan **KAYAKU Vision 2025** (**KV25**) from FY2022 to FY2025, the first fiscal year started off strong with net sales and operating income both exceeding the Plan, but in FY2023, net sales were 201.8 billion yen, 5.2 billion yen less than planned, and operating income landed at 7.3 billion yen, a large 12.7 billion yen below the Plan. For net sales, the Mobility & Imaging and Life Science Business Unit generally performed well, but declining semiconductor market conditions caused the Fine Chemicals Business Unit to experience a large decrease. And for operating income, increasing manufacturing costs from soaring raw material costs in all segments, and a growth investment of 6 billion yen in license fees for new drug candidates in the Pharmaceuticals Business (Life Science Business Unit) impacted performance. In addition to net sales and operating income, while the ROE target of 8% and the company-wide ROIC of 10% were set as management indicators, actual results hovered at 1.6% and 1.5%, respectively. Those were mainly due to underachievement in operating income target.

In the remaining fiscal years of **KV25**, our plan is to raise FY2024's net sales target of 210.0 billion yen to 230.0 billion yen in the final fiscal year of FY2025, and for operating income, we are aiming to lift FY2024's 12.5 billion yen to 26.5 billion yen in FY2025. When considering the differences from current conditions, we expect that considerable effort will be required to reach the income target for FY2025, and that we will be delayed in reaching the target by about one year.

In **KV25**, we set the improvement of operating income ratio, which has been trending downward for some time, as one of our management issues, and set the target of the final fiscal year as a passing point to solve this issue. However, these kinds of conditions have arisen as of FY2023, the 2nd year of the Medium-term Business Plan, and we apologize to our stakeholders for the great concern this has caused.

Fortunately, semiconductor market conditions have been showing signs of recovering since FY2024, and we expect the upswing in automotive production to continue as well. In the Fine Chemicals Business Unit, we are supplying epoxy resins for semiconductors without delays, and exploring a wide range of business opportunities for related products. In the Mobility & Imaging Business Unit, we are focusing on expanding into HUD Sun-Guard Film in addition to automotive safety components, and striving to make as much profit as possible.

Review of Medium-term Business Plan and Progress of the **KAYAKU Vision 2025** p. 41-46

Statements and references regarding performance in this document are under the results and outlooks announced in the financial results briefing materials for the fiscal year ending March 31, 2024.

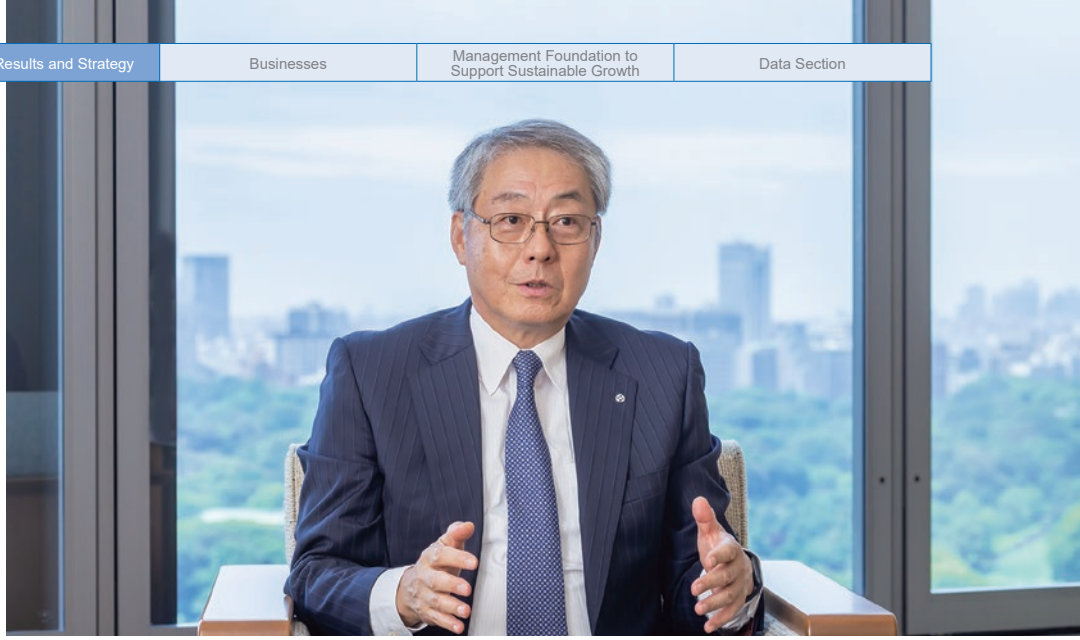
Medium- to Long-term Management Policy for Second Half of *KV25*

Currently*1, Nippon Kayaku's PBR is around 0.8, which is said to be undervalued by the stock market. We have received feedback stating how difficult it is to understand the positioning and future prospects of several Business Units and product lines, therefore we would like to tell Nippon Kayaku's growth story in an easy-to-understand and satisfactory way while continuing dialogs with all shareholders and investors, and strive to maintain a stable PBR higher than one.

*1 As of August 31, 2024

In the past, we responded to TSE's request for "Action to Implement Management That is Conscious of Cost of Capital and Stock Price" and focused on "strengthening earning power" and "increasing capital efficiency" as issues, which we explained through financial results briefings and other meetings. To strengthen earning power, we have expanded product lines where long-term market growth is expected in each business unit, planned continual launch and development of new products, and clarified our business portfolio in terms of revitalizing and handling businesses that need to improve profitability. I will mention this again later in the message.

We are conducting various measures to improve capital efficiency. In the past, we explained that we would like to reach ROE targets by increasing profits through business activities, but moving forward, we will work towards comprehensive improvements in line with capital policies for buying treasury shares while considering economic trends and the business environment. Company-wide ROIC is expected to swing upwards alongside profits improving in FY2024, but this is still not enough to reach targets. During **KV25**, we will aim to reduce cash and equivalents to below 45.0 billion yen, monitor ROIC for each business, reduce inventory and accounts receivable, incorporate ROIC trees into measures for operating units, and aim to make improvements as one unified company. Further, we will aim to reduce cross-shareholdings to less than 10% of net assets during **KV25**.



We also place a high priority on returns to shareholders, and announced our return policy at the start of the Medium-term Business Plan, as well as concrete policies during the implementation of the Plan. Medium- to long-term dividend payout ratio is set at 40% or more, and during **KV25**, we will maintain dividends at 45 yen or more per share as an increase from FY2023 dividends. Further, we bought 3 billion yen of treasury shares in FY2024 as a part of the return policy which considers equity control. After **KV25**, we intend to continue to consider treasury share purchase, including share cancellations.

Moving forward, we will quickly and accurately respond to everyone's feedback, proactively pursue initiatives that follow policies to strengthen earnings and improve capital efficiency, and strive to enhance company information disclosure so that it is useful and easy-to-understand.

Message from Chief Financial Officer p. 47-50

From Changes in the Safety Systems Business to Changes Across the Nippon Kayaku Group

Market conditions like the semiconductor recession and soaring raw material prices greatly impacted our results in FY2023, but moving forward, the Nippon Kayaku Group is aiming to become a corporation with high resilience that is not easily affected by these kinds of market conditions. Using the Fine Chemicals Business Unit which experienced a slump as an example, it is believed that improving conditions will be difficult if we continue to rely solely on semiconductor epoxy resins which are main products in the Functional Materials Business. It is necessary that we focus on marketing rather than merely meeting the most recent needs, and devise business management not easily influenced by market conditions, like enhancing the lineup to meet a diverse range of needs in semiconductors over the future. In order to do this, we need to, for example, continuously launch new products even if it is on a small scale, and increase new business opportunities to connect to existing businesses. Fostering a workplace culture of always taking on new challenges is currently believed to be the most important issue for Nippon Kayaku.

In the past, we transformed the industrial-use explosives business into the Safety Systems (automotive safety components) Business, and entered an industry where high standards in speed and quality in various aspects are required as a supplier. When I was previously involved with sales at Safety Systems Business, customers always commented "Nippon Kayaku is such a nice, laid-back company." This was because the speed of our clocks that measured work progress was slower compared to that of the automotive industry, and it was this way of working that caused such sarcastic and berating comments that questioned if we could survive in the future. I was very grateful for the advice and worked hard to reform our corporate organization to adopt the speed of the automotive industry. As a result, we were able to greatly change the awareness of the entire Safety Systems Business, and truly feel that we have finally come to be approved by customers.

After becoming President, I have strongly promoted company-wide awareness reform activities to eliminate unreasonableness, waste, and inconsistency (referred to as the 3Ms [Muri, Muda, Mura] in Japanese) under the name "A3 Activities." We are promoting changes for a better Nippon Kayaku that does things like revitalizes the organization through segment reorganization, has dialogue with shareholders/investors and provides easy-to-understand information to the capital market, and properly responds to sustainability issues; and we are making efforts to quickly become a "nice company" where customers say so because we are energetic and not because we are laid-back.

Message from the President

Revitalization of Organization through Segment Reorganization and Demonstration of Synergy

The 200 billion yen in consolidated sales of the Nippon Kayaku Group is comprised of products and product lines that sell from hundreds of millions to billions of yen. We found niche markets that were difficult for major companies to compete in, and grew by making our basic strategy "technology integration and niche strategies" and expanding. Moving forward, we would like to flexibly adapt to changing needs and survive as a corporation needed by the world.

However, looking back at the group in recent years, I feel it has become difficult to create new "technology integration and niche strategies" like how automotive safety components came from industrial-use explosives and optical films for polarizers came from dyes. In other words, one could say that current products are being provided within the area of responsibility of each business from start to finish without much passion. If these conditions continue, the personnel and organization will become rigid, and we will not be able to demonstrate our strengths. Therefore, we reorganized segments in June 2023, from four businesses that continued for over 20 years, to three new businesses with high potential for product lines and business synergies.

The **Mobility & Imaging Business Unit** adds the Polatechno Business, which handles automotive dye-type polarizers, to the Safety Systems Business which is expected to see long-term growth in automotive safety components. We will be the first to obtain information about new display devices to include in vehicles while focusing on the electrification of automobiles and the spread of self-driving in the future, explore new uses for dye-type polarizers, and propose components that utilize specialized optics technologies. Further, we will raise profitability by utilizing our efficient production methods cultivated in production of automotive safety components and our expertise on reducing costs to improve the competitiveness of polatechno products.



The **Fine Chemicals Business Unit** consists of the Functional Materials Business, Color Materials Business, and Catalysts Business. For Functional Materials, we will pursue operation and sales strategies in line with semiconductor manufacturing equipment and semiconductor cleaners in addition to semiconductor epoxy resins, the main products. For Color Materials, focusing on industrial-use inkjet inks for digital printers where growth is expected, we will make efforts in expansions under a development structure that also includes printer and printer head manufacturers to form a trinity. For Catalysts, we will strive to be the first to develop new catalysts for hydrogen production while refining our competitiveness in niche units like the direct sale of catalysts for acrylic acid and methacrylic acid production. In addition to close-to-the-customer operations, a strength of this Business Unit, we will work hard to widen our marketing field of view and strengthen the business.

The Pharmaceuticals Business and Agrochemicals Business which are under the **Life Science Business Unit** are similar in that they are not easily impacted by market conditions when compared to other businesses, but they take a long time to develop new drugs/chemicals. In the Pharmaceuticals Business, we are currently transforming from a system that makes generic drugs and biosimilars the main products, which are impacted by yearly National Health Insurance price revisions, to a system that looks at introduced and company- developed drugs, and adds new drugs with high profitability. In the Agrochemicals Business, in order to increase profitability, we will make efforts in effective and efficient research and development through DX in ingredient development and sharing intellectual property strategies with the aim of developing new medical ingredients to follow Flometoquin, which was launched in 2018.

The **Technology Unit** is a new organization that was established by combining the Research & Development Group and the Technical Operation Group. The Unit promotes research and development across the company, and promotes upgrading production locations to smart factories, as well as research and production DX. Further, in the Environment and Energy areas, the Unit will take on a mission to create new products and businesses by leveraging the collective knowledge of our group. The Technology Unit is an important organization responsible for the creation of new businesses and products across the company in order for the Nippon Kayaku Group to achieve significant and steady growth.

Business Portfolio Approach — Revitalizing "Earning Power Amelioration" Business

In response to the request by TSE for "Action to Implement Management That is Conscious of Cost of Capital and Stock Price," we announced the Nippon Kayaku Group's business portfolio in May 2024 in order to show how each product line is positioned in the new three Business Units.

KV25 Business portfolio 📖 p. 48

In the portfolio, product lines are separated into four quadrants. We positioned semiconductor-related products (FC) and inflators (MI) in "Important businesses" that concentrate management resources, and HUD polarizers (MI) and catalysts for hydrogen production (FC) in "Novel and future prospects businesses." Consumer inkjet colorants (FC) and generic anti-cancer drugs (LS) fall under "Foundation businesses," which is an area where we make efforts to maximize cash generation by maintaining current profit and minimizing management resources.

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

How we handle "Earning power amelioration" businesses might be where the characteristics of the group are most apparent. For product lines placed here, instead of immediately abandoning them, we thoroughly explore components such as "technology integration" and renewability by exploring new applications over a certain period, and this also includes synergies within new Business Units and collaborations with outside companies. There are various examples of product lines we renewed through this process, such as "semiconductor epoxy resins" where we avoided competition with other commodities and found a way to take advantage of quality-oriented applications, "dye-type polarizers" which were created by combining our dichroic dyes and Arisawa Mfg.'s production technologies, and "automotive safety components" made by changing industrial-use explosives into high added value products. Thus, product lines in "Earning power amelioration" businesses have aspects that demonstrate our "technology integration and niche strategies."

However, it goes without saying that we decide to withdraw product lines in which we are unable to find a new path for after such considerations. Most recently, for product groups that will ultimately be categorized in "Earning power amelioration" such as some products in the Agrochemicals Business in FY2023, we will reorganize and make adjustments to be less than 2% of net sales, so that they do not occupy a large portion of the portfolio.

Creating a Corporate Culture that Can Proactively Take on Challenges in New Themes

In order to improve corporate value, we are making efforts while focusing on creation of new businesses and products, mitigation of climate change, DX, business process re-engineering, and work style reform as five priority tasks under **KV25** as company-wide projects. Creation of new businesses and products, which has high added value and acts as a source of profit generation, is extremely important to us.

In recent years, our group become involved in several innovative and high-potential development themes like solar cells using pigment properties as well as drug delivery systems. Recently, however, other than a limited number of themes such as "safety devices for drone," the number of research and development themes that the entire company focuses on has been declining. We think that this is largely due to the many times personnel felt crushed after having to discontinue a theme they were focusing on, which has made them reluctant to take on new challenges. Much like a business structure becoming rigid, if research and development embodying "technology integration and niche strategies" atrophy, themes to propel the next generation of business will dry up and make it very difficult for us to survive in the future.

Methods in research and development are also changing alongside the times. The key is not to rely solely on one extremely good invention, but rather to have comprehensive team abilities both internally and externally, and to systematically pursue marketing and intellectual property strategies. In projects for creation of new businesses and products, we are incorporating aspects that have been ignored in the past, and the Technology Unit is taking the lead in pursuing various activities in order to progress research and development that is realistic while feeling cutting-edge.

For example, we are proactively searching for new themes by doing things like assigning personnel to communities where industry-government-academia innovators gather, having interviews at pitch events and with individual startups, periodically holding cross-sectoral meetings for new business and product planning, and investing in venture capital. Continually doing these has landed us on several themes using technologies from the Fine Chemicals Business Unit for the "Environment and Energy" areas where focus is placed on by the Technology Unit.

Message from the President

Specifically, we are collaborating with companies such as AZUL Energy, which develops organic catalysts that can be used in metal-air batteries and fuel cells, and iPEACE223, which owns catalyst technologies to produce propylene from bio materials, and started working on themes that aim to make products out of each of those technologies. We will also participate in a consortium led by the Tokyo Institute of Technology (now the Institute of Science Tokyo) that aims to realize a hydrogen energy-based society, and contribute to the realization of a water electrolysis system by developing an anion exchange membrane that utilizes our technologies.

Moving forward, we would like to apply knowledge from the Mobility & Imaging and Life Science Business Unit and continue to create new themes that utilize their characteristics.

Research & Development p. 69

Developing Human Resources that Can Establish Good Relationships with the People Around Them

Human capital management, which maximizes the value of human resources to increase corporate value, is currently attracting attention. I think everyone is on board with the idea that “a company’s birth starts with the support of people,” but if asked what is the value of human resources and the essence of human capital, the answers may differ depending on who is answering or their position. The use of human capital such as helpers, house guests, and travelers in the Spring and Autumn and Warring States periods would be scolded as excess capital in our era.

Now that I belong to the Nippon Kayaku Group and play a role in shaping our future, for the company, I see human capital as the relationships that center on each individual employee. While individual professional skills and knowledge are of course important, I believe that utilizing each individual’s position, personality, and strengths and expanding good relationships within and outside the company enhances the productivity of the organization one belongs to, and as a result, the company’s organization will become stronger.

For example, in the pharmaceutical sales I experienced when I first joined the company, it was important to pay close attention to each stakeholder, like the doctors, pharmacists, and managers of the hospital and build good relationships with them in order to achieve good results. Also, when I was working in the Safety Systems Business, I believe maintaining good relations with customers through the negotiating skills and sales sense of personnel had no small impact on the results. Even in my current position of representing the company, we cannot pursue change and reform without good relationships with stakeholders and employees who give us suggestions. I believe that the human capital of the group, in addition to individual qualities and relationships, should be viewed from a perspective of how much each individual employee is able to contribute to corporate activities.

Promoting Human Capital Management, an Important Management Issue

In the FY2023 effectiveness assessment of the Board of Directors, “utilization of human capital” was identified as an important issue, and the company re-established its human resource development policy. In this policy, it states that the ideal human resource sought by the company is proactively independent, filled with a desire to take on challenges, and has a global and open sense of values. Also, in the FY2024 effectiveness assessment, we chose utilization of human capital as an important issue, and continue to plan practical measures in line with the policy.



The basic parts in the Nippon Kayaku Group’s human resource strategy are no different from the general approach of strongly providing an environment that is easy and rewarding to work in. In diversity promotions, we hosted the large-scale kick-off event “KAYAKU / ZenKatsu*2” over a half-day period from the action plan based on the Act on the Promotion of Women’s Active Engagement in Professional Life in August 2024 as a part of initiatives to promote participation of women, and I myself also attended as one who was responsible for realizing the event’s goal of increasing the number of

female managers and further expanding participation.

*2 Combination of Japanese words “zenin” (all employees) and “katsuyaku” (participate) to mean that all Nippon Kayaku employees participate

In addition, the development and enhancement of global human resources is an urgent issue for the group, as overseas sales account for a large proportion of our Mobility & Imaging and Fine Chemicals Business Unit. We are striving to improve our ability to promote overseas business by combining multiple measures, like making a list of employees with a strong desire to go abroad, strengthening workforce by hiring new graduates, mid-career workers, and locals, English conversation training, overseas work training and on-the-job training.

To foster a culture where one can take on challenges, there needs to be an environment where everyone can have honest discussions that elicit ideas and motivations every day, and any harassment only serves to get in the way of improving corporate value. Every year we give compliance surveys and compliance training using e-learning as a way of ensuring psychological safety and promoting its understanding.

In addition to continuing the initiatives above, we will focus on matters such as reformation of the human resource system to make work more rewarding, initiatives to place the right person in the right job based on their wishes, and measures to establish an awareness of cost and ROIC improvement, and strive to develop human resources that can build good relationships with their surroundings, with “independent,” “challenges,” and “global” as keywords.

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

Lastly, My Message to Our Stakeholders

As a company that promotes sustainable management, our corporate vision is “continuously providing society with the best products through ceaseless progress and the combined forces of our consciences.” Under this **KAYAKU spirit**, we hope to be a company that can play a role with a sense of presence in providing everlasting happiness and joy to the environment, society and all stakeholders.

In the current Medium-term Business Plan **KV25**, we are focusing on basic policies for sustainable management, and will continue to pursue compatible environmental, societal and economic values to realize a sustainable society. Investments in utilizing human capital, strengthening intellectual property, and addressing environmental issues are investments, like investments in business, that will lead to long-term growth and value creation, and these are essential for improving our competitiveness in the future. In the future we will also continue to steadily implement sustainable management and strive to realize the **KAYAKU spirit** without neglecting our underlying foundations, such as corporate governance and compliance.

To date, we have made efforts to incorporate advice from our shareholders, investors, and other stakeholders into company policies and expand the information we disclose. Although we know that there are still many areas in which we are lacking, we at the Nippon Kayaku Group will continue to place importance on constructive dialogue and ensure we promote improvements in various management issues, step by step. We will strive to enhance our corporate value by transforming ourselves into a speedy and resilient company that can surpass everyone’s expectations. I would like to thank all of you, our stakeholders, for your continued honest feedback.

October 1, 2024

President, Representative Director

