



NIPPON KAYAKU BUSINESS STYLE  
Nippon Kayaku Co., Ltd. Corporate Information

For more than 100 years since its establishment in 1916, Nippon Kayaku has developed products to meet the needs of the time by utilizing, combining and transforming our core technologies in the company's main areas, explosives, dyes, pharmaceuticals and resins.

We aim to prove worthy of the trust of all our stakeholders by implementing sustainable management with the goal of realizing our corporate vision, the **KAYAKU spirit**, "Continuously providing society with the best products through ceaseless progress and the combined forces of our consciences." At the same time, we will contribute to the realization of a sustainable society through our three business units, Mobility & Imaging Business Unit, Fine Chemicals Business Unit and Life Science Business Unit.

Going forward, we aim to tackle new challenges by working as one and employing our "Global 'sukima' ideas."

Our goal is to create a prosperous and more enjoyable future!  
So expect the Nippon Kayaku Group to continue to provide the best products and services going forward.



President

*Shigeyuki Kanamura*

## Corporate Vision

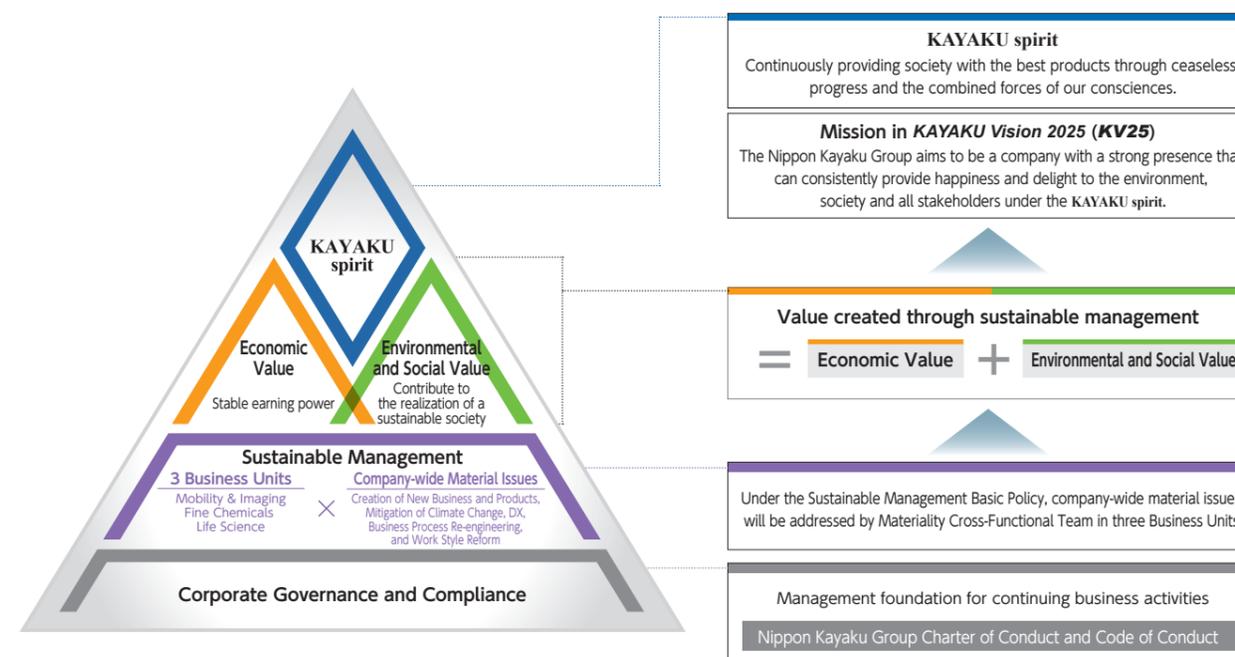
### **KAYAKU spirit**

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

The **KAYAKU spirit** is our ideal corporate vision, shared by all executives and employees.

#### Basic Policy on Sustainable Management

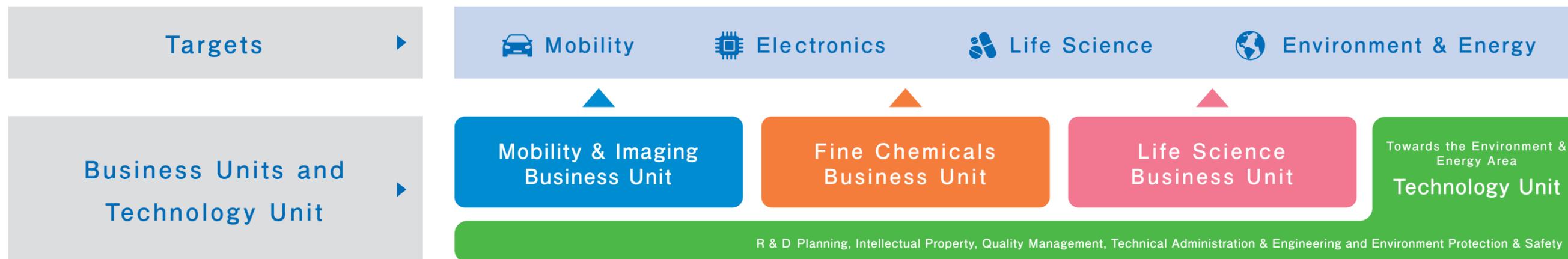
Under its corporate vision, the **KAYAKU spirit**, the Nippon Kayaku Group will practice sustainable management that responds to the trust placed in it by all of its stakeholders, by ensuring transparency and fairness in management and contributing to the creation of a sustainable environment and society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



# Nippon Kayaku Target Area, Business Units and Main products



As we seek to be No. 1 globally in niche markets, Nippon Kayaku sees three business units as market areas with growth potential and runs its business with "Global 'sukima' ideas."



### Safety Systems

- Airbag inflators
- Micro gas generators for seatbelt pretensioners
- Squibs
- Emergency parachute system for industrial drones

### Polatechno

- Head-Up display components
- Components for LCD displays
- Components for Sunglasses
- X-ray components

### Functional Materials

- Epoxy resins
- Maleimide resins
- Epoxy resin hardeners
- Reactive flame retardants
- Acrylic acid esters
- UV curable resins for resist
- MEMS resist
- LCDs and semiconductors cleaners
- Liquid crystal display sealants
- Semiconductor manufacturing equipment

### Color Materials

- Colorants for inkjet printers
- Dyes for inkjet textile printing
- Inks for industrial inkjet printers
- Materials for image sensor
- Dichotomous colorants for dimmable glass
- Near infrared absorbers
- Dyes for textiles and paper
- Colorants for resins
- Developer for thermal paper
- Pigment derivatives

### Catalysts

- Catalysts for the production of acrylic acid, acrolein and methacrylic acid

### Pharmaceuticals

- Anticancer drugs
- Cancer-related drugs
- Biosimilars
- Cardiovascular drugs
- Medical devices
- Pharmaceutical API
- Pharmaceutical intermediates
- In-vitro diagnostic drugs

### Agrochemicals

- Insecticides
- Soil fumigants
- Public health insecticides
- Animal repellents

# Mobility & Imaging Business Unit

The Mobility & Imaging business unit is included safety systems business and polatechno business. We will contribute to society by providing safety solutions to people around the world with products that support changing mobility technologies.

## Polatechno Business

The Polatechno business manufactures and sells polarizers for head-up displays, LCDs, and sunglasses, leveraging our unique dye technology. We also supply components for X-ray analyzers and inorganic polarizers for inspection devices, utilizing ultra-precision matching technology.



Dyestuff Polarizer



X-ray Sources

## Safety Systems Business

Safety systems business globally provides products that have been developed and manufactured automotive safety parts using explosives technologies developed over many years.

### Airbag Inflators

An inflator is a gas generator that inflates the air bag. Nippon Kayaku started with inflators for driver's seat and passenger seat applications, and later expanded our scope to add inflators for side air bags, curtain air bags, and knee air bags to our portfolio. We continue to develop new products, to enhance the safety of vehicles.



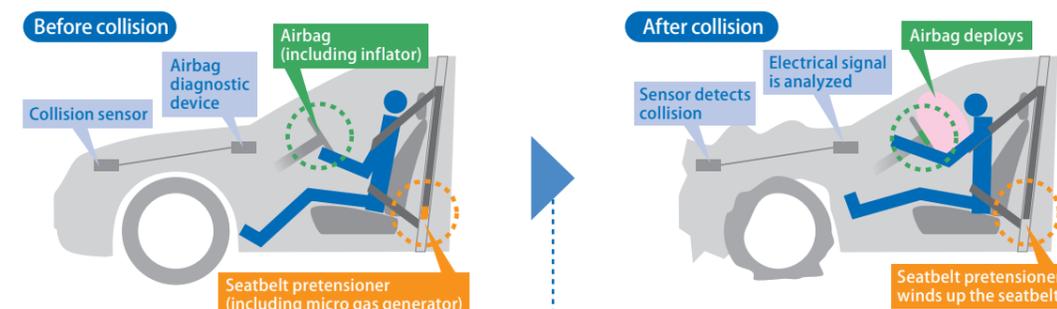
### Micro Gas Generators for Seatbelt Pretensioners

Do you know that there is a function that seatbelts can be automatically pulled in a few centimeters at the time of vehicle crash? This seatbelt pretensioner incorporates a small gas generator called a micro gas generator. Seat belts are wound up with gas pressure in an emergency to securely and safely restrain the occupant's body.



### Squibs

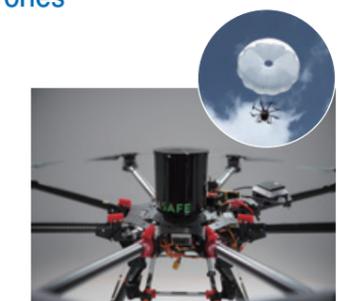
A squib is an ignition part embedded in inflators and micro gas generators. When the sensor detects a collision, an electric current is sent to the squib, and then the heat that is generated ignites the agent inside the squib, leading to its activation. Upon activation, the ignition and heat from the squib is transferred to the gas generating agent of the inflator or micro gas generator which generates the gas used to propel the device.



- 1 The Collision sensor is a device embedded in the front portion of the vehicle, which detects collisions.
- 2 The Diagnostic device determines whether a collision is caused by an accident or not.
- 3 When determined as an accident, an electrical signal is relayed to the squib.
- 4 The squib's explosive agent is ignited by the relayed electrical signal.
- 5 Gas generating agent is ignited, and gas is generated.
- 6 When the "airbag" is inflated, the "seatbelt pretensioner" retracts the seatbelt, absorbing the shock received by the passenger.  
\*This process from 1 to 6 is completed in about 0.05 seconds.

## PARASAFE® - Parachute Safety Device for Industrial Drones

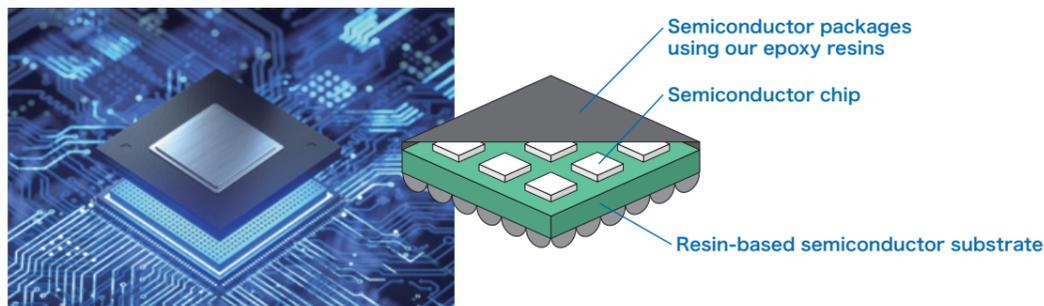
We have developed PARASAFE®, a parachute device for drones, by applying pyrotechnic technology developed in automotive safety components. In the event that the drone falls in an unexpected situation, it will deploy the parachute quickly to protect the ground and prevent damage to the drone's aircraft, cameras, and other mounted objects. PARASAFE® will protect the drone's aircraft, mounted objects, human life, and ground facilities, and contribute to the further active use of drones in society.



# Fine Chemicals Business Unit

The Fine chemicals business unit is included Functional Materials business, Color Materials business and Catalysts business. Contributing to comfortable lifestyles and a sustainable society by providing valuable products utilizing our technologies.

## Functional Materials Business

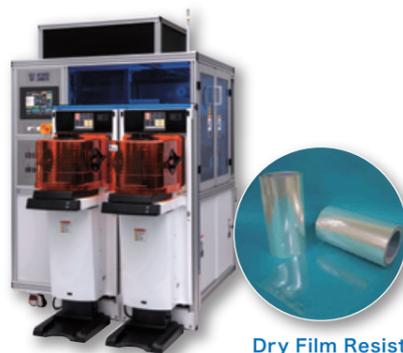


We provide materials with various functions, such as epoxy resins that serve as an insulating material for semiconductor encapsulation, UV-curable resins used in various fields such as color resists, solder masks and hard coatings, and maleimide resins, with high heat resistance and low transmission loss, used in circuit boards for "5G" next generation mobile communication systems.

In addition, we are creating various high-value-added products in a wide range of fields. These include resin compositions, such as liquid crystal sealants which apply our origination technology to our proprietary resin materials, thick film resists for various sensors, and micro electro mechanical systems (MEMS), and cleaning agents and chemicals (developing solutions, bulk removers and residue removers) used in the manufacturing processes of semiconductors. We create high-value-added products in a wide range of fields. Furthermore, in addition to our lineup of equipment used in semiconductor manufacturing processes, such as laminators for Dry Film Resist, BG tape, removers for peeling, and wafer mounters for mounting wafers on dicing tape with high accuracy, we will provide the market with "value" through not only resin products but also speciality equipment.



Epoxy resin



Dry Film Resist Semiconductor Manufacturing Equipment

## Color Materials Business

As Japan's largest dye manufacturer, Nippon Kayaku has always been at the forefront of the industry by pursuing new possibilities for dyes. We develop unique dyes with characteristics to meet the needs of our customers at the time, including those with vivid colors, strong colorfastness (do not fade) and easy handling. We deliver a wide range of products in various areas, including for textiles, papers, resin coloring, and inkjet printers.

We have also developed various technologies for synthesis, dispersion, printing, optical testing, over the many years in our colorants business. These include infrared absorbing agents, dichroic dyes, pigment derivatives (synergists), materials for thermal papers (such as overcoat agents), and developers.

We are committed to creating materials with features that can contribute to society in a variety of areas through the utilization of our technologies.



Colorants for inkjet printers



Industrial inkjet inks (magazines, labels, packaging materials, etc.)



Dyes for textile printing inkjet (scarf, etc.)

## Catalysts Business



Aquarium tank



Catalysts are important substances used to produce raw materials for end products that we see in our daily life. The quality of catalysts affects the production costs, which in turn have a major impact on the price of the final product.

We develop, manufacture, and sell catalysts for the production of acrylic acid and methacrylic acid (direct oxidation method), which have been highly evaluated by customers.

Acrylic acid is used as a raw material for SAP (super absorbent polymer) applied in disposable diapers, acrylic paints and adhesives for automobiles, and

polymer flocculant for water treatment. Methacrylic acid is used in optical applications such as light guide plates for flat panel displays, transparent resins used in large aquariums, automotive parts, and artificial marbles.

We have been developing catalysts for the next-generation clean energy field. We are taking on the challenge of contributing to energy that is friendly to the global environment by leveraging our accumulated technologies.

# Life Science Business Unit

The Life Science business unit is included pharmaceuticals business and agrochemicals business.

Develop outstanding pharmaceuticals provide new therapeutic opportunities, contribute to people's health by providing a stable supply of Ethical drugs. We will also contribute to the development of sustainable agriculture by providing superior, environmentally friendly agrochemicals.

## Pharmaceuticals Business

### Ethical drugs for domestic use

Nippon Kayaku's efforts towards cancer treatment have provided numerous products since the launch of BLEO™. A large lineup of cancer-related products and accumulation of information as well as know-how are our strong points. We do this by stationing cancer-specialist medical representatives throughout Japan, setting up Medical Information Service Centers, where we respond to inquiries from medical professionals and others, and preparing a framework that can deliver information to medical institutions about correct drug use for assisting in medical treatment.



### Biosimilars

Nippon Kayaku aims to make further contributions to patients, their families, and healthcare professionals through the rapid commercialization of biosimilar pharmaceuticals, which are playing a major role in the treatment of cancer and Autoimmune disease. By providing a wide range of biosimilars, the company hopes to help realize a society where everyone has access to high quality medical care, at any place and time.



## Agrochemicals Business

### Agrochemicals

We have been continuously improving our formulation technology, resulting in providing excellent agrochemical products with the times.

#### Insecticide: "GLADIUS® 10SC"

An insecticide containing active ingredient, flometoquin which is only one molecule categorized in IRAC 34, highly effective against sucking pests such as thrips.

#### A multifunctional new pesticide with blocking spiracles action: "FUMON®"

An eco-friendly pesticide suitable for integrated pest management. This product is used for various purposes such as insecticides, acaricides, fungicides and adjuvants. There is no risk of resistance issues.

#### Insecticide: "Diazinon 5G"

An insecticide which has been selling since September 1969, which is widely used from professional farmers to house gardeners throughout Japan.

This product is registered in more than 60 kinds of crops, and highly effective against soil-inhabiting insect pests such as larvae of goldbugs and cutworms with high knockdown activity. In response to customer feedback, we have started to provide a 400g bottle for use in house and garden since April 2025.

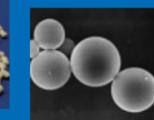
We also have a unique product portfolio such as "CHLOPIC FLOW," a soil fumigant that can be used easily for obtaining stable effects, and "WIDE COAT," a new adjuvant that combines spreading and sticking functions.



### Other chemicals

#### Animal repellent "R-731"

Animal repellent materials containing microcapsulized capsaicinoid "Nonivamide", the sharp-tasting component of chili peppers. Kneaded into cables and other goods, it prevents rats from chewing and harming those goods.



### Active Pharmaceutical Ingredients (API) and Export Business

We are conducting contracted manufacturing of pharmaceutical API and intermediates, using manufacturing techniques for high potency substances that were developed through fermentation technology and anti-cancer drugs as our API business. In addition, we are exporting globally anti-cancer drugs, including BLEO™, to Europe, Asia and other countries.



### Diagnostic drugs

Nippon Kayaku provides diagnostics pertaining to tumor markers, which are useful for diagnosing cancer and judging the therapeutic effects and prognoses in the pharmaceuticals business. Nippon Kayaku also produces and sells glycemic control markers (GlycoMark®) used for diabetes. This product has been approved by the U.S. Food and Drug Administration (FDA) and are used in foreign countries.



Nippon Kayaku has been deploying its business all over the world.



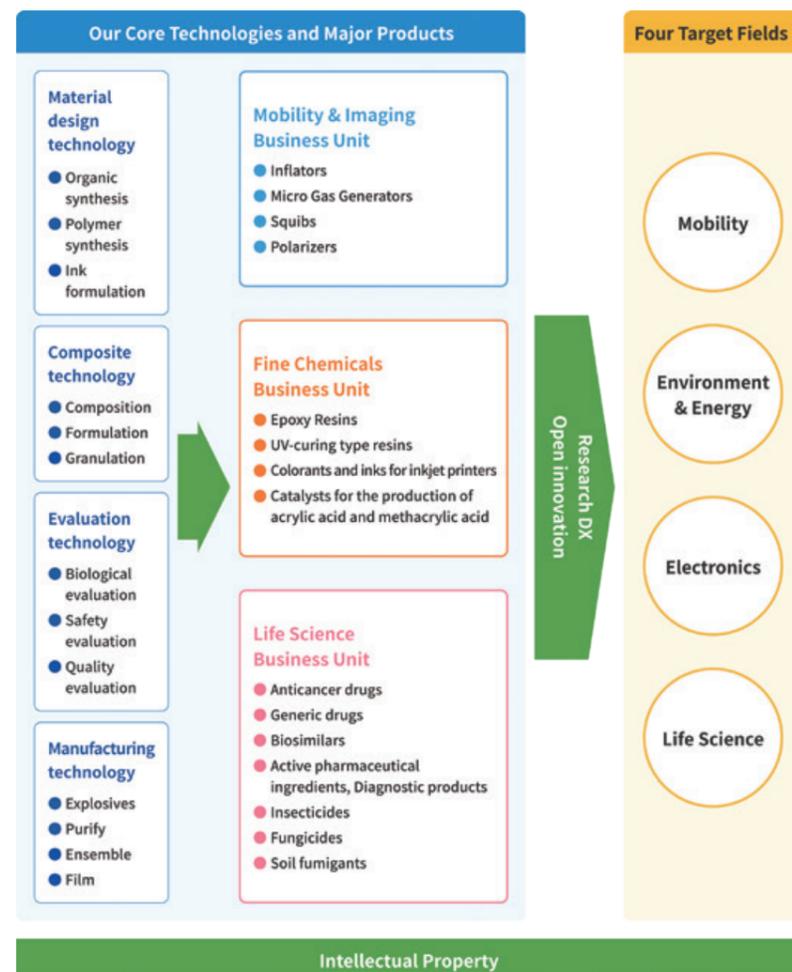
## Our Core Technologies

The accumulation of various technologies supports our current business.

Nippon Kayaku's R&D Division aims to "Increase our corporate value by creating new businesses and products through R&D."

By aggressively introducing various technologies in addition to the technologies we have cultivated to date, we have provided various products to society while deepening our core technologies. In addition, by continuously creating and utilizing intellectual property, we have expanded our business while expanding our core technologies and increase our intellectual assets.

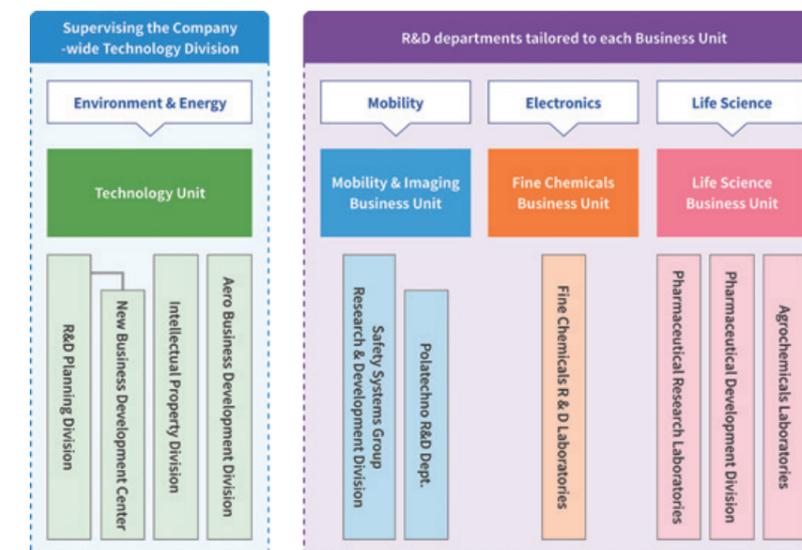
Going forward, we will continue to strengthen and expand our core technologies while actively introducing new technologies through open innovation and utilizing research DX, and create new businesses and products in four target fields (mobility, environment & energy, electronics, and life sciences) where significant growth can be expected in the future, thereby contributing to society.



## Research and Development System

Expanding "Global Sukima Ideas" Through Collaboration Between Technology and R&D Divisions.

Nippon Kayaku's R&D system has established the Technology Unit to oversee the entire company's technology divisions in order to respond to new business development and rapid technological innovation. In addition, in each business units, we have an R&D structure tailored to the R&D target fields where future growth can be expected. The R&D system collaborates with the Technology and R&D divisions to develop new products and businesses, introduce innovative technologies, and support commercialization efforts.



### Research & Development Division (Safety Systems Business)

The Safety Systems Development Laboratories develop automotive safety devices such as airbag inflators that instantly inflate airbags and micro gas generators that create force to retract seatbelts automatically.



### Fine Chemicals R&D Laboratories

We have further evolved resins, colorants, catalysts technology into the core, and are responsible for the development of distinctive new products that meet the needs in the fields of information and communication, digital printing, energy saving, resource saving, and sensing.



### Pharmaceutical Research Laboratories

We are advancing research and development of new anticancer drugs (using small molecule drug discovery, biotechnology and polymer technology), biosimilars, generic drugs and In vitro diagnostics.



### Agrochemicals Laboratories

In order to contribute to an abundant and safe food supply we can rely on, the Agrochemicals Laboratories conduct R&D on environmentally friendly chemical pesticides and new functional agrochemical preparations.

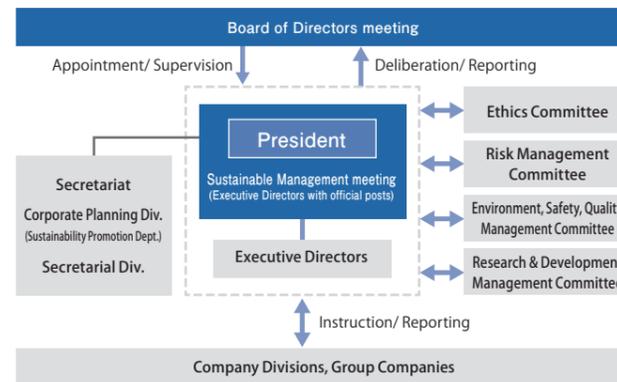


# Sustainability Promotion Activities

The Nippon Kayaku Group will promote sustainable management that repays the confidence of all stakeholders and contributes to the realization of a sustainable society under the KAYAKU spirit comprising our corporate vision.

## Sustainability Promotion System

Under the direct supervision of the Board of Directors, the Nippon Kayaku Group has established the Sustainable Management Committee, chaired by the President & CEO, to promote sustainability initiatives throughout the Group. Under the Sustainable Management meeting, we have established four committees: the Ethics Committee, the Risk Management Committee, the Environment, Safety, and Quality Management Committee, and the Research & Development Management Committee. The committees are held regularly and as necessary to ensure management transparency and fairness.



## SDGs and the KAYAKU spirit

The concept of SDGs is synonymous with the Nippon Kayaku Group's corporate vision of "KAYAKU spirit," which is to "continuously providing society with the best products through ceaseless progress and the combined forces of our consciences. We believe that our corporate activities to realize KAYAKU spirit are consistent with the realization of the SDGs, although the scale and targets differ from the UN targets. In the Nippon Kayaku Group's Sustainability Action Plan, we used SDG Compass to link each key issue to the 17 SDG targets. We will create economic value and environmental and social value, aim to realize a sustainable society and increase our corporate value, and also contribute to the achievement of SDGs.



## Participation in the United Nations Global Compact (UNGC)

The Nippon Kayaku Group announced its participation in the UNGC. The UNGC requires companies to actively and proactively engage in sustainability promotion activities by incorporating 10 principles in 4 areas: Human Rights, Labour, Environment, and Anti-Corruption into their daily operations and strategies. We support UNGC 10 principles and work to resolve social issues, thereby contributing to sound globalization and the realization of a sustainable society.



## Quality and customer safety

Based on the spirit of Responsible Care, Nippon Kayaku has formulated The Declaration on Environment, Health and Safety, and Quality, in order to maintain and enhance its environmental protection, health and safety and quality assurance practices. The Nippon Kayaku Group conducts company-wide quality activities under its quality system in order to supply the best products to customers. We are mindful that product quality improvements, safety and reliability, as well as the provision of technical services and information are paramount to improving customer satisfaction.

## Climate change mitigation

In April 2022, the Nippon Kayaku Group announced its support for the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD\*). Since then, based on the TCFD recommendations, we disclose information on risks and opportunities related to climate change, their financial impacts, and our efforts to reduce greenhouse gas emissions and build a recycling-oriented society.

\*TCFD: A task force established by the Financial Stability Board (FSB) in 2015 to stabilize the financial system. It encourages companies to disclose information on climate change risks and opportunities.



## Maintaining and Expanding Employment, Developing of Human Resources, and Respecting Human Rights

**Promotion of Diversity, Equity and Inclusion**  
The Nippon Kayaku Group promotes diversity, equity and inclusion to create a workplace where employees can thrive by contributing their qualities and skills to the fullest extent and can feel rewarded and fulfilled. We aim to become a "company trusted by society" and "resilient and good company" through developing a workplace environment and corporate culture that embraces the diverse characteristics and values in each individual in the workforce, and enables them to maximize their traits and skills.

**Establishment of the Nippon Kayaku Group Human Rights Policy**  
The Nippon Kayaku Group has established the "Nippon Kayaku Group Human Rights Policy" based on the United Nations Guiding Principles on Business and Human Rights. With the establishment of this policy, the Nippon Kayaku Group will establish a human rights due diligence mechanism to prevent and mitigate the effects of human rights violations by identifying risks so that the Group will not be involved in such violations through its business activities. We will also foster a corporate culture of respect for human rights through sincere dialogue and consultation with stakeholders, establishment of an effective grievance mechanism, promotion of appropriate information disclosure, and ongoing human rights education.

## Environmental and Social Considerations in the Supply Chain

In order to realize a sustainable society, the Nippon Kayaku Group has established the Sustainable Procurement Guidelines based on the Nippon Kayaku Group Charter and Code of Conduct, Procurement Principles, and Basic Procurement Policies, and disseminates them to suppliers. Together with all business partners in the supply chain, from research and development to raw material procurement, manufacturing, sales, and logistics, we promote sustainable procurement that takes into consideration environmental preservation, occupational health and safety, compliance with laws and regulations, are fair trade, in addition to respecting human rights.

## Social Contribution Activities

**Asunaro House - Let's Assist Children with Intractable Diseases and Their Families**  
"Asunaro House" is extended-stay facility for the stay of intractable diseases and children and their families. This facility is designed to ensure that families with children who hospitalize and/or visit specialized medical institutions can stay like own homes with peace of mind. Our goal is to offer a facility that provides networking opportunities for the families of sick children and helps alleviate the mental and financial burden on these families while safeguarding their privacy.



**Communicates with Local Communities**  
The Nippon Kayaku Group actively communicates with local communities in the pursuit of a form of prosperous coexistence as a Company firmly rooted in its local community for the mutual development between the Company and local communities both inside and outside Japan where there is a Company presence.



Volunteer Work



# Kayaku Supports.

Nippon Kayaku is a chemicals manufacturer with a long history. Founded in 1916 as Japan's first joint-stock corporation manufacturing industrial explosives, it has since launched various technologies and diverse products. The technologies we bring out may change in form, but they continue to support convenience, comfort, confidence and safety for people's lives. At their root is the ideal of "serving society with products that enhance human happiness." Moving into the future, Nippon Kayaku continues to embrace this ideal.



1969 Launched sales of an anticancer drug, BLEO™



2011 "KAYAKUMA" created



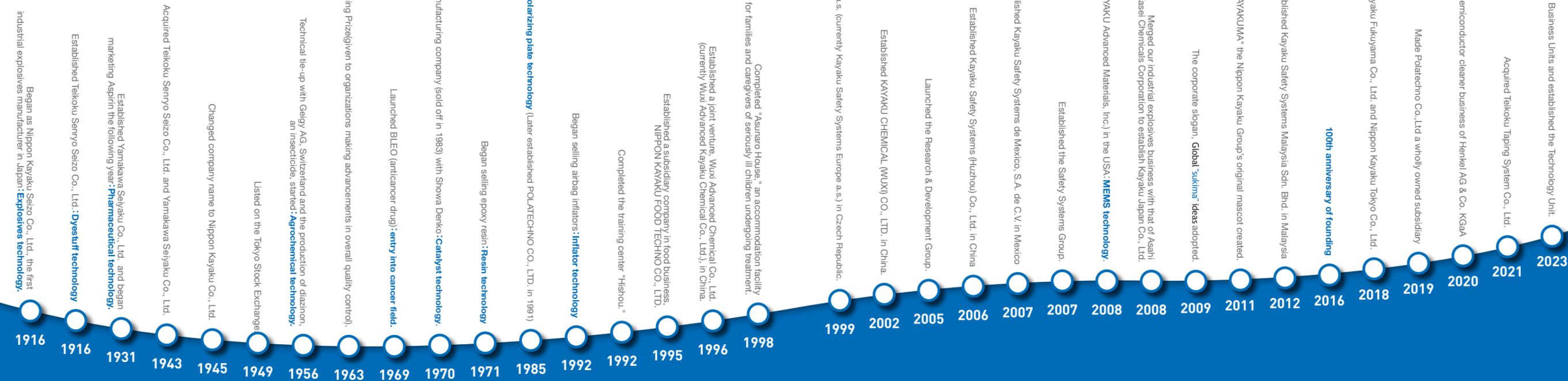
1916 Founded Nippon Kayaku Seizo Co., Ltd.



1932 Yamakawa Aspirin



1963 Awarded Deming Application Prize





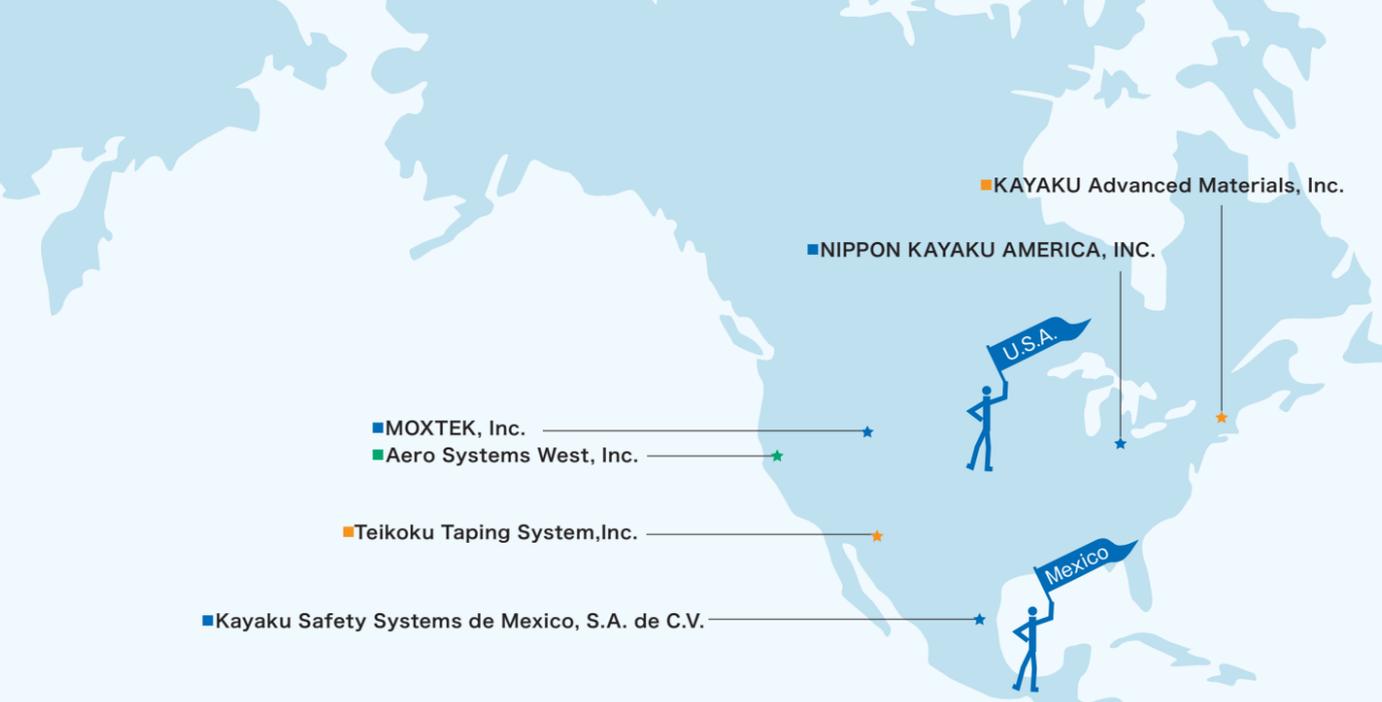
## The Nippon Kayaku Group around the World



### Corporate Profile

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<b>Business Name</b>	● Nippon Kayaku Co., Ltd.
<b>Representative</b>	● Shigeyuki Kawamura, President
<b>Foundation</b>	● June 5, 1916
<b>Capital</b>	● 14,932 million yen
<b>Head Office Address</b>	● Meiji Yasuda Seimei Building 19th and 20th Floors, 1-1, Marunouchi 2-chome, Chiyoda-ku, Tokyo 100-0005, Japan
<b>Web site</b>	● <a href="https://www.nipponkayaku.co.jp/english/">https://www.nipponkayaku.co.jp/english/</a>



From "sukima" to the World and a New Future: Nippon Kayaku production bases

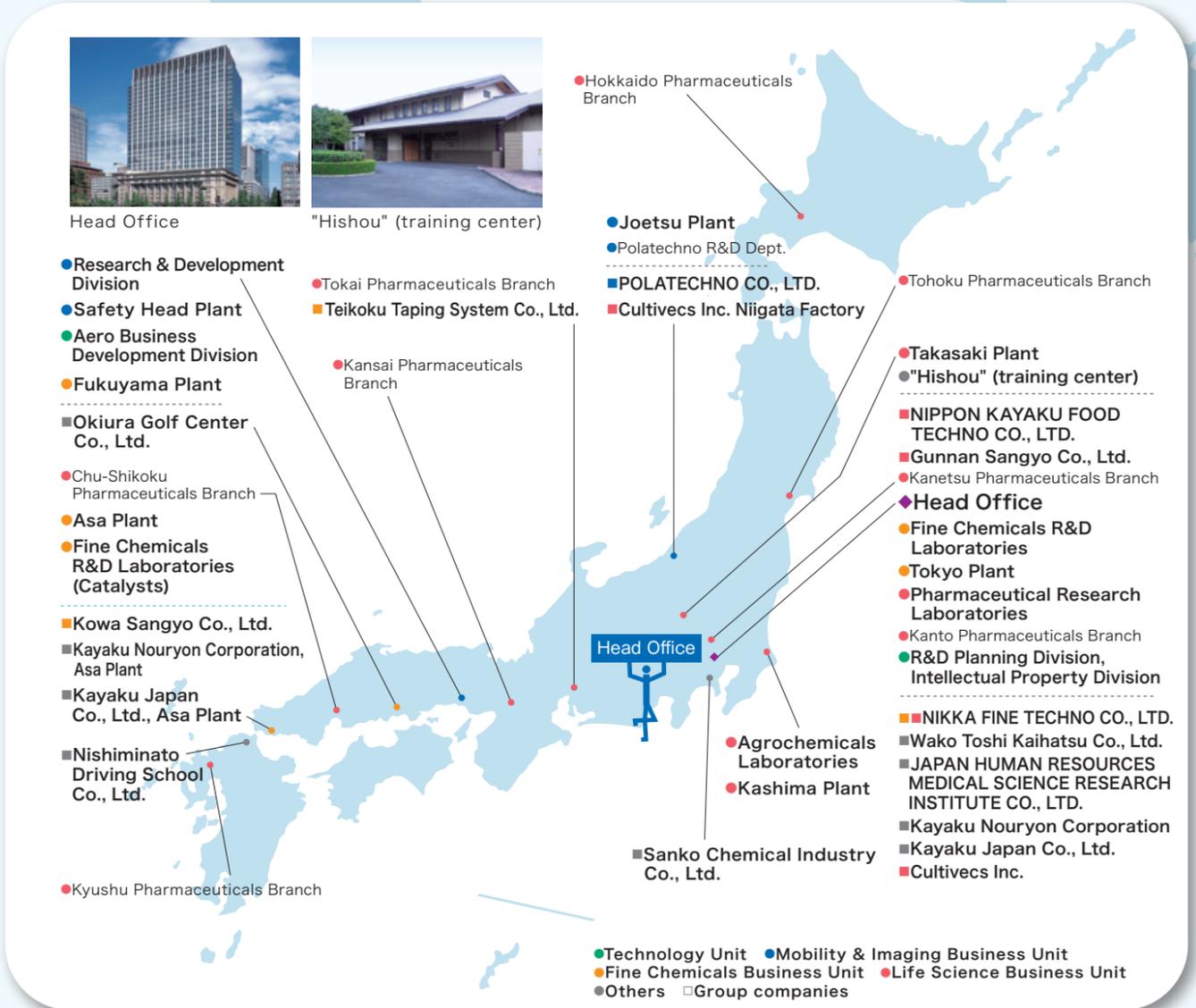
Mobility & Imaging Business Unit



Fine Chemicals Business Unit

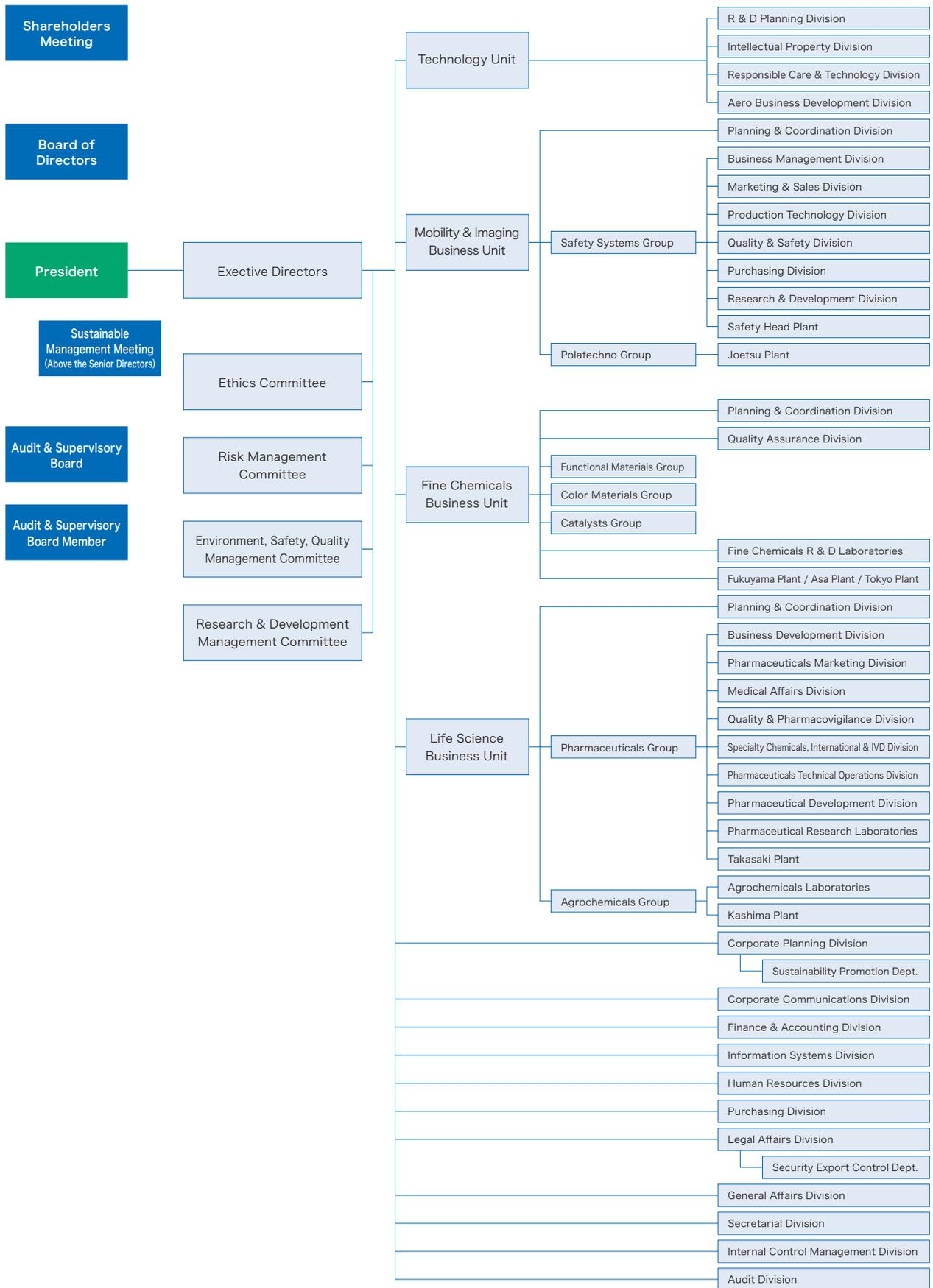


Life Science Business Unit



\*as of April, 2025

# Organization (as of April 1, 2025)



## Global "sukima" ideas

"Global 'sukima' ideas" is the Nippon Kayaku Group's Corporate Slogan. The term "sukima" is Japanese for "niche," meaning a place whose value is still undiscovered and unexploited. At Nippon Kayaku, our aim is to be No. 1 globally in niche markets, not by virtue of scale, but by using our original technology to provide high-value-added products that the world needs.



From "sukima" to the World and the Future

Our technologies, born from "Global 'sukima' ideas," may not always get a lot of attention.

However, these technologies support today's lifestyles and various industries and are laying a path to the future.

Count on the Nippon Kayaku Group to continue bringing forth supporting technologies from "sukima" to contribute to the world and the future.

Global "sukima" ideas



Web site

