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Creating a Sustainable Future

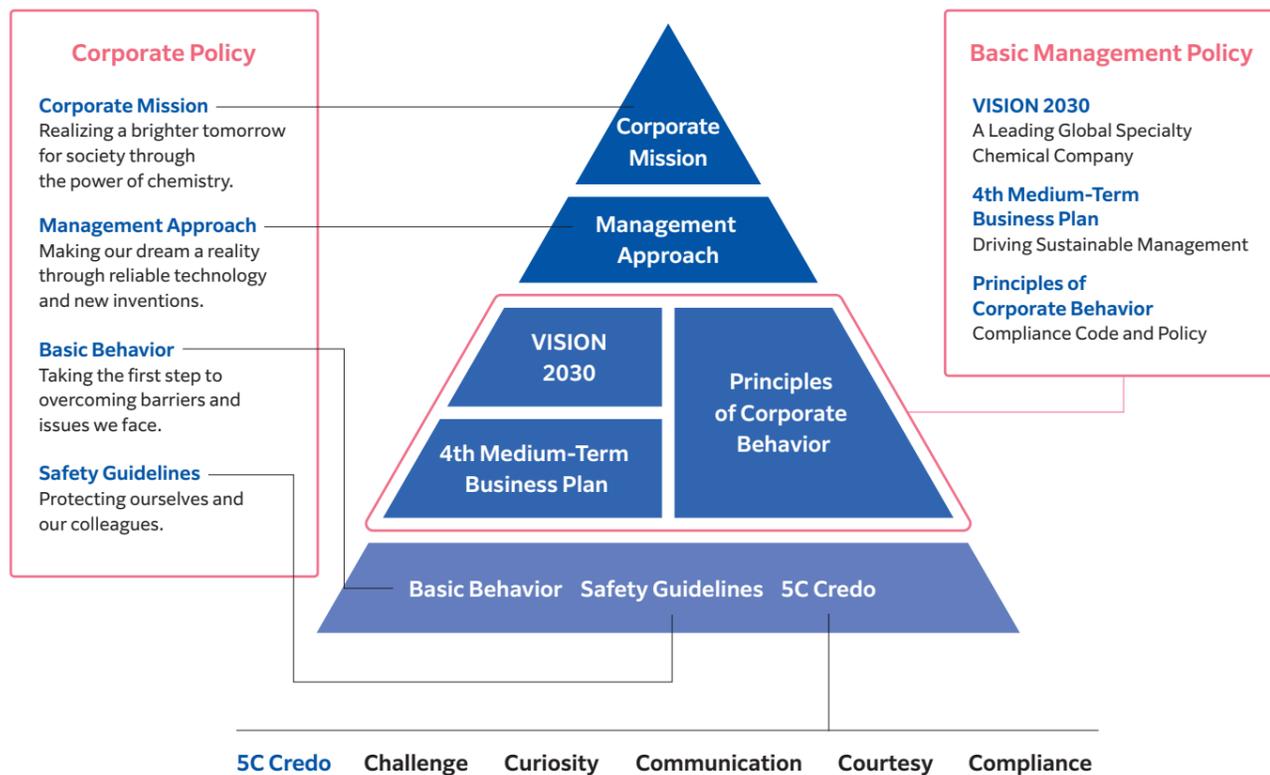
KH Neochem Report
2023



Corporate Mission

Realizing a brighter tomorrow
for society through
the power of chemistry.

Our Basic Principles



INDEX

Index, Editorial Policy	02	Drivers for Value Creation	
Then and Now		"Cross×Talk" Discussions	
History of KH Neochem	03	Toshihiro Matsuoka × Yukihiro Isogai	38
Strengths of KH Neochem	05	Special Feature I :	
Overall Image and Features of the Business	07	Safety and Operations Integrity	41
Business	09	Special Feature II :	
Financial (Consolidated) and Non-Financial (Non-Consolidated) Highlights	13	Creating New Value to Achieve Sustainable Growth and Strengthening Intellectual Property Capabilities	45
Sustainable Value Creation		Special Feature III :	
Message from the President and CEO	16	Human Resource Strategies to Increase Corporate Value	49
VISION 2030	20	Improvement of Business Framework	
Value Creation Story	21	Roundtable Discussion with Outside Directors	54
Materiality Identification Process and Progress Report	23	Corporate Governance	57
Progress in the 4th Medium-Term Business Plan	25	Risk Management	65
Message from Masaya Hamamoto (CFO)	29	Climate-Related Disclosures Based on TCFD Recommendations	66
Message from Tatsuro Niiya (Board Director)	31	Compliance	67
Contributing to a sustainable society through our business	33	Security, Safety, and Environmental Conservation Activities	69
Contributing to global warming mitigation through the supply of refrigeration lubricant raw materials	35	Stakeholder Relations	73
		Data Section	
		Consolidated Financial Statements	76
		Financial and Non-Financial Time Series Data	80
		Overview	81

Information Disclosure System

Non-Financial ← → Financial



Scope of Report
Reporting period: January 1 to December 31, 2022
Some portions of the report also include activities for 2023.
Environmental report data and other statutory information is for the period from April 1, 2022 to March 31, 2023.
Organization covered: KH Neochem Co., Ltd. (nonconsolidated)
(Some portions also include consolidated information.)
Date of publication: August 2023

Note on Forecasts
Among the information contained in this report, information aside from historical facts includes forecasts that are based on certain assumptions and rely on judgments made by KH Neochem's management using the information available at that time.
For this reason, actual business results may differ, depending on various factors.

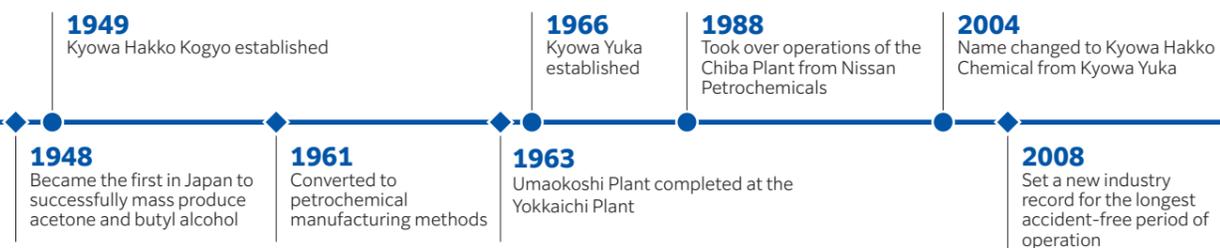
History of KH Neochem

Since the time of our founding, we have built up reliable manufacturing DNA while continuing our business.

We were founded in 1948, and ever since then have created new value with the aim of “contributing to society through our business.” At the root of this is the reliable DNA we have cultivated while facing many major changes in the business environment. That DNA has been handed down to the present day.

I Our Origins as a Chemical Manufacturer

Our roots are in the manufacture of chemicals through fermentation, the founding business of Kyowa Hakko Kogyo (now Kyowa Kirin). We supported Japan’s post-war growth and have contributed to people’s daily lives. We have established a solid footing as a chemical manufacturer by flexibly responding to changes in the environment and actively adopting new technologies, such as switching from fermentation to petrochemical manufacturing.



1948 First company in Japan to succeed in mass production through fermentation

We became the first in Japan to successfully mass produce acetone and butyl alcohol from molasses through fermentation. This method was later utilized for solvents and various other applications, and contributed to the growth of Japanese industries. That original business has been handed down within the company to the present day, while making alterations to manufacturing methods and products.

In 1988, we took over operations and business of the Chiba Plant from Nissan Petrochemicals (now Nissan Chemical). The Chiba Plant has the only high-pressure oxo reaction facility in Japan. We established a two-plant system with the Yokkaichi Plant. With this, we became one of the few oxo manufacturers in the world that has both high-pressure and low-pressure oxo process facilities.

1988 Switch to a plant system that has two oxo process facilities with different features

From 2004 Development of new applications by improving technical capabilities

To meet the needs of our customers, we further improved our oxo-based synthesis technologies, and also our high purification technologies and quality control technologies. By repeatedly improving our technical capabilities, we have boosted the quality of our products and developed new applications.

From 1961 Converted to petrochemical manufacturing methods and became a “department store for solvents”

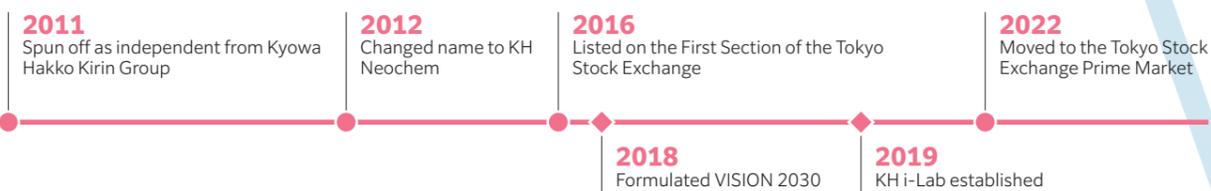
In a flexible response to changes in the external environment, we converted to petrochemical manufacturing methods in 1961. We launched our Yokkaichi Plant two years later and converted our core production method from the high-pressure oxo process to the low-pressure oxo process. Our extensive product lineup led to us being dubbed a “department store for solvents.”



The Yokkaichi Umaokoshi Industrial Complex at the time of its completion

II Further Evolution as an Independent Company

After becoming independent from Kyowa Hakko Kirin Group and now being listed on the Prime Market of the Tokyo Stock Exchange, we have created an environment in which we can flexibly make business investment decisions. We will use the power of chemistry to realize a brighter tomorrow for society through sustainable management that balances contributing to solutions for social issues through our business activities with the sustainable growth of our company.



From 2011 Independence and listing: creating the foundations for expansion

In order to create an environment in which we can independently make business investment decisions, we were spun off as independent from Kyowa Hakko Kirin Group, changed our name to KH Neochem, and were listed on the First Section of the Tokyo Stock Exchange. Amid these developments, we created the foundations for business investment from a medium- to long-term perspective while recognizing the importance of short-term performance.



The ceremony to mark our listing in 2016

We will continue to provide unique products such as refrigeration lubricant raw materials, cosmetic ingredients, and electronics materials based on our desire to provide indispensable products that contribute to the global environment and richer lives for people.

Contributing to solutions for social issues through our business activities

In VISION 2030, formulated in 2018, we stated our ambition of becoming a leading global specialty chemical company.

From 2018 Becoming a leading global specialty chemical company

Aiming to create new value

In order to resolve social issues, we will continue to take on the challenge of developing new products in existing businesses and creating new businesses through open innovation at KH i-Lab, based on partnerships we have cultivated with our customers.



Research at KH i-Lab

Strengths of KH Neochem

Utilizing our four strengths, we have continued growing to become a top global company in niche fields.

In dealing with the dizzying pace of changes in the market, we have accumulated our own unique set of strengths. Harnessing synergies between our technological strengths, manufacturing plants, and customer network, we now have multiple products with top-level shares of the global and domestic markets.

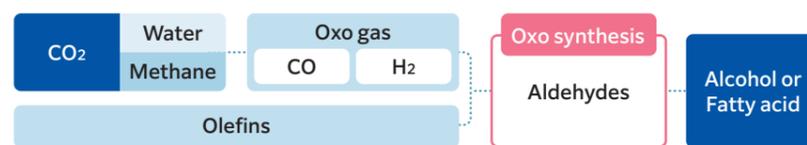
Strengths Rich and Unique Technologies

We have updated our production methods by continuously incorporating the latest technologies of the times. In addition to oxo reaction and other synthesis technologies we have also accumulated technologies for high purification, quality control, operations and equipment management, and more. Through combinations of various technologies, we have been able to manufacture high-quality products that gain a strong following both in Japan and around the world.



What is oxo synthesis?

Also known as hydroformylation, oxo synthesis is a process where oxo gas, which is a mixture of carbon monoxide and hydrogen, reacts with raw materials, such as olefins, to synthesize aldehydes. Aldehydes can be reduced to alcohol or oxidized to fatty acids, and various derivatives can be synthesized. It is also characterized by the use of carbon dioxide (CO₂) as a raw material in the oxo gas production process.



Strengths A Wide-ranging Customer Network

Since our founding, we have provided products to customers representing a broad range of industries and gained their trust.

We began producing high-purity solvent and refrigeration lubricant raw materials based on requests received from customers we were collaborating with, and these have grown to become our core products.

Having a large presence in niche fields, we often receive requests from customers to work on new trends and conduct joint development, which continually drives our further evolution.

Going forward, we will continue to further expand our sales and create new business by leveraging our customer network.

Strengths World's Leading Manufacturing Plants

KH Neochem is the only company in Japan that has both high-pressure and low-pressure oxo process facilities. Utilizing each of their strengths to maximum effect allows us to meet highly specific customer needs and to offer an astonishingly vast selection of product types.

Strengths Major Products with Large Market Shares

Leveraging each of our strengths in technologies, customer network, and manufacturing plants, we have been able to create numerous products with large market shares.

Since we manufacture raw materials that are essential in each respective industrial field, it is critically important to supply these products in a safe and stable manner. We will be expanding our production capacity appropriately while coordinating with our customers.

Products with Top-level Shares of the Domestic Market (In-house Estimates)

Refrigeration lubricant raw materials



Cosmetic ingredients



Electronics materials



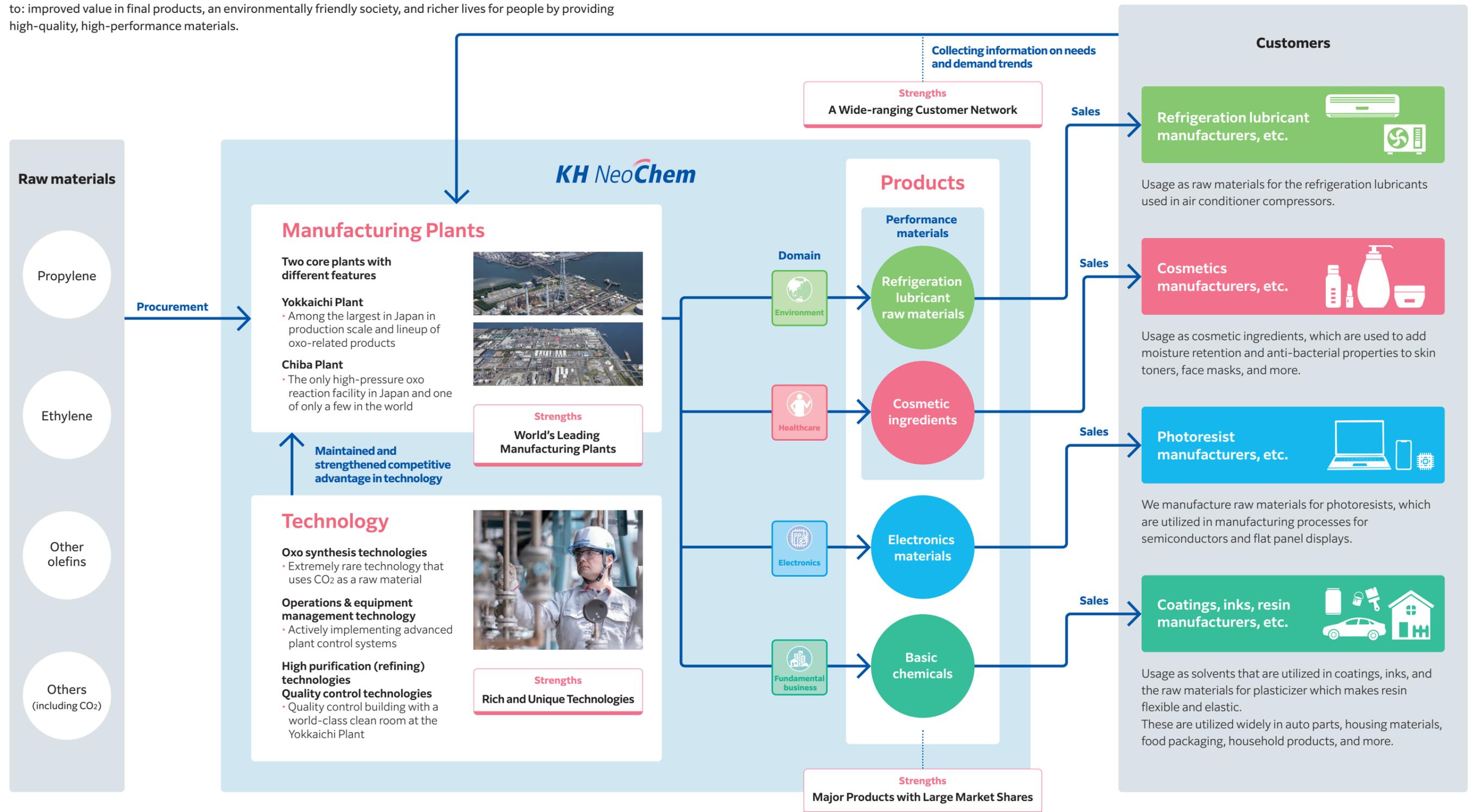
Basic chemicals



Overall Image and Features of the Business

Leveraging expertise accumulated as a chemical material manufacturer to offer high-quality products in a variety of fields

We support various industrial fields by supplying an extensive catalog of various materials such as refrigeration lubricant raw materials, cosmetic ingredients, electronics materials, basic chemicals, and more. Our aim is to contribute to: improved value in final products, an environmentally friendly society, and richer lives for people by providing high-quality, high-performance materials.



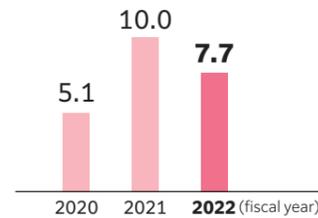
Performance materials



We manufacture the raw materials for lubricants used mainly in air conditioners (refrigeration lubricant) and ingredients for cosmetics.

Our refrigeration lubricant raw materials are used in refrigeration lubricants which are highly compatible with refrigerants having low global warming potential (GWP), thus contributing to global warming prevention. Our cosmetic ingredients, used in high-end skincare cosmetics, also help to improve quality of life (QOL) for people all over the world.

Operating income
(consolidated, bn yen)



Note: When calculating "operating income" in results by business field, administrative expenses, etc., which are common to the entire company, are not allocated.

Proportion of total operating income
(FY2022)



Cosmetic ingredients

Market environment

Growth in the skincare market

- Worldwide growth of the middle class
- Spread of e-commerce
- Growth in the men's cosmetics market
- Increasing interest in high-end and natural products

Main Areas of Use	Main Products
Skin toners / beauty serums	Diols
Face masks	Synthetic fatty acids
	etc.

Refrigeration lubricant raw materials

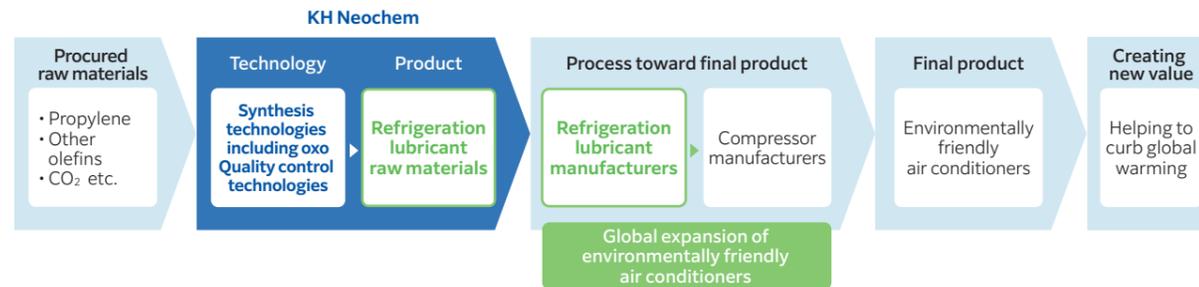
Market environment

Global expansion in the environmentally friendly air conditioner market

- Population growth in emerging nations
- Worldwide growth of the middle class
- Tightening international environmental regulations for refrigerants

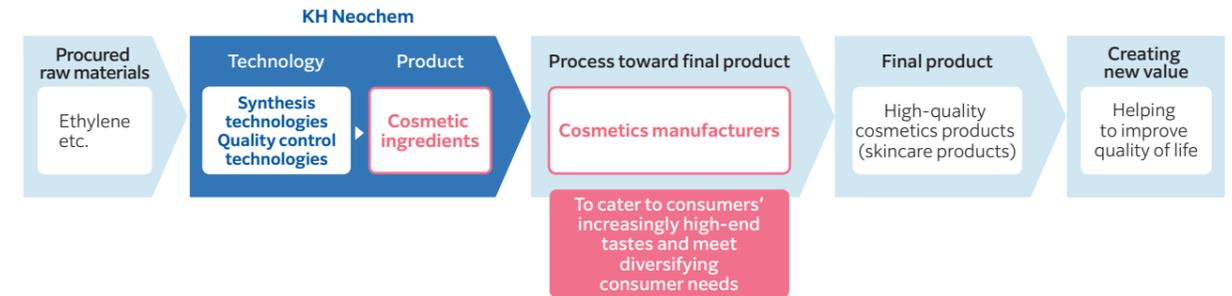
Main Areas of Use	Main Products
Air conditioners	Synthetic fatty acids
	Base oils
	etc.

Value chain example



Opportunities / Risks	Competitive Advantages	Challenges
<ul style="list-style-type: none"> Continued growth in demand for air conditioners worldwide Regulations on refrigerants to reduce greenhouse gas and protect the ozone layer Structural changes to air conditioners for cars and transition in refrigerants due to the spread of EVs Acceleration of the replacement of combustion-style heating with heat pump-style heating 	<ul style="list-style-type: none"> The top global market share in refrigeration lubricant raw materials for environmentally friendly air conditioners Being located in Asia, the region with the most demand Customer collaboration marketing and R&D systems 	<ul style="list-style-type: none"> Expanding supply capacity in a timely and appropriate manner according to demand growth Developing refrigeration lubricant raw materials compatible with next-generation refrigerants

Value chain example



Opportunities / Risks	Competitive Advantages	Challenges
<ul style="list-style-type: none"> Growth of the middle class in emerging nations, primarily in Asia Facilities expansions among domestic cosmetics manufacturers Higher demand for quality Relaxation of the restrictions on behavior imposed during the COVID-19 pandemic and recovery of demand related to inbound tourism 	<ul style="list-style-type: none"> Integrated in-house system for production starting from raw materials Located close to other growing Asian countries Near-odorless product technology 	<ul style="list-style-type: none"> Expanding our product portfolio

Product info

What is 1,3-butylene glycol?
1,3-butylene glycol (1,3-BG) is a cosmetic ingredient that produces a moist texture when using products such as skin toners, face masks, or beauty serums. It is an indispensable ingredient for skincare products that come into direct contact with the skin due to its strong moisturizing properties and antibacterial properties, as well as its reduced odor and amount of skin irritation.

In addition to Japan and South Korea where people have high awareness of beauty and skincare, we are actively selling it in markets such as China, Southeast Asia, and India where medium- to long-term demand is forecasted to increase.

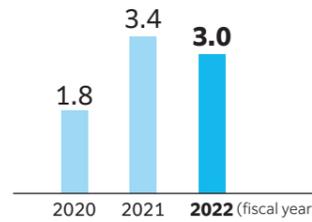
Electronics materials



We manufacture high-purity solvent, the raw material for photoresist, which is used in manufacturing semiconductors and liquid crystal displays.

Our solvents are recognized by our customers for containing extremely low volumes of impurities (foreign matter and metals) through a fusion of high purification (distillation) technology and high quality control technology. Our group company Kurogane Kasei is also engaged in various contract manufacturing businesses related to electronics materials, including cutting-edge fields. We contribute to an advanced information society by meeting needs in the field of electronics materials, which grows more sophisticated by the day.

Operating income
(consolidated, bn yen)



Note: When calculating "operating income" in results by business field, administrative expenses, etc., which are common to the entire company, are not allocated.

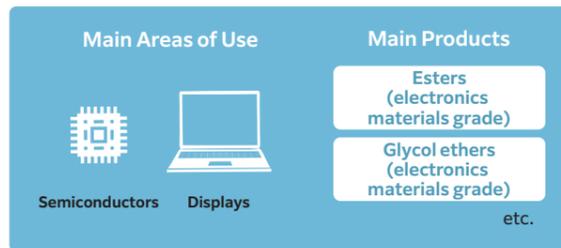
Proportion of total operating income
(FY2022)



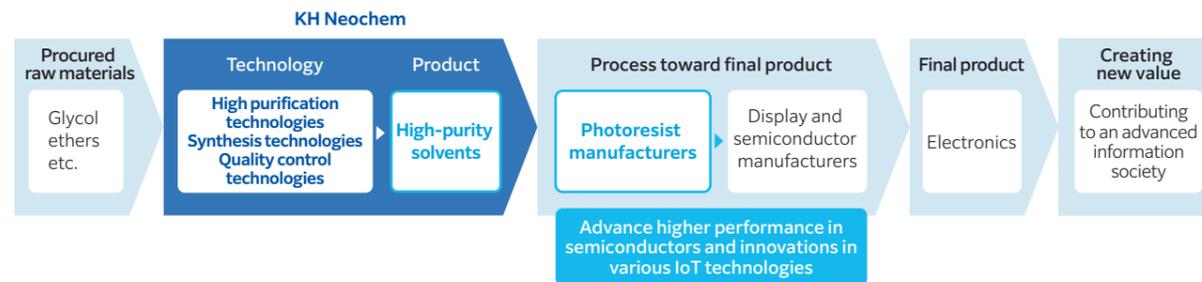
Market environment

Growth in the market for electronics materials as the IT and electronics industries develop

- Spread and development of AI & IoT
- Increased speed & functionality of electronics
- Increased demand for cutting-edge semiconductors due to the spread of 5G technologies



Value chain example



Opportunities / Risks

- Growth of global semiconductor demand and market expansion
- Increasing quality-related needs
- Changes in semiconductor supply networks and advanced product development trends due to factors such as U.S.-China trade friction
- Superiority of domestic semiconductor materials manufacturers

Competitive Advantages

- High purification technology built over the years
- Extensive product lineup and supply system
- Advanced quality control technologies to meet customers' needs
- Facilities for next-generation semiconductor materials belonging to Kurogane Kasei, contract manufacturer of electronics materials

Challenges

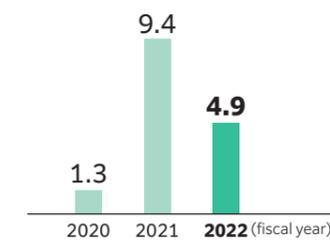
- Further strengthen our quality control system and increase supply capacity for next-generation semiconductors

Basic chemicals



We manufacture an extensive lineup of solvents and plasticizer raw materials. Our solvents are used in construction and automobiles, as well as in smartphone coatings, adhesives, cleaning agents, and more. Plasticizers are essential additives for making plastic products more flexible and easier to process. We have many products with top-level shares of the domestic market, as we contribute to everyday living in a variety of ways.

Operating income
(consolidated, bn yen)



Note: When calculating "operating income" in results by business field, administrative expenses, etc., which are common to the entire company, are not allocated.

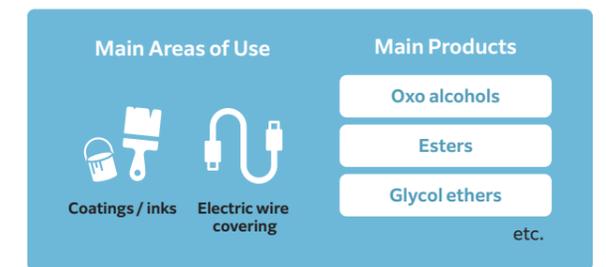
Proportion of total operating income
(FY2022)



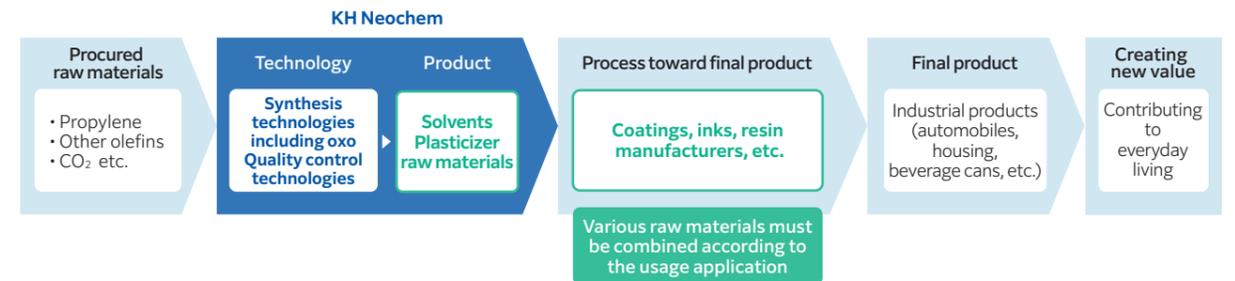
Market environment

Stabilized market in Japan and expanding market in the rest of Asia

- Stable domestic market
- Economic growth in nearby Asian countries
- Population growth in emerging nations



Value chain example



Opportunities / Risks

- Growing demand, primarily in Asia
- Competing manufacturers overseas could shut down production if they are unable to comply with environmental regulations
- Tightening balance of supply and demand for oxo alcohol in Asia
- High volatility due to economic fluctuations in Japan and in emerging nations
- Aged, deteriorating manufacturing and shipping equipment

Competitive Advantages

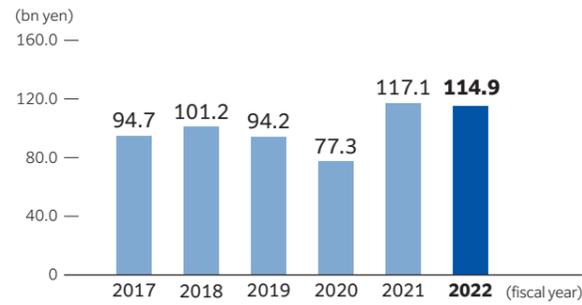
- Located close to Asian countries where population growth and infrastructure development are expected
- Largest oxo alcohol production capacity in Japan
- Extensive range of product lineup supported by offerings of derivatives
- Stable business and established trust with top manufacturers in each market

Challenges

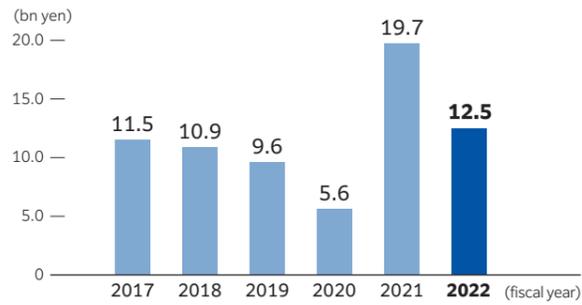
- Further strengthening our cost competitiveness
- Build stable supply systems through better safety and preventative maintenance at production plants

Financial Highlights (Consolidated)

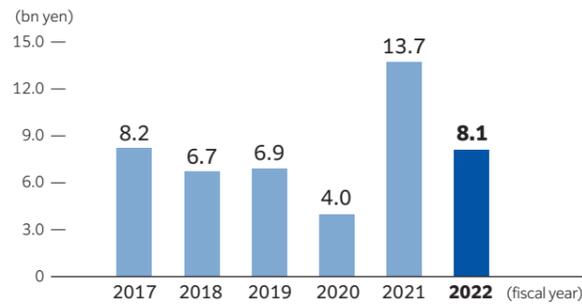
Net sales



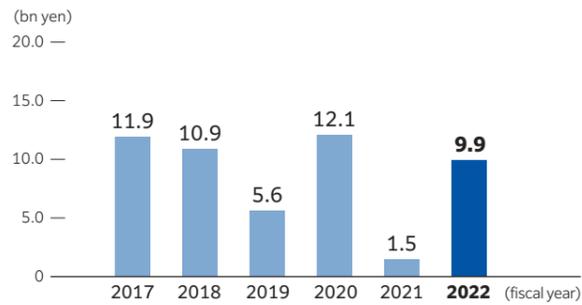
Operating income



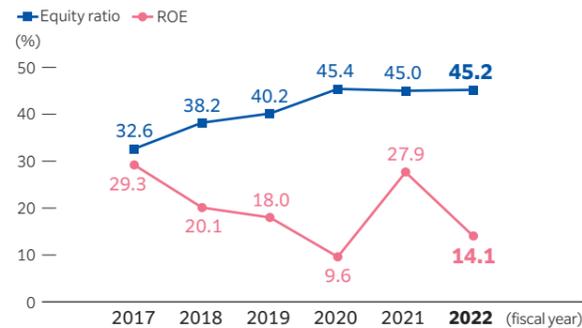
Net income attributable to owners of the parent



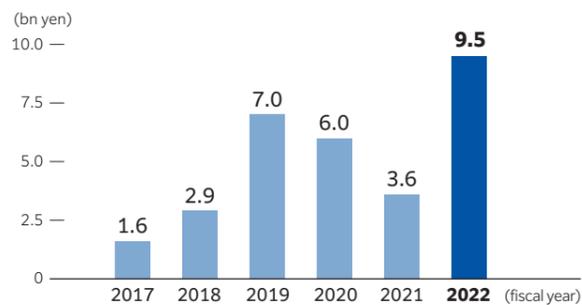
Net interest-bearing debt (except lease obligations)



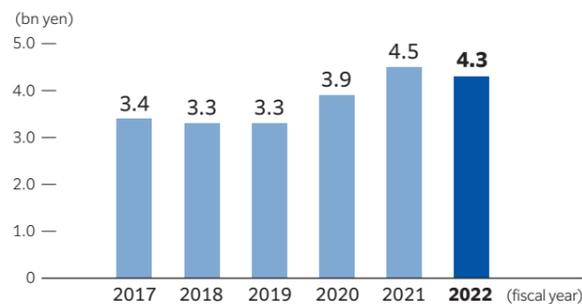
Equity ratio/ROE



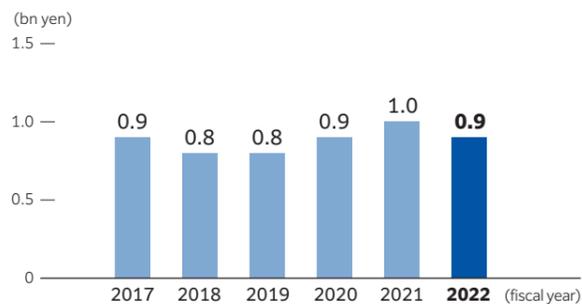
CAPEX



Depreciation (including amortization of goodwill)

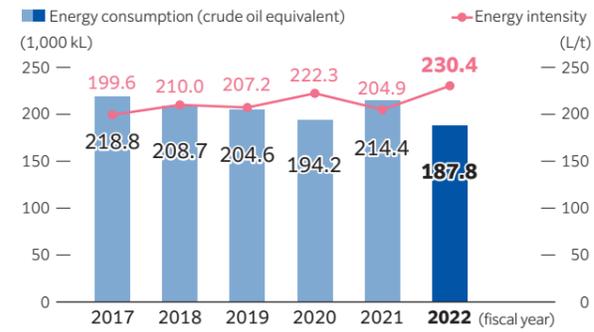


R&D expenses



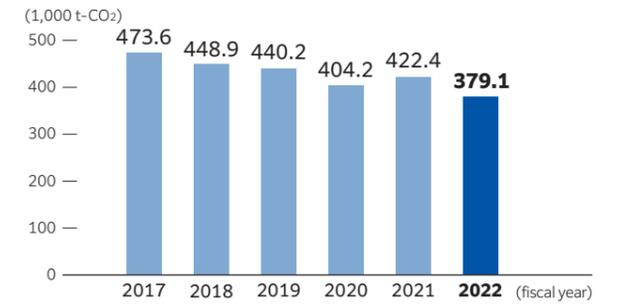
Non-Financial Highlights (Non-Consolidated)

Energy consumption and specific consumption



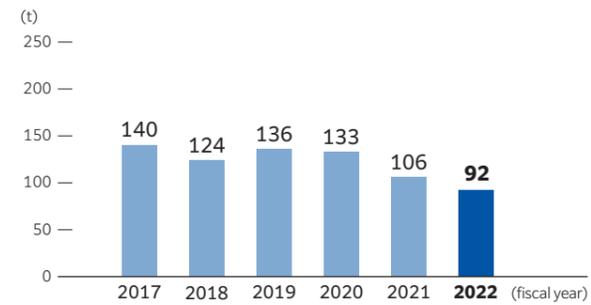
(Note 1) April 1 to March 31, each year
(Note 2) Due to a change in the method of rounding decimals starting in fiscal year 2021, there are slight differences from the figures shown in the previous report.

Greenhouse Gas (GHG) amount released (Scope 1 + 2)

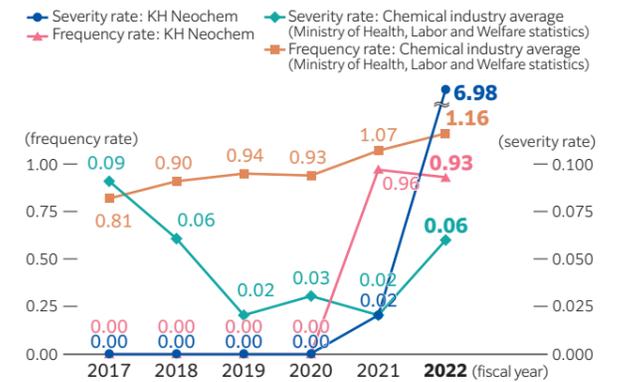


(Note 1) April 1 to March 31, each year. Figures reported based on the Act on the Rational Use of Energy.
(Note 2) Starting in fiscal year 2021, we have been deducting the amount of CO2 that was generated in our production processes, captured, and used as raw materials from our GHG emissions.

Disposed of as landfill

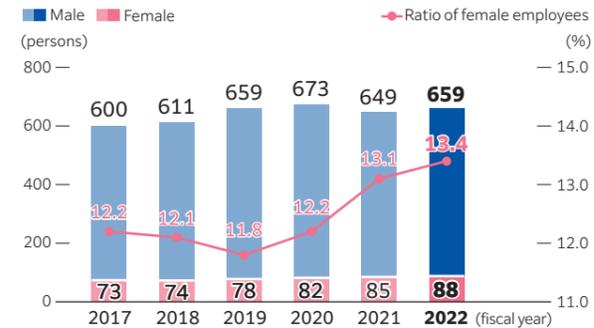


Frequency rate (accidents resulting in lost workdays)/Severity rate

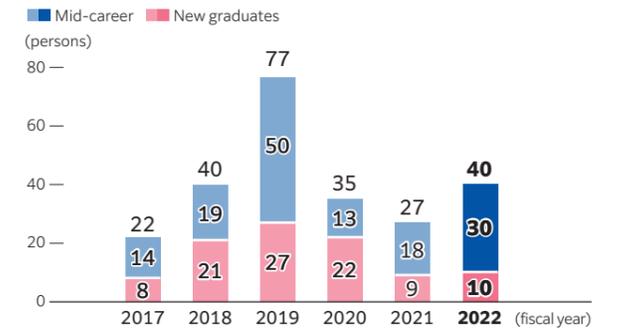


(Note) Scope of aggregation: Yokkaichi Plant and Chiba Plant

Number of employees and ratio of female employees



Number of new employees



(Note) Only workers who have signed a labor contract with no fixed term

Gender wage gap

	Difference in wages between males and females (Ratio of female wages to male wages)
All workers	83.4%
Full-time workers	81.6%
Part-time or fixed-term workers	67.6%

Years of service and gender differences

		(fiscal year)							
		fiscal year	2017	2018	2019	2020	2021	2022	2023
Years of service	male		16.5	16.0	14.6	13.5	13.7	14.0	14.2
	female		16.9	16.3	14.3	14.3	15.0	15.3	15.1
Difference (female - male)			0.4	0.3	-0.3	0.8	1.3	1.3	0.9

(Note 1) "Number of years difference" is the difference in the number of years of service calculated as "female-male"
(Note 2) Full-time workers only. All figures as of April 1, each year



Sustainable Value Creation

- 16 ● Message from the President and CEO
- 20 ● VISION 2030
- 21 ● Value Creation Story
- 23 ● Materiality Identification Process and Progress Report
- 25 ● Progress in the 4th Medium-Term Business Plan
- 29 ● Message from Masaya Hamamoto (CFO)
- 31 ● Message from Tatsuro Niiya (Board Director)
- 33 ● Contributing to a Sustainable Society through Our Business
- 35 ● Contributing to Global Warming Mitigation through the Supply of Refrigeration Lubricant Raw Materials

Message from the President and CEO

We will drive Sustainable Management to contribute towards solving social issues and sustainably enhance our corporate value.

Michio Takahashi
KH Neochem Co., Ltd.
Representative Director, President & CEO

The strengths and DNA that have supported our value creation

We have engaged in the manufacture and sales of chemicals, the founding business of Kyowa Hakko Kogyo (now Kyowa Kirin), since the 1940s. We initially carried out mass production of chemicals via fermentation utilizing biotechnology, but later converted to petrochemical manufacturing methods in the 1960s, when our Yokkaichi Plant came into operation and we transformed ourselves into a high-quality, high-tech chemical material manufacturer utilizing oxo synthesis technologies. In the 1980s, we took over the operations and business of the Chiba Plant from Nissan Chemical Industries, Ltd. (now Nissan Chemical Corporation), and currently operate a two-plant system with the Yokkaichi and Chiba Plants through which we create value via manufacturing.

Our competitors include major domestic and international companies, but we have built up our current position through our extensive product line-up and marketing capabilities. While most of our competitors focus on big products such as alcohols and their derivatives, we have distinctively expanded our business to include products such as synthetic fatty acids. As a result, we have positioned ourselves as the global leader in synthetic fatty acids for refrigeration lubricants. Rather than simply pursuing scale, we have leveraged our maneuverability and focused on launching a variety of products on the market and providing distinctive products that are essential to our customers. Many of our customers are leading companies in their industries, and we have developed close relationships of trust with them over the years. I believe that our relationships with those customers are one of our biggest assets.

Our approach of developing unique products and creating product ranges with higher added value has supported value creation since our founding and can only be described as our manufacturing DNA that has been passed down from generation to generation. Going forward, we will continue to enhance our corporate value based on the relationships of trust we have with our customers and diverse business partners.



VISION 2030 makes our ambitions known in-house and outside the Company

In 2011, with assistance from Japan Industrial Partners (an investment fund), KH Neochem became independent from what was then known as the Kyowa Hakko Kirin Group. In our five years under the umbrella of the investment fund, we were able to learn realistically about management from the perspective of shareholders and investors, including the importance of efficiently generating profits with an awareness of the cost of capital. In 2016, we were listed on the First Section of the Tokyo Stock Exchange (we have now moved to the Tokyo Stock Exchange Prime Market). Since then, we have maintained a strong awareness with regard to not only maximizing profits every fiscal year, but also emphasizing a medium- to long-term perspective and conducting business with a view to sustainable growth.

As a consequence of our listing, we set to work on formulating a long-term vision and established VISION 2030 [▶ P20](#) in 2018.

Results since the establishment of VISION 2030

In VISION 2030, we announced our ambition of becoming a leading global specialty chemical company, stated our three policies of (1) Providing specialty chemicals that contribute to the reduction of global warming and a better quality of life, (2) Expansion of products with the largest global share and new businesses in strategic domains, and (3) Achieving top-class profitability in the

chemical industry, and set specific numerical targets of 180.0 billion yen in net sales and over 25.0 billion yen in operating income. We also identified Environment, Healthcare and Electronics as three strategic domains to specially focus our energies on, and will steadily grow our existing businesses while also taking on the challenge of expanding new businesses.

Although a number of unexpected events occurred after it was formulated, including the COVID-19 pandemic and the situation in Russia and Ukraine, we are moving steadily forward with the aim of realizing VISION 2030, which describes a path that will be realized by building on our three-year medium-term business plans. In terms of business performance, we achieved record high profits in FY2021, and were able to secure our second best performance in FY2022 despite a significant decrease in profits year on year. Being a chemical manufacturer that deals in materials, we are inevitably affected by the external environment, such as global economic trends. However, if we look at our performance in terms of multiple year units, such as the periods of our three-year medium-term business plans, I believe we are achieving steady growth and have developed earning power.

Furthermore, we have proactively promoted measures to continuously improve our corporate value. In order to steadily capture the growing demand for our mainstay refrigeration lubricant raw materials, we are moving forward with the enhancement of facilities at our Chiba Plant, aiming for their completion in 2024, in addition to the enhancement of facilities at our Yokkaichi Plant, completed in 2020. In the electronics materials business, with the aim of strengthening our quality

control functions, we built a quality control building with a world-class clean room at the Yokkaichi Plant in 2022, and are also strengthening our supply infrastructure by adding more product tanks to ensure a stable supply of high-purity solvents. We aim to complete their installation during 2023. In addition, our group company Kurogane Kasei is currently engaged in Phase II of its facilities expansion, with the aim of starting operations in 2024, following on from its facilities for materials for next-generation semiconductors, newly built in 2021. Aiming for new business creation, we established KH i-Lab in 2019 to make active use of open innovation, and in 2022 we invested in two start-up companies. Also, as the shift to carbon neutrality accelerates globally, as well as promoting wider installation of the advanced plant control system using AI, and working to improve specific energy consumption, we renewed the in-house power generation equipment at the Chiba Plant in 2021 to reduce CO₂ emissions.

We make on-going investments in the human resources that support our business. In addition to introducing a job-based personnel system for the development of professional human resources and expanding our training and education system, we also promote the creation of a comfortable working environment for employees. We are also actively engaged in strengthening our governance structure. In 2020, we established the Compliance Code, which serves as the principles of behavior and we have also established various policies [▶ P67, P68](#) that clarify its content to ensure its implementation.

What Sustainable Management Emphasizes

We are committed to Sustainable Management that combines contributing to a sustainable society through our business and ensuring ongoing growth in our own corporate value. Its current linchpin is refrigeration lubricant raw materials, which are our mainstay products in the environment domain, and I believe it to be of the utmost importance that we continue to provide a stable supply of these materials. Approximately one billion tons of annual global greenhouse gas emissions are said to result from refrigerants used in air conditioners. That is almost the same as Japan's total annual greenhouse gas emissions. International regulations to reduce global warming are being strengthened and the shift toward environmentally friendly refrigerants is progressing. Our refrigeration lubricant raw materials are compatible with environmentally friendly refrigerants, and we boast the world's largest market share in this field. That is precisely why I strongly feel it is our social responsibility to provide a stable supply of products which contribute to curbing global warming. At the same time, I believe that business



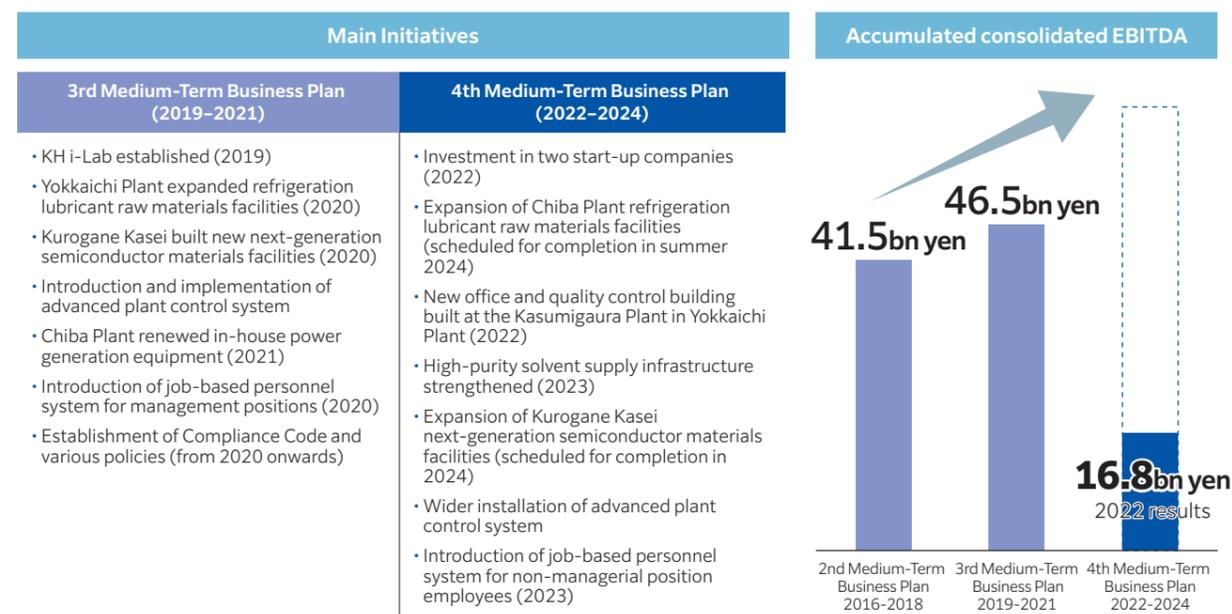
expansion in this field will greatly contribute to our growth and earnings, and will lead to continuous enhancement of our corporate value. In the electronics domain, we will leverage our technical capabilities to meet the high expectations of our customers and boost the quality of products such as high-purity solvents essential for the manufacture of high-definition semiconductors, and materials for next-generation semiconductors. We will also contribute to an advanced information society by continuing to provide materials in cutting-edge fields. Furthermore, in the healthcare domain, products such as our cosmetic ingredients and basic chemicals help to improve quality of life and support people's everyday living.

In VISION 2030, we set a target of generating 5 billion yen in profits via new businesses. Innovation Strategy currently plays a central role in accelerating activities for the creation of new businesses, and is promoting collaborations with the two start-up companies in which we invested in 2022. In addition, some promising projects are starting to emerge amongst those being implemented in-house. We will continue to pursue sustainable growth through the expansion of our business by actively collaborating with other companies as and when necessary, without being overly concerned about going it alone.

Initiatives to develop and strengthen the human resources essential for sustainable growth

The development and strengthening of human resources is vitally important for our sustainable growth. It is imperative that not only management but also core human resources in each division and generation within the Company have a positive impact on each other and boost the level of the Company as a whole. Although we cannot develop and strengthen human resources

The main initiatives and accumulated consolidated EBITDA since the establishment of VISION 2030



Message from the President and CEO

overnight, we are also focusing on expanding our education and training system, including targeted training, and utilizing diverse human resources by means of mid-career hiring.

As part of our efforts to establish succession plans for management, outside directors have been interviewing division heads every year since 2021 so that we can select, nurture and pool human resources capable of running operations objectively. We are planning to expand this initiative to include the next generation of human resources in 2023. Since 2020, a committee made up of executive directors has held "personnel meetings" to discuss in detail succession plans for division heads and other core positions. For a company to be sustainable, it must first ensure it has sustainable human resources. In order to become a truly sustainable company, we will seek to identify and develop human resources who are potential successors, not only from management but also from the next generation, and we will actively promote the further strengthening of our human resources.

Continuing our duty of performing safe and stable operations, and rebuilding relationships of trust with our clients

There were some unresolved issues regarding safe and stable operations in FY2022: a work-related accident occurred, the turnaround period was extended, and a large number of plant problems occurred. We have many products with a large share of the global market that can only be manufactured by us, so those issues caused a great deal of inconvenience to our stakeholders. With the aim of thoroughly ensuring safety, we launched Comprehensive Safety Check Initiative 2022 to conduct a



general inspection of risks, including for work that has not had a single accident in the past, and to take the necessary measures. To ensure stable operations, we will put even more effort into preventive maintenance to avert equipment problems. Many petrochemical plants in Japan, including the Company, were established in the 1960s and are aging. We carry out the necessary replacements and repairs whenever they are needed, but it is true to say that the risk of equipment trouble is increasing. We have therefore revised our maintenance strategy and, instead of repairing equipment after it fails, are working to identify equipment with a high risk of failure and take action before it fails. We are also studying the introduction of a predictive diagnostic system that utilizes the latest AI technology. We will strive to reduce plant downtime by taking measures such as converting past records into big data and increasing the number of sensors where necessary, detecting signs of equipment trouble, and ensuring that measures in response are implemented swiftly.

Interruptions to our supply of products inconvenience our customers, affect our entire supply chain, and have a significant impact on our earnings. All executives and employees therefore recognize that safe and stable operations are our most important duty; we intend to continue safe and stable operations and rebuild relationships of trust with our stakeholders.

To create a steady growth trajectory for FY2023 and beyond

Going forward, the external environment is expected to become even more uncertain due to economic trends, geopolitical factors, trade friction, and other factors. In response to that, Production Planning and Engineering, Sales & Marketing, Procurement, and other divisions will collaborate closely to take the best possible measures in a timely manner, as I believe it is important to generate stable profits even in a challenging environment. From a medium- to long-term perspective, the markets for our core products will steadily expand. I am confident that we will be able to achieve steady growth by firmly and without fail capturing that growth in demand.

In addition, as carbon neutrality becomes a major issue for the realization of a sustainable society, we will of course make further efforts to reduce our CO₂ emissions and, as the top supplier of refrigeration lubricant raw materials, we intend to contribute significantly to the reduction of global CO₂ emissions by providing a stable supply of refrigeration lubricant raw materials.

We will continue to achieve sustainable growth by promoting Sustainable Management even more strongly. To our valued investors and other stakeholders, thank you very much for your continued support.

VISION 2030

Our Ambitions

A Leading Global Specialty Chemical Company

- Providing specialty chemicals that contribute to the reduction of global warming and a better quality of life
- Expansion of products with the largest global share and new businesses in three strategic domains
- Top-class profitability in the chemical industry

Financial Targets

Net sales
180.0bn JPY

Corporate growth at 5% annually on average

Operating income
Over 25.0bn JPY

Expansion of profits at 7% annually on average

ROE
Over 12%

Maintaining high capital efficiency

Equity ratio
50%

Construction of a financial structure that is immune to the external environment

Drivers for Growth

Technology and Information

Human Resources and Corporate Culture

Governance

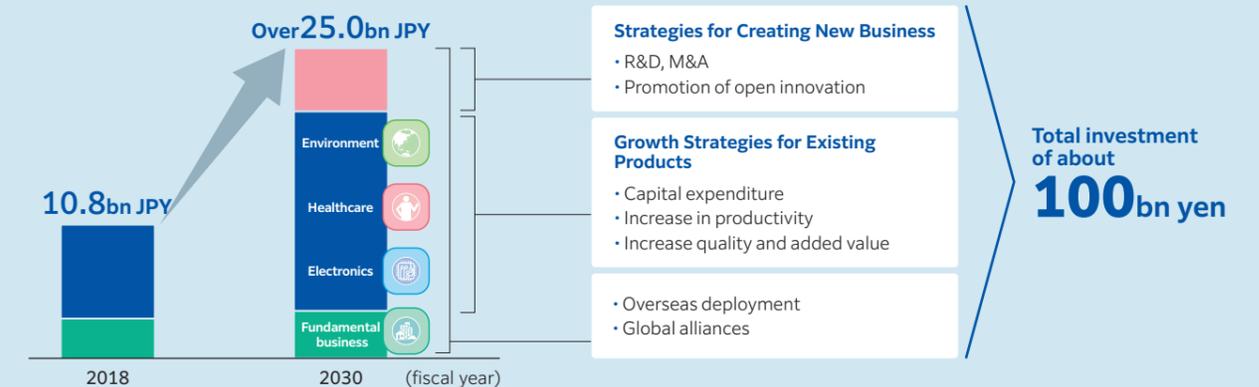
Investment Plan and Strategy

Announced in 2018, VISION 2030 lays out our aspirations for continued creation of new value and sustainable growth while taking into account long-term changes in the external environment. We plan to invest a total amount of about 100 billion yen from 2019 to 2030, and will promote growth strategies for existing products and strategies for the creation of new business, especially

in strategic domains (environment, healthcare, and electronics) where we can fully leverage our strengths. We will also seek to achieve sustainable growth and increase corporate value by expanding overseas and strengthening our global alliances, both in our fundamental and strategic businesses.

Illustration of Operating Income Growth and Strategy

■ New businesses ■ Strategic businesses ■ Fundamental business



Initiatives in the Environmental Domain

- Creation of New Business**
- Promotion of green chemical materials
- Growth of Existing Products**
- Strategic investment in refrigeration lubricant raw materials
 - Increase market share (60% in 2017* → 75% in 2030)
 - Response to next-generation refrigerant
- * Estimate of the Company

Initiatives in the Healthcare Domain

- Creation of New Business**
- Expansion of our product line for personal care and detergent markets.
- Growth of Existing Products**
- Strategic investment in cosmetic ingredients

Initiatives in the Electronics Domain

- Creation of New Business**
- New development of materials relating to mobility (for sensors and lenses)
- Growth of Existing Products**
- Strategic investment in materials for displays and semiconductors

Value Creation Story

We will drive Sustainable Management and realize a brighter tomorrow for society through the power of chemistry.

Through our business, we will contribute to a sustainable world by providing value, on the basis of "safe, secure, and trustworthy," for realizing an environmentally friendly society and richer lives for people, while also ensuring ongoing growth in our own corporate value.



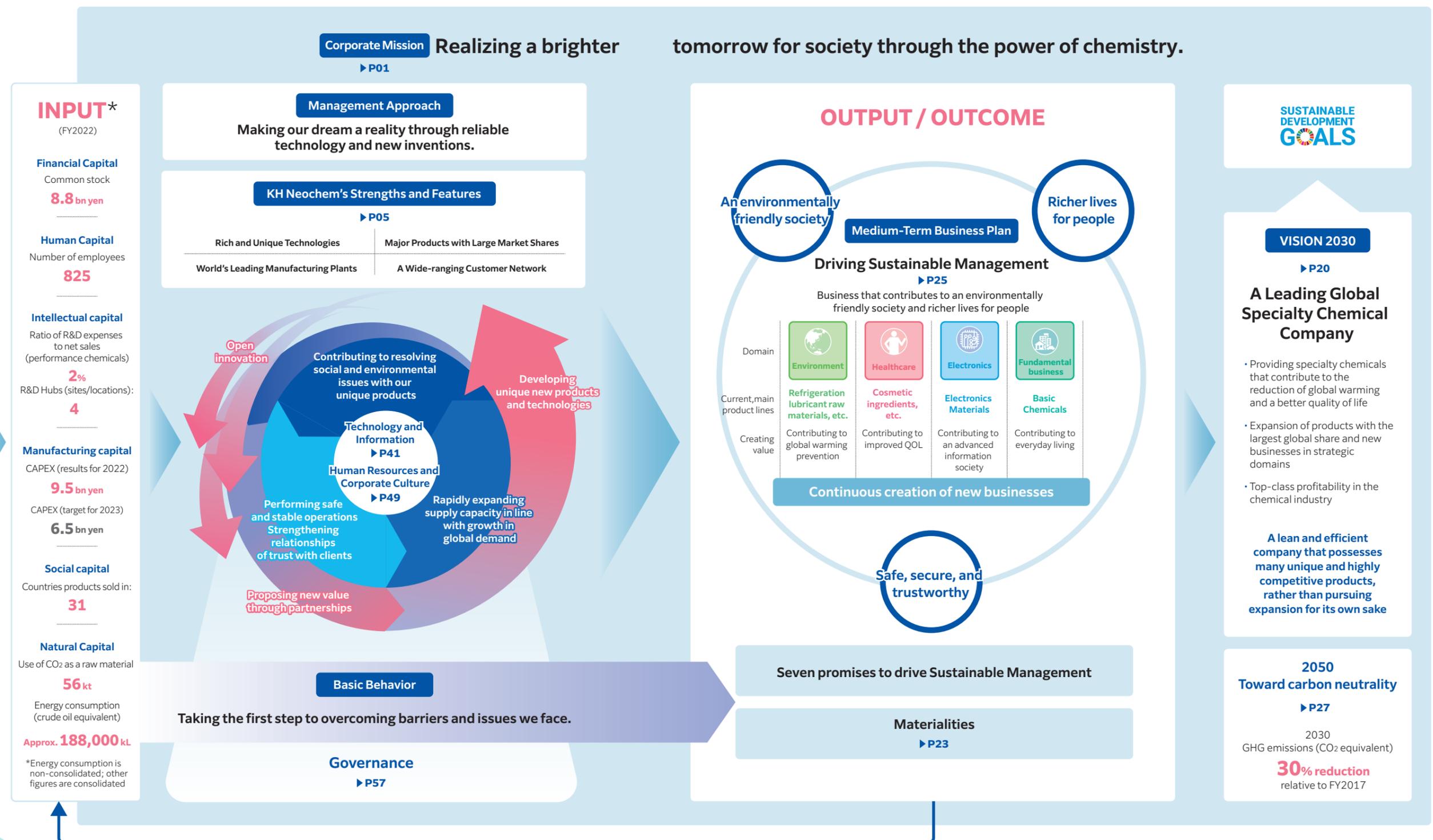
Then and Now

Sustainable Value Creation

Drivers for Value Creation

Improvement of Business Framework

Data Section



Materiality Identification Process and Progress Report

From 2020, discussions were held among the relevant executives, including full-time directors, to develop our value creation story, and this was approved by the Board of Directors in 2021, together with our materialities and KPIs during the period of the 4th Medium-Term Business Plan. We will use these materialities and KPIs as a platform for enhancing constructive dialogue with our stakeholders.

The Identification Process



Seven Promises and Materialities

Seven Promises	Materialities
1 We will develop businesses that help resolve social issues.	<ul style="list-style-type: none"> 1 Expansion of social problem solving businesses centered on strategic domains 2 Promotion of innovation 3 Strengthening of intellectual property strategies to strengthen the foundation for growth
2 We will conduct business conscious of reducing our impact on the environment.	<ul style="list-style-type: none"> 4 Improvement of energy efficiency and reduction and management of CO₂ and other emissions 5 Proper management of chemical substances
3 We will strive to secure trust through safe and stable operations.	<ul style="list-style-type: none"> 6 Safety and disaster prevention at plants with consideration of the local region 7 Responsible and stable supply to customers
4 We will practice management transparency with high ethical standards.	<ul style="list-style-type: none"> 8 Strengthening of corporate governance and risk management 9 Compliance 10 Transparent and responsible communication with stakeholders
5 We will provide a lively work environment that motivates and rewards diverse human resources.	<ul style="list-style-type: none"> 11 Health and safety of employees 12 Human resource development and recruitment to support Sustainable Management 13 Improvement of employee engagement and creation of comfortable workplaces to improve productivity
6 We will promote responsible supply chain management.	<ul style="list-style-type: none"> 14 Promotion of Corporate Social Responsibility (CSR) procurement
7 We will strengthen our earning power.	<ul style="list-style-type: none"> 15 Optimization of business portfolio for stable profit generation 16 Pursuit of higher productivity and efficiency at plants

List of KPIs

	KPIs for each materiality	Targets for 2024	Progress in 2022	Main relevant pages
1	Rate of increase in sales volume of refrigeration lubricants raw materials (compared to 2021)	Over 17% increase	17% decrease	P33,35-36
2,3	Number of collaborations with external organizations in research and development	Over 10 per year	13	P27,45-48
4	Greenhouse Gas (GHG) emissions (CO ₂ equivalent)	30% reduction relative to FY2017 (Target for 2030)	20% decrease*	P14,27,72
4	Energy intensity	1% or more improvement per year	12.4% deterioration*	P14,72
5	Volume of final landfill disposal of industrial waste	1% or less of waste generated	0.2%*	P14,72
6	Systematic introduction of Smart Industrial Safety	Implementation as planned	Introduction of tablets for maintenance patrols	P41-44
7	Production plan achievement status	Implementation as planned	Not achieved due to a significant decrease in production	P41-44
8	Identification of important risks by using risk maps and implementation of countermeasures	Implementation as planned	Formulation of countermeasure plans for important risks	P65
9	Number of compliance education and training sessions at all sites	Over 5 times per year	5 times	P68
10	Number of dialogues with investors	Over 220 times per year	199 times	P74
11	Number of employee accidents resulting in lost workdays	0	1	P69-71
12	Ratio of female employees in managerial career track positions	Over 15%	13.2%	P14,51-52
12	Rate of recruited personnel leaving work (in less than 3 years)	Less than 10%	12.6%	P51-52
13	Engagement survey score	10% or more improvement	3.11	P52
13	Rate of taking of annual paid leave	Over 80%	88.9%*	P52
14	Coverage ratio of Corporate Social Responsibility (CSR) questionnaire survey of main raw materials (based on purchase amount value)	Over 70%	Development of sustainable procurement guidelines	P75
15	Operating income of core products (performance materials + electronics materials)	Over 14.1 bn yen	10.8 bn JPY	P09-11,26
15	ROE	Over 15%	14%	P13,25
16	Improvement of productivity through introduction of advanced control systems	Introduced as planned and productivity increased	75% instead of the 80% introduction target for 2024	P43-44
16	Status of progress in DX related installations	Implementation as planned	Introduction of a predictive diagnosis system studied	P43-44

Note 1: Materiality No. 15 is consolidated, while No. 1 - 14 and 16 are not consolidated. Operating profits in results by business field and administrative expenses common to the Group are not allocated upon calculation.
 Note 2: Period covered: January 1, 2022 to December 31, 2022. For items marked solely with an asterisk (*), period covered: April 1, 2022 to March 31, 2023

Progress in the 4th Medium-Term Business Plan

To realize VISION 2030, the KH Neochem Group designated “Driving Sustainable Management” as the basic policy of its 4th Medium-Term Business Plan. We have set the following three basic strategies with the aim of further increasing our corporate value, and are implementing various measures.

Basic Policy

Driving Sustainable Management

Strategy I Further Growth in the Strategic Domains

In the strategic domains of Environment, Healthcare, and Electronics, we aim to both increase profits and contribute to solving social issues by expanding our facilities and shifting to high-growth, high-earning products to meet growing global demand.

Strategy II Medium and Long Term Initiatives to Resolve Social Issues

We will implement medium- and long-term initiatives aimed at achieving carbon neutrality by 2050, and at creating new businesses that will contribute to solving social issues.

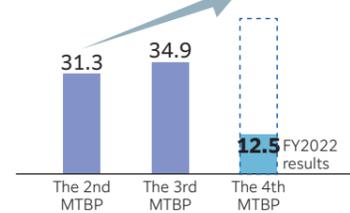
Strategy III Improvement of Business Framework

We will further consolidate the foundations of our business by steadily implementing various measures regarding the topics of “Technology and Information,” “Human Resources and Corporate Culture,” and “Governance,” which we have identified as the drivers for realizing VISION 2030.

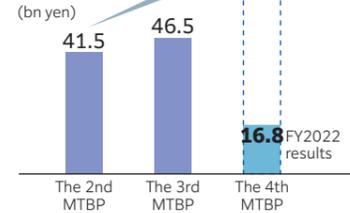
Numerical Management Targets

We have set cumulative operating income of 48.6 billion yen, cumulative EBITDA of 63.5 billion yen, and ROE of 15% or more over a three-year period as our numerical management targets.

Accumulated consolidated operating income (bn yen)



Accumulated consolidated EBITDA (bn yen)



ROE

The 4th Medium-term Business Plan (FY2022 to 2024)	FY2022 results
Over 15%	14%

Overview of FY2022

FY2022 was the first year of the 4th Medium-Term Business Plan. In addition to proceeding as planned with construction work to increase production of refrigeration lubricant raw material, which is a core product, we laid the foundation for medium- to long-term growth via steps such as deciding to invest in start-up companies for the first time.

On the other hand, our initial assumptions were significantly altered by factors in the business environment such as soaring raw material and fuel prices and logistics costs due to the prolonged situation in Ukraine, concerns about economic slowdown due to sluggish economic growth in China and monetary

tightening in Europe and the United States, and the impact of a reduction in automobile production due to a shortage of semiconductors.

Under those circumstances, we achieved an operating income of 12.5 billion yen and EBITDA of 16.8 billion yen.

Radical changes in the business environment are forecast going forward, and we recognize the need for a more flexible response in our business activities. While adhering to the basic strategies of the 4th Medium-Term Management Plan, we will continue to improve our competitiveness by revising individual measures as and when needed.

Strategy I

Further Growth in the Strategic Domains

Environmental Domain

Steadily capturing expanding demand for refrigeration lubricant raw materials

Related materialities 1 7 15

In addition to global refrigerant regulations accelerating the shift to environmentally friendly air conditioners that use low GWP* refrigerants with lower environmental impact, demand for refrigeration lubricant raw materials is rising as air conditioners become increasingly popular in emerging nations such as India.

Accordingly, we are strengthening our production system to ensure that we can capture the growing demand for refrigeration lubricant raw materials. We are moving forward with a project at our Chiba Plant to increase production capacity for isononanoic acid, a refrigeration lubricant raw material, to more than 1.5 times the current level. Construction work is scheduled for completion in the summer of 2024.

*GWP: Global Warming Potential is a numerical value that indicates the greenhouse effect of refrigerants, taking carbon dioxide as 1.



Healthcare Domain

Expanding our lineup through open innovation

Related materialities 1 7 15

In the cosmetic ingredients field, demand became weak due to the impact of China's zero COVID-19 policy, but over the medium to long term, the cosmetics market is expected to expand due to population growth and rising income levels in Southeast Asian countries.

Joint research with a startup we invested in FY2022 is moving forward. In addition, via collaborations with universities, research facilities and other companies, we will also engage proactively in open innovation to further expand our lineup in the healthcare field, including the development of new higher alcohols that employ natural raw materials.



Electronics Domain

Responding to increasingly sophisticated customer needs

Related materialities 1 7 15

Although repercussions from emergency demand during the COVID-19 pandemic led to a deceleration in FY2022 of demand related to semiconductors and displays, which are the main areas of use, the semiconductor market is expected to expand due to the promotion of 5G, IoT, AI, and DX. We are enhancing our response to growing needs for quality via measures such as the new quality control building equipped with a world-class clean room established in March 2022. We are developing our supply infrastructure to ensure a stable supply of high-purity solvents for semiconductors by adding to our product tanks, and we aim for construction to be completed during 2023. In addition, our group company Kurogane Kasei Co., Ltd. is enhancing the capacity of its next-generation semiconductor materials facilities, with construction scheduled for completion in the first half of FY2024.



Quality Control Building, Yokkaichi Plant
Photo: Ena Mitsui (Kawasumi - Kobayashi Kenji Photograph Office)

Strategy II Medium-and Long-Term Initiatives to Resolve Social Issues

Enhancing our initiatives for carbon neutrality

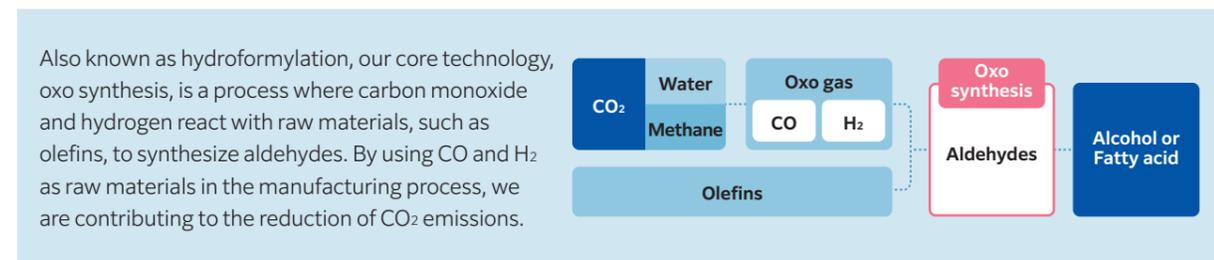
Related materiality 4

In order to improve energy efficiency, in FY2022 we expanded our introduction of advanced plant control systems and implemented initiatives in collaboration with partners such as industrial complex companies and local governments. Going forward, in addition to those initiatives, we will actively discuss steps such as switching from petroleum-derived raw materials,

introducing new production methods, and developing new energy-saving technologies.

As a milestone toward achieving carbon neutrality by 2050, we aim to reduce GHG emissions by 30% by 2030 relative to FY2017 levels. In FY2022, we reduced GHG emissions by 20% relative to FY2017 levels.

Item	State of initiative
Business	<ul style="list-style-type: none"> Contribute to reductions in GHG emissions by supplying refrigeration lubricant raw materials for low GWP refrigerants, a core product Consume CO₂ as a raw material for products
New technologies	<ul style="list-style-type: none"> Promote energy conservation by expanding the introduction of advanced plant control systems Promote energy conservation and switch to green raw materials by switching manufacturing methods
Innovation Corporate collaboration	<ul style="list-style-type: none"> Collaborate with industrial complex companies

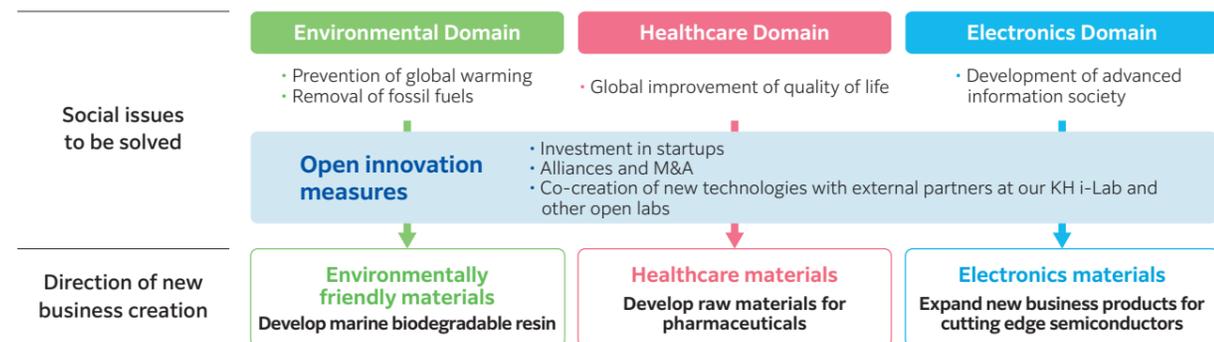


Quick creation of new businesses through open innovation

Related materiality 2

In our strategic domains, we are actively harnessing open innovation with the stated intent to contribute to solving social issues via our businesses. We engaged in 13 collaborations with external organizations in FY2022. We invested in the startups Ac-Planta, Inc. and GlyTech, Inc.,

and carried out joint research with universities on themes such as marine biodegradable polymers. We aim to create new businesses by promoting the use of natural materials and developing the high-performance materials necessary for the mobility revolution.



Strategy III Improvement of Business Framework

Technology and Information Improve productivity by utilizing latest and emerging technologies

Related materialities 3 16

Promotion of DX

In addition to the introduction of tablets at manufacturing sites in FY2022, we are promoting smart industrial safety using the latest technologies and have started studying the introduction of a predictive diagnosis system to detect failures in plant equipment in advance. By stationing people in charge of DX in all our divisions, we are also moving forward with initiatives for the company-wide use of digital technologies aimed at higher productivity. **Improvement of equipment reliability** In order to prevent process unit trouble and improve

equipment reliability, we will use risk assessment to prioritize preventive maintenance for each individual piece of equipment.

Strengthening of competitiveness through intellectual property

In addition to strategically promoting patent applications and patent infringement prevention, we will promote innovation and create new businesses through the development of a technology platform that makes our technologies visible and the analysis of patent information on useful technologies outside the company.

Human Resources and Corporate Culture Creating a corporate culture where diverse human resources can play active roles and maximize their performance

Related materialities 12 13

Strengthening of human resources and creating a corporate culture

We believe it is necessary to improve our expertise, speed, capacity for innovation, and network capabilities in order to achieve sustainable growth. We first introduced a "job-based" personnel system for managers, and then revised our personnel evaluation system in January 2023 and introduced a "job-based" personnel system for non-managerial position employees. We will implement fair and credible evaluations and incentives based on each individual's duties, role and performance.

The engagement score for FY2022 was 3.11, the same as for FY2021. Going forward, in addition to

implementing company-wide measures to improve engagement, we will endeavor to improve scores by taking into account the characteristics of each division and reforming their organizational structure.

Improving the Working Environment

In March 2022, we established the Kasumigaura Plant Office at our Yokkaichi Plant. It was designed to reflect the needs of the staff who work there, and was deliberately given a layout that enables them to work flexibly. It also incorporates open spaces and a cafeteria space, and provides a comfortable working environment which facilitates active communication. Going forward, we will renovate and reorganize our other workplaces as well.

Governance Strengthening corporate governance to enhance management transparency

Related materialities 8 10 14

Strengthening of risk management

We gathered and assessed each division's risks, added a company-wide perspective, and incorporated them into a risk map to identify material risks. We will improve the effectiveness of our governance by monitoring the status of measures against those material risks and submitting reports to the Board of Directors.

Promotion of CSR procurement

We formulated sustainable procurement guidelines designed to strengthen our supply chain management. We explained them to our main business partners who then gave their affirmation. Going forward, CSR questionnaire surveys will be held in due course.

Active dialogue with shareholders and investors

As a company listed on the Tokyo Stock Exchange Prime Market, and based on our high ethical standards, KH Neochem will actively engage in strengthening corporate governance and expanding disclosure, and will strive for management transparency. Initiatives in FY2022 included the establishment of the Sustainability Committee as an advisory body to the Board of Directors and disclosures in accordance with the TCFD. We will continue our efforts to strengthen our IR and SR activities, and will appropriately disclose information on our policies and strategies for medium- to long-term growth, as well as non-financial information, and enhance dialogue with our shareholders, investors, and other stakeholders.

Message from Masaya Hamamoto (CFO)

Based on our strong financial foundation, we will make effective investments for further growth and aim to secure a high level of ROE.

Masaya Hamamoto

Board Director and Senior Corporate Officer

Current responsibility: In charge of Accounting and Finance, Investor Relations, Public Relations, General Affairs, Legal and Compliance, Internal Audit, Risk Management, and Promotion of ESG



Review of 2022 and outlook for 2023

The consolidated operating income for FY2022, the first fiscal year of the 4th Medium-Term Business Plan, was 12.5 billion yen, down 37% year on year. A decline in the capacity utilization rate due to causes such as production facility problems was a major factor in the decrease in profits. If such problems could have been avoided, we estimate that operating income would have been close to the record high level of 19.7 billion yen in FY2021, so it was a year that, in operational terms, left us with regrets.

Although the market environment was favorable as far as the first half of the fiscal year, we inconvenienced our customers when we were unable to capture demand due to a significant decline in the capacity utilization rate from April to September as a result of the earthquake in March, a serious accident at a plant, and problems at our plants. Production normalized from October onwards, however demand for electronics materials and basic chemicals declined due to factors such as the slowdown in semiconductor-related demand and adjustments in automobile production. In addition, prices for energy such as LNG soared from around April, which depressed earnings in the second half of the fiscal year.

Nonetheless, despite the various troubles that occurred, operating income for FY2022 was at our second-highest level ever. I believe this is because, since our listing in 2016, we have steadily built up our earning power based on our strong financial foundation. On the financial front, while continuing to provide stable returns to shareholders, we have also worked hard to improve our financial position, for example by reducing interest-bearing debt to take our net D/E ratio from 0.3 to a level of less than 0.1, and having our long-term credit rating (R&I) upgraded from BBB+ to A-.

Although the external environment is expected to improve in FY2023, we will keep a close eye on factors such as the slowdown in global economic growth due to inflation, and economic trends in China where the real estate market is sluggish. We regret that our inability to

provide a stable supply of products had a major impact on many customers; we are working on “safe and stable operations,” one of our priority issues. In addition to tackling that, we will strive to improve profitability by appropriately reflecting in product prices the recent increases in energy prices, facility maintenance costs, and logistics costs while continuing our efforts to improve productivity and review costs.

Net sales and operating income (Unit: bn yen)

Net Sales		Operating Income	
2021	2022	2021	2022
117.1	114.9	19.7	12.5

Outlook for fiscal year ending in December 2023 (Unit: bn yen)

Net Sales	Operating Income	Net Income	EBITDA
118.4 Up 3% YoY	13.0 Up 4% YoY	8.9 Up 10% YoY	17.8 Up 6% YoY

Investment Policy and Capital Policy

Our products have a high market share in niche fields. Markets continue to expand, particularly for refrigeration lubricant raw materials, cosmetic ingredients and electronics materials, and sustainable growth is forecast on into the future. In order to meet this expanding demand, we will continue to make timely and effective investments to increase our production capacity so that we can take the lead in the markets. Although the costs of maintenance and renewal are increasing as our equipment ages, we will steadily invest for safe and stable operations, and allocate funds to improve the workplace environment so that employees can feel secure at work.

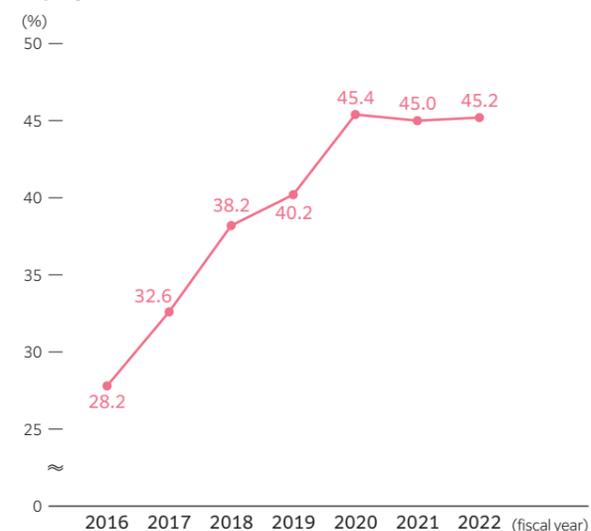
Furthermore, we will also invest funds in initiatives to discover and nurture new core businesses for the future. In addition to adding more depth to our existing

technologies and developing applications, we will actively take on challenges in new fields via open innovation. In 2022, we invested in startup companies for the first time and are moving forward with collaborative creation activities. I believe that we can achieve further growth and improve profitability by allocating cash generated from high profitability to growth investments, and that securing a high level of ROE will increase our corporate value.

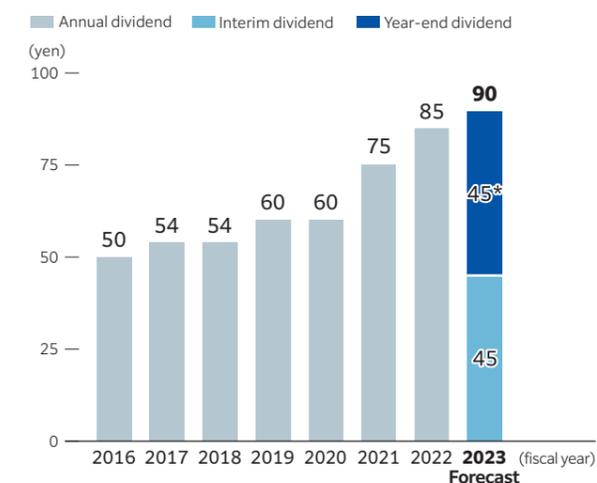
The FY2022 Evaluation of Effectiveness of the Board of Directors identified “strengthening monitoring of investment projects” as a priority issue. Up until now, investment projects above a certain amount have been implemented after the Investment Council composed of full-time directors and corporate officers has made rigorous decisions on investment profitability based on the cost of capital, and the committee has also verified investment performance after the fact, in accordance with the rules. From now on, however, for particularly important investment projects, we will enhance and establish management to carry out more agile reviews along changes in the environment after the investment project has been implemented.

With regard to shareholder returns, under the 4th Medium-Term Business Plan, we went one step further with our dividend policy “targeting a guideline payout ratio of 30%, with an 85-yen lower limit for dividend per share as per the FY2022 performance, and flexibly increasing shareholder returns as our financial foundation strengthens.” In line with this policy, the FY2023 dividend per share is forecast to be 90 yen, an increase for the third consecutive year. We will first strive to generate high returns and achieve further growth by steadily investing in growth businesses such as refrigeration lubricant raw materials. Once we have achieved that, also intend to increase shareholder returns.

Equity ratio



Dividend per share



*The year-end dividend for 2023 will be proposed to the general meeting of shareholders in March 2024.

To our stakeholders

I intend to communicate with our shareholders and investors so they can understand our vision and the path to achieving it. I also want to convey, as far as possible, the ideas behind our strategies. Ideally, this will enable them to predict “how KH Neochem will respond when there are changes in the environment” because they will understand our way of thinking.

During the COVID-19 pandemic, we had not been able to have sufficient contact with overseas investors and individual investors in Japan, and I believe that there are still many investors who do not know our company. While we continue to expand the information available on our website, I intend to create various opportunities for dialogue with as many stakeholders as possible so that they can learn more about us. In addition, we aim to increase our corporate value and raise the level of our market capitalization so that investors will continue to be interested in us as an investment target.

Around five years have passed since we announced VISION 2030 in November 2018 so we will soon reach the halfway point. I believe that we have entered the phase where we accelerate further growth by leveraging the business foundation we have built up. We will continue to value constructive dialogue with our stakeholders and strive to continuously improve our corporate value. We appreciate your continued understanding and support for our Group.

Message from Tatsuro Niiya

We will steadily implement sustainable management while identifying the trends of the new era.

Tatsuro Niiya

Board Director and Senior Corporate Officer

Current responsibility: In charge of Corporate Strategy, Marketing, Sales, Logistics, Procurement



Steadily promote measures with a view to medium- to long-term growth

The 4th Medium-Term Business Plan started in FY2022, but there have been significant changes in the external environment since the plan was formulated, such as the situation in Ukraine and global price increases. Furthermore, we had difficulties supplying products due to an accident at the Yokkaichi Plant where an employee fell during work from a high place, and also to the impact of issues such as equipment problems, inconveniencing our customers and leaving us with challenges regarding safe and stable operation. We will make a company-wide effort to prevent any recurrence, and strive to regain the trust of our stakeholders.

In FY2022, we reviewed product prices in response to the increase in all costs including those of raw materials, fuel, repair, and logistics. However, our performance was lower than expected due to factors such as unexpectedly high prices for LNG and other energy, and a drop in production due to equipment problems. Meanwhile, we were able to move forward steadily with measures in the 4th Medium-Term Business Plan targeting mid- to long-term growth.

We decided to expand the refrigeration lubrication raw material facilities at the Chiba Plant and started a construction project with the aim of launching operations in the summer of 2024. There are concerns about the impact on global warming of refrigerants used in air conditioning, and environmentally friendly air conditioners, which use refrigerants with less impact, are becoming more and more popular. KH Neochem boasts the world's largest market share in the refrigeration lubricant raw materials used in environmentally friendly air conditioners. The number of air conditioners sold worldwide is expected to have tripled in 2050. We are steadily capturing demand for refrigeration lubricant raw materials that will expand further in the future. Electric vehicles are becoming more and more popular in recent years. Their air conditioning works in the same way as air conditioners for home use, unlike the air conditioning in fossil fuel vehicles which utilizes waste heat from the engine. We believe that our

refrigeration lubricant raw materials will be used in EV air conditioners. In addition, boiler-type heating systems utilizing fossil fuels have been used in Europe up until now, but environmental policies have meant that heat pump equipment is starting to become popular. Our refrigeration lubricant raw material business is expected to see expanded demand in such new fields as well. I believe it truly is a business at the heart of sustainable management that helps to curb global warming and will also continuously boost our corporate value.

Our group company Kurogane Kasei Co., Ltd. decided on additional investment to make its facilities for next-generation semiconductor material, which came into operation in 2020, five times bigger. The facilities are scheduled for completion in the first half of FY2024. Kurogane Kasei is engaged in various contract manufacturing businesses related to electronics materials, in fields such as displays and semiconductors. Their technologies contribute to the production of photoresist materials in cutting-edge fields essential for boosting semiconductor quality. High-purity solvent, a major product in our electronics materials field, is also indispensable for semiconductor manufacturing, so it was decided to build more dedicated product tanks to establish an even more stable supply system. Construction is scheduled for completion in 2023, and we will fulfill our social responsibility of providing a stable supply of essential products. We will continue to gather the Group's technological capabilities and contribute to further increasing quality in the semiconductor field.

Our activities with regard to new business creation had been centered around Innovation Strategy and as part of such activities, we invested in two startup companies in 2022. Going forward, we will accelerate joint research and external collaborations with the aim of expanding our business scope.

Although the business environment for FY2023, the second year of the 4th Medium-Term Business Plan, is uncertain due to the impact of inflation in Europe and the United States, the situation in Ukraine, and the slump in the Chinese economy, we want to build a long-term win-win relationship with our customers by reminding

them of the value of our products, which are indispensable to society. This is something we have already been doing and we will continue with these sincere efforts.

In addition, with the aim of Driving Sustainable Management, which is the basic policy of the 4th Medium-Term Business Plan, we will strengthen our efforts under the newly-established Sustainability Committee so that we can respond to the demands of society and solve social issues in areas such as respect for human rights and carbon neutrality. To ensure stable supply, we will review our equipment maintenance strategy and focus on preventing problems before they occur. We will also consider the introduction of a predictive diagnosis system by using big data to detect signs of problems and carry out appropriate maintenance at an early stage.

Accelerating initiatives to create high value-added products under a streamlined organizational system

We promote business strategies from the perspectives of "What are our strengths?" and "How can we expand those strengths and diminish any shortcomings?"

Our strengths are based on the relationships of trust we have built up over the years through our dealings with our many customers, who include the leading companies in each industry. Furthermore, our products cannot be manufactured without specialized facilities and a wealth of expertise in how to manage and run them. Whilst the market scale may be deemed insufficient for major petrochemical companies, we believe that CAPEX is a heavy burden for small companies and a considerable barrier to their market entry. In partnerships with our customers, we have leveraged our technologies and expertise to create many refrigeration lubricant raw material, cosmetic ingredient and electronics material products, and have boosted our profitability in niche fields. Looking to the future, I believe it is important that we seek out "seeds" for our next high value-added products and increase our lineups.

Under these circumstances, we implemented a major organizational change in April 2023, consolidating the business strategy for existing products, sales, and R&D functions into Sales & Marketing. We have revised the systems that had been in operation in each department up until now, and have established a system that will enable us to carry out agile and streamlined marketing, development, sales, and investment strategy based on sales activities that involve a lot of contact with customers. I believe this will enable us to provide customers with solutions more smoothly.

Under the new organizational structure, employees will be involved in a wider range of tasks than before, and we will promote integrated management while encouraging the adoption of a company-wide perspective. People do not

change their mindset just because they have been told to do so. It does not happen unless they personally feel enthusiasm and love their work. I intend to create a work environment where employees will want to take up new challenges, and I will provide themes accordingly.

Furthermore, to boost employee motivation with regard to their work, I intend to increase opportunities for face-to-face communication since there were fewer chances to interact in person during the COVID-19 pandemic. For example, there will be opportunities for each employee to think about our company's reason for being and gain an objective understanding of the importance and social value of our products.

Implementing new initiatives to further strengthen our competitive advantage

In order to further boost our competitive advantage and realize VISION 2030, it is vital that we brush up the strengths of our existing products, create businesses in new fields, and expand our business operations.

With the aim of creating new businesses, we have started to develop products that utilize biotechnology, such as glycans and marine biodegradable plastics. Initiatives that are totally new to us as a petrochemical manufacturer have been set in motion, and we continue to challenge ourselves to think outside the box.

We see Mergers and Acquisitions (M&As) as another way to expand our business, and we are considering them not only for the new business creation themes we are currently working on, but also for existing businesses and peripheral fields where growth is expected.

We are also focusing on carbon neutrality, which is a major hurdle for the petrochemical industry. We will continue our efforts to reduce CO₂ emissions, but since there are limits to what we can do on our own, we will implement our initiatives while strengthening cooperation with local governments and companies in nearby industrial complexes. We will also contribute to global warming mitigation through our refrigeration lubricant raw materials business.

Meanwhile, some oil refineries have been shut down as a result of decreased demand for fossil fuels due to climate change issues. We perceive future-oriented raw material procurement as an important management issue that affects the competitiveness of our products. We will identify risks and formulate countermeasures, including Business Continuity Plan (BCP).

In order to realize VISION 2030, we will provide a stable supply of products that are indispensable to society while responding flexibly to changes in the environment. In addition, by providing solutions to various social issues using our distinctive technologies and know-how, we will contribute to achieving a sustainable society and strive to sustainably increase our corporate value.

Contributing to a sustainable society through our business

We will drive Sustainable Management with the aim of contributing to achieving a sustainable society through our business and further increasing our corporate value.

Based on a wide-ranging customer network that is our strength, we are contributing to the achievement of a sustainable society by accurately identifying needs related to solutions for environmental and social issues, and mobilizing rich and unique technologies, the world's leading manufacturing plants, and major products with large market shares, with a central focus on the three strategic domains of Environment, Healthcare and Electronics.

Environmental domain

Contributing to global warming prevention

Social issues

Global sales of air conditioners are expected to triple from the current figure by 2050. International refrigerant regulations designed to curb global warming are being advanced, and environmentally friendly air conditioners that utilize refrigerants with low global warming potential (GWP) must become more widely used. [Details ▶ P35](#)

The value we provide

As a leading manufacturer of refrigeration lubricant raw materials, we are increasing our production capacity for refrigeration lubricant raw materials that are compatible with low GWP refrigerants in order to meet the growing demand for environmentally friendly air conditioners. The expansion work at the Chiba Plant is scheduled to be completed in the summer of 2024 (the expansion of the Yokkaichi Plant was completed in 2020). We will strive to contribute to the prevention of global warming by providing a stable supply of products made by fully leveraging our advanced technical capabilities.

Air conditioner market*1

■ Synthetic oils (For HFC/Low GWP refrigerants) ■ Mineral oil (For HCFC)
(Million units)

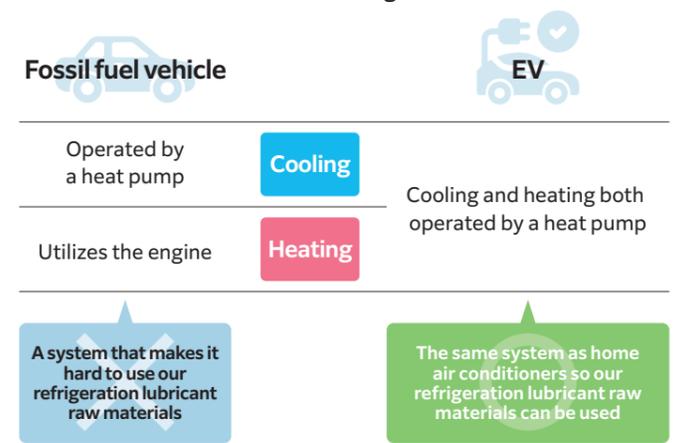


*1 Source: Company estimates based on JARN and International Energy Agency (IEA) (The Future of Cooling). Excl. car air conditioners
*2 Excl. Japan

New contributions born from environmental measures

Air conditioners installed in electric vehicles (EVs), which are becoming increasingly popular around the world, and heat pump-style hot-water supply heating systems, for which demand is rapidly increasing in Europe due to soaring energy prices and stance on reducing greenhouse gases, use the same system as home air conditioners. We will contribute to global warming mitigation by supplying refrigeration lubricant raw materials for these new applications, which are expected to expand significantly in the future.

The difference between air conditioning in fossil fuel vehicles and EVs



Healthcare domain

Contributing to improved QOL

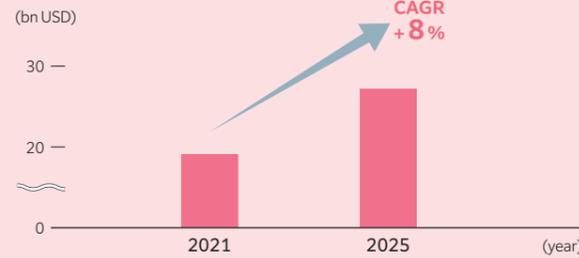
Social issues

While the need for beauty products declined temporarily due to the COVID-19 pandemic, medium- to long-term demand is expected to expand further hand-in-hand with the expansion of the middle class resulting from growth in emerging countries, particularly in Asia. We need to cater to diversifying consumer needs, such as consumers' growing preference for high-quality high-end products and the expansion of the male cosmetics market.

The value we provide

1,3-BG, our mainstay product in cosmetic ingredients, is used in a wide range of applications, mainly in high-end skincare products, due to its strong moisturizing properties and antibacterial properties, as well as its reduced odor and amount of skin irritation. We will also engage proactively in open innovation to expand our lineup in the healthcare field, and contribute to global improvement of quality of life and richer lives for people.

The Asian cosmetics market*



*Research estimates by the Company



Electronics domain

Contributing to an advanced information society

Social issues

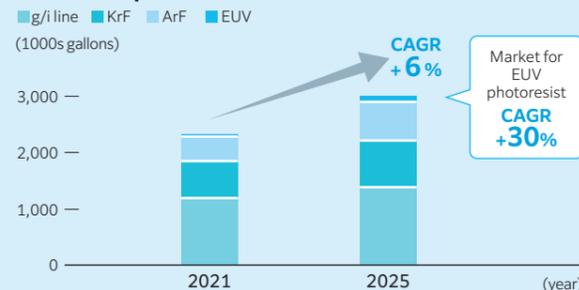
In recent years, production of cutting-edge semiconductors has been increasing both in Japan and overseas due to the need for cutting-edge semiconductors and the highly sensitive sensors used with them in the expanding fields of IoT technology, AI technology, self-driving vehicles, and telemedicine. The manufacture of advanced semiconductors requires high-quality chemical materials with very few impurities that can withstand miniaturization and integration, and sensors require high-tech resin materials for use in lenses and other applications.

The value we provide

We manufacture high-purity solvents containing extremely low volumes of impurities through a fusion of high purification (distillation) technology and high quality control technology. We provide them to a wide range of customers in the field of electronics materials as raw materials for items such as the photoresists that are essential in semiconductor manufacturing. Also, our group company Kurogane Kasei is engaged in various contract manufacturing businesses related to electronics materials, including in the field of cutting-edge semiconductors. These products and technologies help to boost photoresist quality and support the evolution of semiconductors.

In addition, we are moving forward with the development of high-tech resin materials utilizing the oxo technology that is our strength, and will contribute to increasing the sophistication of sensing technology.

The Global photoresist market*



Fuji Keizai, "2021 Overview of the Optical Functional Materials and Products Market."
* The values are forecasts



Quality Control Building, Yokkaichi Plant (Completed in March 2022)
Photo: Ena Mitsui (Kawasumi • Kobayashi Kenji Photograph Office)

Contributing to global warming mitigation through the supply of refrigeration lubricant raw materials

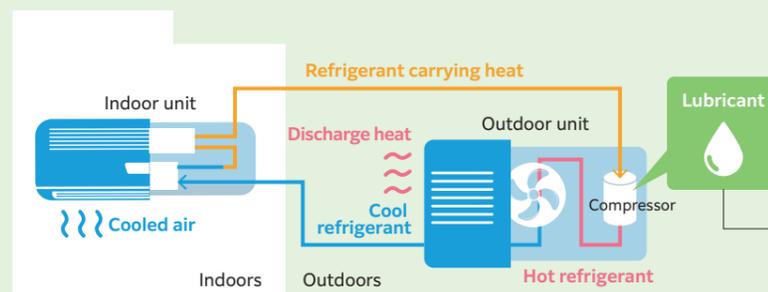
Functions of refrigeration lubricant

Air conditioners make rooms cool by taking in hot indoor air and moving the heat outside. Moving the heat to the outside is performed by a refrigerant, which functions by being compressed in a compressor inside an air conditioner's outdoor unit. The compressor needs a lubricant, specifically refrigeration lubricant raw materials to operate efficiently and smoothly, without breaking down over long-term usage.

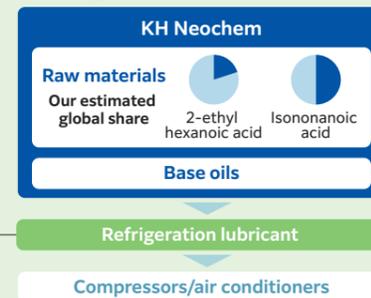
Various types of gases are used as refrigerants, and the type of refrigeration lubricant required depends on the type of refrigerant.

Currently, the shift toward environmentally friendly air conditioners is accelerating, and demand for refrigeration lubricant raw materials that are compatible with the refrigerants used in these air conditioners is also growing. KH Neochem holds the world's largest market share in the field of refrigeration lubricant raw material.

Air conditioner mechanism (for cooling operation)



Market position of KH Neochem



Transitions in refrigerants and refrigeration lubricants

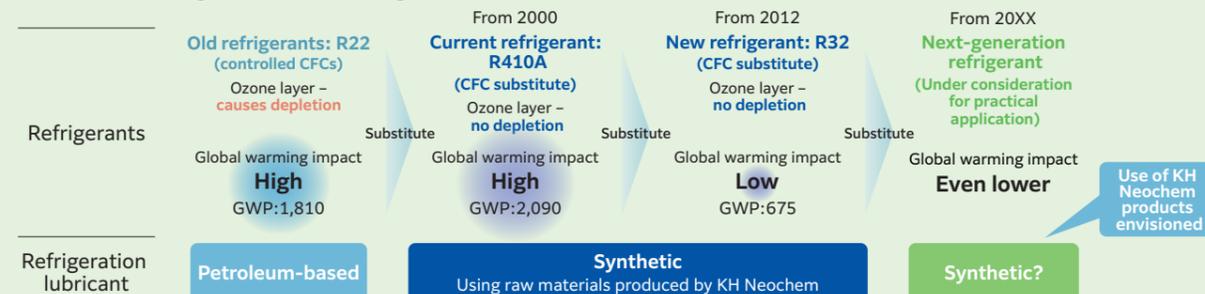
In the past, CFCs were used as refrigerants, but due to their contribution to the depletion of the ozone layer, the Montreal Protocol was adopted in 1987. This protocol stipulated regulatory measures such as the phased reduction and eventual elimination of controlled CFCs, and a shift to non-ozone-depleting CFC substitutes has been making rapid progress around the world since around 2000.

Since its adoption, the Montreal Protocol has been subject to occasional reviews. Under the 2016 Kigali Amendment, it was agreed to phase out refrigerants with high global warming potential (GWP) in order to

curb global warming. This move accelerated the shift to new refrigerants such as R32, an alternative CFC with low GWP.

In the future, it is expected that next-generation refrigerants with even lower global warming impact will be put to practical use, and we are conducting research on refrigeration lubricants compatible with next-generation refrigerants and looking into appropriate raw materials. We also envision that refrigeration lubricant made with our products can be applied to the most promising candidates for next-generation refrigerants.

Transitions in refrigerants and the refrigeration lubricant raw materials



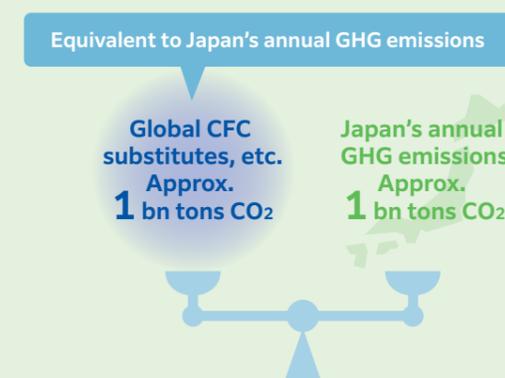
Demand for air conditioning, and refrigerant regulations

Reduction of GHG emissions from refrigerants

It is estimated that global greenhouse gas (GHG) emissions in 2019 amounted to approximately 57 billion tons of CO₂ equivalent, of which approximately 1 billion tons were caused by CFC substitutes. Of these, more than 90% were produced by HFCs, which are refrigerants used in air conditioners and other products.

A study by the International Energy Agency (IEA) estimates that the number of air conditioners owned worldwide in 2050 will be three times the current number, and if this trend continues, GHG emissions could increase significantly. As such, it is essential that we shift to environmentally friendly refrigerants with lower GWP, and international regulations on refrigerants have been gaining momentum in recent years. In specific terms, the Kigali Amendment to the Montreal Protocol and U.S. Environmental Protection Agency (EPA) regulations have established a phased reduction schedule for HFCs in developed and emerging countries.

Global annual GHG emissions of CFC substitutes, etc. (CO₂ Equivalent)



Source: Produced by KH Neochem based on "Trends in Global CO₂ and Total Greenhouse Gas Emissions," 2020 Report PBL Netherlands Environmental Assessment Agency

International refrigerant regulations (Kigali Amendment)

Under the Montreal Protocol, advanced nations were required to eliminate ozone layer-depleting controlled CFCs by 2020, while emerging nations are required to eliminate it by 2030. In addition, 18 CFC substitutes with high GWP were added to the list of controlled substances in the Kigali Amendment, which adopted a new proposal to make non-ozone-depleting CFC substitutes also subject to regulation under the Protocol, coming into effect in January 2019. A CO₂ equivalent value calculated by multiplying the quantity of CFC substitutes by their GWP

has been adopted as an indicator for their phasing out, and the average value of production, consumption, etc. from 2011 to 2013 will be used as the reference value^{*1}.

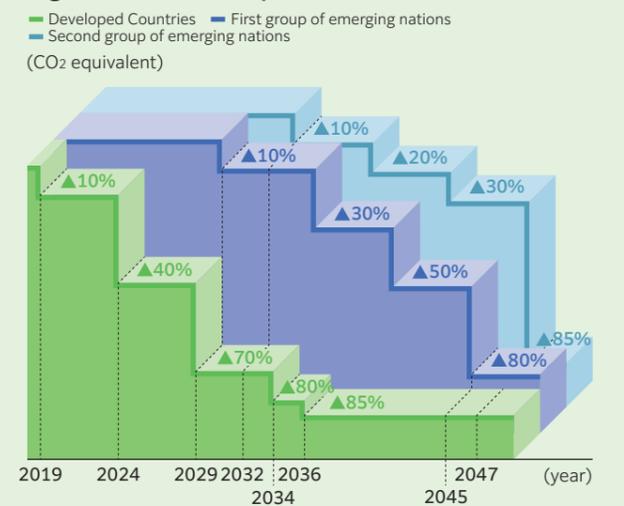
For advanced nations, including Japan,^{*2} a gradual reduction in CO₂ emissions from the standard values is required from 2019 to 2036, with the ultimate target of an 85% reduction by 2036. As a result, this regulation is expected to further raise demand for air conditioners that use low GWP refrigerants, such as R32.

Emerging nations^{*3} are obliged to reduce the CO₂ equivalent value by 10% of the standard value by 2029. The regulations become stricter in steps, ultimately reaching the requirement for an 80% reduction by 2045. In addition to the above, we expect further growth in demand for more environmentally friendly air conditioners as the economies of emerging countries strengthen and regulations against air conditioners with low energy efficiency come into effect in China.

As the global transition to low-GWP refrigerants continues, our raw materials are indispensable for the production of refrigeration lubricant that can support this transition, and as the leading company in the industry, we will continue to contribute to global warming mitigation by ensuring a stable supply of our products.

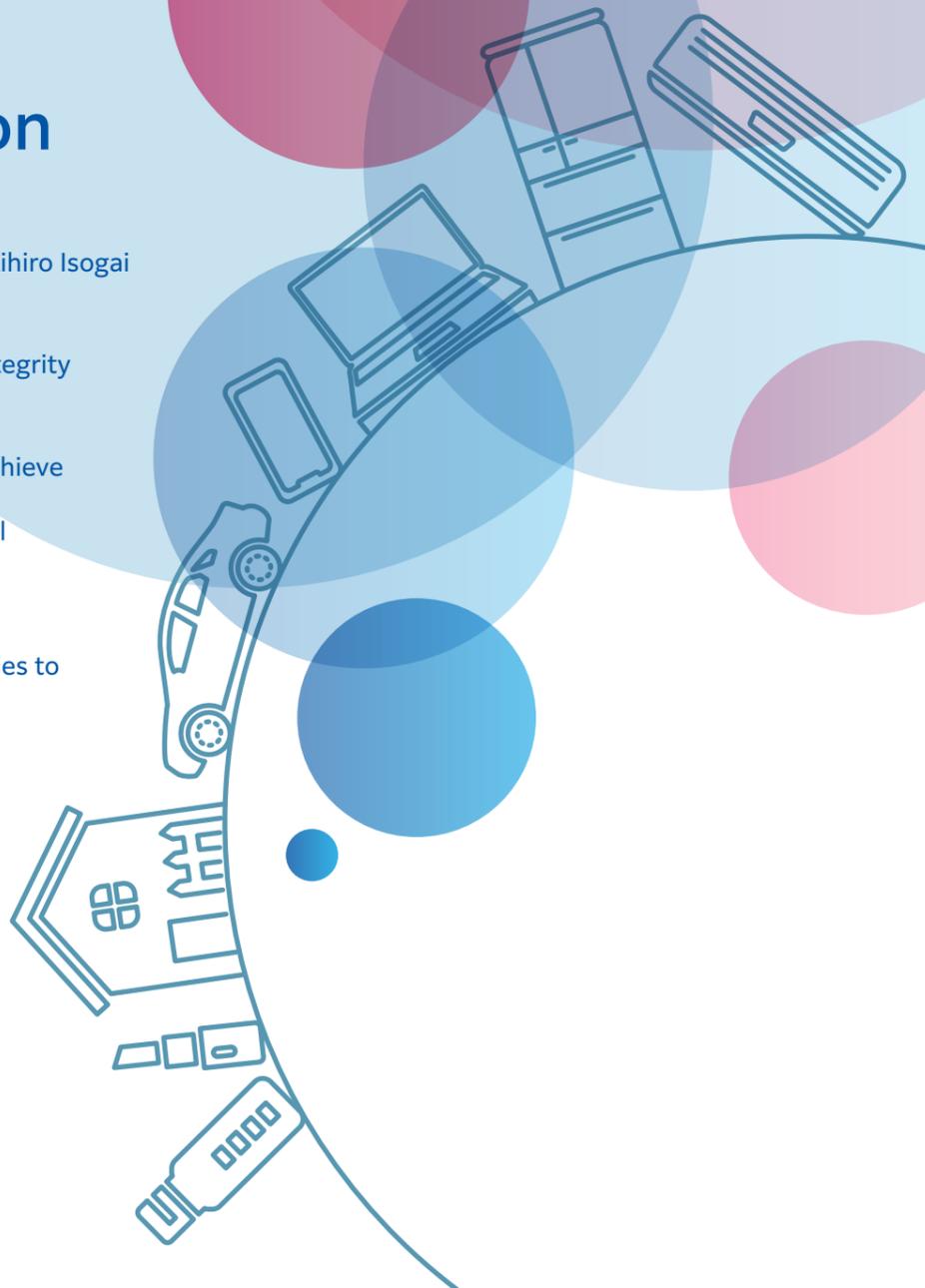
^{*1} For more details, please refer to the Montreal Protocol on Substances that Deplete the Ozone Layer on the website of the Ministry of Economy, Trade and Industry. (Japanese documents only) https://www.meti.go.jp/policy/chemical_management/ozonelaw/ozonelaws.html
^{*2} Regulatory measures differ in some advanced nations, such as Belarus and Russia.
^{*3} Refers to the first group of emerging countries. The standard value is calculated based on the average values for production and consumption of CFC substitutes from 2020 to 2022, among other data. The schedule is more gradual in the second group of emerging countries (India, Pakistan, Iran, Iraq, and the Gulf States) For more detail, please see ^{*1}.

Kigali amendment HFC phase-down schedule



Drivers for Value Creation

- 38 • “Cross×Talk” Discussions
Toshihiro Matsuoka × Yukihiro Isogai
- 41 • **Special Feature I**
Safety and Operations Integrity
- 45 • **Special Feature II**
Creating New Value to Achieve Sustainable Growth and Strengthening Intellectual Property Capabilities
- 49 • **Special Feature III**
Human Resource Strategies to Increase Corporate Value



“Cross × Talk” Discussions



<p>Toshihiro Matsuoka Board Director and Senior Corporate Officer Current responsibility: In charge of Production Planning and Engineering, and Environment, Safety, Quality Assurance, and Intellectual Property</p>		<p>Yukihiro Isogai Board Director and Senior Corporate Officer Current responsibility: In charge of HR, IT Strategy, R&D, and Information Security</p>
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Achieving VISION 2030: Challenges and Solutions

The two directors talked about current challenges and future strategies regarding the three themes being prioritized in order to achieve VISION 2030: “safe and stable operations,” “new business creation,” and “developing and strengthening human resources, and reforming our corporate culture.”

What are our initiatives to maintain and improve safe and stable operation?

Matsuoka I think the equipment trouble and occupational accidents last fiscal year made all our employees keenly aware that delivering our products to customers who need them is our raison d’être. Since we have many products with large market shares, our inability to deliver products meant that we greatly inconvenienced everyone in the supply chain last year. I’ve been in charge of Production Planning and Engineering since 2018, and for the past five years I have made stable operation a watchword, and focused on redesigning our equipment management technologies with the aim of dealing with issues before breakdowns occur. I invited external experts to review our operations and changed my conceptual approach. As a result, however, it was a huge shock that the measures I had prepared could not prevent what happened. Looking back on last year’s events, including the occurrence of a serious work-related accident, I was strongly reminded

that it is important to further reinforce the twin pillars of thoroughly ensuring safety and improving equipment reliability so that we can provide a stable supply of products to our customers.

Isogai When I was working in Yokkaichi, I remember that the system and rules for stable operation were clearly displayed onsite, and most of the employees were very diligent and serious. As a result, we set a new industry record for the longest accident-free period of operation (at that time). However, looking back at last year’s accident, I realized that although we were able to deal methodically with immediate dangers, we were left with a blind spot as we had overlooked the need to hypothesize and deal with future crises. And that’s why we must figure out the causes of problems and face up to them.

Matsuoka I agree. The accident confronted us with the reality that the measures and preparations we had put in place were inadequate. Thinking long and hard about what was lacking made me reflect on whether the actions and plans that put safety first really were becoming habitual, and whether we had used our imaginations, and I looked back at the accident again. In November 2022, we launched the Comprehensive Safety



Check Initiative 2022 (▶P41), a company-wide initiative to foster safety awareness in all workplaces and thoroughly ensure safety. On the equipment front, the inspection system established by RAISE (action to improve equipment reliability) (▶P44) is also taking root. **Isogai** The following applies not only to our company but to all chemical industrial complexes in Japan; new structures and systems need to be created to deal with the steady aging of equipment. As well as which, I think it's important for employees to have a mindset of striving for safe and stable operations. A mindset where each employee shares their ideas and comments, which are then sifted through and placed in order of priority. We need each employee to have a stance of proactively thinking about safety.

Matsuoka I agree that people really are important. One of the aims of the Comprehensive Safety Check Initiative 2022 is to be an opportunity for each employee to take a completely fresh look at common practices that have been regarded as good up until now, and to think independently about them. We're aiming to achieve a more advanced level of management at facilities by promoting measures such as smart security, so it's essential to flexibly adopt new ways of thinking. Rethinking safety and stable operation in tandem should boost the company's overall strength. The main focus is on our plants at the moment, but going forward I intend to spread this kind of mindset throughout the entire company.

Isogai From talking to people at the plants, I know they're thinking seriously about various things and looking for ways to put their ideas into practice.

Matsuoka Our plants are the source of our corporate value. As a management member, I intend to listen to the feedback from the plants and create opportunities to discuss things properly, face-to-face. We have once again received feedback from sales employees saying that they would like to explain to plant employees how our customers utilize the products they have made, and to tell them just how useful those products are to society at large, and just how important it is to provide a stable supply of them. We're actively preparing opportunities for each division and function to share their ideas and

opinions, and are making efforts to boost a sense of unity aimed at maintaining and improving safe and stable operations as a company.

What is necessary for our future growth?

Isogai I believe that two things are essential when we create new products and businesses from now on: human capital and intellectual capital. In 2016, at around the time we were listed on the stock exchange, a cross-divisional committee was established to create new businesses, and a series of discussions were held. The committee members of the day and the various people in charge made a tremendous effort but were unable to come up with a proposal for a detailed business model. At that time, I keenly felt the necessity of human capital and intellectual capital that were different from the existing versions, and the importance of management commitment, in order to create new business. Accordingly, since the start of the 3rd Medium-Term Business Plan in 2019, we have engaged with measures from a different angle.

First of all, we established open innovation hub KH i-Lab in an industry-academia exchange facility in Shin-Kawasaki. The idea was to aim for new business creation by providing an environment different from our corporate climate to date, and hopefully create beneficial synergies within the company as well. People with diverse approaches, skills and qualifications were gathered together at KH i-Lab, and a system that included the setting up of open laboratories was put in place to enable joint research with external entities as and when necessary. We are leveraging this environment that creates new tangible and intangible things that our company has not had before, seeking new arenas and scenarios where we can flourish, and moving forward with activities that might lead to proposals for detailed business models.

Matsuoka When we start working on something new, such as a new business or new product development, or when we change the status quo, I believe we need to introduce new trends, or new people who serve as guides, from outside the company rather than relying solely on internal capabilities. This is because interactions with people from outside can sometimes lead to professional growth for the people who have been there from the start, and further progress is made with innovations.

Isogai With regard to intellectual capital, we have been expanding our intellectual property, in particular, and strengthening its management and utilization. Up until now, one of the R&D departments had been in charge of intellectual property, but as of April 1, 2023 the newly-established separate Intellectual Property will be able to manage and monitor our intellectual property

from a company-wide perspective. From now on, I want intellectual property to be put to active use in relation to marketing strategies and new business concepts, for example, rather than simply to protect existing businesses. This is part of our efforts to create a system for that purpose.

Matsuoka Intellectual Property is now under my jurisdiction and I intend to maintain the legacy of that aspiration and make it function properly. I think that previously the company had an image of intellectual property as something managed by some of our specialist staff, but now we are starting to see divisions looking up patents with Intellectual Property and engaging in market research.

Of the over 25 billion yen we are aiming for under VISION 2030, we have set a target of 5 billion yen for new businesses and new products. I think that sufficiency in human capital and intellectual capital is proving successful in that progress. This time is different from before in that we have determined the direction we should take and can actually feel that we are making steady progress as we operate.

Isogai The most important issue now is the current situation where there is a strongly-rooted awareness within the company that “the creation of new businesses is the work of Innovation Strategy.” However brilliantly designed a business model is, it cannot be realized without the assistance of collaborators within the company. That is why, from now on, we need to increase the momentum for new business creation throughout the company, not just in Innovation Strategy, and to work together laterally across the company, rather than having a vertical approach to roles and functions.

Matsuoka Our production divisions have a track record of accepting proposals for new technologies and experimental equipment and then implementing tests and evaluations by incorporating them into plants that are in operation. We will continue to actively accept promising technologies and improvement suggestions. Our production sites thus also offer opportunities to incubate reforms, so I would like R&D staff to have confidence and submit proposals. I believe that more in-depth interactions at the onsite level will also accelerate company-wide trends.

What are the measures to develop and strengthen human resources throughout the company?

Isogai I think it is of course necessary to implement measures that take into account the characteristics of each division when it comes to developing and strengthening human resources. For example, the voice

of experience carries weight at a plant, so creating the same system there as one to develop innovative human resources will not work. I intend to create organizations and systems by thinking about what kind of people would be effective in what kind of environment.

Furthermore, human resources within the company possess a diversity of skills, so making those more visible is a challenge we must deal with going forward. I intend to establish a system to share information on human resources, such as employees' areas of expertise and skills.

Matsuoka I think such visualization would be relatively easier from the angle of technologies, so it would be good to start with that and then make more wide-ranging skills visible. We want to make it possible to create effective combinations of people and to allocate human resources according to purpose, don't we?

Isogai I believe we must accelerate the reformation of our corporate culture as well as the development and strengthening of our human resources. As I mentioned earlier, we need to reform our corporate climate so that management aspirations such as expanding our intellectual property and new business creation are spread amongst our non-managerial position employees as well.

Matsuoka The Comprehensive Safety Check Initiative 2022 is based on the same way of thinking. Instead of a corporate climate where employees say “That's for the company to think about,” or “The company will do that, won't it?,” we want to foster a climate where all employees have a sense of ownership, want to make improvements, and are willing to speak out. We want to be able to say that is our corporate climate, and our value, don't we?

Isogai It is a very difficult problem, but I think it's important to thoroughly promote communication, particularly between management and employees, including non-managerial position employees as well. Division heads and managers are in an intermediate position so their actions are also very important. We're launching various measures such as training programs for them to improve their workplace management skills. These measures are intended to deepen communication, which will boost employee engagement and also lead to the reformation of our organizational culture.



In 2022, a serious occupational incident and process unit trouble resulted in shaken confidence in our ability of stable products supply through safe and reliable operations. We take this very seriously, and are working together as a company to resolve issues from the standpoint of ensuring safe and stable operations.

Challenges	Measures
<ul style="list-style-type: none"> Preventing the recurrence of serious occupational incidents Improving reliability of aging plants Improving schedule control and maintenance work quality of turnaround Handing down skills and technology to new generations of employees 	<ul style="list-style-type: none"> Company-wide engagement in the Comprehensive Safety Check Initiative 2022 to ensure safety Reconstructing maintenance work plans to prevent process unit trouble through taskforce activity of RAISE (Reliability Improvement by Smart Engineering) Establishment of turnaround planning and execution guidelines, followed by the start of activities by turnaround planning teams at both plants based on these Promoting Smart Industrial Safety that actively utilizes cutting-edge technology

1 Safety Management

In April 2022, an employee fatality occurred, due to falling from a height during turnaround at the Yokkaichi Plant. To prevent the recurrence of serious incidents, we established the incident investigation committee to repeatedly investigate and discuss the cause and measures.

We have been taking initiatives such as responsible care activities to ensure safety. In 2008, Yokkaichi Plant set a new record in its industry for incident-free operation, and there had been no serious incidents since then, so it's possible that we took safety for granted,

leading to complacency, which is one of the possible causes we looked into in our exhaustive investigation. As a result, we decided to promote a change in awareness—that all employees should consider safety first, thoroughly implement measures to prevent the recurrence of falling incidents and perform safety checks of all operations. From November 2022, we have been engaged in the Comprehensive Safety Check Initiative 2022 company-wide.

Comprehensive Safety Check Initiative 2022

1 Establishment of Safety Guidelines, and revision of the Principles of Corporate Behavior, and their implementation

Added Safety Guidelines to the Corporate Policy, added safety matters to the Principles of Corporate Behavior and conducted discussions

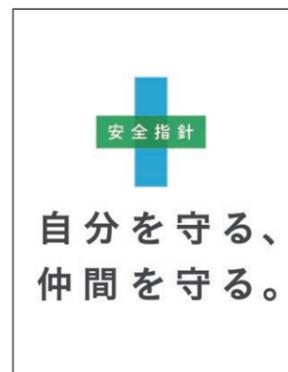
2 Understanding fall risk and executing measures

Employees shall always wear protective and fall prevention equipment, maintain rules and procedures, and participate in education and training

3 Comprehensive work safety check (identifying and executing measures for other high risks)



Safety patrol



Safety Guidelines Logo

1 Establishment of Safety Guidelines, and revision of the Principles of Corporate Behavior, and their implementation

In October 2022, we added “Protecting ourselves and our colleagues” to our Corporate Policy. Along with this, we also added new items to our Compliance Code and Environmental Safety Policy, and established Action Goals and Compliance Items to ensure that Safety Guidelines are put into practice.

We distributed a Safety Guidelines Card to all employees and executives. The card details Action Goals and Compliance Items to observe to ensure Safety Guidelines are put into practice. We also continue to conduct activities to raise awareness of these, such as

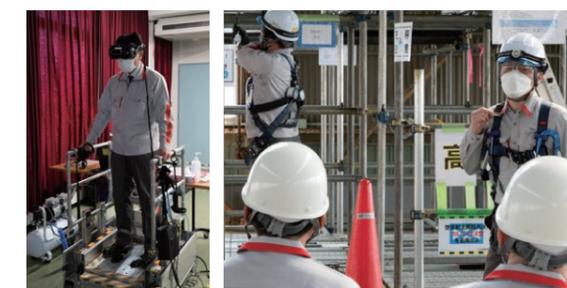
encouraging open dialogue with plant leadership, working to ensure the spread and establishment of safety awareness.



Safety Guidelines Card

2 Understanding fall risk and executing measures

As recurrence prevention measures directly related to the recent incident, we have implemented both tangible measures, such as adoption of protective and fall prevention equipment, and intangible measures, such as employee education and training, as well as the review and maintenance of rules and procedures. We are particularly focusing on education and training, striving to raise awareness of safety among our workers through VR equipment that simulates a fall incident and training about the correct use of full harnesses and other fall protection equipment.



VR education

Full harness training

3 Comprehensive work safety check (identifying and executing measures for other high risks)

In addition to measures to prevent falls, we identify risks in all work that might lead to fatality or serious injury, and implement comprehensive work safety checks to prioritize measures. In 2022, we first identified areas risk of falling, installed fall prevention equipment and made sure warning signs were displayed. Moving forward, we will continue to identify serious risks in all dangerous areas for all types of work, and implement the necessary measures.



Warnings related to fall risk are posted throughout the plant.

Safety Day Assembly

The day of the incident has been designated as Safety Day, so one year later, on April 4, 2023, we held an assembly at Yokkaichi Plant that was broadcast company-wide, complete with a safety patrol conducted by the President and CEO. At the assembly, the people in charge at the Yokkaichi Plant and Chiba Plant reported on Comprehensive Safety Check Initiative 2022 actions, and executives and employees

across various positions at our business sites shared their safety insights.



2 Stable Operations

Our distinctive products are produced by chemical reactions under high temperature and pressure conditions. Therefore, we operate a variety of facilities able to withstand such environments both day and night. Once every two years, we carry out the necessary checks and maintenance by stopping operations to carry out

large-scale turnaround maintenance. As domestic petrochemical plant complexes get older, there is increasing risk of equipment issues. At our company, we promote a variety of initiatives in light of this, including reconstructing our maintenance strategy to ensure safe and reliable operations.

Goals	Measures
Reduction of unplanned shut/slow down loss	<ul style="list-style-type: none"> • Reconstruction of equipment maintenance strategy • RAISE (Reliability Improvement by Smart Engineering) • Formulation of turnaround planning and execution guidelines
Economic and stable operation	<ul style="list-style-type: none"> • Promotion of DX via installation of advanced plant control systems, etc. • Promoting Smart Industrial Safety

Reconstruction of equipment maintenance strategy

The largest threat to stable operations is unplanned shut down or slow down loss due to sudden and serious process unit trouble. To prevent such trouble, we conduct preventative maintenance (time-based) based on past experience to determine the maintenance timing.

Simply investing money to prevent process unit trouble is not enough to solve such problems. So, in order to achieve more effective and efficient maintenance, instead of time-based maintenance, we conduct risk-based maintenance, where risk is analyzed based on

the probability of failure for each component of equipment, and the severity of the impact of process unit trouble should a component fail. We are also considering the introduction of predictive maintenance (condition-based), where we would detect signs of failure by using big data to monitor equipment condition, then plan and execute appropriate maintenance. Through such initiatives, we are working to eliminate sudden and serious process unit trouble.

Terminology of corrective, preventative and predictive maintenance

Terminology	Explanation
Breakdown maintenance	Reactive maintenance conducted after equipment functionally fails
Preventive maintenance (time-based)	Proactive maintenance conducted after a certain number of years, based on equipment life and empirical guidelines
Preventive maintenance (risk-based)	Proactive maintenance conducted based on risk when equipment fails
Predictive maintenance (condition-based)	Minimizing impact on production by detecting signs of process unit trouble through sensors and predictive diagnostic systems to conduct systematic maintenance

RAISE (Reliability Improvement by Smart Engineering)

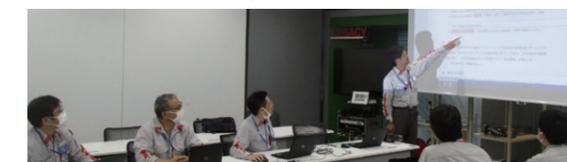
To ensure high-level operation and reliability at an appropriate cost, we determine the ideal state of operation management and facility management and maintenance to establish and operate new work processes. We call such processes RAISE. In order to comprehensively manage equipment reliability, we document equipment maintenance strategy to analyze

failure risks for individual components. We then plan maintenance work based on the analyzed risk, and improve reliability by conducting inspections, repairs and replacement at appropriate timing. Through repetition of the PDCA cycle, with major turnaround every two years as a single cycle, we improve maintenance effectivity.

Turnaround planning and execution guidelines

In order to maintain plants with safe and stable operations, turnaround is the most important opportunity to check, inspect, repair, replace, modify equipment, or install new facilities. Highly skilled project management, detailed planning and certain execution are all key to successfully completing turnaround. To ensure success, we established turnaround planning and execution guidelines, and started implementation. For both the Yokkaichi and Chiba plants, we formulated and implement basic turnaround plans that stipulate basic policy, planning and execution organization, work flow and milestones for the activities required, from turnaround planning to

execution and plant startup. A turnaround manager is assigned for each turnaround who manages plan progress, and implements measures to prevent schedule delays and lead overall action. They also make appropriate reports to Turnaround Steering Committee, which is chaired by plant manager, and requests the necessary decisions.



Turnaround Steering Committee

Advanced plant control system project

In order to produce a wide variety of chemical products, our plant is configured from multiple units where complex operating conditions such as temperature, pressure and flow rate must be constantly adjusted. These adjustments require a wealth of experience and a high level of expertise, and even external factors such as weather changes must be taken into account. Therefore, we are introducing advanced plant control systems to systematize and reproduce the skills of

skilled operators by harnessing AI and other cutting-edge technologies. Installing these systems will provide stable conditions adjustments that maximize profit while also allowing us to reduce CO₂ through efficient energy utilization. At the end of 2023, approximately 80% of plant control systems will be equipped with these systems, and as of the end of 2022, 70% were already equipped.

Smart Industrial Safety

We must implement safety activities while addressing issues such as shortages of human resources and the handing down of skills from one generation to another while also achieving stable and efficient operations. In order to do so, we promote Smart Industrial Safety, where we utilize advanced technology to manage operations and equipment.

As one measure to pass down skills to the next generation and improve efficiency, we promote tablet usage in order to digitize daily checks and operation management. We are going to expand the tablet use to

all manufacturing sections during the 4th Medium-Term Business Plan. We are also considering alternative inspection methods, such as using drones for working at height.



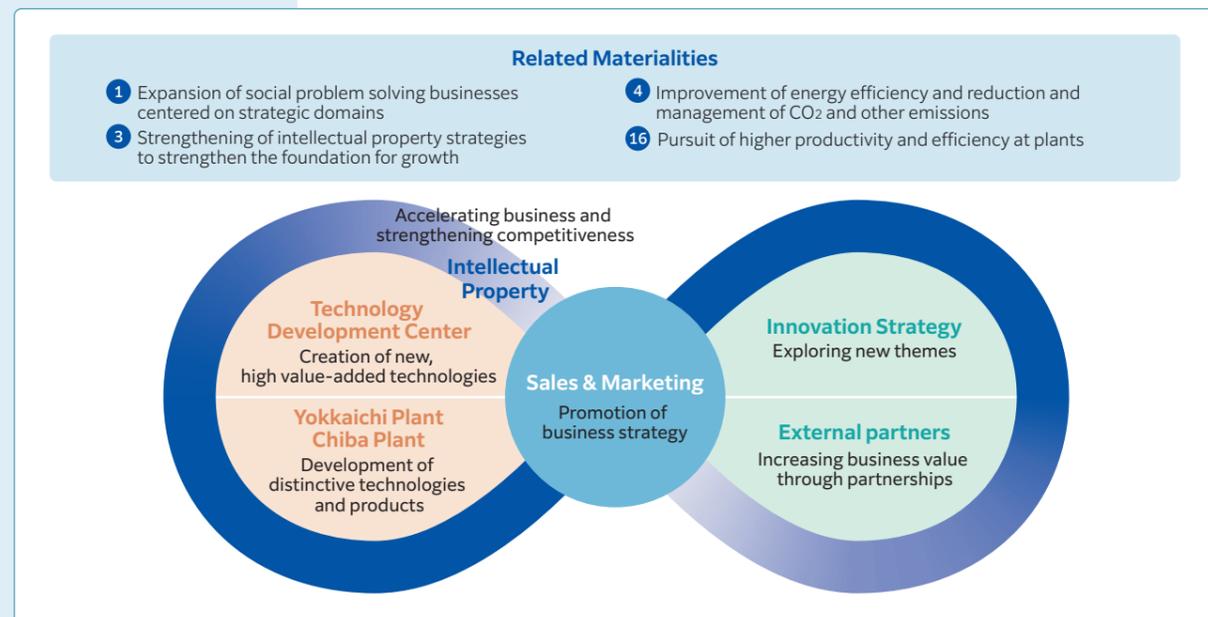
Daily checks using tablets



Concept image of drone inspection

Creating New Value to Achieve Sustainable Growth and Strengthening Intellectual Property Capabilities

Our innovation is embodied by our management stance, “Making our dream a reality through reliable technology and new inventions.” We will continue to focus on environmentally conscious methods, enriching peoples’ lives through our pursuit of technologies where we excel and acquiring new technologies created through external partnerships.



1 Creating value for the growth of existing businesses

We have built a relationship of trust with our customers by our agile provision of high value-added products in forms aligned with customer needs. While aiming to both respond to increasingly sophisticated customer needs and provide a safe and stable supply, we have produced distinctive products that have few competitors and honed our proprietary technologies. In order to leverage this relationship of trust and the proprietary technologies that are our strength to promote further growth and value creation, we changed our organizational structure in April 2023, clarifying the role of technical functions and strengthening intellectual property functions, and putting in place a system where they are integrated with Sales & Marketing as the hub.

Sales & Marketing handles product sales and service provision as the point of contact with customers, while also conducting comprehensive business strategy planning and promotion, such as marketing, new product development and investment planning. Sales & Marketing plays a central role in delineating the overarching business designs, based on which the products and technologies we release to society are created within the company. The Technology Development Center is responsible for establishing and improving upon manufacturing processes in coordinated efforts with the Yokkaichi and Chiba Plants. The Yokkaichi Plant Planning & Project Management Department and the Chiba Plant Production

Control Department promote manufacturing projects coordinated with manufacturing departments within plants, acting as the flag bearers of safe and stable manufacturing. They also work with Corporate Planning, Sales & Marketing, and Production Planning & Engineering to expand upon our investment strategy.

We are working to create value from the perspectives of sales and development in order to accelerate the commercialization of business ideas. More specifically, we appoint the managers for each product and theme (for that purpose) from Sales & Marketing and the Technology Development Center. The people in charge keep in close contact throughout their daily operations to ensure they are in alignment, and aim for existing business to grow.

Intellectual Property is responsible for the utilization and protection of intangible assets we have created, as well as for IP management. It is involved in all aspects of business, from implementing the necessary measures to achieve our overarching designs to making business proposals that fully utilize the IP landscape. In order to ensure intellectual property strategy planning is balanced with intellectual property enhancement activities in line with our business strategy, Intellectual Property has personnel stationed at the head office (where Sales & Marketing is located), and the Yokkaichi Plant (where the Technology Development Center and Yokkaichi Plant Planning & Project Management Department are located).

Strengthening competitiveness by utilizing and fully exploiting existing technologies

The seventh of our Seven Promises, listed on **P23** is “We will strengthen our earning power”. In line with this, we have set “Pursuit of higher productivity and efficiency at plants” as a materiality. Furthermore, pursuit of new technologies is essential in a dramatically changing external environment, with carbon neutrality

efforts and the reorganization of the domestic petrochemical industry vastly altering the landscape. In light of this, we are actively pushing ourselves to utilize and enhance our manufacturing technology, which is the source of our earning power, and thereby increase our technological competitiveness.

(1) Utilization of distinct manufacturing technology > Improving the added value of our technologies

We are one of very few manufacturers who possess extensive Wacker and oxo technologies. Our manufacturing technology enables us to harness these technologies to develop targeted derivatives from characteristic intermediates. We aim to increase the added value of our technology and strengthen our competitiveness by further exploiting this manufacturing technology in the development of new products.

(2) Strengthening evaluation technology for raw materials and catalysts > Contributing to stable supply

Our products are used by a broad range of people, but are manufactured by only a few companies across the world. To ensure a stable supply for such products, we must create an appropriate procurement strategy for raw materials and catalysts based on global circumstances and support their procurement with rapid and accurate evaluation technology for them. Such evaluation technology is also harnessed to improve productivity and efficiency, and to explore the introduction of new technologies.

(3) Full utilization of advanced refining and reaction technologies

> Responding to increasingly sophisticated and diversifying quality needs

We possess precision separation (distillation, extraction) and advanced low-metal management technology, and supply products that meet our customers’ diverse needs and expectations of high quality.

■ Case study: Further quality improvement for electronics materials and cosmetic ingredients

Our development of unprecedented analytical methods and adoption of new analytical equipment have allowed us to establish technology that identifies minute amounts of quality-diminishing impurities. Clarifying the formation and decomposition mechanisms of identified impurities enabled us to develop quality improvement processes such as low metal and low odor. In order to stimulate new ideas on a daily basis, we value exchanges with experts both inside and outside the company.



Kouji Kuramoto
Technology Development Center

(4) Expanding utilization of simulation and data technologies

> Productivity improvement, problem prevention and quick resolution

In addition to utilizing simulator technologies and plant data analysis technologies in order to increase production and quickly resolve on-site issues, we have started to use them for preventative measures as well. We are expanding our use of AI-based advanced plant control systems to realize safe and stable operations while also working to achieve carbon neutrality.

Rights acquisition for vital technologies and in-house tradition

Some of our most vital technologies include those that are open to the public and those that are highly confidential. We are actively working to obtain patent rights for applicable technologies that are open to the public. For highly confidential technologies, we work to appropriately manage information and carry on in-house tradition by reliably promoting the development of technology platforms.

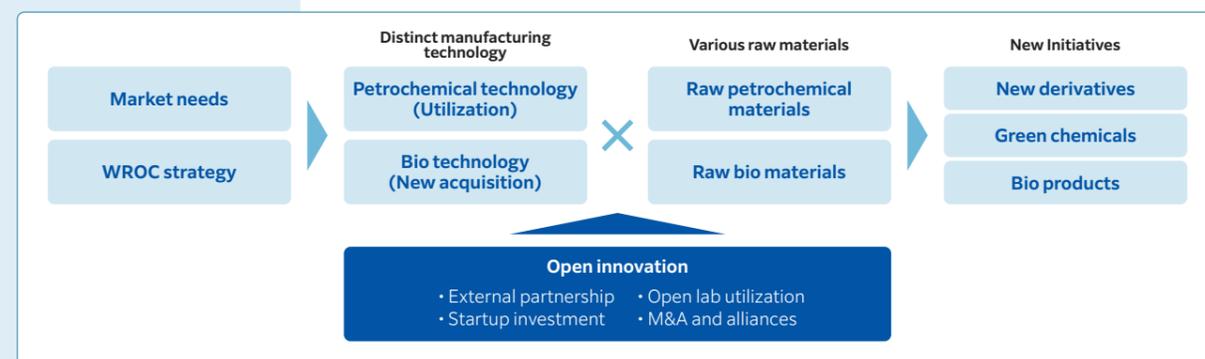
We hold many patent rights related to refrigeration lubricant among Japanese manufacturers of raw materials for the base oil*. Our deep understanding of our customers’ needs enables us to manufacture the optimal raw materials (isononanoic acid, etc.) for them.

*POE: polyolester

2 Creating new businesses and developing new products and technologies

As we work to realize VISION 2030, we have identified the strategic domains of environment, healthcare and electronics, and aim to create new businesses from a medium- to long-term perspective. We must leverage

our strengths to provide highly unique and competitive products that contribute to solving social issues and lead to sustainable growth for the company.



Cases where development leads to new business

We are harnessing the petrochemical manufacturing technology we have cultivated so far to create new derivatives with high added value from raw petrochemical materials, and are also working on green chemicals from raw bio materials. We are working to manufacture bio products that solve social issues such as

marine pollution from a global scale while also improving corporate value. There are many fields where we can employ our petrochemical manufacturing technology and apply it to our bio-based manufacturing technology, and we are focusing on this to create businesses that leverage this strength.

Development personnel working to create value

〈New derivatives〉 Electronics materials: Development of highly functional raw resin materials

We utilize our strength in oxo reactions and hydrogenation reactions to develop raw materials for high-performance resins.

Our proprietary developed alicyclic monomers possess low dielectric properties and low water absorption while also featuring improved heat resistance. These properties are in line with the increasing performance requirements for in-vehicle/smartphone cameras and 5G/6G communications. We expect these to be next-generation materials that solve customer issues, so we are currently verifying their feasibility for market release.



Takanori Sano
Sales & Marketing

〈Green chemicals〉 Development of natural high alcohols

We harness our high-pressure oxo technology to develop higher alcohols from naturally derived raw materials.

The higher alcohol currently under development has a high degree of biomass, and possesses functional characteristics such as being a liquid at room temperature and being easy to handle. These characteristics make it useful in a wide range of applications, such as in raw resin materials, inks/coating agents and lubricants. Through this development of unique materials, we will contribute to realizing a carbon-neutral society.



Hiroki Takahashi
Sales & Marketing

〈Bio products〉 Environmentally friendly materials: Development of marine biodegradable resin

We are developing resins that can be broken down by marine microorganisms, which helps address the global marine litter issue.

KH i-Lab conducted research in partnership with venture companies, harnessing the new technique of microbial fermentation to advance development. We continue to disseminate information at exhibitions and presentations and engage in sample evaluations as we work to strengthen our relationship with our customers, and have now reached the stage where it is time to build a new business.



Natsumi Koike
Innovation Strategy

Characteristics of activities exploring new themes

We changed our organizational structure in April 2023 to further accelerate the creation of new businesses. This involved consolidating searching for new themes within Innovation Strategy, then working in partnership with the newly established Intellectual Property. We target future social issues in our creation of new businesses, a stance that is characterized by our Wide Range Operation with Curiosity (WROC) strategy, which promotes exploration activities where experience and recognition are deepened by allowing individuals' curiosity to feed off each other and

multiply. One venue for such exploration is our hub for open innovation, KH i-Lab, which we are further enhancing to accelerate the construction of a network with companies in other industries and venture companies.

Sales & Marketing is primarily responsible for developing new products based on the oxo technology, we have cultivated so far. Here, we create new value by identifying social issues and customer needs from market contact points, such as in sales and marketing activities for existing products.

WROC strategy: research activities sparked by individual curiosity to generate new business



3 IP strategy

We believe it is vital to enhance and utilize intellectual capital in order to revitalize innovation. Intellectual Property manages intellectual capital from a company-wide perspective, and endeavors to further enhance and utilize this capital to revitalize our business over the medium- to long-term.

Enhancing IP

Cooperation between departments directly tied to our business is vital to revitalizing business. We are actively engaged in dialogue between related departments, and we are working to strengthen proactive activities through our 4th Medium-Term Business Plan based on the IP skills and technological understanding we have cultivated until now. In new business creation, for example, we work in collaboration with Innovation Strategy to perform technical verification, propose contracts and conduct negotiation from the perspective of building a business model; conduct research and analysis of markets and laws required to refine our business plans; and introduce new technologies that harness the IP landscape in consideration of where to invest, all while utilizing the technical know-how cultivated from existing businesses.

Traditional operations (defensive)

- Acquisition of rights for inventions
- Securing clearance from other companies' patents
- Searching for prior technologies etc.

Operations strengthened by the 4th Medium-Term Business Plan (proactive)

- Strengthening intellectual property to support business strategy
- Building business models and supporting contracts to promote collaborative creation
- Supporting business creation by harnessing the IP landscape etc.

IP governance system

The Company has established an Intellectual Property Policy and has established and operates the Intellectual Property Strategy Meeting to promote enhanced utilization of intellectual capital. The committee consists of an existing business submeeting and a new business submeeting, each of which meet monthly in principle and in which the relevant departments participate. The IP enhancement activities discussed and promoted by the meeting are reported to the Board of Directors by the board director in charge of intellectual property, and the Board of Directors is responsible for supervision of company-wide IP enhancement activities.



**Realizing VISION 2030:
Toward a strong corporate structure
resilient in the face of change**

Yukihiro Isogai
Board Director and Senior Corporate Officer
Current responsibility: In charge of HR,
IT Strategy, R&D, and Information Security



To rapidly respond to a constantly changing business environment, we created VISION 2030, which contains challenging objectives we are working to achieve, and developing human resources is a driving force in the achievement of these objectives. From a medium- to long-term perspective, we will further strengthen the connection between management strategy and human resource strategy, and driven by the belief that we must foster a corporate culture that empowers a diverse workforce and maximizes results, we are committed to implementing a variety of human resource policies and corporate culture reforms.

Among these, since 2020, we have been holding “personnel meetings” to discuss succession plans for division heads and other core positions. These meetings play a central role in human resource management, and symbolize a culture where Human Resources and other divisions proactively consider human resource strategies connected to their respective department issues. Since last year, executives and division leaders have taken the lead in facilitating discussions to strengthen the organizational functions of their respective departments, while also acquiring and training successors. For positions where there is a perceived insufficiency, we work to develop human resources internally while also bringing on human resources with knowledge and networks not already available within the company who possess diverse values and experiences. All of these endeavors are intended to ensure a merit-based approach to placing the right person in the right position. Furthermore, by focusing on

themes that require interdepartmental cooperation and coordination, such as rotation plans for developing future executive candidates, we feel we are fostering a culture that promotes discussion from a company-wide perspective. Moving forward, we are working to build a stable pipeline of human resources by continuing our efforts to hold personnel meetings while also making our plans more effective.

As we work to realize VISION 2030 and achieve sustainable growth for the future, we will further enhance our ability to take on new challenges, act promptly and further specialize our expertise company-wide, while also working to foster a corporate culture where results are maximized. As mentioned above, it is vital to continuously produce the next generation of professionals to take up the mantle of the organization in order to achieve these goals. In order to foster professional human resources with a deep understanding of their roles who are committed to producing results and act with future growth in mind, we launched a new personnel system in 2023. In this system, employees are rewarded for taking on challenges and working to achieve them, regardless of age, gender or time with the company.

As we head toward 2030, we are working to further develop systems and mechanics hardware, are engaged in a variety of measures to increase engagement, advance diversity and inclusion initiatives and reform work style, and are striving to create a strong corporate structure and culture that is resilient to change, which is essential to sustainable improvement of corporate value.



1 Strengthening human resource strategies to increase corporate value

Strengthening the human resources pipeline to support growth

In order to realize VISION 2030 and achieve sustainable growth even after that, we must develop and recruit human resources with the ability to systematically manage the company from a long-term perspective.

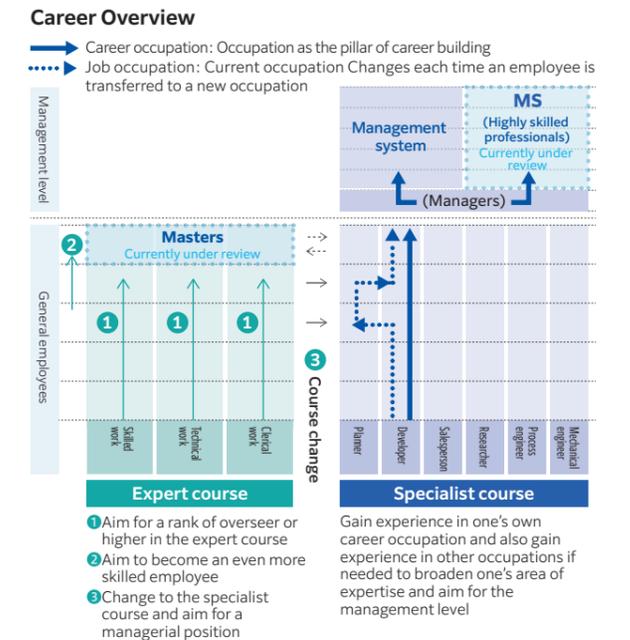
To this end, since 2020, we have been holding “personnel meetings” to discuss succession plans for division heads and other core positions. Since 2022, we have been performing gap analysis for human resources in consideration of the ideal state for each department to

facilitate the seamless acquisition of human resources for positions below the department head, and have begun considering the selection, training, and hiring of next-generation leaders and executive candidates. These efforts encourage a shift in mindset. Instead of choosing the most suitable person available at the time, we are working to cultivate the right person, promoting more capable human resources in line with management strategy.

Constructing a personnel system to cultivate professionals

In order to realize the challenging objectives set in VISION 2030, we will further enhance our ability to take on new challenges, act promptly and further specialize our expertise company-wide. Every employee must work proactively as a professional with a deep understanding of their role who is focused on producing results and is always conscious of their own growth.

With this in mind, we have created a job-type personnel system for general employees that was launched in 2023 in order to promote active engagement of employees and foster their aim to become professionals. Based on a concept of evaluation and compensation that rewards those who take on challenges, we determine compensation based on duties and roles, and through early selection of outstanding young personnel, we will establish a merit-based system that employees can have confidence in. Moving forward, we will continue to improve this system in order to support the growth of our employees as much as possible.



Human resource development that supports autonomous education and growth

We promote the development of various education and training programs to strengthen our human resources and ensure actively engaged development. With the introduction of our new personnel system in 2023, we switched from our previous system of training based on rank to a system that focuses mainly on elective training where each employee can choose their own training path for growth in order to promote autonomous employee initiative in developing the skills they need.

We also conduct selective training (graduate school programs, GLOBIS Management School, etc.) for

next-generation executive candidates to promote the development of human resources who will play a vital role in management.

Switching from rank and employment length-based programs to a system that promotes autonomous education and growth

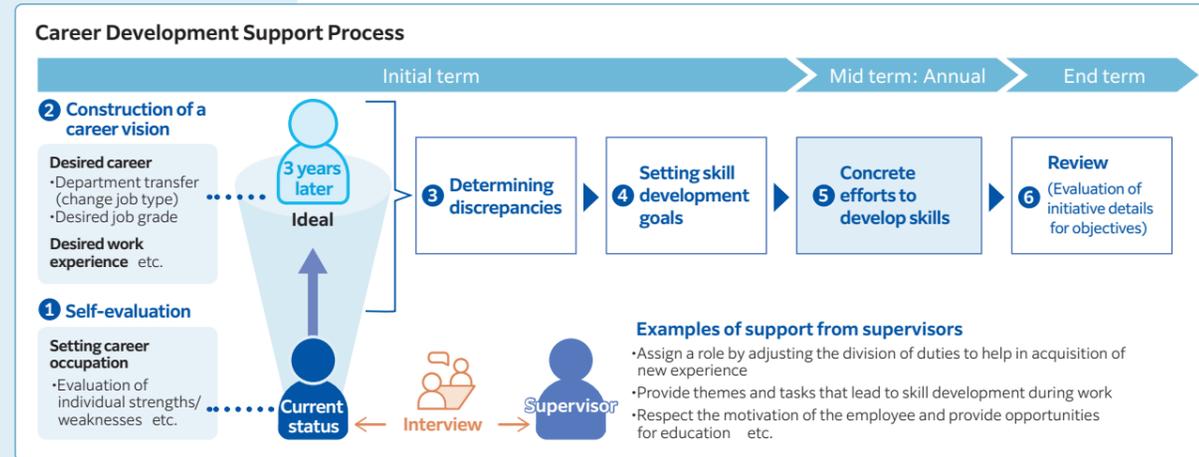
- Elective training that support autonomous career development
- Curriculum to facilitate the acquisition of necessary skills based on job standards
- Use of career development support (CDS) to share career development issues and plans between supervisors and their employees

Expanding career development support

In order to instill a sense of personal responsibility of one's own career and support employees to take on challenges and grow, we began implementing career development support (CDS).

This promotes employees taking a proactive role in skill development, specifically through regular interviews with supervisors where they are asked about their career goals, and discuss the roles and duties they

require experience in, or what skills will be needed to achieve those goals, helping them take the initiative in their own career development. Furthermore, this is linked to our evaluation system to foster more active involvement of supervisors and increase the effectiveness of support. These efforts support career development in line with the duties and characteristics unique to the individual employee.

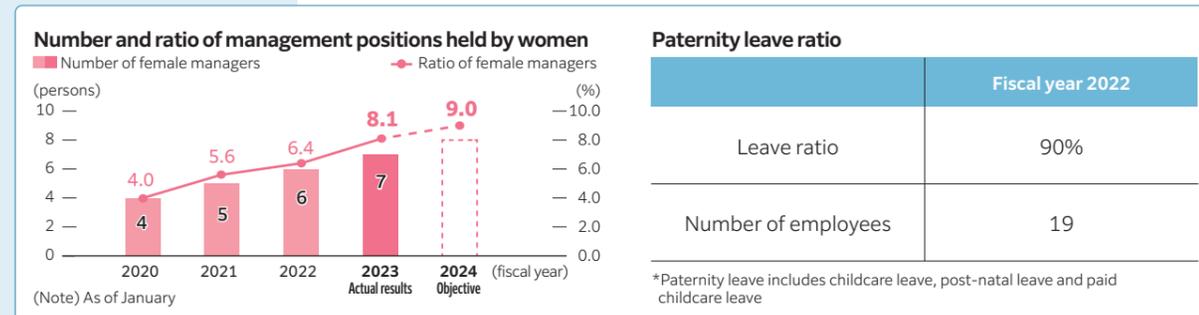


2 Cultivating a culture that respects diverse values

Promotion of diversity and inclusion

We implement a variety of initiatives that enable diverse human resources to play an active role, regardless of factors such as nationality, age or gender. These initiatives include the development of a work-life balance support system that goes above and beyond legal requirements to support employees who are raising children, and have expanded our childcare leave system to male employees based on the belief that encouraging men's participation in childcare will lead to greater participation by women throughout society. In FY2022, 19 male employees took leave to raise children or childcare leave, with an acquisition rate of 90% for those who sought such leave.

Furthermore, we focus on actively training and recruiting women managers and candidates in order to encourage the participation and advancement of female employees, and as of the end of January 2023, 8.1% of managerial positions were filled by women, and this ratio has steadily increased over recent years. Moving forward, we will continue to promote flexible work styles for different life stages and develop systems to support a balance between childcare and work in order to foster a corporate culture in which each and every employee recognizes each other's varied values, and where everyone can play an active role regardless of their gender or lifestyle.



Initiatives to increase engagement

We prioritize increasing engagement in order to promote energetic employees and a productive organization. In 2022, we conducted our fifth engagement survey. The company-wide score had trended upwards from 2018 when we first began implementing the survey, but has remained flat for the past three years. Looking at the breakdown, divisions that aggressively implement unique measures to increase team engagement beyond company-wide efforts score higher and show better results, though there are many divisions that scored poorly.

We believe this is greatly influenced by managers and their managerial style, so we are working to

increase engagement by developing measures that target management, such as interviews to discuss ideal management capabilities, skills training and evaluator workshops.



3 Creating workplaces where it is easy to work

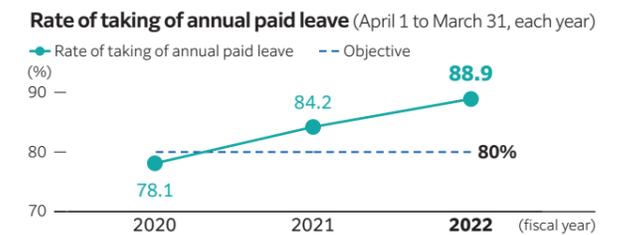
Promoting improved work-life balance

We introduced measures that demonstrate our respect for the work-life balance of all our employees, ensuring that diverse human resources can work autonomously and produce results.

We reviewed our rules in response to the COVID-19 pandemic, and even after COVID was downgraded to a common infectious disease (category 5), we continue to offer flextime and telecommuting systems without core hours that encourage flexible and autonomous work styles. At our plants, we have implemented a system that allows employees to work in a more balanced manner through initiatives such as being able to set days where

they will not work overtime.

We also regularly notify managers regarding the taking of paid leave and encourage discussion among members to promote systematic acquisition of leave.



Creating a safe and secure working environment

First and foremost, we actively work to create a workplace environment where employees can work safely and securely. However, we established new Safety Guidelines and added them to our Corporate Philosophy after reflecting on the serious work-related accident that occurred in the Yokkaichi Plant in FY2022, and have once again declared our stance on safety both inside and outside the company. One specific initiative we rolled out was the company-wide Comprehensive Safety Check Initiative 2022, where individual employees take the initiative in identifying dangerous areas in the workplace, discussing them among their colleagues and promoting activities for improvement.

We also focus on mental health by collaborating

with industrial physicians to promptly detect warning signs, and promote meetings between physicians and employees to ensure they can continue to work in prime physical and mental condition.

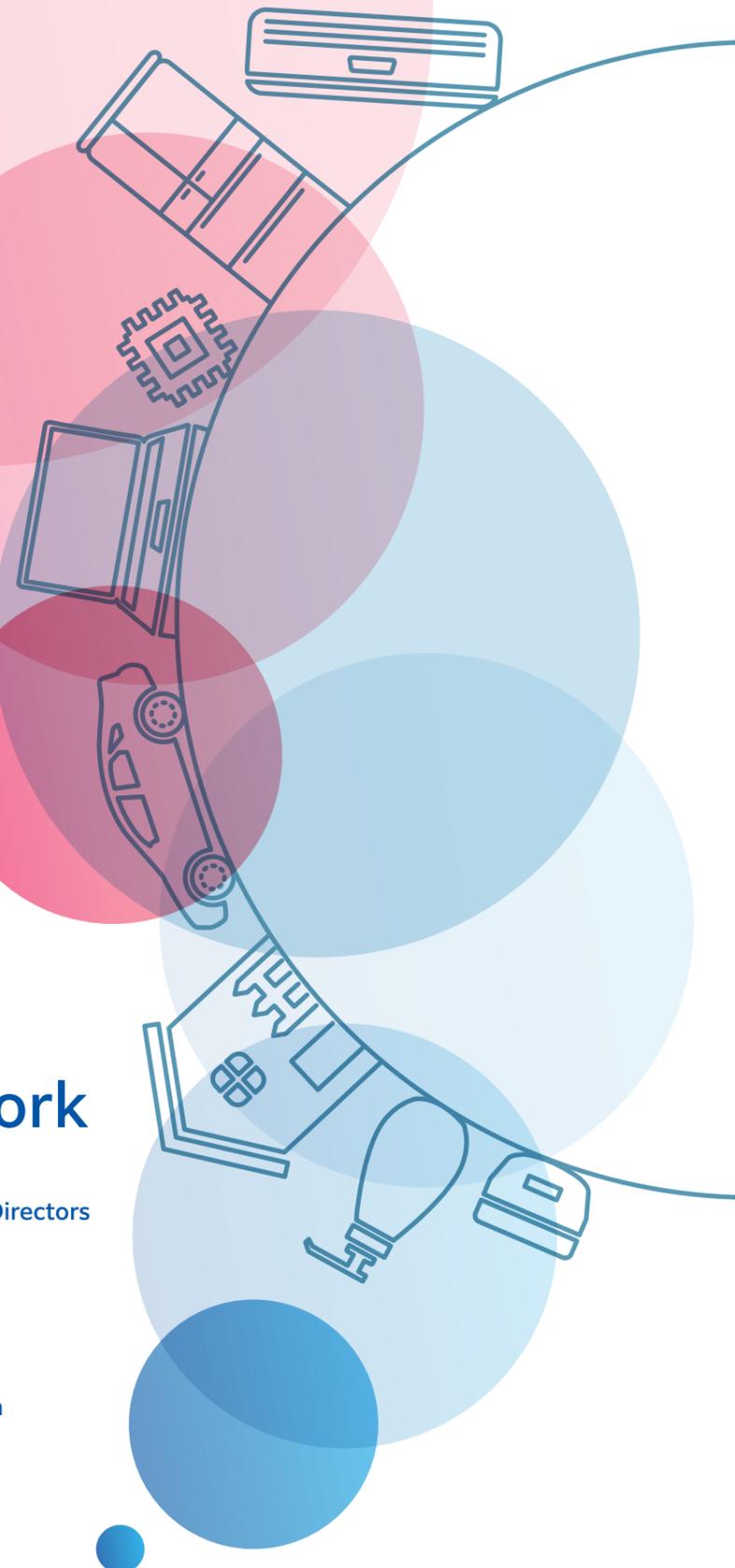
We are proceeding with the 2019 initiative to relocate our head office, and renovations for the office of the Yokkaichi Plant's Kasumigaura Plant which have been built in March 2022 as efforts to improve the workplace environment.



The office of the Yokkaichi Plant's Kasumigaura Plant
Photo: Ena Mitsui (Kawasumi-Kobayashi Kenji Photograph Office)

Improvement of Business Framework

- 54 ● Roundtable Discussion with Outside Directors
- 57 ● Corporate Governance
- 65 ● Risk Management
- 66 ● Climate-Related Disclosures Based on TCFD Recommendations
- 67 ● Compliance
- 69 ● Security, Safety, and Environmental Conservation Activities
- 73 ● Stakeholder Relations



Roundtable Discussion with Outside Directors

New Innovations from a Long-term Perspective for a Sustainable Future



Yuji Kikuchi
Independent Outside Director

Appointed in March 2020. Attorney. He has experience working for the Securities and Exchange Surveillance Commission and expertise in corporate law and corporate governance.

Jun Tsuchiya
Independent Outside Director

Appointed in March 2020. He has management know-how cultivated at global companies and advanced technical knowledge in the chemical industry.

Sayoko Miyairi
Independent Outside Director

Appointed in March 2019. Based on her work experience as an executive at a consulting firm and her extensive experience and insight as a university professor, she provides opinions and recommendations, especially for human resource development and ways to improve organizational culture and engagement.

Q1 Please tell us your assessments of KH Neochem's governance.

Kikuchi As a prerequisite for discussions at meetings of the Board of Directors, it is important for outside directors to be able to obtain information on the themes to be discussed in advance and, in that respect, information is provided very smoothly. Furthermore, information on important matters, and not just on reports to the Board of Directors, is being provided in a timely manner, and I believe that we are now in a situation where we can make appropriate decisions.

Tsuchiya I feel that the information provided to us is very organized. However, sometimes I think it's too organized. The environment is undergoing huge changes, and I think it is necessary to discuss a wide range of topics, including the future, while touching on information that cannot be organized.

Kikuchi When formulating the 4th Medium-Term Business Plan (hereafter referred to as the "4th MTBP"), the Board of Directors held exhaustive discussions while considering hypothetical business environments. However, discussion themes that return to management policies become rather difficult once the plan has come into action. I think it would be good if we could discuss this point in a little more depth.

Miyairi With regard to strengthening governance, I feel appropriate measures have been taken to address each issue as it arises, based on the results of the evaluation of effectiveness. However, I think it is necessary to discuss in more depth whether these measures are really leading to an improvement in effectiveness and also how to deal with new challenges.

On the other hand, interesting initiatives have also been launched. After the effectiveness evaluation for FY2021, as a way to further deepen discussions at the Board of Directors meetings, off-site meetings and social gatherings have been held since FY2022 as places where board members can converse informally. So far, a theme for discussion has been set each time and, because they take place separately from Board of Directors meetings, these occasions have become an opportunity to learn about the company from a new perspective, and to discuss our ideas and aspirations. I think this has resulted in more substantial discussions at the Board of Directors meetings. I hope this initiative will be continued.

Kikuchi Discussions inevitably tend to be formal at Board of Directors meetings, but the off-site meetings and social gatherings have fostered an atmosphere where people can talk informally, and I think they are a good opportunity to encounter unexpected facets of the board members.

Tsuchiya At the social gatherings, we have also started training sessions in which officers became lecturers on a rotating basis. I had the opportunity to talk about my business experience at a chemical company, and that gathering was also attended by employees, not just the members of the Board of Directors. We held frank conversations afterwards at a lunch meeting that included young employees, and further developments at a later date included a meeting to exchange opinions with the people in charge on a theme that went into more depth. This kind of thing is not common at other companies.

Miyairi I had the opportunity to talk about the theme "Creating an organizational environment and safety culture that leverages diversity." This initiative leverages external expertise and experience and reduces it to its components

Roundtable Discussion with Outside Directors



inside the company, and I think it is an excellent opportunity for outside directors like us. It is true to say that the company makes good use of outside directors.

Q2 What is your assessment of our progress with materialities and in the 4th MTBP?

Kikuchi The environment has changed significantly from the assumptions the company had when formulating the 4th MTBP, and the figures cannot be said to be according to plan. Nevertheless, I think they are steadily doing what they intended to do. For example, they have identified priority areas where they can leverage their strengths, such as refrigeration lubricant raw materials, and are steadily working toward future growth. I think that is very praiseworthy.

Miyairi It is true that, in terms of the figures, they are struggling. I think they need to pay close attention to internal factors as well as to whether they have been sufficiently responsive to changes in the environment and circumstances. When you set a new goal and try something new, unexpected distortions and problems often arise during the implementation process. Particularly after the 4th MTBP came into effect, they were late in responding to such changes, and there seem to be some areas where they did not fully achieve the expected results. It is necessary to also speedily adjust course in response to changes rather than just thoroughly implementing the original plan, isn't it?

Tsuchiya I agree that how they respond to changes is much more important than sticking meticulously to the original plan. Also, I feel that they should probably narrow down the KPIs even more. The company should identify the points on which to focus and adhere firmly to them.

Miyairi Another important thing is to think carefully about objectives. For example, disclosure of non-financial information is rapidly becoming a necessity, but unless they consider the context and meaning of that, and reach the point where they make use of it for their own benefit, they will simply be left feeling that it is something imposed upon them.

Tsuchiya That is certainly true. And what is more, they have to link it up with positive action. Recently, sustainability is expected of companies but I believe that

"visible sustainability" is necessary. If they do not visualize more specifically what they must do to achieve their goals, I do not think they will be motivated to work on it.

Miyairi Under VISION 2030, the company's policy is to strengthen the three strategic domains of the Environment, Healthcare and Electronics. However, I think they should start discussions on their portfolio now with an eye on the future beyond 2030.

Kikuchi "Selection and focus" are words often used about portfolios, but I do not think the company is in a position to have that discussion while also estimating the growth of existing businesses. The theory is to increase options, including new businesses and new products, and then select those expected to generate a profit. I feel that the company has made a start on that.

Tsuchiya However, innovations do not emerge easily in the chemicals industry. In my experience, in the chemicals industry it is "three in a thousand." In other words, innovative products are only put to practical use with a probability of 0.003. In my opinion, it is not "selection and focus" that are needed but "washing and cleaning."* That means reviewing existing ways of doing things and improving processes until innovation occurs. I believe it is important to devotedly "wash and clean" on a daily basis, and develop a competitive edge that is second to none.

Miyairi That's an interesting way to look at it. I assume it means that, in order to realize that "three in a thousand," rather than seeking a sudden breakthrough, it is also important to adopt a stance of giving it a try, and persist with existing businesses until the seeds that have been sown mature.

*This comment plays on the Japanese word "sentaku," a homonym that can mean "selection" or "washing."

Q3 What are your impressions of the sustainability initiatives?

Kikuchi Safe and stable operations were significantly impaired in FY2022 due to the repeated occurrence of production problems in addition to a serious accident at a plant. I think that the root cause of production problems is aging equipment. Although they have begun to work on strategic preventive maintenance, I think they have yet to see sufficient results.

Tsuchiya The issues related to safe and stable operations



have been a huge wake-up call for them. Mr. Kikuchi is right about aging equipment. Up until now, the value of chemical companies has been assessed in terms of technical aspects, such as whether they have developed new products or made better products. However, the aging of equipment is proceeding apace throughout the industry, and I think that safe and stable operation may become a value on which companies are assessed in the future. This is a differentiator that does not depend on technology. If employees regard safe and stable operation as not an obligation or restriction but a potential value for their company, it will probably motivate them to make efforts to that aim.

Miyairi I believe it is also necessary to invest in a paradigm shift from manual and visual control methods to forms of control that utilize advanced technologies such as AI. I think one way to ensure safe and stable operations is to evolve inspection methods, such as the smart industrial safety that they are currently promoting.

Kikuchi Human resources are also important when considering corporate sustainability. I think this is a theme that every company is struggling with. How to recruit and develop good human resources. I intend to firmly advocate this as a member of the Board of Directors.

Miyairi I agree. The concept of team innovation is also part of innovation. Just as the results of a relay race are affected by how the baton is passed, it is necessary to connect areas that are not connected and think more about how to win as a team. The activities of compliance leaders [▶P68](#) and initiatives to facilitate the advancement of female staff [▶P51](#) are a part of that. Deepening cooperation between people, such as between headquarters and plants, will help to prevent problems and reduce misunderstandings about information, and will make teams stronger. Sustainability is still an area where issues remain, but if they can do such things, there is a greater possibility of creating a corporate culture that is open to taking on new challenges, one where people are willing to try a new approach and give something a try.

Kikuchi There are jobs that can only be done by specialists, and there are also jobs that can be done by teams such as you just mentioned. I think it is important to increase the diversity of the organization by hiring human resources with various characteristics and strengths.

Tsuchiya I agree with the idea of creating innovation as a team. It is important to foster an organizational culture that respects diversity, where edgy human resources like me can play an active role.

Miyairi I agree. (She laughs) There are a lot of serious-minded people in the company, aren't there?

Q4 What are your expectations for KH Neochem going forward, and how do you see your own role in its future?

Kikuchi My role as a lawyer is to check from the inside



that there are no legal violations, and I will definitely continue to do this. As for what I expect from the company, I want it to be an exciting company. Performance material is one of the businesses that can be expected to grow in the future, but I think it is necessary to develop even more products and businesses that people inside the company and outside of it find very interesting. I think my most important role as an outside director is to encourage that.

Tsuchiya The world has a variety of indicators and ways of thinking, but I think it is better to think as simply as possible. To decide the key points of what is to be adhered to and what is a priority, and then thoroughly enforce those points. Studying is more effective when students gain a thorough understanding of a problem than when they simply plow through the hundred problems in a drill. I believe it is the former approach that will improve the company as a whole.

I think that job protection, for example, is a value that should be emphasized. In order to protect employment, the company must continue to operate safely without causing any accidents, and they must also develop new products to generate profits. Protecting employment is very beneficial not only for the company and its employees but for society as well, and everything leads on from that. This is just one example, but I think it is necessary to decide on such core values.

Miyairi I mentioned earlier that team innovation is also necessary in order to increase corporate value, and I think the connections between people are very important. If something happens, people can respond more quickly if they have a connection. If the company can construct strong networks amongst its people as in-house infrastructure and create a positive culture where employees are keen to try out initiatives they have learned about through such networks, I think the number of people working with enthusiasm will increase. I think it would be good to go even further and expand such networks outside the company as well, to stay abreast of what is going on. It is important to create an organization where everyone can play an active role and shine, and I would like to leverage my experience to that end.

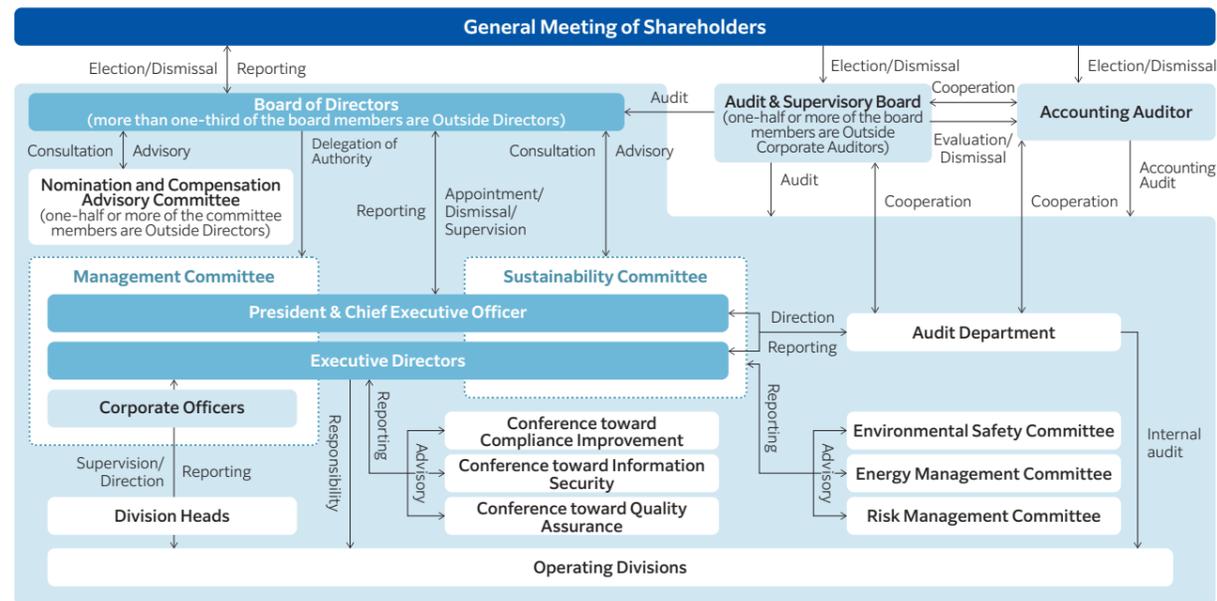
Corporate Governance

Basic Stance on Corporate Governance

In line with the KH Neochem's Corporate Mission of "Realizing a brighter tomorrow for society through the power of chemistry," we strive to achieve sustainable growth, improve our corporate value for the mid-to-long term and realize sound management with secured transparency and fairness. As such, we have established a corporate governance system which considers the following points and make ongoing efforts towards its enhancement.

- Endeavor to practically secure the rights and equality of our shareholders and maintain constructive dialogue with our shareholders.
- Disclose accurate and straightforward financial and non-financial information beneficial for constructive dialogue with shareholders, etc. in a timely manner.
- Endeavor to appropriately collaborate with stakeholders other than shareholders.
- Have a management team and Board of Directors whom demonstrate leadership which promotes fostering of a corporate culture that respects the rights, positions and business activity ethics of a variety of stakeholders.
- The Board of Directors shall, from an independent position, engage in effective supervision of the management team's execution of its duties and endeavor to create an environment which supports the risks taken by the management team and fulfill all associated responsibilities.

Overview of Corporate Governance Structure



Board of Directors

The Board of Directors exists to promote the sustained growth of the company and the improvement of its corporate value over the medium and long term, to strive for proper structuring and management of a corporate control system, and to make decisions on matters set out in laws, regulations, and the company's Articles of Incorporation and other critical management matters as the company's key executive decision-making body in addition to serving as a supervisory body over the Directors' performance of duties. The Board of Directors comprises eight Directors (including three Outside Directors) and, in principle, holds ordinary Board of Directors meetings on a monthly basis in addition to extraordinary Board of Directors meetings as needed, forming the company's system for swift decision-making in management.

Main agenda items for Board of Directors meetings in 2022

Management strategy	<ul style="list-style-type: none"> • Formulate Medium-Term Business Plan and identify materiality • On the Sustainability Promotion Structure
Governance	<ul style="list-style-type: none"> • Evaluation of Effectiveness of the Board of Directors • Activity report of the Nomination and Compensation Advisory Committee • Review of risk management systems and identification of material risks • Evaluation of cross shareholdings
Business and other	<ul style="list-style-type: none"> • Fiscal year budget and investment plan • Establishment of Respect for Human Rights Policy • TCFD endorsement and disclosure • Safety-related initiatives • Report on IR activity

Audit & Supervisory Board Members and the Audit & Supervisory Board

Audit & Supervisory Board Members attend Board of Directors meetings, Management Committee meetings, and other important meetings and voice their opinions as needed in addition to auditing the Directors' performance of duties through such activities as reviewing important approval documents. Audit & Supervisory Board Members also exchange information and opinions, hold discussions, and engage in other efforts on a regular basis in pursuit of mutual collaboration with the Internal Audit Division and the Accounting Auditor. The Audit & Supervisory Board comprises three Audit & Supervisory Board members (including two Outside Audit & Supervisory Board Members) and, in principle, holds ordinary Audit & Supervisory Board meetings on a monthly basis in addition to extraordinary Audit & Supervisory Board meetings as needed, all in pursuit of mutual collaboration in formulating auditing plans, examining the status and results of audits, and the like.

Main agenda items for the Audit & Supervisory Board in 2022

- Preparation of auditing plans
- Evaluation of auditors, decision on their reappointment, approval of their remuneration
- Audit of the maintenance and operational status of the Internal Control System
- Exchange of views with CEO and outside directors
- Audit of main operating facilities and related companies
- Interviews with executive directors and division heads
- Preparation of audit reports

Nomination and Compensation Advisory Committee

With the aim of reinforcing the independence, objectivity and accountability of the Board of Directors functions related to nomination and remuneration of Directors and Corporate Officers, the company has established a voluntary Nomination and Compensation Advisory Committee as an advisory body to the Board of Directors. The Chair of the Committee is an Outside Director, and Outside Directors constitute a majority of the members.

The Nomination and Compensation Advisory Committee is composed of three or more directors (one-half or more of the committee members are Independent Outside Officers) nominated by the Board of Directors. When the Board raises issues to address, the Committee formulates a plan for the year, takes action, and advises the Board. The Chair is selected by the Committee from among the outside directors.

Main agenda items and activities of the Nomination and Compensation Advisory Committee in 2022

- Interviews with division heads for succession planning and next-generation talent development (group discussions and individual interviews)
- Discussion and advice relating to executive staffing
- Discussion and advice relating to compensation for executives
- Evaluation of Corporate Officers

Management Committee

The company has established a Management Committee to decide on important matters pertaining to the execution of duties delegated to the company by the Board of Directors, and to hold meetings at which to hold preliminary deliberations on matters for the Board of Directors to discuss. The Committee is composed of full-time directors, corporate officers, and persons nominated by the CEO, and its meetings are also attended by Audit & Supervisory Board members. The Committee normally meets once a month.

Sustainability Committee

The Sustainability Committee is an advisory body role to the Board of Directors that discusses, provides advice on, and monitors sustainability-related matters selected at meetings of the Board of Directors or the Management Committee, or decided on by the CEO, in order to reflect them in business plans and other policies. The Committee is chaired by the board director in charge of corporate strategy, and is composed of executive directors. The Chair may request an expert committee for reports as necessary.

Main agenda items of the 1st Sustainability Committee meeting

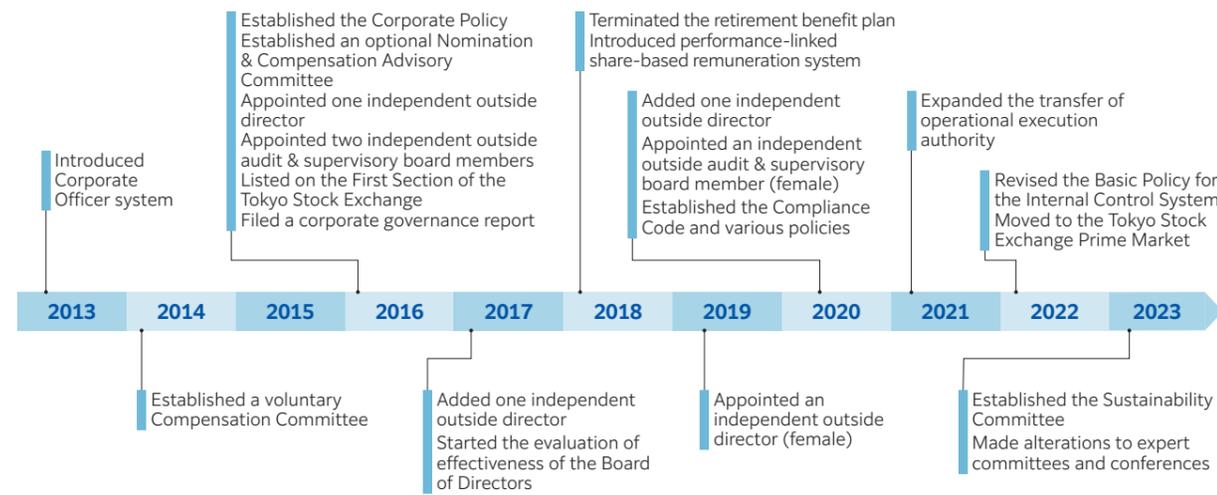
- Carbon neutrality (decarbonization trends)
- Broadening ESG disclosure
- Materialities and KPIs

Expert Committees and Conferences

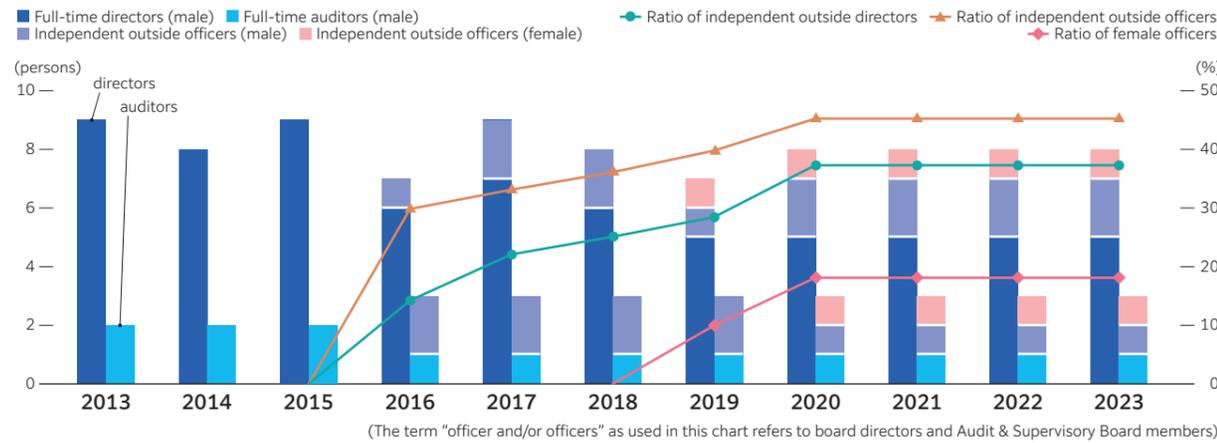
Expert committees chaired by directors in charge act as meeting bodies that complement decision-making with regard to company-wide governance by discussing and providing advice, analysis, and reports on specialized matters. Conferences are also held regarding exclusive decisions made by division heads based on approval rules and organizational rules. The conferences are held to discuss matters necessary for decision-making and operational execution, as well as to formulate and promote company-wide policies, conduct educational and training programs, and exchange information. The expert committees are the Environmental and Safety Committee, the Energy Management Committee, and the Risk Management Committee. The conferences are the Conference toward Compliance Improvement, the Conference toward Information Security, and the Conference toward Quality Assurance.

History of Strengthening Governance

Main Strengthening Measures

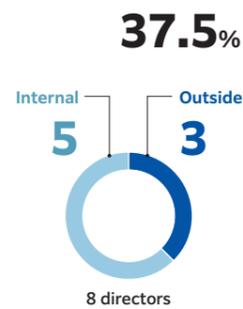


History of executive composition

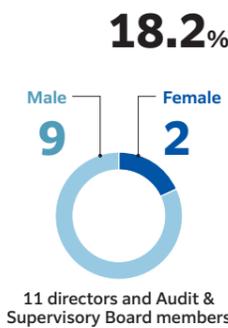


Fiscal year 2022 overview

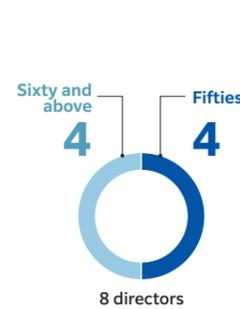
Ratio of independent outside directors



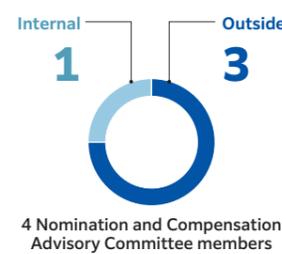
Ratio of female officers



Age composition of the Board of Directors



Composition of the discretionary Nomination and Compensation Advisory Committee (Chair: outside director)



Evaluation of Effectiveness of the Board of Directors

The effectiveness of the Board of Directors is evaluated once a year. The members of the Board of Directors consider specific improvements based on the results, and ongoing efforts are made to improve the functioning of the Board by implementing those measures.

To date, the effectiveness of the Board of Directors as a whole has been recognized as being secured, as the role, composition, and operation, etc. of the Board of Directors have all received positive evaluations in the effectiveness evaluation.

Initiatives to date

	Issues	Action Plan
2019	(1) Discussions must be enhanced on subjects such as strengthening the supervisory function and medium- and long-term management strategies.	(1) Key initiatives will be monitored and resolutions that are formalities will be reviewed.
2020	(1) Foster deeper discussions of critical issues. (2) Leverage the strengths of the Board of Directors.	(1) The agenda will be set on basic management policies and the sustainable improvement of corporate value. (2) Roles will be clarified and executive training provided using the skills matrix.
2021	(1) Foster deeper discussions of Sustainable Management and medium-to long-term growth strategy. (2) Set effective KPIs and enhance monitoring to establish and implement the 4th Medium-Term Business Plan.	(1) Discussion by Board of Directors on topics relating to sustainability. Hold offsite meetings and free discussion sessions (social gatherings) after Board meetings to provide further opportunities for dialogue. Also hold mutual training sessions for directors. (2) Identify materiality based on value creation story, set KPIs, and conduct quarterly monitoring.

2022 Evaluation of Effectiveness

- Implementation period: Nov 2022 to Feb 2023
- Method of evaluation of effectiveness: survey (named/multiple choice/descriptive)
- Target: 11 persons total (8 directors, 3 Audit & Supervisory Board members)

Main topics of the survey:

- Basic points regarding the functions, composition, and operation of the Board of Directors
- Status of improvement on issues from previous year
- Items on sustainability

Results of evaluation of effectiveness

The effectiveness of the Board of Directors as a whole was verified.

The main points that improved were "providing opportunities for outside directors to understand the company" and "facilitating discussion by promoting mutual understanding among directors." The analysis commended the way that opportunities were provided for outside directors to visit plants and research laboratories that opened behind schedule due to the COVID-19 pandemic, and the way that further opportunities for dialogue were promoted such as offsite meetings, and Social gatherings after Board meetings. The following items were identified as issues.

Issues and Action Plans

- Issue 1: Strengthening monitoring with regard to investment projects above a certain amount**
Transparency for critical investment projects will be improved by creating overviews that show their progress with regard to their initial plans, and progress will be verified and reported to the Board of Directors more frequently.
- Issue 2: Fostering deeper discussions of sustainability**
Board meetings, offsite meetings, free discussions (social gatherings) etc. will be used to promote ongoing sustainability-related debate as well as discussion of human capital management efforts and their disclosure, and human rights efforts.
- Issue 3: Training and identifying next-generation leaders, identifying talent, raising awareness**
Engagement and communication between management and next-generation leaders will be increased as part of the discretionary Nomination and Compensation Advisory Committee's activities, by conducting interviews between next-generation leaders and outside directors, holding opinion exchange meetings, and requiring next-generation leaders to hold briefings before Board meetings.

Officer Training

Every year, we invite experts, lawyers, and other professionals to provide ongoing training opportunities for management.

We have conducted officer training by Professor Emeritus Kunio Ito of Hitotsubashi University every year since 2019. In 2022 he gave a lecture on the subject of “human capital management,” addressing themes such as “direction of change,” “aligning business strategy and human resources,” and “disclosure of human capital information,” and engaged in a lively exchange of views.

In addition, when our Respect for Human Rights Policy was being formulated in 2022, we conducted training sessions on human rights. The sessions deepened the company’s understanding of human rights’ historical background, international frameworks, and the human rights initiatives and responsibilities currently required of companies. We also surveyed which human rights aspects the company should treat with particular respect, reflected the results in the Respect for Human Rights Policy, and held opinion exchange meetings about future efforts to respect human rights.



Officer training by Professor Emeritus Kunio Ito of Hitotsubashi University

Fostering Dialogue and Discussion Among Directors

Since 2022, to improve the effectiveness of the Board of Directors, KH Neochem has facilitated informal discussion outside the Board with opportunities for open-minded opinion exchange, and mutual director-led training sessions.



A discussion between directors

Support System for Outside Directors and Outside Audit & Supervisory Board Members

Agenda items and important information to be discussed at the Board of Directors meetings are distributed to outside directors and outside Audit & Supervisory Board members in advance, and explanations are provided in advance by the secretariat and the division making the proposal. In particular, for newly appointed outside directors and Audit & Supervisory Board members, we strive to deepen their understanding of our Group by providing them with materials and information and arranging briefing sessions.

We also provide opportunities for tours of our plants and subsidiaries, and opportunities for interaction and dialogue with employees on the front lines. In 2022, outside directors were given tours of KH i-Lab to foster deeper understanding and interaction with employees.

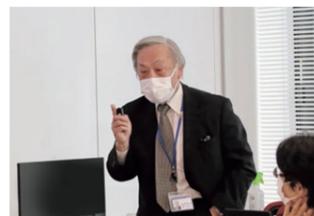
Training Next-Generation Leaders

As part of our plan to train next-generation leaders, we provide opportunities for all division heads to have interviews with outside directors on the Nomination and Compensation Advisory Committee.

In June 2022, division heads were organized into small groups, and opinion exchange meetings were conducted with outside directors on the topic of “important challenges in driving sustainable management.” In October 2022, interviews were held between division heads and outside directors to provide opportunities to debate, among other things, new policies to raise corporate value. This was part of an active effort to increase communication with outside directors to develop future growth strategies.

In light of KH Neochem’s governance situation and challenges, a roughly half-day offsite meeting was held with the theme “What is required of directors?”

With regard to mutual director-led training sessions, in December 2022, director Jun Tsuchiya delivered a training session on historical shifts in the business environment and future trends relating to the company;



Director Jun Tsuchiya delivers a lecture

and in April 2022, director Sayoko Miyairi delivered a lecture on “Building an Inclusive Organizational Ethos and a Culture of Safety,” and facilitated a frank exchange of opinions.

Officer Compensation, etc.

Compensation for directors consists of monetary compensation made up of fixed compensation and performance-linked compensation, as well as performance-linked share-based remuneration. Outside directors and Audit & Supervisory Board members are compensated in cash (consisting solely of a fixed monthly amount).

In determining compensation, a discretionary Nomination and Compensation Advisory Committee has been established to ensure the appropriateness and transparency of the level of compensation for directors. The Committee deliberates on policies and levels of compensation for directors and Audit & Supervisory Board members, and even confirms the results of calculations of individual compensation for each director and Audit & Supervisory Board member. The basic policy regarding the compensation for directors (excluding outside directors) is as follows:

- Provides sufficient incentive to improve performance and increase corporate value over the medium to long term
- Has a competitive edge in attracting diverse and superior talent
- Shares interests with shareholders and other stakeholders

Monetary compensation

Around 30% of all monetary compensation is performance linked, and it is calculated using the rate at which planned earnings are achieved and the average achievement rate over the past five years.

Performance-linked, Share-based Remuneration

Performance-linked, share-based remuneration is calculated using the rate at which planned earnings are achieved on the condition that consolidated operating income is in the black. While putting more priority on performance, this compensation system clarifies the link with the stock price, providing directors with both benefit from increases in the stock price and the risk of decreases in the stock price with shareholders, thereby increasing awareness of contributing to improvement of medium- to long-term performance and increasing of corporate value.

Performance-linked Compensation Indicators

The evaluation index used for performance-linked compensation (both monetary compensation and share-based remuneration) is consolidated EBITDA,* taking into account the characteristics of the company’s business and other factors. Because the company owns a large number of facilities, it considers EBITDA, which includes depreciation and amortization in its calculations, to be a useful indicator.

*EBITDA is calculated using the following formula: EBITDA = Operating income + depreciation and amortization + amortization of goodwill (the amount from the consolidated statement of income is used for operating income, while the amounts from the consolidated statement of cash flows are used for depreciation and amortization and amortization of goodwill).

Conception of Director Compensation



*The above diagram indicates a target for director compensation, which varies with each fiscal year. The proportion of performance-linked compensation increases with executive rank.

Total Amount of Compensation by Officer Classification, Total Amount of Compensation by Category, and Number of Officers Subject to Compensation (Fiscal Year 2022)

Officer classification	Total amount of compensation (million yen)	Total amount of compensation by category (million yen)			Number of officers subject to compensation
		Monetary compensation		Share-based remuneration	
		Fixed	Performance-linked	Performance-linked	
Directors (excluding outside directors)	222	116	69	37	5
Audit & Supervisory Board members (excluding outside members)	21	21	-	-	1
Outside Director	25	25	-	-	3
Outside Audit & Supervisory Board members	14	14	-	-	2

Cross Shareholdings

To improve corporate value, KH Neochem owns shares in companies considered important for maintaining medium- and long-term business connections and synergies that are based on an understanding of the importance of each other’s management policies, business lines, and business dealings. Approximately 50% of investment shares on the balance sheet are unlisted shares, of these approximately 90% are shares in affiliated companies acquired through joint investments in key materials manufacturers and in

management companies for joint industrial complexes. Thus, these holdings truly are business investments.

For shares in listed companies, the Board of Directors annually reviews the rationale for each shareholding, including appraisal losses and gains, compliance status, and business dealings with the company. In 2022, we invested in two startup companies as part of a business creation effort, and moved forward with selling a segment of our publicly listed and privately held shares.

Corporate Governance

Members of the Board

Directors



Michio Takahashi
Representative Director
President & Chief Executive Officer
Apr. 1987 Joined Kyowa Hakko Kogyo Co., Ltd.
July 2011 General Manager of Basic Chemical, Kyowa Hakko Chemical Co., Ltd. (now the company)
Mar. 2013 Director and Executive Officer of the Company
Mar. 2016 Managing Director and Executive Officer of the Company
Mar. 2017 Executive Vice President & Executive Officer of the Company
Mar. 2019 Representative Director, President and Executive Officer of the Company
Mar. 2020 Representative Director, President and Chief Executive Officer of the Company (to present)



Masaya Hamamoto
Board Director
Senior Corporate Officer
Apr. 1985 Joined The Industrial Bank of Japan, Limited. (now Mizuho Bank, Ltd.)
Apr. 2011 General Manager of Osaka Corporate Banking Division No. 1 of Mizuho Corporate Bank, Ltd. (now Mizuho Bank, Ltd.)
Apr. 2014 Executive Officer and General Manager of Corporate Banking Division No. 5 of Mizuho Bank, Ltd. (retired in March 2015)
Apr. 2015 Executive Officer of IBJ Leasing Company, Limited. (now Mizuho Leasing Company, Limited)
June 2015 Director, Executive Officer and General Manager of Corporate Planning Department of IBJ Leasing Company, Limited.
Apr. 2016 Managing Director, Managing Executive Officer and General Manager of Corporate Planning Department of IBJ Leasing Company, Limited. (retired in May 2019)
June 2019 Joined the company
Sept. 2019 Senior Executive Officer of the Company
Mar. 2020 Board Director & Senior Corporate Officer & Chief Financial Officer of the Company (to present)



Jun Tsuchiya
Independent Outside Director
Apr. 1981 Joined Argonne National Laboratory, U.S.A.
May 1983 Joined Lawrence Berkeley National Laboratory, U.S.A.
Feb. 1984 Joined Mitsubishi Chemical Industries Limited (now Mitsubishi Chemical Corporation)
Jan. 1999 Seconded as President to Verbatim Corporation, U.S.A. subsidiary of Mitsubishi Chemical Limited
Apr. 2001 General Manager of Corporate Planning Office of Mitsubishi Chemical Industries Limited (retired in January 2002)
Feb. 2002 Director of Rohm & Haas Japan K.K. (now Dow Chemical Japan Limited)
Jan. 2007 Representative Director and President of Heraeus K.K.
Oct. 2018 CEO of Tsuchiya International Consulting Corp. (to present)
June 2019 Outside Director of Soken Chemical & Engineering Co., Ltd. (to present)
Mar. 2020 Outside Director of the Company (to present)

Audit & Supervisory Board Members

Tokuo Odo Audit & Supervisory Board Member
Kazuhiro Kawai Outside Audit & Supervisory Board Member (Independent Auditor)
Keiko Tamura Outside Audit & Supervisory Board Member (Independent Auditor)

Corporate Officers

Toshiaki Ogata Senior Corporate Officer
Head of Production Planning and Engineering
Isao Takahashi Senior Corporate Officer
Head of Corporate Administration, Public Relations, Legal and Compliance
Akio Nakahashi Corporate Officer
General Manager, Chiba Plant
Yoshiaki Kondo Corporate Officer
Head of Environment, Safety and Quality Assurance
Hideki Shimizu Corporate Officer
Head of Procurement
Akira Kamimura Corporate Officer
Head of Accounting, FP&A, Finance and IR
Atsushi Tokumitsu Corporate Officer
President of Kurogane Kasei Co., Ltd.
Katsunori Sato Corporate Officer
Head of Sales & Marketing
Hideki Kurokawa Corporate Officers
General Manager, Yokkaichi Plant
Takatoshi Fujii Corporate Officer
Head of Human Resources



Toshihiro Matsuoka
Board Director
Senior Corporate Officer
Apr. 1987 Joined Kyowa Hakko Kogyo Co., Ltd.
Apr. 2008 General Manager of Production Administration Division of Kyowa Hakko Chemical Co., Ltd. (now the company)
June 2011 General Manager of Yokkaichi Plant of the Company
Apr. 2013 Executive Officer of the Company
Mar. 2014 Director and Executive Officer of the Company
Mar. 2018 Managing Director and Executive Officer of the Company
Mar. 2020 Board Director & Senior Corporate Officer of the Company (to present)



Yukihiko Isogai
Board Director
Senior Corporate Officer
Apr. 1987 Joined Toaboshoku Co., Ltd.
Aug. 2000 Joined YIC Co., Ltd.
Oct. 2001 Joined Kyowa Hakko Kogyo Co., Ltd.
Jan. 2016 General Manager of Yokkaichi Research Laboratories, R&D Office of the Company
Dec. 2017 General Manager of R&D Office and General Manager of Yokkaichi Research Laboratories, R&D Office of the Company
Jan. 2018 Executive Officer of the Company
Mar. 2019 Director & Executive Officer of the Company
Mar. 2022 Board Director and Senior Corporate Officer of the Company (to present)



Yuji Kikuchi
Independent Outside Director
Apr. 1992 Registered as an attorney at law, Entered Sakano, Seo & Hashimoto Law Office (now Tokyo Hatchobori Law Office)
Apr. 2002 Partner of Tokyo Hatchobori Law Office
Mar. 2003 Joined the Securities and Exchange Surveillance Commission (Coordination and Inspection Division, Executive Bureau)
Mar. 2005 Returned to being a partner at Tokyo Hatchobori Law Office (to present)
June 2010 Outside Audit & Supervisory Board Member of Inui Warehouse Co., Ltd. (now Inui Global Logistics Co., Ltd.)
June 2014 Outside Audit & Supervisory Board Member of NEC Networks & System Integration Corporation
Mar. 2020 Outside Director of the Company (to present)



Tatsuro Niiya
Board Director
Senior Corporate Officer
Apr. 1988 Joined Kyowa Hakko Kogyo Co., Ltd.
July 2013 General Manager of Chemical Sales & Marketing, Business Headquarters Office of the Company
Jan. 2016 Executive Officer of the Company
Mar. 2017 Director & Executive Officer of the Company
Mar. 2019 Managing Director & Executive Officer of the Company
Mar. 2020 Board Director & Senior Corporate Officer of the Company (to present)



Sayoko Miyairi
Independent Outside Director
Apr. 1979 Joined Hitachi, Ltd.
July 1982 Joined Bank of America, N.A., Asia Headquarters
Mar. 1986 Joined Pasona Inc. and seconded and then transferred to Edu Consult Co., Ltd. (now Scholar Consult Co., Ltd.)
Apr. 2000 Partner of Scholar Consult Co., Ltd. (to present)
Apr. 2000 Assistant Professor of Nihonbashi Gakkan University
Jan. 2005 Director of Scholar Consult Co., Ltd.
Apr. 2008 Professor of Nihonbashi Gakkan University (now Kaichi International University)
Mar. 2019 Outside Director of the Company (to present)
Aug. 2020 Outside Director of Toyo Engineering Corporation (to present)
Apr. 2022 Emerita and Guest Professor of Kaichi International University (to present)
Jun. 2022 Outside Director of NIHON SEIKAN K.K. (to present)

Director Nomination Policy and Required Skills

The company nominates candidates for Director from the perspective of putting the right person in the right place, and of finding an individual who is competent and can contribute to precise and rapid decision-making based on the skills, etc. required of a Director. After also taking into account diversity issues such as gender, the voluntary Nomination and Compensation Advisory Committee responds to inquiries from the Board of Directors by conducting a comprehensive consideration, and the Board of Directors decides the nomination.

The company has selected seven items as the skills required of a Director of the Company, and that it expects will contribute to management: corporate management; industry insight; manufacturing, R&D and innovation; finance and accounting; sales and marketing; governance, compliance, and risk management; HR development and diversity. The company has created a skill matrix, and care is taken to ensure that each item is covered by the Board of Directors as a whole, and that the composition of the Board maintains a balance in its diversity of experience and specialization.

Board of Director Members (Board Director/Audit & Supervisory Board Member)										Skill matrix						
	Titles	Number of years in office	Independency	Female	Board of Directors	Number of board meetings attended	Audit & Supervisory Board	Nomination and Compensation Advisory Committee	Sustainability Committee	Corporate management	Industry insight	Manufacturing /R & D /innovation	Finance /accounting	Sales /marketing	Governance /compliance /risk management	Human resource development /diversity
Michio Takahashi	President & Chief Executive Officer	10 Years			○ Chairperson	16 of 16		○	○	●	●		●	●	●	
Toshihiro Matsuoka	Director	9 Years			○	16 of 16			○	●	●	●				
Tatsuro Niiya	Director	6 Years			○	16 of 16			○ Chairperson	●	●			●		
Masaya Hamamoto	Director	3 Years			○	16 of 16			○	●			●		●	
Yukihiko Isogai	Director	4 Years			○	16 of 16			○	●	●	●				●
Sayoko Miyairi	Outside Director	4 Years	○	○	○	16 of 16		○		●						●
Jun Tsuchiya	Outside Director	3 Years	○		○	16 of 16		○		●	●	●		●		
Yuji Kikuchi	Outside Director	3 Years	○		○	16 of 16		○ Chairperson							●	
Tokuo Odo	Audit & Supervisory Board Member	6 Years				16 of 16	○ Chairperson						●		●	
Kazuhiro Kawai	Outside Audit & Supervisory Board members	3 Years	○			16 of 16	○			●			●		●	
Keiko Tamura	Outside Audit & Supervisory Board members	3 Years	○	○		16 of 16	○								●	

Risk Management

Risk Management Activities and System

KH Neochem defines risk as the uncertainties that affect management and business activities. To achieve sustainable growth, we identify risks to the greatest extent possible, prevent latent risks from materializing, and manage active risks with organizational, strategic, and continuous controls.

We established a Risk Management Committee composed of all division heads and chaired by the director in charge of risk management in order to improve risk management system. The Committee identifies and evaluates risks critical to operation, formulates and considers countermeasures, and conducts the analysis and monitoring required for decision-making. As a rule, the

Committee meets twice a year, and its deliberations are reported to the Board of Directors.

Risk Evaluation Process and Material Risk Selection

We identify both internal and external risks in light of social and environmental circumstances, and produce a risk map that evaluates their impact and probability of occurrence. Based on this, we designate the risks that have a very high potential impact on our business activities and require company-wide countermeasures as material risks, specify risk owners and divisions in charge, and prepare and implement countermeasures.

Risk Evaluation Process



Risk Map (figures indicate number of risks)



Material risks are designated from among the risks with a very high impact on business activities and require company-wide countermeasures.

Material Risks and their Countermeasures

Category	Examples	Countermeasures
(1) Compliance	Law violations, legal restraints	Establishment of a compliance code & education of all executives and employees Legal compliance status checks and other verifications of relevant regulations
(2) Production activities	Damage/malfunction of facilities/machinery, accidents	Development of maintenance plans according to equipment importance Training to ensure security, safety, and environmental conservation
(3) HR	Personnel shortages, delayed training of core human resources	Reinforcement of hiring activities and systems, holding personnel meetings Formulation of skill enhancement programs and training systems for core human resources
(4) Business continuity	Major earthquakes and natural disasters Problems procuring certain supplies and raw materials	Formulation of a business continuity plan (BCP) and conduction of regular exercises Identification of supply risks for critical raw and auxiliary materials, facilities, and supplies; and formulation of risk countermeasures
(5) Information security	Cyberattacks	Implementation of countermeasures based on the results of external security assessments Training for all executives based on the Information Security Policy, etc.
(6) Climate change	Abnormal weather, imposition of carbon tax	(See page on the right.)

Business Continuity Management (BCM)

We supply many customers with products that are essential for both the social lives of its citizens and production in a wide range of industries. For that reason, we believe that we have an extremely important responsibility to maintain and continue our business activities and achieve an early recovery in the event of a large-scale disaster. To this end, we have established a

business continuity plan (BCP) at each of our workplaces. To verify the effectiveness of our BCP, we held drills in a workshop format for the first time in 2021, and continue to hold further drills while making refinements every year.

To increase the effectiveness of our BCPs going forward, we will continue to hold improved drills and work on our BCM.

Climate-Related Disclosures Based on TCFD Recommendations

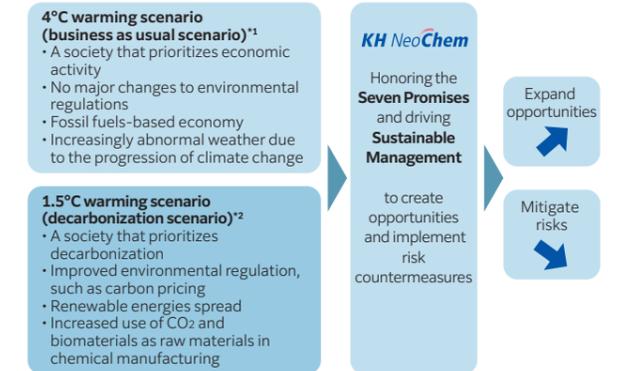
The business environment surrounding KH Neochem is growing increasingly uncertain as cases of heat stroke and natural disasters rise due to climate change, and voices calling for decarbonization and carbon neutrality grow louder and more numerous. In January 2022, we declared our endorsement of the Task Force on Climate-Related Financial Disclosures (TCFD) Recommendations and have been proceeding with climate-related disclosures ever since.

Governance and Risk Management

We identify material risks according to the risk evaluation process as shown previously. The risks arising from climate change have been identified as material risks to our business due to the significant impact they are expected to have on KH Neochem in the future. In addition, we are taking measures to prevent risks from materializing and reduce their impact by continuously conducting risk assessments based on our risk management system and monitoring them at board meetings when necessary.

Strategy

We identify risks and opportunities related to climate change and analyzes scenarios based on warming of 4°C and 1.5°C, respectively, to assess the impact of future risks and opportunities heading toward 2030. By engaging in the Seven Promises and driving Sustainable Management, we seek to expand the climate change-related opportunities while mitigating the risks, thereby increasing our corporate value.



*1 See the RCP 8.5 scenario of the Intergovernmental Panel on Climate Change (IPCC).
*2 See the NZE 2050 scenario of the International Energy Agency (IEA).

KH Neochem's Climate Change-Related Risks and Opportunities

Category	Risks/Opportunities	Key Countermeasures
Physical risks (4°C warming scenario)	Impact on operations due to abnormal weather There is a risk of an increasing impact on operations from increasingly frequent abnormal weather events resulting from climate change, such as high tides, heavy rain, floods, and typhoons.	• Conducting drills to increase understanding and improve effectiveness of BCM/BCPs
Transition risks (1.5°C warming scenario)	Introduction of carbon pricing There is a risk of an increasing financial burden from the introduction of carbon taxes and other carbon pricing. Assuming CO ₂ emissions on the same level as 2022 (approx. 379 kt) and a carbon tax of 130 USD/1t-CO ₂ in 2030 (1 USD = 130 yen), the financial burden could increase by 6.41 bn yen per year.	• Promoting energy-saving and the introduction of new technologies to achieve carbon neutrality by 2050 • Achieving the target of reducing greenhouse gas emissions by 30% by 2030 (compared to 2017) • Using CO ₂ as a raw material for products
	Problems procuring certain raw materials There is a risk to the procurement of raw materials from oil refineries as oil refiners reduce the number of refineries in response to decarbonization trends.	• Promoting purchasing from multiple suppliers
	Impact of switching to raw materials obtained from biomass There is a risk of quality problems and increased procurement costs due to switching from oil-based to biomass-based raw materials.	• Maintaining and improving quality assurance
	Delayed response to ESG investment There is a risk of divestments and falling share prices due to increasing criticism received for using large quantities of fossil fuels.	• Promoting energy-saving and the introduction of new technologies to achieve carbon neutrality by 2050 • Achieving the target of reducing greenhouse gas emissions by 30% by 2030 (compared to 2017)
Opportunities (4°C warming scenario)	Increased need for adaptive products There is a possibility that the increasingly negative effects of climate change will cause rising demand for products that can mitigate those effects (such as heat stroke) and help people adapt to climate change.	• Supplying more refrigeration lubricant raw materials, which are indispensable for heat stroke-preventing air conditioners
Opportunities (1.5°C warming scenario)	Increased need for decarbonizing products As people become increasingly environmentally conscious, there is a possibility of rising demand for products with a smaller carbon footprint.	• As the transition toward environmentally friendly air conditioners accelerates across the world, expanding the provision of refrigeration lubricant raw materials compatible with the refrigerants used in such air conditioners • Using CO ₂ as a raw material for products

Compliance

Our Code of Conduct: The Compliance Code

The KH Neochem Group believes that compliance not only involves complying with the law, but also upholding high ethical standards as a member of society, and meeting the demands and expectations of all stakeholders. In order to clarify this stance, we have formulated our Compliance Code, the Principles of

Corporate Behavior common across the KH Neochem Group. Each and every member of the Group is expected to faithfully put the Compliance Code into practice by continuously asking themselves, "is my conduct correct?" and "can I speak about this with pride to others?" as they act.

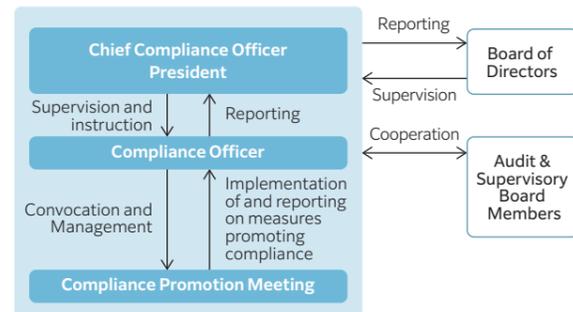
Compliance Code

As a member of society <ul style="list-style-type: none"> High ethical standards Respect for human rights Contribute to society and environmental conservation Maintain and improve safe and stable operation Contribute to Local Community No relationship with anti-social forces 	Toward our shareholders and investors <ul style="list-style-type: none"> Prohibition of insider trading Constructive dialogue and appropriate information disclosure
Toward our customers <ul style="list-style-type: none"> High quality Prohibition of bribery Fair trade Appropriate management of intellectual property 	As a member of the KH Neochem Group <ul style="list-style-type: none"> Maintenance and improvement of labor safety Suitable management of information assets Maintenance and improvement of a comfortable workplace environment

Compliance Structure

Compliance officers work under the direction of the President, who is the Chief Compliance Officer, to swiftly investigate compliance issues and prepare appropriate countermeasures. Each division head is responsible for promoting compliance and compliance measures within his or her division. We hold Conference toward Compliance Improvement to check the progress and results of compliance measures, identify current issues, and decide on plans for implementing further measures. At these meetings, participants serve as proponents that advance discussions on their proposals. These efforts are implemented as a cycle to continuously strengthen our compliance structure.

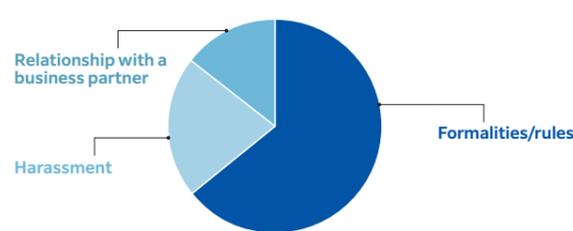
Compliance Promotion Meetings also serve as a forum for discussing the progress of compliance initiatives at Group companies.



KH Neochem Hotline (Internal Whistleblowing/Advice Hotline)

We have established the "KH Neochem Hotline" as a whistleblowing channel for people to report corruption, bribery, and other legal violations, improper or illegal conduct, and other breaches or suspected breaches of compliance. We provide the Compliance Hotline, Compliance Officer Hotline, and Full-time Corporate Auditor Hotline inside the company, and the Attorney Hotline outside the company. All Hotlines provide services appropriately, maintaining strict confidentiality, and preserving the anonymity and privacy of whistleblowers and callers. The Attorney Hotline is available for our customers and business partners and has been publicized on our website. In FY2022, the KH Neochem Hotline received 9 calls, none of which concerned any matter serious enough to require public disclosure.

Patterns in Consultation Topics (FY2022)*



*Includes consultations other than on the KH Neochem Hotline. All calls were resolved appropriately.

Compliance Improvement Activities

We hold Conference toward Compliance Improvement to plan compliance measures, check the status of these measures, and discuss issues. In FY2022, the conference held a discussion on the topic "What are the common issues at workplaces where compliance violations occur?" and identified "cultivating a sense of personal involvement" as a common issue to address. To resolve this issue, various countermeasures were implemented such as selecting compliance leaders and conducting workshops.

In FY2023, in addition to conducting a compliance awareness survey of all executives and employees, and verifying the effectiveness of activities, we are working to identify new issues.

Policy Formulation

In order to ensure the implementation of the Compliance Code, we have formulated policies to clarify in concrete terms what kind of conduct is expected in each field. In FY2022, we established our Respect for Human Rights Policy. The policies we have established can be viewed on our website.

Policies



<https://www.khneochem.co.jp/en/company/philosophy/principles/>

Corruption/Bribery Prevention Efforts

Our Bribery Prevention Policy mandates adherence to all laws relating to the prevention of corruption, bribery, and so forth. All gifts and hospitality, whether offered or received, are subject to a process that requires prior application and approval by the Compliance Bureau. In FY2022, there were no actions suspected of being corruption, bribery, etc.

Main Compliance Improvement Activities

General compliance	Compliance Promotion Meetings Legal Compliance Week Compliance workshops to discuss the Compliance Code at each workplace Compliance awareness surveys
Education and training	(Compliance training 5x/year at all operating facilities) • Training related to personal information • Training related to industrial safety and health • Training related to subcontracting agreements • Training related to the Whistleblower Protection Act • Training related to harassment Other training programs for new entrants
Other	Posting of information on the KH Neochem Hotline on the intranet and posters to ensure awareness

Selection of Compliance Leaders

We are selecting compliance leaders in order to increase the number of members who understand compliance better, are capable of resolving compliance issues, have a sense of personal involvement, and nip potential problems in the bud. Every two months, a Compliance Leaders' Meeting is held to build their knowledge, which is then deployed at their respective workplaces. Opportunities are also provided to facilitate discussion among compliance leaders to foster inter-division communication and build bonds that enable reciprocal consultation. In FY2022, these meetings were conducted at the company headquarters and the Technology Development Center, but from July 2023 onward, they will be held at each factory.



A compliance leaders' meeting in progress

Workshops

Compliance workshops, centered around the compliance leaders, were held at each of our workshops with the themes of "prohibiting harassment" and "ensuring workplace safety and health." In a follow-up survey, many respondents reported that the workshops would "help prevent harassment and ensure psychological safety" and that they "promoted mutual understanding at the workplace." We plan to continue holding such workshops in the future.

Security, Safety, and Environmental Conservation Activities

Environmental Safety Policy

KH Neochem believes that the thorough implementation of security, safety, and environmental conservation – in our business activities and based on our Compliance Code – is critical not only for the sustainable improvement of our corporate value but also for us to fulfill our social responsibilities. We have therefore established our Environmental Safety Policy to ensure security, safety, and environmental conservation.

Furthermore, to prevent there ever being repeat of the fatal fall of a KH Neochem employee on April 4, 2022, we revised the Policy on October 1, 2022 to add a section on maintaining and improving a safe workplace.

Responsible Care (RC)

We engage in the following responsible care (RC) in good faith to comply with Environmental Security Policy.

1 Maintaining and improving a safe workplace

We will endeavor to maintain and improve a safe workplace by ensuring the attainment of behavior goals and compliance matters that we have established in order to put “Safety Guidelines: Protecting ourselves and our colleagues” into practice.

2 Maintaining and improving safe and stable operations

We are constantly aware of sources of danger, eliminate any risk, maintain safe and stable operations, as well as striving for further improvement and aiming for no accidents and no incidents, to thereby strive to ensure the safety, comfort and health of the local community and all executives and employees.*

3 Contributing to society and environmental conservation

We strive to realize a sustainable society and environment through corporate activities, gather updated safety information regarding the chemical substances and products to be handled, and provide customers, distribution-related parties and all executives and employees with appropriate information, thereby striving to reduce the security, safety and environmental burdens in the entire process from product development through to the disposal thereof.

4 Contributing to the local community

Through dialogue and communication activities with the local community regarding security, safety, environmental conservation and health, we cooperate with the local community and thereby contribute to its development.

*KH Neochem executives and employees

Management System

KH Neochem has granted ultimate responsibility on matters regarding security, safety, and environmental conservation to the company president. The responsibility

for managing and overseeing such matters is placed on the director in charge of environmental safety, under whom the executive officer in charge of environmental safety manages the inspection of business operations and associated locations. The director in charge of environmental safety investigates and discusses specialized aspects of priority measures, establishes the Environmental and Safety Committee as a specialized committee to provide necessary analysis and reporting for decision-making purposes, and convenes and manages the Committee. Key matters amongst the items discussed by the Environmental and Safety Committee are decided by the Management Committee. The fiscal year’s priority measures are implemented by the various divisions. Progress is confirmed through environment safety inspections conducted periodically by the executive officer in charge of environmental safety.

Status of Certification Acquisition

The Yokkaichi Plant and the Chiba Plant have acquired certifications for quality management systems (ISO 9001) and environmental management systems (ISO 14001). These plants are maintaining their certification and promoting RC activities in line with those systems.

Plant	Certification acquired	Current certification body
Yokkaichi Plant	ISO 9001 January 1999	Japan Chemical Quality Assurance Ltd.
	ISO 14001 July 2000	
Chiba Plant	ISO 9001 December 1998	
	ISO 14001 November 2000	

*100% of manufacturing sites have acquired certifications

Inspections and Audits

Environment safety inspections and quality audits

Under the direction of the executive officer in charge of environmental safety, KH Neochem conducts environment safety inspections to check the progress of the fiscal year’s priority measures in RC activities, the suitability of safety management activities, and the proper implementation of environmental management activities at each relevant operating facility.

Likewise, under the direction of the executive officer in charge of quality assurance, we also carry out quality assurance audits of the divisions working on quality control in order to check the progress of the fiscal year’s priority measures in quality control and to confirm whether quality control is being properly carried out.

Plant audits

The Yokkaichi Plant and the Chiba Plant conduct internal audits for ISO 9001 and ISO 14001 as well as for

accreditation as high-pressure gas inspection executors (completion inspection and safety inspection) based on safety management systems.

In addition, they also undergo external audits based on ISO 9001 and ISO 14001 (maintenance and renewal audits), through which they maintain their certifications.

FY2022 Priority Measures (Numerical Targets) and Results, Together with FY2023 Priority Measures (Numerical Targets)

O: Achieved x: Unachieved

RC code	FY2022			FY2023
	Objective	Actual results	Evaluation	Objective
Environmental Conservation	· Environmental accidents: 0	· Environmental accidents: 0	O	
Safety and Disaster Prevention	· Safety-related accidents: 0	· Safety-related accidents: 10	x	· Safety-related accidents: 0
Occupational safety and health	· Accidents resulting in lost workdays: 0 · Work-related accidents: 7 or fewer	· Employee accidents resulting in lost workdays: 1 (Yokkaichi Plant) · Employee accidents not resulting in lost workdays: 5 (Yokkaichi Plant and Chiba Plant) · Accidents at cooperating companies resulting in lost workdays: 1 (Yokkaichi Plant) · Accidents at cooperating companies not resulting in lost workdays: 8 (Yokkaichi Plant and Chiba Plant)	x	· Accidents resulting in lost workdays: 0 · Work-related accidents: 9 or fewer (At or below the average of the latest five years)

Scope of aggregation: Yokkaichi Plant, Chiba Plant

*Action plans related to industrial safety and data related to Responsible Care at our plants can be seen from our website (<https://www.khneochem.co.jp/en/csr/rc/>).

Safety and Disaster Prevention

Safety and Disaster Prevention Initiatives

In accordance with the Environmental Safety Regulations, the Yokkaichi Plant and Chiba Plant have formulated their safety management policies. They are actively engaged in efforts to ensure that all employees are aware of the policies and carrying out safety and prevention activities based on the policies.

Safety Environmental Assessment (SEA)

At KH Neochem, we conduct an safety environmental assessment (SEA) in advance to assess the impact on security, safety, environmental conservation, and health impact when introducing new technology, new processes, new facilities, new machinery, and new chemical substances, or changing a manufacturing method, etc. By using the SEA results for feedback, we make every effort to heighten the safety of processes and equipment.

Accreditation as high pressure gas inspection executors (for both completion inspection and safety inspection)

This system, instituted by the High Pressure Gas Safety Act, enables companies that are recognized to have high standards for safety management, operations management, and equipment management, to conduct their own completion inspections and safety inspections in accordance with the High Pressure Gas Safety Act.

The Yokkaichi Plant has acquired this accreditation for six manufacturing facilities and the Chiba Plant has acquired it for one manufacturing facility. Both plants take steps for continuing improvement by implementing the PDCA cycle.

Emergency training

KH Neochem conducts periodic comprehensive disaster prevention drill for emergency scenarios, as well as training in initial firefighting response and emergency reporting. We prepare so that we can respond promptly and appropriately in the event of an emergency.



Scene from the comprehensive disaster prevention drill at the Yokkaichi Plant's Kasumigaura Plant.



Scene from the same comprehensive disaster prevention drill

Occupational Safety and Health

Occupational safety and health-related initiatives

KH Neochem conducts education based on the Industrial Safety and Health Act in order to assure the safety of employees and others working at our plants. In addition, we also take preventive actions against disasters, such as risk assessments*1, risk prediction activities using hiyari hatto (close call recognition) and kigakari memo (notes on matters of concern), improvement suggestion programs, and other everyday health and safety activities.

Chemical risk assessments*2 are conducted in accordance with the Industrial Safety and Health Act.

For projects defined under the regulations as high risk, if any of these assessments reveal a risk, measures to manage the risk are decided through discussions between workers and management at Health and Safety Committee meetings.

*1 Risk assessment: This refers to a series of techniques for identifying the risks and hazards in work, determining the seriousness and likelihood of work-related accidents arising from them, combining that information to estimate the risks, deciding on a priority for countermeasures based on the magnitude of those risks, studying measures to eliminate or reduce the risks, and keeping a record of the results.

*2 Chemical risk assessment: This refers to the identification of the risks and hazards of chemical substances and products, estimation of the likelihood of risk to workers or damage to their health, and studying measures to reduce the risks.

Status of work-related accidents

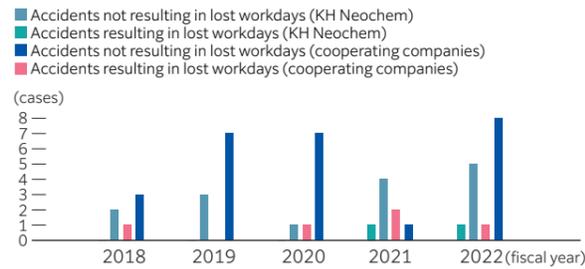
In FY2022, there were two accidents* that resulted in lost workdays. One of these was a fatal fall that occurred on April 4 at the Yokkaichi Plant. To prevent such a tragic accident from ever occurring again, employees and management are implementing a company-wide effort centered on both plants under the Comprehensive Safety Check Initiative 2022. Along with direct countermeasures against falls, a comprehensive work safety check is being conducted of all operations that could be implicated in serious work-related accidents. Efforts are also being made to foster habits and a culture that pays constant attention to safety. On October 1, 2022, we established our "Protecting ourselves and our colleagues" Safety Guidelines.

*Including one accident resulting in lost workdays that involved an employee of a cooperating company

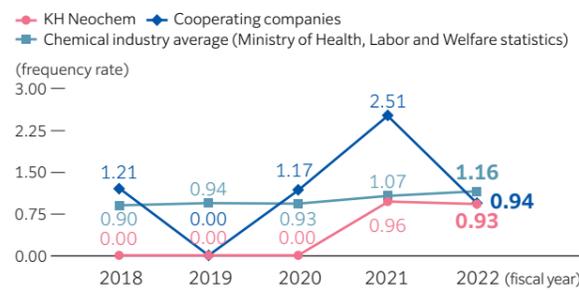
Promoting compliance using legal checklists

We prepare legal checklists for each relevant law to ensure there are no compliance violations concerning security, safety, and environmental conservation, and each operating facility uses these checklists to perform self-assessments. The results of the self-assessments are used by the company headquarters in environment safety inspections to make our legal assessments more comprehensive.

Number of work-related accidents

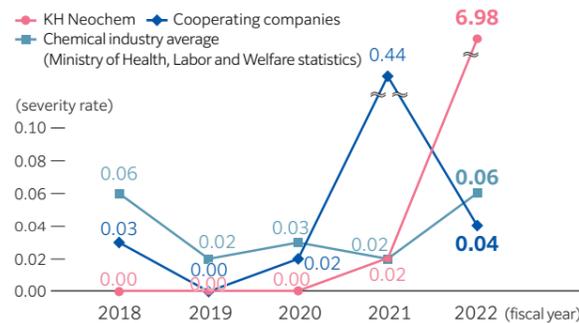


Frequency rate (accidents resulting in lost workdays)



Frequency rate: Indicator of the frequency of accident occurrence
 (Number of fatalities and injuries) ÷
 (Cumulative number of actual work hours) × 1,000,000

Severity rate



Severity rate: Indicator of the seriousness of an accident
 (Cumulative number of lost work days) ÷
 (Cumulative number of actual work hours) × 1,000

*Graphs of the frequency rate (accidents resulting in lost workdays) and the severity rate are shown below.

Scope of aggregation: Yokkaichi Plant and Chiba Plant

*As the employee of a cooperating company involved in an occupational accident in 2021 did not return to work before December 31, 2022, the lost work days were included in the 2022 data, and the severity data (cooperating company) for fiscal year 2021 has been updated to reflect this.

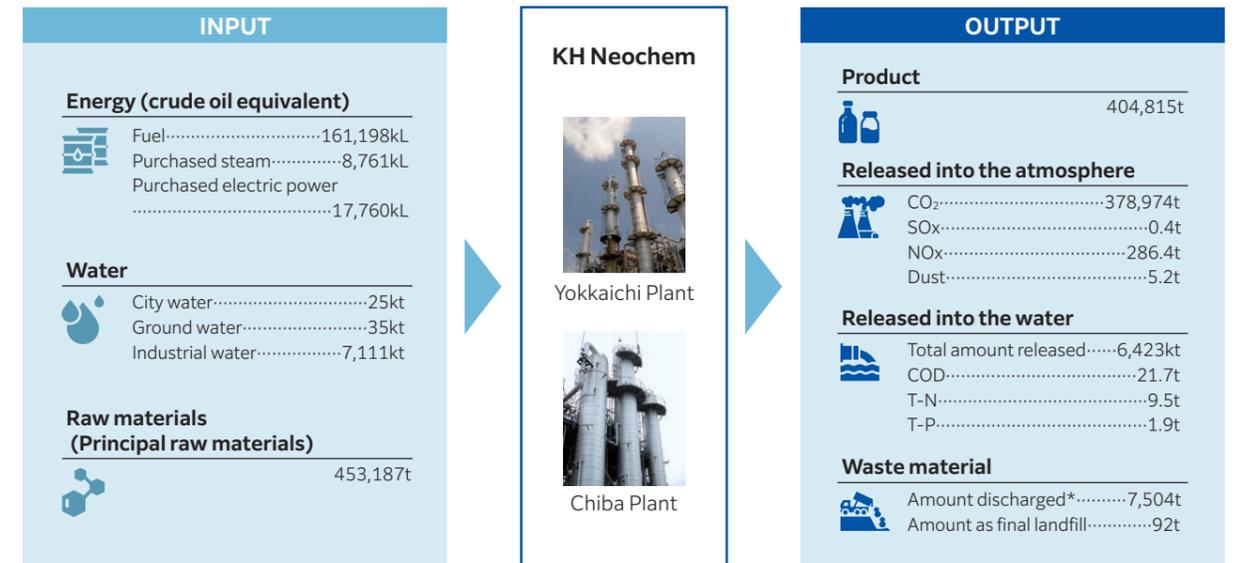
Managing chemicals with safety data sheets

In an effort to ensure that all of our products are used safely, we prepare and update safety data sheets (SDSs) in accordance with JIS standards and relevant law amendments, and provide them to customers. We also prepare, update, and provide SDSs in customers' native languages in line with our business activities in order to accommodate the international GHS guidelines.*

*GHS stands for the Globally Harmonized System of Classification and Labelling of Chemicals.

Environmental Conservation

Flow of Environmental Impact Results



Scope of aggregation: Yokkaichi Plant and Chiba Plant
 Period covered: April 1, 2022 to March 31, 2023

*In the past, the amount of waste generated at production plants was listed as "amount generated." However, starting from this fiscal year and in order to conform to the main purpose of the Flow of Environmental Impact Results, the amount of waste discharged by production plants will be shown under "amount discharged," and will reflect the amount after internal reduction.

Global warming prevention

As a designated business operator under the Act on the Rational Use of Energy*1, KH Neochem makes every effort to promote rational uses of energy. As a specified emitter under the Act on Promotion of Global Warming Countermeasures*2, we are also working diligently to reduce greenhouse gas (GHG) emissions. Energy consumption and GHG emissions*3,4 in FY2022 decreased to 87.6% and 89.7% YoY respectively, and this was due to a reduction in operating days resulting from biennial long-term scheduled maintenance, coupled with a decrease in production volume from the previous year due to equipment troubles that occurred during the period. Energy intensity deteriorated, rising to 112.4% YoY.

In addition to adopting renewable energy at KH i-Lab, Corporate Headquarters has already effectively switched to 100% renewable energy as of April 2023. We will continue further with energy conservation promotion, CAPEX, and considering the introduction of new technologies as we aim to reduce GHG emissions by 30% by 2030 (compared to fiscal 2017 levels) and achieve carbon neutrality by 2050.

*1 Act on the Rational Use of Energy: the law covering the rational usage of energy

*2 Act on Promotion of Global Warming Countermeasures: the law covering the promotion of initiatives taken the measure against global warming

*3 Figures reported based on the Act on the Rational Use of Energy

*4 Starting in FY2021, we have been deducting the amount of CO₂ that was generated in our production processes, captured, and used as raw materials from our GHG emissions. We have confirmed this with the government's office for reporting GHG emissions.

*All environmental performance data can be seen on p.14 and on our website. (<https://www.khneochem.co.jp/en/csr/rc/>).

Air pollution prevention

For the sulfur oxides (SO_x), nitrogen oxides (NO_x), and dust discharged from boilers, liquid waste incinerators, sludge incinerators, and other such equipment, KH Neochem of course complies with emissions standards based on the Air Pollution Control Act, and we additionally comply with levels that have been agreed upon with local communities.

Water pollution prevention

KH Neochem complies with emissions levels based on the Water Pollution Prevention Act as well as with levels agreed upon with local communities for chemical oxygen demand (COD), total nitrogen (T-N), and total phosphorus (T-P) in wastewater.

Waste reduction

KH Neochem implements thoroughgoing separation of waste materials and engages in the 3Rs of waste management: reduce, reuse, and recycle. We are moving forward to reuse acid waste and alkaline waste in our plants as well as to reduce their volume, to contract recycling treatment of waste catalysts, and to reuse incinerator waste as aggregate. We are working to reduce the "amount as final landfill" to keep it at 1% or less of the amount of waste generated, as is the target for 2024 in the 4th Medium-Term Business Plan.

Stakeholder Relations

Major Stakeholder Engagement

KH Neochem has pledged to practice transparent management with a high ethical standard. We strive to communicate with our stakeholders through various opportunities and are committed to embodying their valuable opinions in our corporate activities.

*Information on our relationships with our stakeholders is posted on our website.



<https://www.khneochem.co.jp/en/csr/>

Contribution to the Local Community

KH Neochem is working to contribute to society for the sustainable development of society. We are strengthening our approach to community service by emphasizing activities with deep local roots in Yokkaichi City, Mie Prefecture and Ichihara City, Chiba Prefecture in particular, where our plants are located.

Installed and painted benches at a site near our manufacturing plant (Ichihara City, Chiba Prefecture)

We donate wooden benches and paint existing benches alternately in Yokkaichi City, Mie Prefecture and Ichihara City, Chiba Prefecture, where our factories are located. We make use of paint as it is closely related to our business operations as a chemical manufacturer that supports manufacturing around the world.

In FY2022, this event was conducted at Ichihara Spolek Park in Ichihara City, Chiba Prefecture. To prevent the spread of COVID-19 at the event, only people working at the head office or the Chiba Plant and their families were allowed to participate. A total of 50 executives and employees joined in the event.

Shoji Koide, the mayor of Ichihara City, attended the event to express his gratitude and give the team a letter of appreciation.

Ichihara Spolek Park is a large sports facility with both natural and artificial grass playing fields, and is

used to hold soccer and rugby games and as a camping ground for professional sports teams. We would be greatly honored if the benches we donated could be of use to the people of the city.

We hope to continue to contribute to the lives of all of our stakeholders, starting with the members of our local communities.

Activities at operating facilities

Children are the future, and we are actively sponsoring children's sports tournaments in order for the children in the communities around our manufacturing plants to flourish. We are also continuing our work with local cleanup drives, plant tours for local educational institutions, and cooperation with NPOs.

Main activities

- Yokkaichi City U-10 Soccer Tournament (KH Neochem Cup)
- Ichihara City Friendly Baseball Tournament (KH Neochem Cup)



Bench painting in progress



Yokkaichi City U-10 Soccer Tournament (KH Neochem Cup)



At Ichihara Spolek Park
Ichihara City Friendly Baseball Tournament (KH Neochem Cup)

Dialogue with Shareholders and Investors

Major IR Activities (FY2022)

Results briefings	4
Overseas institutional investors conference	1
Small meeting with institutional investors	1
Dialogues with institutional investors	199

Communication with Shareholders and Investors

In 2022, due to the continued effects of the COVID-19 pandemic, results briefings and most of the investor dialogues were conducted online, which restricted IR activities for institutional and individual investors. We of course shared the valuable opinions of shareholders and investors with the Board of Directors and top management, and exchanged opinions even more actively with our IR department and among our other departments. Sharing ideas in this way, we worked to prepare materials to further deepen shareholders' and investors' understanding. In dialogues with investors, we focused on providing well-balanced explanations about our business from both short- and mid-to-long-term perspectives, touching on our significant market share in the mid-to-long-term growth markets, which is one of our key strengths, and our responses to short-term business results.

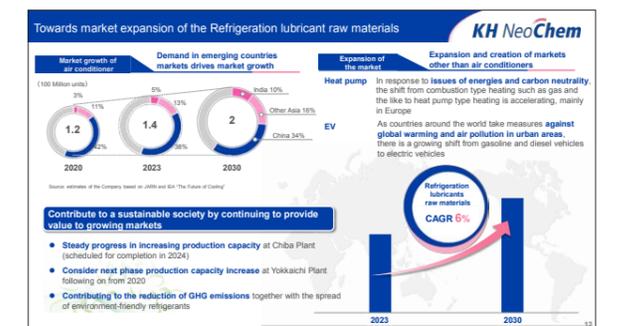
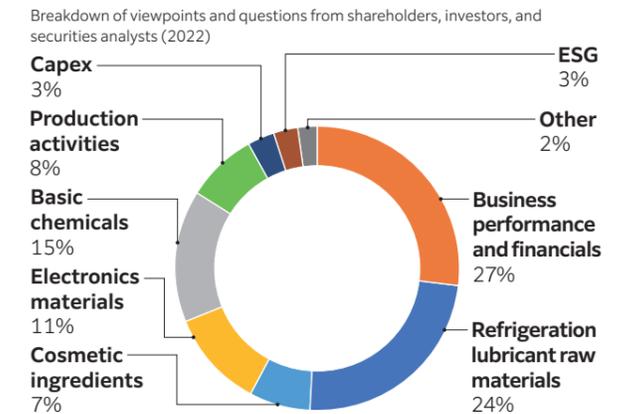
In light of 2023's more relaxed COVID-19 countermeasures, we would like to resume face-to-face IR activities with investors and analysts.

The General Meeting of Shareholders in March 2023 was held while taking appropriate measures to prevent the spread of COVID-19, continuing from the previous year. We consider the General Meeting of Shareholders to be a valuable opportunity for direct dialogue with our shareholders. As COVID-19 countermeasures continue to be eased, we will step up our efforts to actively communicate with shareholders.

Selected as Constituent of Various Indexes

KH Neochem is a constituent of the JPX-Nikkei Index 400, the JPX-Nikkei Mid and Small Cap Index, the FTSE Blossom Japan Sector Relative Index, and the Somo Sustainability Index. We are determined to further enhance our corporate value in order to meet the expectations of our shareholders and investors.

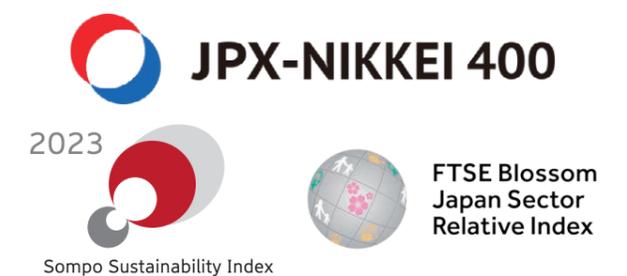
*The FTSE Blossom Japan Sector Relative Index, formulated by the global index provider FTSE Russell, is designed to reflect the performance of Japanese companies demonstrating strong environmental, social, and governance (ESG) alignment with their respective sectors, while maintaining sector neutrality. To facilitate the transition to a low-carbon economy, particularly for companies with high greenhouse gas emissions, it only incorporates companies committed to improving as assessed by their TPI Management Quality Score.



Extract from the financial results presentation material for the fiscal year ending on December 31, 2022



General Meeting of Shareholders

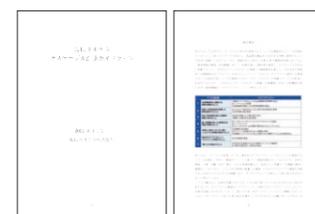


Stakeholder Relations

Discussion and Cooperation with Business Partners

Sustainable Procurement Guidelines

In recent years, it has become essential to practice sustainable procurement in response to increasing social demand. We formulated our Sustainable Procurement Guidelines in March 2023. In them, we outline our basic policy for procurement, and list various aspects that we wish to collaborate with our business partners on to achieve sustainable procurement.



The Sustainable Procurement Guidelines

In FY2023, we sent and collected confirmation documents to and from our ongoing business partners to promote awareness and understanding of

our guidelines, as well as explaining our guidelines in person to our major business partners. Furthermore, to improve understanding of the guidelines within the company, we held training sessions for Procurement in March 2023.

Promoting sustainable procurement

To assess the progress of business partners' sustainable procurement efforts, we will conduct surveys of our major business partners based on Global Compact Network Japan's CSR/Sustainable Procurement Self-assessment Questionnaire (common SAQ) starting in July 2023, and verify and analyze the results.

Respect for Human Rights

Respect for Human Rights Policy

Considering respect for human rights to be a social responsibility, we have established our Respect for Human Rights Policy, which we disseminate inside and outside the company. In addition to respecting international principles on human rights, we are resolved to address six human rights issues that we prioritize. The Respect for Human Rights Policy stipulates that the Board of Directors monitors the progress of initiatives, and also that continuous education and awareness be provided to all officers and employees, that human rights-related risks be identified and assessed through human rights due diligence, and that grievance mechanisms related to human rights be put in place. By fulfilling our responsibilities through these initiatives to respect human rights, we will strive to secure the trust of our stakeholders and maintain and improve our corporate value.

*The Respect for Human Rights Policy is posted on our website. https://www.khneochem.co.jp/en/company/philosophy/principles/human_rights_policy.html

KH Neochem's Six Human Rights Priorities

1. Prohibition of Discrimination
2. Prohibition of Behavior to Undermine Dignity (Harassment)
3. Prohibition of Forced Labor and Child Labor
4. Respect for Basic Labor Rights
5. Respect for Diversity
6. Ensuring a Safe and Hygienic Workplace

Education on respecting human rights

We hold workshops at each workplace to foster a deeper understanding of our Respect for Human Rights Policy. Out of our Six Human Rights Priorities, we focused on "Prohibition of Behavior to Undermine Dignity (Harassment)" and "Ensuring a Safe and Hygienic Workplace," conducting discussions at each workplace. By the first half of 2023, there had been nearly 200 participants, accounting for about 30% of our entire workforce (▶ P68). The workshops will be held in all company divisions.

Identification and assessment of human rights-related risks

The aforementioned questionnaire to check the status of sustainable procurement includes items to identify human rights-related risks in business operations, including those with business partners. If risks are identified, we proceed to evaluate their impact.

Human rights remediation and grievance resolution mechanisms

KH Neochem provides a hotline for reporting human rights-related concerns (▶ P67). The hotline is available for Company employees, former employees who retired within the past year, customers, business partners, and others.

Consolidated Financial Statements

Consolidated Balance Sheet

	(Millions of yen)	
	Fiscal year ended December 31, 2021	Fiscal year ended December 31, 2022
Assets		
Current Assets		
Cash and deposits	16,934	10,926
Notes and accounts receivable - trade	33,186	-
Notes and accounts receivable - trade, and contract assets	-	37,301
Merchandise and finished products	14,562	17,447
Work in process	413	599
Raw materials and supplies	2,909	3,931
Other	2,288	4,040
Allowance for doubtful accounts	(4)	(7)
Total current assets	70,291	74,239
Non-current Assets		
Property, plant and equipment		
Buildings and structures	31,704	34,244
Accumulated depreciation and impairment	(25,823)	(26,256)
Buildings and structures, net	5,881	7,987
Machinery, equipment and vehicles	97,790	99,740
Accumulated depreciation and impairment	(87,267)	(89,184)
Machinery, equipment and vehicles, net	10,523	10,555
Land	17,549	17,549
Leased assets	1,573	1,689
Accumulated depreciation	(89)	(254)
Leased assets, net	1,484	1,434
Construction in progress	1,960	5,661
Other	6,442	7,275
Accumulated depreciation and impairment	(4,670)	(4,769)
Other, net	1,772	2,506
Net property, plant and equipment	39,170	45,693
Intangible assets		
Goodwill	1,243	1,109
Other	581	533
Total intangible assets	1,825	1,642
Investments and other assets		
Investment securities	8,176	6,396
Assets for retirement benefits	1,929	2,051
Deferred tax assets	185	197
Other	493	1,027
Allowance for doubtful accounts	(1)	(1)
Total investments and other assets	10,782	9,671
Total non-current assets	51,778	57,007
Total Assets	122,069	131,247

	(Millions of yen)	
	Fiscal year ended December 31, 2021	Fiscal year ended December 31, 2022
Liabilities		
Current Liabilities		
Notes and accounts payable - trade	25,640	30,359
Short-term bank loans	10,210	9,870
Current portion of long-term debt	3,250	-
Commercial paper	-	5,999
Current portion of long-term lease obligations	91	111
Accounts payable - other	4,716	7,982
Income taxes payable	6,214	1,210
Provision for repairs	2,302	637
Other	850	587
Total current liabilities	53,276	56,758
Long-term Liabilities		
Corporate bonds	5,000	5,000
Long-term lease obligations	1,606	1,544
Deferred tax liabilities	1,922	2,537
Liability for retirement benefits	2,526	2,388
Provision for stock-based remuneration plan for directors (and other officers)	50	122
Provision for repairs	-	660
Other	181	169
Total long-term liabilities	11,288	12,422
Total Liabilities	64,564	69,180
Net Assets		
Shareholders' equity		
Common stock	8,855	8,855
Capital surplus	6,186	6,186
Retained earnings	38,841	43,663
Treasury stock	(132)	(222)
Total shareholders' equity	53,751	58,483
Accumulated Other Comprehensive Income		
Unrealized gain on available-for-sale securities	1,022	570
Deferred gains or losses on hedges	(0)	(25)
Foreign currency translation adjustments	42	90
Defined retirement benefit plans	102	229
Total accumulated other comprehensive income	1,166	864
Non-controlling Interests	2,587	2,718
Total Net Assets	57,505	62,066
Total Liabilities and Net Assets	122,069	131,247

Consolidated Statement of Income

	(Millions of yen)	
	Fiscal year ended December 31, 2021	Fiscal year ended December 31, 2022
Net Sales	117,110	114,880
Cost of Sales	84,876	90,434
Gross Profit	32,233	24,445
Selling, General and Administrative Expenses		
Freight	4,469	4,294
Container packaging	1,420	1,071
Salary	1,230	1,275
Other	5,427	5,347
Total selling, general and administrative expenses	12,547	11,989
Operating Income	19,685	12,456
Non-operating Income		
Interest and dividend income	136	289
Equity in earnings of associated company	258	450
Subsidy income	77	-
Other	213	213
Total non-operating income	686	953
Non-operating Expenses		
Interest expenses	102	86
Contribution expenses	-	181
Loss on disposal of non-current assets	385	386
Other	74	46
Total non-operating expenses	562	700
Ordinary Income	19,809	12,709
Extraordinary income		
Gain on reversal of foreign currency translation adjustments resulting from liquidation of a foreign subsidiary	89	-
Gain on sale of investment securities	-	237
Gain on liquidation of subsidiaries	-	95
Total extraordinary income	89	333
Extraordinary losses		
Impairment losses	111	-
Loss on valuation of investment securities	-	992
Accident related loss	-	414
Total extraordinary losses	111	1,407
Income before Income Taxes	19,788	11,634
Income taxes - current	6,523	2,628
Income taxes - deferred	(599)	753
Total income taxes	5,924	3,382
Net Income	13,864	8,252
Net Income Attributable to Non-controlling Interests	173	179
Net Income Attributable to Owners of the Parent	13,691	8,073

Consolidated Statement of Comprehensive Income

	(Millions of yen)	
	Fiscal year ended December 31, 2021	Fiscal year ended December 31, 2022
Net Income	13,864	8,252
Other Comprehensive Income		
Unrealized gain (loss) on available-for-sale securities	(139)	(451)
Deferred gains or losses on hedges	(1)	(24)
Foreign currency translation adjustments	(27)	47
Defined retirement benefit plans	260	127
Total other comprehensive income	91	(301)
Comprehensive Income	13,955	7,950
Comprehensive Income Attributable to:		
Owners of the parent	13,782	7,771
Non-controlling interests	173	179

Consolidated Statement of Changes in Equity

Fiscal year ended December 31, 2021 (Millions of yen)

	Shareholders' equity				
	Common stock	Capital surplus	Retained earnings	Treasury stock	Total shareholders' equity
Balance, Jan. 1, 2021	8,855	6,140	27,379	(69)	42,305
Changes during period					
Cash dividends of surplus			(2,228)		(2,228)
Net income attributable to owners of the parent			13,691		13,691
Purchase of treasury stock				(62)	(62)
Change in the parent's ownership interest due to transactions with non-controlling interests		46			46
Net changes in items other than shareholders' equity					
Total changes during period	-	46	11,462	(62)	11,445
Balance, Dec. 31, 2021	8,855	6,186	38,841	(132)	53,751

	Accumulated Other Comprehensive Income					Non-controlling Interests	Total Net Assets
	Unrealized gain (loss) on available-for-sale securities	Deferred gains or losses on hedges	Foreign currency translation adjustments	Defined retirement benefit plans	Total accumulated other comprehensive income		
Balance, Jan. 1, 2021	1,162	0	70	(158)	1,074	2,504	45,884
Changes during period							
Cash dividends of surplus							(2,228)
Net income attributable to owners of the parent							13,691
Purchase of treasury stock							(62)
Change in the parent's ownership interest due to transactions with non-controlling interests							46
Net changes in items other than shareholders' equity	(139)	(1)	(27)	260	91	83	174
Total changes during period	(139)	(1)	(27)	260	91	83	11,620
Balance, Dec. 31, 2021	1,022	(0)	42	102	1,166	2,587	57,505

Fiscal year ended December 31, 2022 (Millions of yen)

	Shareholders' equity				
	Common stock	Capital surplus	Retained earnings	Treasury stock	Total shareholders' equity
Balance, Jan. 1, 2022	8,855	6,186	38,841	(132)	53,751
Changes during period					
Cash dividends of surplus			(3,250)		(3,250)
Net income attributable to owners of the parent			8,073		8,073
Purchase of treasury stock				(89)	(89)
Change in the parent's ownership interest due to transactions with non-controlling interests					-
Net changes in items other than shareholders' equity					
Total changes during period	-	-	4,822	(89)	4,732
Balance, Dec. 31, 2022	8,855	6,186	43,663	(222)	58,483

	Accumulated Other Comprehensive Income					Non-controlling Interests	Total Net Assets
	Unrealized gain (loss) on available-for-sale securities	Deferred gains or losses on hedges	Foreign currency translation adjustments	Defined retirement benefit plans	Total accumulated other comprehensive income		
Balance, Jan. 1, 2022	1,022	(0)	42	102	1,166	2,587	57,505
Changes during period							
Cash dividends of surplus							(3,250)
Net income attributable to owners of the parent							8,073
Purchase of treasury stock							(89)
Change in the parent's ownership interest due to transactions with non-controlling interests							-
Net changes in items other than shareholders' equity	(451)	(24)	47	127	(301)	130	(171)
Total changes during period	(451)	(24)	47	127	(301)	130	4,561
Balance, Dec. 31, 2022	570	(25)	90	229	864	2,718	62,066

Consolidated Statement of Cash Flows

	(Millions of yen)	
	Fiscal year ended December 31, 2021	Fiscal year ended December 31, 2022
Operating Activities		
Income before income taxes	19,788	11,634
Depreciation	4,369	4,159
Impairment losses	111	-
Amortization of goodwill	134	134
Increase (decrease) in liability for retirement benefits	17	100
Decrease (increase) in assets for retirement benefits	(92)	(177)
Increase (decrease) in provision for repairs	1,114	(1,004)
Interest and dividend income	(136)	(289)
Interest expenses	102	86
Equity in (earnings) of associated company	(258)	(450)
Gain on reversal of foreign currency translation adjustments resulting from liquidation of a foreign subsidiary	(89)	-
Decrease (increase) in notes and accounts receivable	(11,089)	(4,057)
Decrease (increase) in inventories	(7,076)	(3,943)
Increase (decrease) in notes and accounts payable	11,256	4,542
Loss (gain) on sale of investment securities	-	(237)
Loss (gain) on valuation of investment securities	-	992
Loss (gain) on liquidation of subsidiaries	-	(95)
Decrease (increase) in other current assets	(132)	(1,711)
Increase (decrease) in other current liabilities	(248)	3,291
Other	602	(909)
Subtotal	18,370	12,066
Interest and dividends received	286	618
Interest paid	(98)	(85)
Income taxes paid	(1,155)	(7,467)
Net cash provided by (used in) operating activities	17,402	5,131
Investing Activities		
Purchase of property, plant and equipment	(4,044)	(10,402)
Purchase of intangible assets	(360)	(92)
Purchase of investment securities	(11)	(141)
Proceeds from sale of investment securities	-	547
Other	21	5
Net cash provided by (used in) investing activities	(4,395)	(10,082)
Financing Activities		
Increase (decrease) in short-term bank loans & borrowings-net	(340)	(340)
Increase (decrease) in commercial paper - net	(0)	5,999
Repayments of bank loans	(2,400)	(3,250)
Purchase of treasury stock	(62)	(89)
Dividends paid	(2,229)	(3,250)
Dividends paid to non-controlling interests	(28)	(48)
Payment from purchase of investment in subsidiaries that do not result in change in scope of consolidation	(15)	-
Other	(92)	(96)
Net cash provided by (used in) financing activities	(5,168)	(1,076)
Foreign Currency Translation Adjustments on Cash and Cash Equivalents	29	18
Net Increase (Decrease) in Cash and Cash Equivalents	7,868	(6,008)
Cash and Cash Equivalents, Beginning of Year	9,066	16,934
Cash and Cash Equivalents, End of Year	16,934	10,926

Financial Data (consolidated)

	(Unit)	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
Operating Results								
Net Sales	(Millions of yen)	80,163	94,661	101,199	94,209	77,332	117,110	114,880
Operating Income	(Millions of yen)	8,982	11,495	10,858	9,559	5,642	19,685	12,456
Ordinary Income	(Millions of yen)	8,950	11,906	11,197	9,896	5,627	19,809	12,709
Net income attributable to owners of the parent	(Millions of yen)	6,013	8,167	6,737	6,917	4,046	13,691	8,073
Financial Position								
Cash and deposits	(Millions of yen)	12,335	12,866	10,126	17,867	9,066	16,934	10,926
Total assets	(Millions of yen)	87,674	95,247	94,035	102,261	95,508	122,069	131,247
Interest-bearing debt	(Millions of yen)	31,300	24,730	21,040	23,490	21,200	18,460	20,869
Equity capital	(Millions of yen)	24,713	31,032	35,903	41,084	43,380	54,917	59,348
Net Assets	(Millions of yen)	28,112	34,512	38,304	43,522	45,884	57,505	62,066
Cash Flows								
Operating Activities	(Millions of yen)	2,681	12,971	7,707	10,962	6,931	17,402	5,131
Investing Activities	(Millions of yen)	(3,791)	(3,281)	(4,009)	(3,512)	(11,182)	(4,395)	(10,082)
Financing Activities	(Millions of yen)	(1,373)	(9,338)	(6,224)	294	(4,530)	(5,168)	(1,076)
Others								
CAPEX	(Millions of yen)	2,350	1,637	2,943	6,995	6,003	3,639	9,470
Depreciation	(Millions of yen)	3,361	3,248	3,120	3,196	3,737	4,369	4,159
R&D expenses	(Millions of yen)	898	939	822	847	919	1,005	871
Per Share								
Basic net income	(yen)	173.56	222.12	182.77	187.09	109.12	368.95	217.73
Diluted net income	(yen)	172.23	220.44	181.62	186.44	109.02	-	-
Net Assets	(yen)	672.48	842.15	971.92	1,109.88	1,168.62	1,480.27	1,601.26
Cash Dividends	(yen)	50.0	54.0	54.0	60.0	60.0	75.0	85.0
Key Indicators								
EBITDA	(bn yen)	12.5	14.9	14.1	12.9	9.5	24.2	16.7
ROE	(%)	28.43	29.30	20.13	17.97	9.58	27.86	14.13
Equity ratio	(%)	28.19	32.58	38.18	40.18	45.42	44.99	45.22
Net Debt Equity ratio	(times)	0.77	0.38	0.30	0.14	0.28	0.03	0.17
Ratio of operating income to net sales	(%)	11.2	12.1	10.7	10.1	7.3	16.8	10.8
Dividend payout ratio	(%)	28.8	24.3	29.5	32.1	55.0	20.3	39.0

Non-Financial Data (Non-Consolidated)

	(Unit)	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
Energy consumption	(1,000 kL)	206.5	218.8	208.7	204.6	194.2	214.4	187.8
Energy intensity	(L/t)	202.3	199.6	210.0	207.2	222.3	204.9	230.4
Greenhouse Gas (GHG) emissions (CO ₂ equivalent, Scope 1+2)	(1,000t -CO ₂)	448.2	473.6	448.9	440.2	404.2	422.4	379.1
Greenhouse Gas (GHG) emissions (CO ₂ equivalent, Scope 3)	(1,000t -CO ₂)	-	-	-	-	-	1,331	1,054
Disposed of as landfill	(t)	84	140	124	136	133	106	92
Number of employees	(persons)	599	600	611	659	673	649	659
Total number of new employees	(persons)	23	22	40	77	35	27	40
Number of new female employees	(persons)	2	3	4	10	4	5	6
Ratio of new female employees	(%)	8.7	13.6	10.0	13.0	11.4	18.5	15
Difference in years of service between genders	(year)	-0.2	0.4	0.3	-0.3	0.8	1.3	1.3
Number of accidents resulting in lost workdays	(cases)	0	0	0	0	0	1	1
Paternity leave ratio*	(%)	-	-	-	-	-	-	90

* Results from FY2022 are disclosed based on an amendment to the law

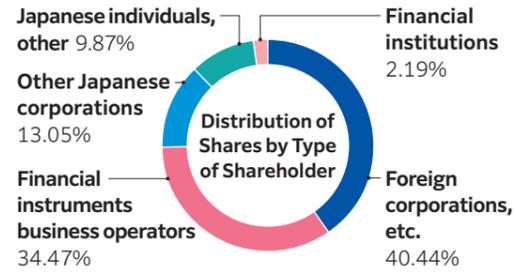
Corporate Overview

Corporate Overview (as of June 30, 2023)

Establishment	December 2010 (Our predecessor Kyowa Yuka, was established in November 1966)
Capital	8.8 bn JPY
Head office	2-3-1, Nihonbashi-Muromachi, Chuo-ku, Tokyo 103-0022, Japan
Group companies and affiliated companies	Kurogane Kasei Co., Ltd. Kurogane Fines Inc. KH Neochem Americas, Inc. Shanghai Seika Trading Co., Ltd. J-Plus Co., Ltd.* <small>*Joint venture with Mitsubishi Chemical Corporation</small>

Stock Overview (as of June 30, 2023)

Total number of shares authorized to be issued	136,200,000
Total number of issued shares	37,149,400
Number of shareholders	6,846



Major Shareholder Information

(as of June 30, 2023)

Shareholder name	Number of shares held	Ratio of shares held* (%)
The Master Trust Bank of Japan, Ltd. (Trust account)	5,911,400	15.91
Custody Bank of Japan, Ltd. (Trust account)	3,949,300	10.63
Tosoh Corporation	1,852,000	4.99
TAIYO FUND, L.P.	1,572,300	4.23
NORTHERN TRUST CO. (AVFC) RE USL NON-TREATY CLIENTS ACCOUNT	1,554,100	4.18
NORTHERN TRUST CO. (AVFC) RE UKUC UCITS CLIENTS NON LENDING 10PCT TREATY ACCOUNT	1,039,000	2.80
STATE STREET BANK AND TRUST COMPANY 505227	934,417	2.52
TAIYO HANEI FUND, L.P.	838,700	2.26
Mizuho Bank, Ltd.	733,300	1.97
GOVERNMENT OF NORWAY	723,603	1.95

* Calculation based on the total number of issued shares less treasury stock, and rounded to the nearest unit.

External Evaluation Index Adopted



"In 2023, KH Neochem Co., Ltd. received a rating of BBB in the MSCI ESG Ratings assessment."



FTSE Russell confirms that KH Neochem co., Ltd. has been independently assessed according to the index criteria, and has satisfied the requirements to become a constituent of the FTSE Blossom Japan Sector Relative Index. 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.



Global Network*



*Only headquarter locations are provided for Group companies and affiliates



Yokkaichi Plant



Chiba Plant

Sponsorship of Speed Skaters

The company has sponsored short track speed skater Moemi Kikuchi since 2018, and speed skater Rin Kosaka since 2022.

As "a leading global specialty chemical company" that shares the enthusiasm of these athletes to pursue their dreams, we will do our utmost to support both athletes so that they can shine on the world stage.



Photo: Aflo Sport

Moemi Kikuchi

Short track speed skater
2021: 500m and 300m SF champion at the All Japan Short Track Speed Skating Championships
2022: Results include placing second in the 500m at the All Japan Short Track Speed Skating Single Distances Championships



Photo: Aflo Sport

Rin Kosaka

Speed Skater
2021: Beijing Olympics Japan National Team (Mass Start)
2022: Placed third in the 1,500m at the All Japan Speed Skating Championships



They gave an activity report at the Chiba Plant