

Nissan Chemical Corporation Integrated Report 2024



Integrated Report



WHERE IT ALL BEGINS

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Nothing is going to change the world to be better without beginning. The slogan means Nissan Chemical creates such "beginning" to realize the hope of human by exploring the future.

Brand Statement Our goal is to fill the world with hope and happiness. Our value is to produce a whole new excitement utilizing our imagination and creativity. Our pride is our team of specialists believing in the infinite possibilities of chemistry and striving to achieve the impossible. We are Nissan Chemical, an ever evolving company the world can't do without.



# **Corporate Ethos Structure**

Based on changes in the business environment, social issues, and management challenges, we recognized the importance of the corporate philosophy once again. To determine our direction for the future and clarify the raison d'etre of the Group, we redefined our corporate philosophy in 2022.



"Contribute to society with excellent technologies and products." "Promote prosperity and welfare through concerted efforts to constantly develop new areas." "Respect people who exhibit a sense of responsibility, originality and motivation."



Contribute to the protection of the global environment and the existence/ development of humanity, offering the value sought by society.

Course of Action

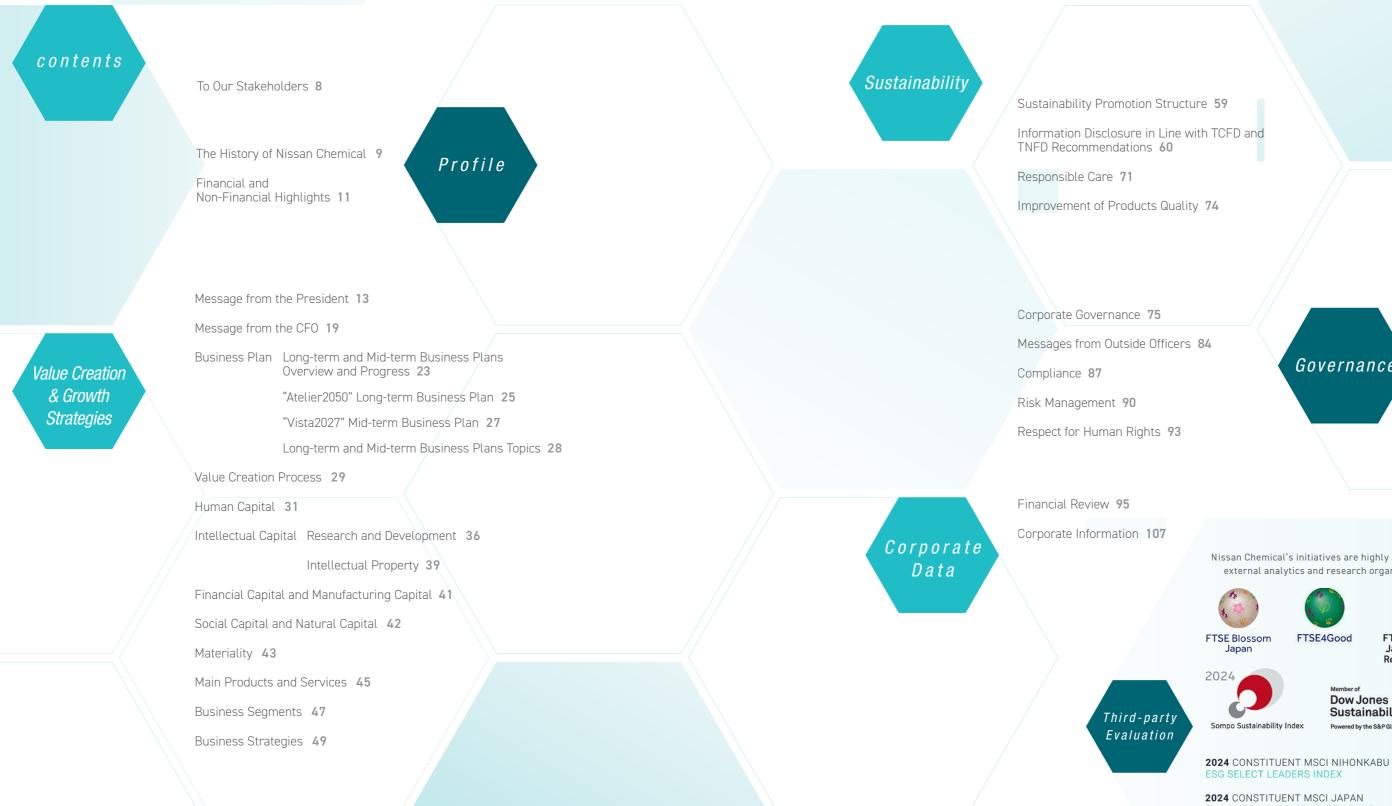
- 1 Conduct sensible business activities as a member of the international community in compliance with laws and regulations.
- 2 Enhance corporate value by providing safe and useful products and services.
- 3 Strive to achieve no-accidents & no-disasters and protect the global environment.
- 4 Disclose information appropriately with a focus on communication with stakeholders.
- individuality and personality of employees, and promoting their health.
- members of society.



5 Create a cheerful and pleasant workplace by respecting the

6 Conduct ourselves as good corporate citizens and decent

# Integrated Report 2024 "WHERE IT ALL BEGINS"





Nissan Chemical's initiatives are highly regarded by external analytics and research organizations.





**FTSE** Blossom Japan Sector Relative Index

Sustainability Indices Powered by the S&P Global CSA

EMPOWERING WOMEN INDEX (WIN)



FTSE Russell confirms that Nissan Chemical Corporation 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.

# **Editorial Policy**

In 1992, we introduced responsible care activities, and have disclosed the details of these activities via Environment and Safety Report from 1999. The Report transformed into CSR Report in 2013 and Annual report in which business overview and financial section were included since 2016.

Since 2018, we have comprehensively summarized the materiality, value creation process, business strategies, and detailed financial information in addition to the business overview and E (Environment), S (Social), and G (Governance) information as an integrated report to make this report easier to understand mid-to long-term value creation of Nissan Chemical Group to all stakeholders, including shareholders and investors.

We aim to make this report as a valuable communication tool by deepening our business activities and enhancing the content of the report.

### **Reporting Period**

FY2023 (April 2023 to March 2024)

\* The occupational accidents data (P12 and P73) is from January to December 2023.

#### Issued

October 2024

(The previous edition was issued in October 2023, and the next edition is planned to be issued in October 2025.)

# Frequency of Issuance

Annually

# **Contact for Inquiries About This Report**

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# Scope of Reporting

The initiatives are described mainly in the financial and ESG information of the activities of Nissan Chemical Group.

# **Guidelines Used as Reference**

- International Financial Reporting Standards (IFRS) Foundation "IFRS Sustainability Disclosure Standards"
- Ministry of Economy, Trade and Industry "Guidance for Collaborative Value Creation"
- GRI "Sustainability Reporting Guidelines Standard"
- Ministry of the Environment "Environmental Reporting" Guidelines"
- Task Force on Climate-related Financial Disclosures (TCFD)
- Taskforce on Nature-related Financial Disclosures (TNFD)



#### Information Disclosure System



### Consolidated subsidiaries:

Nissei Corporation, Nissan Butsuryu Co., Ltd., Nissan Green & Landscape Co., Ltd., Nissan Engineering, Ltd., NC Tokyo Bay Corporation, NC Agro Hakodate Corporation, Nihon Hiryo Co., Ltd., Nissan Chemical America Corporation (NCA), Nissan Chemical Europe S.A.S. (NCE), NCK Co., Ltd. (NCK), Nissan Bharat Rasayan PVT. LTD. (NBR)

Entities accounted for using equity method: Sun Agro Co., Ltd., Clariant Catalysts (Japan) K.K.

#### Group Companies:

In addition to the above consolidated subsidiaries and entities accounted for using equity method, Nissan Chemical Agro Korea Ltd. (NAK), Nissan Chemical Taiwan Co., Ltd. (NCT), Nissan Chemical Product (Shanghai) Co., Ltd. (NCS), Nissan Chemical Materials Research (Suzhou) Co., Ltd. (NSU), Nissan Chemical Do Brasil (NCB), Nissan Chemical Agro Singapore Pte. Ltd. (NAS), Nissan Agro Tech India PVT. LTD. (NAI)

# **To Our Stakeholders**

Our company was founded as Japan's first chemical fertilizer manufacturer in 1887 to solve food issues which Japan faced under the founding spirit "to dedicate ourselves to prosperity of the nation by agricultural fertility." The pioneering spirit has been still very much alive at Nissan Chemical as we have continued putting effort into innovative technologies and projects that promote social progress, greatly transforming our business operations.

To realize corporate vision in a new era, we currently provide products and services on a global scale in four business domains, such as Chemicals, Performance Materials, Agricultural Chemicals, and Healthcare on the basis of ESG (Environment, Social and Governance) and SDGs (Sustainable Development Goals) established by the United Nations.

The social and economic environment surrounding us continues to change dramatically, including climate change, aggravated food and health issues, a decline in the labor force due to low birthrate and aging population and widening economic divides threatening the sustainability of society. From the time of our founding to the present, we have been working to solve social issues.

By thoroughly pursuing our corporate philosophy "Contribute to the protection of the global environment and the existence/development of humanity, offering the value sought by society," and continuing to take on the challenge of creating unprecedented possibilities and value, we will strive for sustainable development of society and our group in the future.

# **KINOSHITA Kojiro** Representative Director, Chairman & CEO



# The History of Nissan Chemical

Japan's first chemical fertilizer manufacturer founded 137 years ago by TAKAMINE Jokichi, who was called "Father of Biotechnology."

His pioneering spirit has been passed down and continues to this very day.

# 1887

# At the time of founding

Tokyo Jinzo Hiryo, the Nissan Chemical's predecessor organization, started in 1885 when TAKAMINE Jokichi, who was called the "Father of Biotechnology," brought phosphoric ore from the US back to Japan. Takamine, who strongly felt the need for improve the fertilizer used in Japanese agriculture to help make Japan a modern nation, approached SHIBUSAWA Eiichi, known as the "Father of Japanese Capitalism," the following year with the idea of the commercialization of fertilizer. SHIBUSAWA Eiichi, who was from a wealthy farming family, deeply agreed with Takamine's proposal. He established Japan's first chemical fertilizer manufacturer in 1887 becoming chairman (president) himself.

250.000 (million yen)

With the Company policy "to dedicate ourselves to prosperity of the nation by agricultural fertility," the Company contributed to the increase of domestic food production.

# 1923

# Establishment of company foundation for business diversification

In the first half of the twentieth century, amid a variety of M&A activities by domestic corporates, the three companies were joined in 1923. The Company then promoted business diversification and entered under the umbrella of Nissan zaibatsu (Nissan Concern Company Group) in 1937, which was the 50th anniversary of its founding, renamed Nissan Chemical Industries.

After World War II, under the separation directive based on the Corporate Reconstruction and Improvement Law, the fat and oil section was separated into Nippon Oil and Fats (current NOF) in 1949 and Nissan Chemical Industries newly started.



IIBUSAWA Eiichi (sec from left) visiting Oj int just after the com n the left is TANAKA nachiro who served as any presi

# 1965

# Acquired new technological ideas through entry into the petrochemical business

ine Organic Synth

In 1965, we established Nissan Petrochemicals and entered the petrochemical business. However, the petrochemical industry experienced a structural slump due to the impact of the oil crises. The Company worked to rebuild its business, but it was unable to improve its profitability and began rationalization. The Company exited the petrochemical business in 1988.

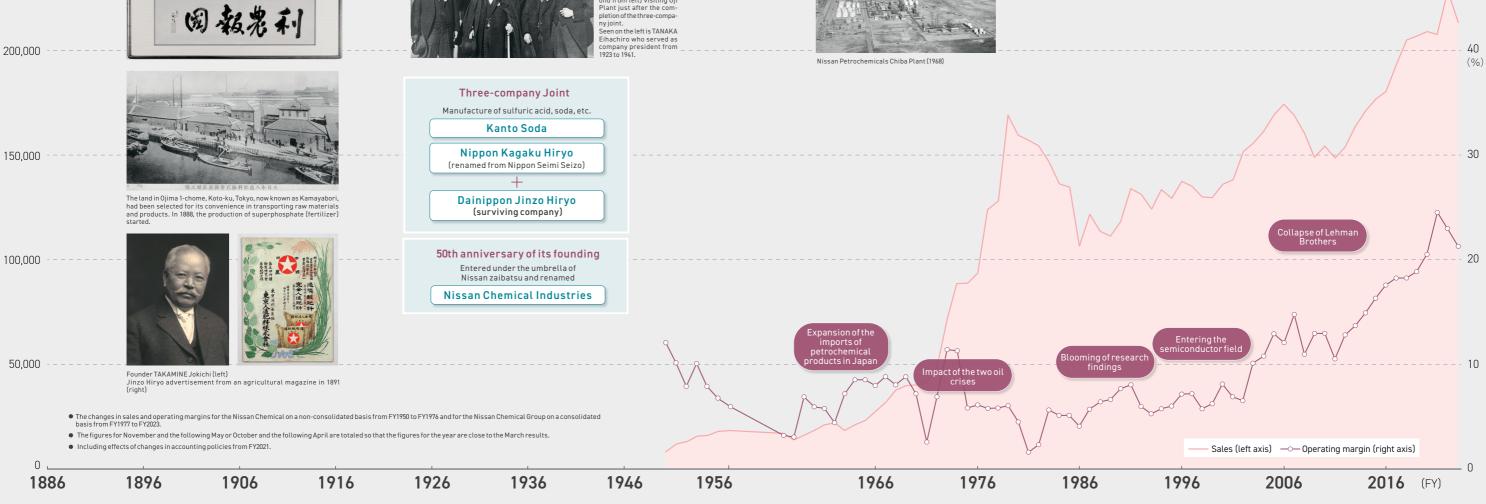
Although resulting in a large deficit, this business brought the penetration of technological ideas to the Company, which led to the development of new technologies and businesses such as fine chemicals.



Restarted as a value-creating company

1989

In 1989, we launched our mid-term business plan declaring the comeback as a value-creating company oriented with its two pillars: high-tech fields such as agrochemicals and pharmaceuticals, and technology fields such as functional products and chemicals. The results of continued R&D investment in this difficult situation emerged. By the early 1990s, we released a large number of agrochemicals on the market and entered the semiconductor field. In the 2000s, sales of the active ingredient of LIVALO®\*, an anti-cholesterol drug, increased significantly and we acquired exclusive marketing rights in Japan to ROUNDUP®, the world's largest herbicide. This was followed by the creation of new agrochemicals that are the main products at present. \* LIVALO® is a registered trademark of Kowa Company, Ltd.





# 2016

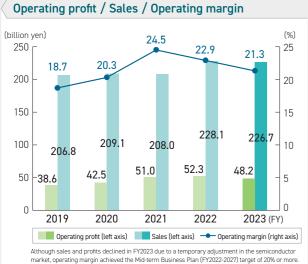
# To be a future-creating company with sustainable growth based on our core technologies

In 2016, the Company launched the longterm business plan "Progress2030" looking ahead to 2030, recognizing the importance of expanding its business domains for sustainable growth.

We expand our business transcending the framework of industry and accelerate this effort toward the future. In order to clarify this stance, in 2018, we changed our name to Nissan Chemical Corporation.

In 2022, in light of the significant changes in the business environment, which was the premise for the formulation of Progress2030, we have launched the new long-term business plan "Atelier2050," looking ahead to 2050, in order to chart a course for the Group to continue to develop and contribute to solving social issues.

# **Financial and Non-Financial Highlights**



market, operating margin achieved the Mid-term Business Plan (FY2022-2027) target of 20% or more. \* Including the effects of accounting policy changes from FY2021



(billion ven)

45 <sub>[</sub>

40

35

30

25

20

15

10

16.9

30.8

Although the ROE fell short of the mid-term plan target (FY2022-2027) of above 18%, it remained at a hiah leve

175

33.5



Net income attributable to owners of parent / ROE

19.2

38

2021

19.4

2022

(%)

20 r

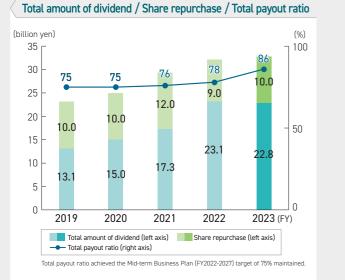
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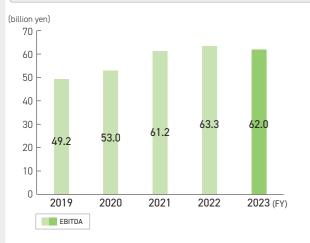
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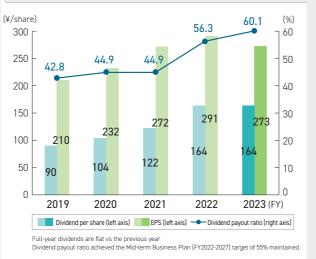
2023 (FY)

17.1

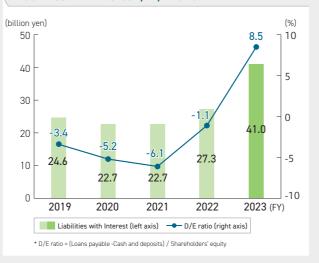








Liabilities with interest / D/E ratio\*



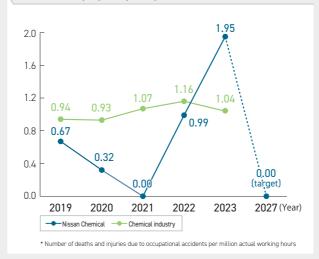


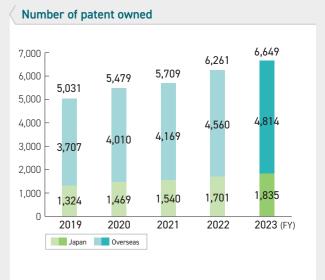


# Number of full-time employees / Ratio of females among full-time employees / Ratio of female researchers in regular positions



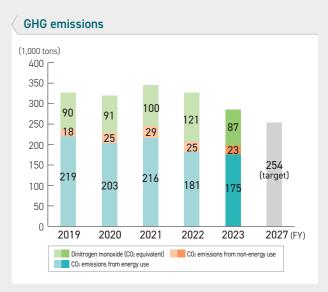
Lost-time injury frequency rate\*





Monthly average overtime / Annual paid leave acquisition ratio\*





# Message from the President



**YAGI** Shinsuke Representative Director, President & COO

The environment surrounding us is changing dramatically, with climate change and abnormal weather caused by global warming, the multipolarization of the international order and fragmentation of the economy due to heightened geopolitical risks, and soaring energy prices and food crises against the backdrop of these changes. As uncertainty grows ever greater, I feel that our role in providing value to society is becoming increasingly important. From the perspective of science and technology, generative AI (artificial intelligence) as typified by ChatGPT is rapidly spreading and being put to practical use in familiar situations. I believe that the advances in AI technology will have a significant impact on our research.

In these significant changes, based on our corporate philosophy of "Contribute to the protection of the global environment and the existence/development of humanity. offering the value sought by society," we aim to solve social issues and enhance our corporate value while maintaining a strong awareness of sustainable development and harmony with the environment to realize prosperous lives and happiness for people.

In our long-term business plan "Atelier2050," which we set goals for in 2050, drew up our ideal state in 2050 "a future-creating company that grows through seeking to enrich people and nature." We are also working on various initiatives to realize our mid-term business plan "Vista2027" which shows our state of things in 2027, a stepping-stone to 2050

# We will review strategies for each business to expand market shares and profits of existing businesses

As for our results for FY2023, sales were 226.7 billion yen, down 1.4 billion yen from the previous year, operating profit was 48.2 billion yen, down 4.1 billion yen from the previous year, and net income was 38.0 billion yen, down 3.1 billion yen from the previous year. The nine-year record of the highest operating profit came to an end, and both sales and profits declined YoY in the last fiscal year since 2011, when the Great East Japan Earthquake struck. On the other hand, in terms of financial indicator targets for the mid-term business plan, I believe that we were able to maintain a high level of financial indicators as a whole, achieving the targets for the operating margin, dividend payout ratio, and total payout ratio, although the ROE did not meet the target due to decline profits.

Looking at the business overview by segment, the Agricultural Chemicals business performed well. On the other hand, sales in the Chemicals business, especially in Fine Chemicals, declined, and sales in the Performance Materials business also declined due to the impact of the semiconductor market.

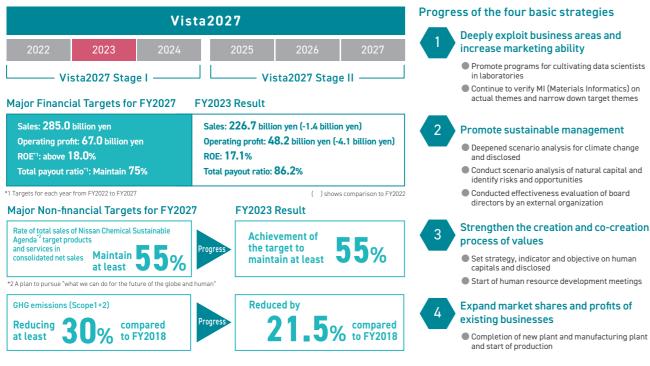
The Chemicals business in FY2023 was a particularly severe result. In addition to the declining profits of some products due to the competing low-priced Chinese products, we were also affected by the Noto Peninsula Earthquake that occurred on New Year's Day in 2024. I believe that improving the profitability of the Chemicals business is an urgent task, and we will accelerate and thoroughly implement selection and concentration more than ever. However, despite the business result was tough, we were able to achieve certain results as part of our mid-term business plan measures in the Chemicals business. For example, capacity expansion of high purity sulfuric acid production facilities progressed steadily to meet the increasing demand for semiconductor. In addition, Venus® Oilclean, a microorganism formulation, which used in food factory wastewater treatment (oil and fat decomposition), was adopted in several companies. Furthermore, we discovered that it can also decompose insoluble substances such as oil balls, which are solidified fats and oils, and dead microorganisms, and began to propose it for applications other than fat and oil decomposition.

The business result of the Performance Materials business in FY2023 was also tough, with both sales and profits down from the previous year due to the delayed recovery of the semiconductor market and other factors. However, we expect the semiconductor market to recover from the second half of FY2024, and despite the current situation is tough, we have been aggressively investing in Capex to capture the increased demand. Specifically, a new plant (Dangjin Plant) of NCK, our South Korean affiliate, was completed in FY2023. The start-up is well underway and production has already started to achieve customer's approval. In display materials, we were able to maintain a high share of the photo IPS market in FY2023. We will continue to take measures to expand our market share and profits for semiconductor materials and display materials, which have high profit margins. Meanwhile, in inorganic materials, we have participated in a consortium of CCS materials for efficient CO<sub>2</sub> fixation in the ground and launched a new initiative.

In the Agricultural Chemicals business, the plant of Nissan Bharat Rasayan, our Indian affiliate, was completed and began shipping APIs of the fungicide LAIMEI® and the insecticide GRA-CIA®. In Japan, a plant for the production of active ingredient of VELDER®, a new herbicide, was completed at the Onoda Plant,

# Message from the President

# Progress of the "Vista2027" mid-term business plan



and pilot production has started. We are making steady progress in building a supply system that can firmly meet domestic and overseas demand.

In the Healthcare business, in oligonucleotide therapeutics, we entered into a strategic alliance agreement for the creation of new candidate compounds. In the Custom Chemicals, we have signed a technical cooperation agreement with a collaborator for the production of generic active pharmaceutical ingredients (APIs) at our company.

As for the creation of new products, in the area of semiconductor materials, we have made steady progress in the development of EUV lithography materials for high NA, and in the area of display materials, we have developed materials for next-generation displays such as QD-EL displays and micro-LED displays. In addition, in the area of secondary battery materials, our products have been used as a component material for secondary batteries for electric vehicles, and we plan to expand these products in Japan and the United States. As such, in FY2023, we made some progress in our efforts to create new products.

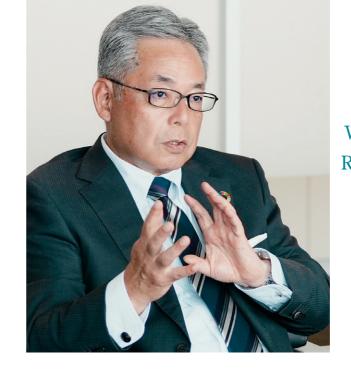
However, in terms of sales of new products in FY2023, both four business division and the Planning and Development Division have failed to meet their mid-term targets, we are lagging behind in fostering the development of new products that will serve as growth engine. We also recognize that the business result in FY2023, although a combination of unfavorable conditions, show a YoY decline in sales and profits, which is an indication that the businesses that drive our performance are unevenly distributed. Taking these results seriously, we have been working since FY2023 to revise "Vista2027 Stage II," which will start in 2025, by analyzing the factors of deviation, identifying issues, and reworking our strategies.

# Continuously maintain high sales-to-research and development (R&D) expenses ratio to develop new products that meet customer needs

Compared to other chemical manufacturers, we have spent more on R&D expenses relative to our sales. Nissan Chemical's DNA, the idea that we can create new value by unwaveringly investing in and focusing on R&D, has been passed down from generation to generation, and we have achieved sustainable growth through this. Our products are often referred to as niche products, but in order to capture customer needs of "what problems do customers want to solve through our products?" in a dramatically changing business environment, we believe it is necessary to improve our marketing capabilities and the efficiency of our R&D investments.

Atelier 2050 envisions the creation of technologies, products, and services related to the three growing businesses of "Information & Communication," "Life Sciences," and "Environment & Energy" by acquiring new core technologies in "Microbial Control" and "Information Science" in addition to the five existing core technologies of "Fine Organic Synthesis," "Functional Polymer Design," "Ultrafine Particle Control," "Biological Evaluation," and "Optical Control." We will focus on working closely with our customers to determine where their needs lie, and realizing a figure that contribute to them with our seven core technologies.

In recent years, we have been developing microbial control technology, which will be our new core technology, including evaluation technologies, in the Biological Group, which was newly established in the Biological Research Laboratories at the start of Vista2027. In Japan, under the Ministry of Agriculture, Forestry and Fisheries' "MIDORI Strategy for Sustainable Food Systems," a target has been set to reduce chemical pesti-



cide use (risk equivalent) by 50% by 2050 in order to reduce environmental impact and ensure sustainable agricultural production. Considering that biological agrochemicals differ from agrochemicals in that cultivation and formulation are also important, in FY2023, we focused on cultivation and formulation as well as activity evaluation, and proceeded with identifying and evaluating technical issues.

In addition, with regard to information science, another new core technology, we have been verifying materials informatics (MI) in actual themes, and in FY2023, we narrowed down the target themes and accelerated the verification process. Furthermore, we consider the training of data scientists at the laboratories as an important issue, and implemented a training program.

# Our goal is to produce "co-creators" who transcend domains of their fields under our identity of "integrity"

Human resources can create new value and are an invaluable asset to a company. In our human resource strategy, we promote the creation of a foundation and environment that encourages the creation and co-creation of new value. In FY2023, we disclosed our human capital strategy both inside and outside the company, and set the goal of producing human resources who can collaborate across borders rather than closing in solely on their own areas.

Specific initiatives related to human capital strategy are as follows. We respect diverse values and career aspirations so that each and every employee can experience a sense of fulfillment through their work, and we place importance on making the most of them in our operations. Based on this concept, we launched career dialogue and human resource development meetings in FY2023 as a measure for employees to design their careers. For example, in career dialogues, we conduct dialogues between supervisors and subordinates with a focus on "people" rather than "work," viewing "career" not as "work experience at a company and transfer," but as "life experience based on one's own values and way of being."

In addition, Nissan Chemical's strength lies in "integrity," which is our identity. We intend to create an environment

We believe that unwavering investment in R&D will lead to our corporate philosophy, "Contribute to the protection of the global environment and the existence/ development of humanity, offering the value sought by society."

where employees can take on challenges together toward goals while leveraging these strengths and continue to grow. As a specific measure, we launched the "10%Challenge" in FY2023 to produce human resources for "co-creation" who transcend domains of their fields. This system is designed to encourage employees to think freely and take on challenges by allowing them to devote 10% of their annual working hours to themes they want to work on independently, in areas outside of their normal duties or areas not specified in division policies. Although there are still only a few examples of im-

mote the use of the system. In addition, we have been promoting initiatives for empowering women, and in FY2023, we implemented a "Women's Leadership Program" with the target participants limited to women. The aim of this program is to encourage female employees who are expected to become leaders in the future to discover their own image of leadership based on the roles expected of them by their organizations as they build their future careers, and to develop into change leaders who proactively work on their own. I recognize that we are lagging behind other companies in the promotion of women's empowerment. We will continue to actively promote related measures.

plementation, we would like to continue our efforts to pro-

In terms of human resource development, in addition to the training of data scientists at our laboratories mentioned earlier, we also promoted the development of DX human resources from a company-wide perspective. Moreover, we implemented various measures, including the resumption of overseas language study programs and the dispatch of personnel to overseas research institutions.

## Instill sustainable management Products that contribute to solving social issues will be at last 55%

As our basic strategy, Atelier 2050 calls for "pursue sustainable management further" and Vista2027 calls for "promote sustainable management," and I believe that instilling of sustainable management among our employees will lead to the instillation of our corporate philosophy.

So far, I have been promoting the instillation of our corporate philosophy by conducting lectures to entire sites in Japan and abroad. In FY2022, when Vista2027 was started, I instructed the Sustainability & IR Department to hold an in-house presentation that includes "sustainability" as a topic. Since then, each business site has also held briefings dedicated to the implementation status of specific plans and measures related to ESG and environmental management, as well as the status of Nissan Chemical from an investor's perspective.

As for numerical targets related to sustainability, we have set KPIs in Vista2027 as non-financial indicators for the three materialities that we reviewed in April 2022. The Sustainability & IR Department confirms the status of achievement of each KPI in order to realize the vision of 2027 as envisioned in Vista2027 and, by extension, the ideal state of 2050 as envisioned in Atelier2050. The status of materiality responses, including the achievement of KPIs, is deliberated by the Sustainability Promotion Committee and then submitted to the Board of Directors via the Management Meeting. In addition, under Atelier2050 and Vista2027, we established the "Nissan Chemical Sustainable Agenda" to pursue "what we can do for the future of the globe and human" by providing products and services that contribute to solving social issues. And in each year of the mid-term business management plan under Vista2027, we have set a target of "ratio of total sales of products and services that contribute to solving social issues in consolidated net sales maintain at least 55%," which we have achieved in FY2023.

In addition, the Climate Change Committee, which I chair. has deepened discussions on scenario analysis related to climate change and disclosed a new scenario analysis externally in July 2023. In 2020, we announced our 2°C and 4°C scenario analyses for the analysis period up to 2030 in the previous long-term business plan "Progress2030." This time, the 1.5°C and 4°C scenarios were used, and the period covered by the analysis was extended to 2050. We also disclosed the financial impact of the risks and opportunities identified. Currently, we are currently formulating a transition plan to achieve our greenhouse gas (GHG) reduction target (2027: reducing by at least 30% from FY2018, 2050: carbon neutrality). As part of our efforts to reduce other GHG emissions, we have introduced management accounting using Internal Carbon Pricing (ICP) and have established a new category for Capex, "GHG reductions." In addition, we have revised the rules so that the recovery calculations for profit-increasing construction projects also take ICP into account.

Furthermore, with regard to the disclosure of information on natural capital, we implemented the LEAP approach focused on agrochemicals in our core business of Agricultural Chemicals business from the perspective of "impact on nature" and "impact on our company's business." We dis-

Basic strategies and business domains of the long-term business plan "Atelier2050"

	At	elier2050		
Basic Strategy	Business Areas (exp	ansion into new areas	;)	
Deeply exploit and expand business areas	1 Information & Communication	2 Life Science	3 Environment & Energy	4 Materials & Services
Expand into new areas related to growing businesses	<ul> <li>Semiconductor materials</li> <li>Display materials</li> </ul>	<ul> <li>Agrochemicals</li> <li>Animal health products</li> <li>Biomedical materials</li> </ul>	<ul> <li>Secondary battery materials and fuel cell materials</li> </ul>	<ul> <li>Industrial chemicals</li> <li>Colloidal silica</li> <li>Affiliate companies</li> </ul>
Pursue sustainable management further	<ul> <li>Photofunctional materials</li> </ul>	<ul> <li>Pharmaceuticals (small molecules, oligonucleotides, peptides)</li> </ul>		
Develop business activities that contribute to solving environmental and social issues		g Systems > <biomimetic sensors=""></biomimetic>	<ul> <li>Next-generation solar cell materials</li> <li>CCUS materials</li> </ul>	
Renovate management and business foundations	Metamaterials	erials  Microbiome <agriculture healthcare=""><microbial materials=""></microbial></agriculture>		
Accelerate the value-creation process by utilizing digital technology		Biostimulant	CO2 reduction system	
connocogy	L	Growing businesses		Core businesses
Seven core technologies				
[Existing Technology]	s Functional Polymer Design	Ultrafine Particle Control	Biological Evaluation	Optical Control
[New Techno	logy] Microbial Control	Information Science		



President Yagi talking to employees in the office area

cussed and deliberated the results of the analysis and the risks and opportunities identified by the Climate Change Committee, and disclosed the results in July 2024.

I believe that climate change action is not a formality, but a responsibility that companies must fulfill in order to achieve sustainable growth. In addition, responding to and preparing for risks related to climate change will lead to trust both internally and externally. We will continue to promote measures to combat climate change.

# Promoting diversity on the Board of Directors and conducted effectiveness evaluation of the Board of Directors by an external organization

Ms. TAKEOKA Yuko was newly appointed as an outside director in June 2023. This has brought the number of female directors to two, and I believe it has increased the diversity of the Board of Directors. We will continuously discuss the composition of the Board of Directors in the future.

In FY2023, we held "free discussions" at the Board of Directors. In the discussion on new businesses and products. we received input from outside directors Mr. OBAYASHI, Mr. KATAOKA, and Ms. TAKEOKA, who have backgrounds in R&D and technology. Ms. TAKEOKA, who was newly appointed to this position, has long been involved in research focusing on the synthesis and characterization of functional polymers, and we were able to obtain her opinions on our performance materials business and materials for solar cells from an outside perspective. In general, I felt that we were able to have a deep discussion. In order to stimulate discussions at the Board of Directors, free discussions are scheduled to be held again in FY2024.

In FY2023, an effectiveness evaluation of the Board of Directors was conducted by an external organization. We were able to hear objective opinions as well as numerous issues regarding the Board of Directors, and the results of questionnaires and interviews with internal and external directors and Audit & Supervisory Board Members reaffirmed the significance of the Board of Directors. Based on the results of the Board of Directors' effectiveness evaluation, we first selected "deepening discussions on important issues for

each business, the mid- to long-term business portfolio, and management resource allocation" as a priority issue, and confirmed that we will continue to take improvement measures to enhance the effectiveness of the Board of Directors.

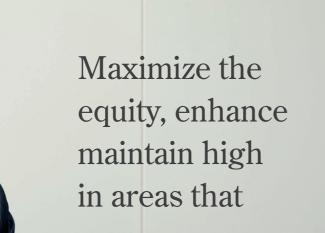
# Looking ahead to "Vista2027 Stage II," which will start in FY2025

In FY2023, both sales and operating profit fell short of the mid-term targets. Also, in FY2024, the final year of "Vista2027 Stage I," the first three years of "Vista2027," both sales and operating profit are again expected to fall short of the mid-term targets. Although there have been changes in the business environment since the mid-term business plan was formulated, I take seriously the fact that we have had challenges in terms of achieving our sales and profit targets, and have begun a review of the latter three years of "Vista2027 Stage II."

In Vista2027 Stage II, we will envision our ideal state of 2030, and backcast from it to formulate a plan through FY2027. Therefore, we believe it is necessary to expedite "selection and concentration" based on the current market and business environment in order to return to the Group's growth path and achieve sustainable growth beyond that. Since FY2023, we have been deepening discussions from various perspectives by launching projects with two main items for consideration. "accelerate new business and products" and "expand existing businesses and enhance profitability." In the area of accelerate new business and products, we are considering "select and concentrate research theme along with the establishment of its framework" and "enhance M&A activities, introduce new technologies and promote cooperation with partner companies." With regard to M&A, we are looking at material and technology acquisitions not limited to agrochemicals, but other businesses. In the area of Expand existing businesses and enhance profitability, we are considering "structurally reform the business model of Chemicals" and "enhance core growing business by deepening our presence in business area."

In order to remain our group that is chosen and sought after by society, we must offer the value sought by society and grow sustainably while maintaining harmony with the environment. Based on the corporate culture of integrity that we have cultivated over the years, all employees will work together to strengthen our ability to respond to increasingly diverse and sophisticated social demands, and we will continue to strive for sustainable growth as a corporate group that contribute to the protection of the global environment and the existence and development of humanity. We would appreciate your further understanding and support.

# Message from the CFO



**DAIMON Hideki** Director, Senior Managing Executive Officer, CFO Head of Finance & Accounting Department

use of shareholders' discernment abilities to ROE, and invest capital generate added value

Summary of FY2023 financial results Aiming to continue to secure high profitability and improve ROE and strengthen shareholder returns while overcoming challenges

In FY2023, sales were 226.7 billion yen (down 1% from the previous fiscal year), operating profit was 48.2 billion yen (down 8%), and net income was 38.0 billion yen (down 7%), all lower than in FY2022. However, in terms of operating profit for example, which indicates the strength of the core business, our company's 8% decrease from the previous fiscal year is well above the industry average, considering that the overall chemical industry was approximately 20% decrease. Most of the decline in operating profit was attributable to the semiconductor business, which was affected by the global market adjustment, and now that the temporary adjustment factors in this market are coming to an end, we are confident that the profit level will recover in the future.

Looking at the current situation of chemical industry in Japan, the performance of the petrochemical business in particular has been deteriorating rapidly due to soaring raw material prices and the continued slump in market conditions caused by China's shift to domestic production of petrochemical products. Efforts to reduce environmental impact, led by decarbonization initiatives, are only just beginning to take off, and industry restructuring and structural reforms are a longstanding issue. On the other hand, in 1988, the Nissan Chemical Group decided to withdraw from the petrochemical business and shift to a value-creating company that produces high value-added products from our own research and development (R&D) activities. Rather than making large Capex and aiming for low profits and high turnover, we will continue to secure a high market share with high-margin products based on R&D, and remain in demand by society as a niche-top company.

In addition to our core businesses of performance materials and agricultural chemicals, the Nissan Chemical Group also owns chemicals and healthcare-related business, enabling us to build a well-balanced business portfolio that is capable of generating stable profits. Looking at the Company's overall operating margin, even during FY2023, when profits declined, it remained at 21.3%, more than 2.5 times the industry average, and there has been no change in our view of ourselves as a highly profitable company, which is our most important characteristic.

However, as shown in the current financial results, the issues in existing businesses have also been highlighted. For example, in the Chemicals business, some of the inherently profitable product groups have seen a decline in price competitiveness compared to Chinese products, and profitability has deteriorated. Accordingly, we have begun to examine ways to revamp our business structure to ensure a certain level of profitability even when exposed to changes in the external environment.

As a financial strategy, we aim to maximize the use of shareholders' equity, with ROE (return on equity), which expresses capital efficiency, as the most important financial indicator. In the previous mid-term business plan (FY2019-2021), we set a target of maintaining above 16%, and in the current mid-term business plan (FY2022-2027), we are working toward a target of above 18%. The FY2023 result was 17.1%, but we will continue to aim for further improvement.

We will also continue to focus on shareholder returns. In Japan, many listed companies have just begun to strengthen shareholder returns in response to PBR (Price Book-value Ratio) falling below 1. Since the mid-2000s, we have continued to aggressively return profits to shareholders in order to control the volume of our shareholders' equity, based on the ROE target we have set. In addition to a steady increase in the dividend level, we have been repurchasing of the Company's own shares almost every year, and have currently achieved a total payout ratio of more than 75%, the target of the current mid-term business plan.

In the future, we will not only strengthen our R&D to launch high value-added products, but also continue to consider acguiring attractive technologies and products from outside that can create synergies with our existing businesses by executing M&A with financial leverage, even if this means a temporary increase in debt.

# Ensuring sufficient investment in R&D with "selection and concentration" as the key phrase

It is no exaggeration to say that our company's DNA is to make R&D the source of our growth. Our human resources and R&D capabilities that create high value-added products are our assets, and this management policy will not waver in the future

However, in our mid-term business plan "Vista2027" announced in May 2022, we had planned sales of 17.0 billion yen for new products in FY2024, but a downward swing is ex-

# Sales / Operating profit / Operating margin

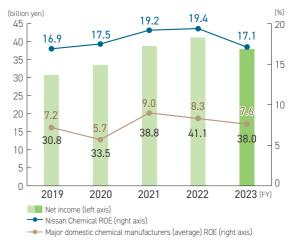
Although sales and profits declined in FY2023 due to a temporary adjustment in the semiconductor market, a high operating margin was maintained



--- Major domestic chemical manufacturers (average) operating margin (right axis) \* Including the effects of accounting policy changes from FY2021

## Net income attributable to owners of parent / ROE

Maintain high ROE by focusing on creating high value-added products



# Total amount of dividend / Share repurchase / Total payout ratio

Total payout ratio achieved the Mid-term Business Plan (FY2022-2027) target of maintaining 75%



# Message from the CFO

pected. With all four business divisions and the Planning and Development Division are expected to fail to meet their mid-term projections, and the development of new products that will serve as growth engines lagging behind, we recognize that how to allocate management resources to strengthen our R&D capabilities is an issue that needs to be examined thoroughly.

In the area of new product development, we need to promote "selection and concentration" and sharpen our discernment abilities of what will be required of the Nissan Chemical Group in five to ten years' time. In FY2023, we have completed a round of major investments, including the construction of a semiconductor plant at NCK in South Korea and a plant for agrochemical active ingredient at NBR in India. Going forward, we will ensure that sufficient resources are allocated to R&D based on the selection of themes with a sense of urgency. In FY2024, we plan to invest 18.2 billion yen, which is 7.8% of sales, in R&D, and we will invest with a sense of urgency, once again determining which markets we should target and which themes we should explore in depth in the three fields we are currently focusing on: Information & Communication, Environment & Energy, and Life Sciences.

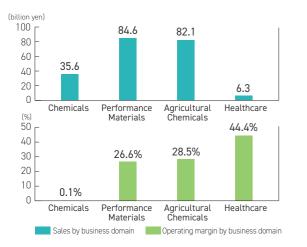
# Further enhancement of sustainability initiatives Reflecting stakeholder views and meeting their expectations

I recognize that while financial growth in profits is of course important for corporate growth, it is also very important to continue to be a company that is sought after by society. Amidst the drastic changes in the environment, our group is pursuing sustainability as a company by basing our business activities on our corporate philosophy of "Contribute to the protection of the global environment and the existence/ development of humanity, offering the value sought by society."

We have established the Sustainability Promotion & IR Department to accelerate the formulation of sustainability strategies that match social trends and the dissemination of

### Sales and operating margin in FY2023 by business area

Further strengthen the current business portfolio although considering it to be in good balance





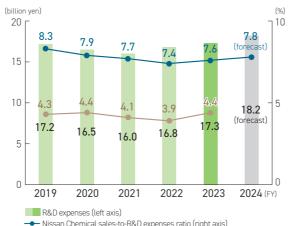
information internally and externally. In order to achieve both economic value and social value, we value the process of gathering the opinions from various stakeholders as an organization and applying them to our business, as well as, providing a wide range of information to investors and receiving their opinions. We aim to continuously reflect this in steering our company's sustainability pursuits.

I also serve as the chair of the Sustainability Promotion Committee, which strategically addresses global social issues, including climate change, and considers and deliberates on important matters. In particular, with regard to climate change issues, the Climate Change Committee headed by the president was separately established, and its deliberations were incorporated into the governance of the entire company through discussion and resolution at the Board of Directors to serve as a command post for centralized issue resolution and disclosure.

Notably, one of the major challenges we face as a chemical manufacturer is the reduction of greenhouse gas (GHG) emissions. We have positioned "mitigation of climate change" as one of the materiality factors, and we are promoting information disclosure in line with the recommendations of the Climate-related Financial Disclosure Task Force (TCFD), which we announced our endorsement of in August 2020, and reduc-

#### R&D expenses / Sales-to-R&D expenses ratio

Sales-to-R&D expenses ratio is maintained at around 7-9%, with a target of 7-9% annually in the future as well



Major domestic chemical manufacturers (average) sales-to-R&D expenses ratio (right axis)

### Nissan Chemical Group's top priority issue

Identified materiality (priority issues) to be addressed in order to realize the ideal state of the Company in 2027 Aiming for sustainable growth together with society by promoting initiatives



ing GHG emissions. We have set long-term target of "achieving carbon neutrality by 2050" and mid-term target of "reducing GHG emissions by at least 30% from FY2018 level by FY2027," as target of reducing Nissan Chemical Corporation's GHG emissions (Scope1+2). We are on track to achieve a 30% reduction of our Scope1+2 emissions by FY2027, and are making the necessary investments to achieve this goal.

On the other hand, the challenge is to reduce Scope3 emissions, which are emissions from other companies in our supply chain. In addition to making requests to our upstream suppliers, we realize the importance of promoting and disclosing our initiatives as we hear from our downstream customers about the products and raw materials we provide.

We also recognize the importance of addressing biodiversity issues in addition to responding to climate change. Last vear, in parallel with the TCFD, we prepared for the disclosure of information in accordance with the recommendations of the Task Force on Nature-related Financial Disclosure (TNFD), and disclosed it in July 2024.

The chemical industry as a whole is also facing the issue of "PFAS (organofluorine compounds)," more than 4,700 kinds of organofluorine compounds that are difficult to decompose in nature, accumulate in water, etc., and are toxic to humans. Although our group does not handle commercial products with high risk of PFAS, we are aware that international trea-

#### Number of dialogue with investors in FY2023

Dialogue with institutional investors:	353
Dialogue with individual investors:	2
Dialogue with analysts:	56
ESG related dialogues:	4
Plant and laboratory tours for investors:	1

ties are beginning to abolish or restrict the use of PFAS, and that we need to consider how to respond in the event that regulations are tightened. On the other hand, we see this trend of regulation as an opportunity to discover new demand, and will work to develop PFAS-free materials in response to demand. In any case, we intend to work with our suppliers and the industry as a whole to address mid- and long-term issues, including those that are difficult for us to address on our own.

# We hope you will look forward to our sustained growth in both economic and social value

In our discussions with investors at ESG dialogues and sustainability briefings, I strongly feel that they have high expectations for the mid- to long-term growth of our group. In response to these expectations, we will continue to pursue our mission to permanently meet the expectations of the market and society by regarding economic value and social value as the two wheels of value enhancement over the mid- to longterm. Additionally, our management policy of promoting business with a focus on R&D and our business portfolio with a focus on capital efficiency and profitability will remain unchanged, and we are confident that we will be able to continue to achieve profitable growth.

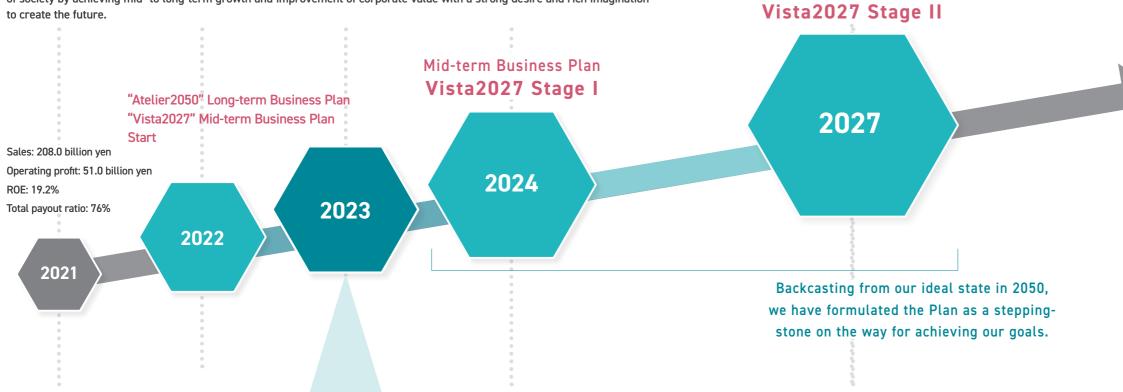
In addition to regular financial results briefings for institutional investors and analysts and briefings for individual investors, we will take various opportunities to proactively disclose and disseminate information. We hope that all of our stakeholders will look forward to the mid- to long-term growth of the Nissan Chemical Group.

# Long-term and Mid-term Business Plans Overview and

# **Progress**

Mid-term Business Plan

The Nissan Chemical Group will take on the challenge of co-creating the future by explaining to stakeholders our direction to aim for and gaining their understanding and empathy. We aim to contribute to the realization of a sustainable society as a member of society by achieving mid- to long-term growth and improvement of corporate value with a strong desire and rich imagination to create the future.



Financial Indicators (billion ye				
	2022	2023	2024 (forecast)	2027 (plan)
Sales	228.1	226.7	234.1	285.0
Operating profit	52.3	48.2	50.0	67.0
Ordinary income	55.8	51.6	50.5	68.0
Net income	41.1	38.0	38.4	50.0
Operating margin	22.9%	21.3%	21.4%	Above 20%
ROE	19.4%	17.1%	16.5%	Above 18%
Dividend payout ratio	56.3%	60.1%	58.9%	55%
Total payout ratio	78%	86%	75% (target)	75%

# **Non-financial Indicators**

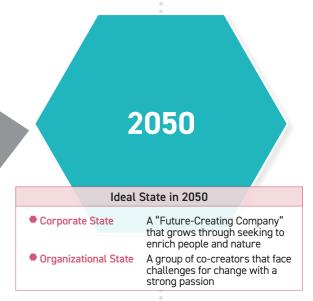
Progress of FY2023

	2022	2023	2027 (target)
Rate of total sales of Nissan Chemical Sustainable Agenda target products and services in consolidated net sales	Above 55%	Above 55%	Maintain at least 55%
GHG emissions (Scope1+2)	327,663 t-CO <sub>2</sub> e (9.8% reduction compared to FY2018)	285,373 t-CO <sub>2</sub> e (21.5% reduction compared to FY2018)	254,377 t-CO <sub>2</sub> e (Reduce by at least 30% compared to FY2018)
Positive response rate in survey of employee attitude on human resource development	60.5%	58.5%	At least 65%
Proportion of female researchers	14.8%	16.0%	At least 18%

# Progress of Basic Strategies of "Vista2027"

Basic Strate	gies 1. Deeply exploit business areas and increase marketing abil
	Develop and evaluate bio agrochemicals for full scaling R&D
	Promote programs for cultivating data scientists in laboratories
	Continue to verify MI (Materials Informatics) on actual themes and narr
	Adapted in Secondary battery materials for electric vehicle
Basic Strate	gies 2. Promote sustainable management. Basic Strategies 3. Str
	Deepened scenario analysis (quantitative evaluation on 1.5°C/4°C scena
	Set strategy, indicator and objective on human capitals and disclosed
	A female outside director was appointed in June 2023 (two female director
	Conducted effectiveness evaluation of board directors by an external or
	Established a plant DX platform and started to utilize some data in five
Basic strate	gies 4. Expand market shares and profits of existing businesses
[Chemicals]	Toyama Plant: Capacity expansion of high purity sulfuric acid progresse
	$VOC^{*1}$ : Adopted in several companies for food factory wastewater treatmother than decomposing oils and fats
[Performance Materials]	Develop materials for the next generation display (QD-EL, $\mu$ LED)
	NCK: Completed a semis new plant construction, Started the production
	Promote R&D activity on EUV lithography materials for high NA
	CCS materials : Participated in a consortium
[Agrochemicals]	NBR: Started manufacturing and shipping API of LEIMAY® (fungicide) ar
	Onoda Plant: Completed construction of facilities for manufacturing API
[Healthcare]	Oligonucleotide Therapeutics : Signed a strategic collaboration agreeme
	Custom Chemicals : Signed a technology cooperate agreement with a pa

# Long-term Business Plan Atelier2050



# The Plan serves as a path for the Group to contribute to solving social issues and keep growing for the future.

row down target themes rengthen the creation and co-creation process of valu nario) and disclosed ectors in total) organizatio domestic plants sed steadily to meet the increasing demand for semiconductor tment (decomposing oils and fats), Started exploring new applications on to achieve customers' approval and GRACIA® (insecticide) PI of VELDER<sup>®</sup> (herbicide) and start pilot production nent with Sanwa Kagaku Kenkyusho Co., Ltd.

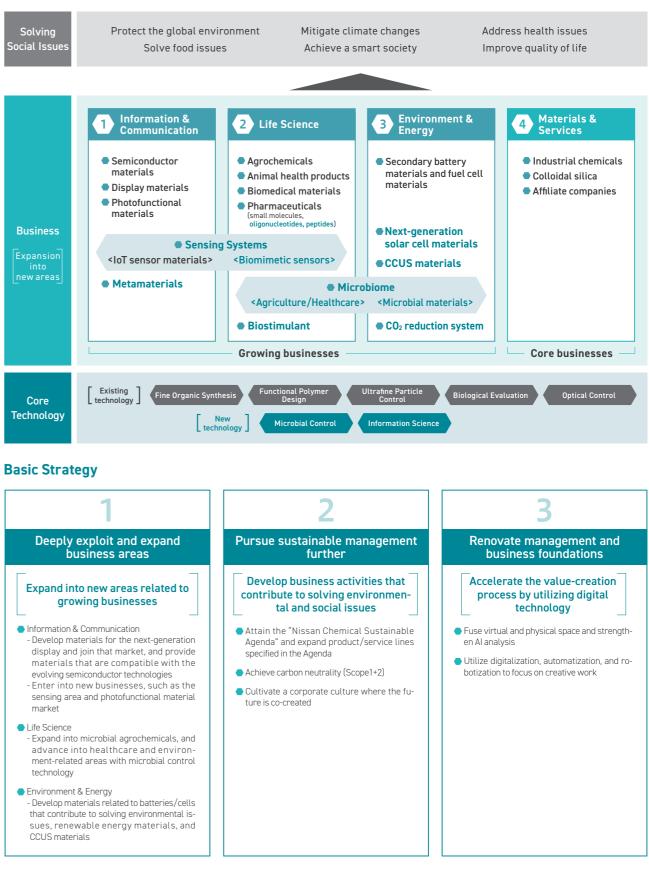
partner company for the manufacture of our generic API

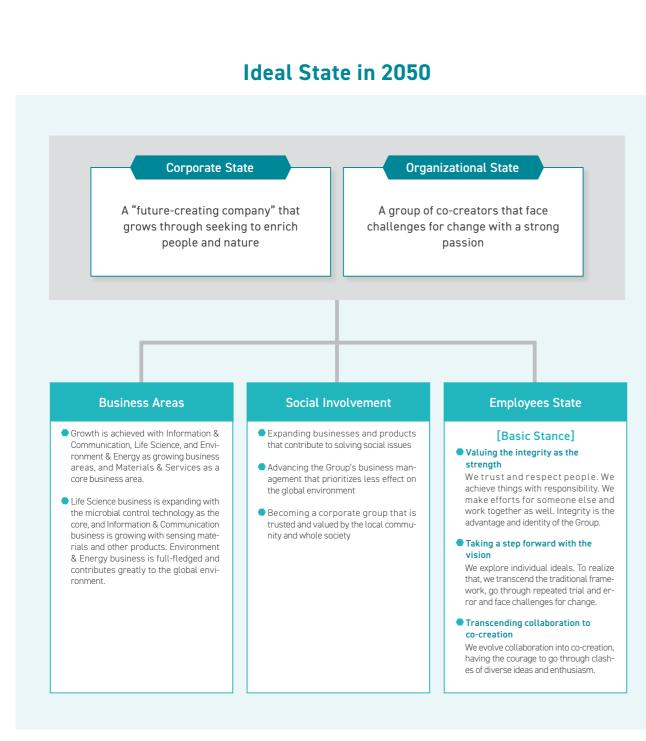
\*1 VOC: Venus<sup>®</sup> Oilclean

# "Atelier2050" Long-term Business Plan

Considering that the business environment has changed significantly since the previous long-term business plan was formulated, we once again discussed the social issues and social changes with a view to 2050. As a result of these discussions, we have formulated a long-term business plan "Atelier2050," by backcasting from the necessary initiatives and issues that need to be resolved. This plan sets out the path for the Group to contribute to solving social issues and keep growing for the future, with the ideal corporate state in 2050 of "a future-creating company that grows through seeking to enrich people and nature" and the ideal organizational state in 2050 of "a group of co-creators that face challenges for change with a strong passion."

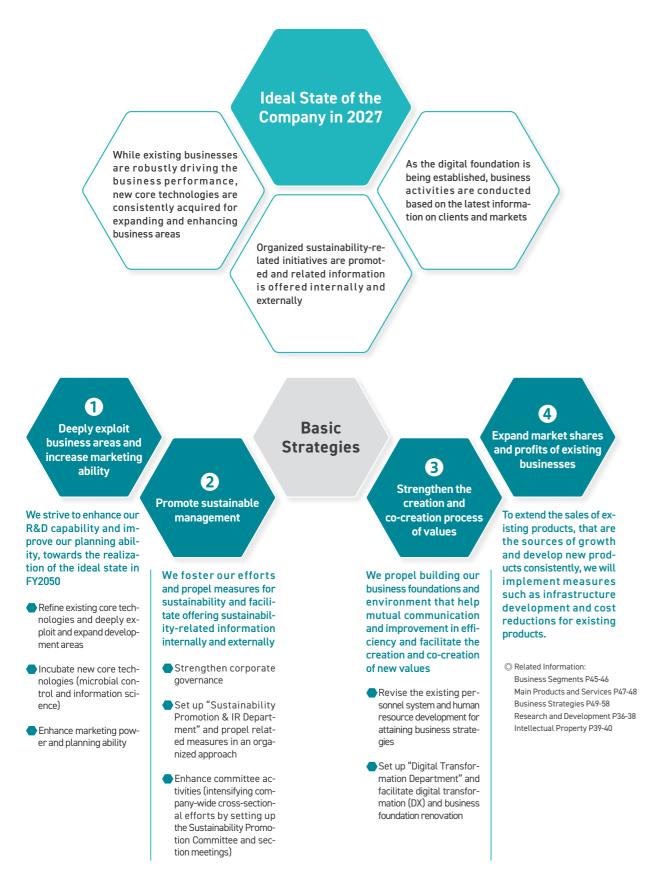
# **Business Areas**





# "Vista2027" Mid-term Business Plan

Mid-term business plan "Vista2027" is a six-year business plan, starting in FY2022, formulated as a stepping-stone on the way to the ideal state set forth in our long-term business plan "Atelier2050." We aim to achieve sustainable growth with this plan which set the first three years (2022-2024) as Stage I, and the second three years (2025-2027) as Stage II.



# Long-term and Mid-term Business Plans Topics

# 1 Nissan Chemical Sustainable Agenda

In FY2022, we started the Nissan Chemical Sustainable Agenda, a plan to pursue "what we can do for the future of the globe and human" by providing products and services that contribute to solving social issues. We have set "Actualizing a sustainable future for our planet (To Tomorrow)" and "Actualizing sustainable comfort for all (Be Happy)" as areas of contribution.

We define the rate of total sales of products and services that

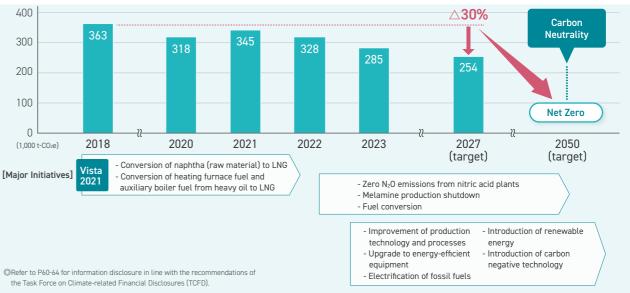


# 2 Achievement of Carbon Neutrality

In order to achieve carbon neutrality by 2050, we are working on converting fuel and feedstock, promoting energy saving, adopting renewable energy, and examining zero emissions of N<sub>2</sub>O from nitric acid production facilities.

Since FY2018, we have steadily decreased GHG emissions through shutting down melamine production, converting boiler fuel

Trend of GHG Emissions (SCOPE1+2)



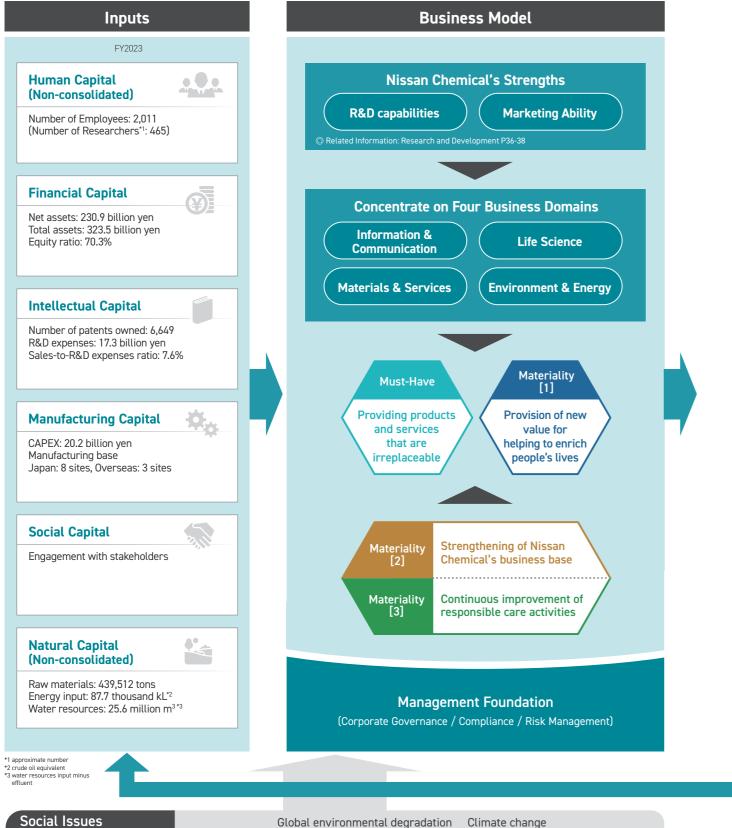
contribute to solving social issues in relevant areas in consolidated net sales as a key performance indicator (KPI), setting a target of "maintaining at least 55%" in the mid-term business plan Vista2027. We were able to achieve this KPI in both FY2022 and FY2023. Looking ahead to 2050, we would like to further expand our target products and services by fostering core technologies, and realize sustainable development for society and the Group.

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at the Onoda Plant, and saving energy by upgrading aging facilities. In FY2023, emissions decreased from FY2022 because of factors such as normalization of problems that occurred at the nitric acid plants in FY2022 and the Toyama Plant suspending operations due to the effects of the Noto Peninsula Earthquake.

# **Value Creation Process**

The Nissan Chemical Group is now at an unprecedented turning point in its history, and we are determined to be a leader in creating the future. With our Corporate Philosophy as the foundation of our business activities, we aim to fill the future of people and society with hope and happiness through the provision of irreplaceable "Must-Have" products and services by leveraging the technologies we have cultivated over the years.



Social Issues (External Environment)

Financial Capital				
	FY2023 (result)	FY2027 (plan)		
Sales	226.7 billion yen	285.0 billion yen		
Net Income	38.0 billion yen	50.0 billion yen		
Operating margin	21.3%	Above 20%		
ROE	17.1%	Above 18%		
Dividend payout ratio	60.1%	55%		
Total payout ratio	86.2%	75%		

Outputs

Non-financia		
	FY2023 (result)	FY2027 (target)
<ul> <li>The rate of total sales of products and services covered by the Nissan Chemical Sustainable Agenda<sup>*4</sup></li> </ul>	Above 55%	Maintain at least 55%
Actualizing a sustainable future for our planet       Reduce 00:       Reduce waste         Beconstructure       Reduce 00:       Reduce waste         Beconstructure       Reduce 00:       Reduce waste         Actualizing sustainable comfort for all       Ste health issues annut society       Actualizing annut society	Conserve aquatic environments Solve food shortages	Key Performance Indicator (KPI) Rate of total sales of products and services that contribute to solving social issues in consolidated net sales Maintain 55%
<ul> <li>GHG emission reduction rate (Compared to FY2018)</li> </ul>	21.5%	At least 30%
Proportion of females in the regular position:	11.8%	At least 13%
<ul> <li>Proportion of female researchers</li> </ul>	16.0%	At least 18%
<ul> <li>Positive response rate in survey of employee attitude on human resources development</li> </ul>		At least 65%
• Number of patent applications (cumulative since FY2022)	775 cases	2,500 cases
	the globe and	sue "what we can do for the human" by providing prod contribute to solving social

Low birthrate and aging population Labor shortage Food issues Health issues

# Sa Ω 20 G Sti g

# Outcomes

# Customers

Offering new value with Nissan Chemical's core technologies

# **Shareholders** and Investors

Proactive return of profits through midand long-term improvement of company value

# Suppliers

Building good, constructive relations through fair and equitable business.

# Employees

Achieving a workplace where each individual is respected and can make full use of their abilities.

# Communities and Society

Contributing to the growth and development of local communities through proactive social contribution activities and local networking.

Protect the global environment

**Existence and** development of humanity

# **Human Capital**

Seeking future-creating human resources who can solve social issues Creating an organization that achieves "co-creation" with same aims

> **KAWASHIMA** Wataru Executive Office Head of Personnel Dept., General Manager of Health Promotion Office

### **Develop employees as future-creating human resources** who overcome their own domain to co-create the future

Under the long-term business plan "Atelier2050," we have set out the ideal state of our organization for 2050 as "a group of co-creators that face challenges for change with a strong passion." We have also defined a basic stance for our employees around the three ideas of, "valuing the integrity as the strength," "taking a step forward with the vision." and "transcending collaboration to co-creation." The most important factor in realizing co-creation is human resources. As such, various initiatives are being taken to develop human resources and improve the workplace environment in order to realize an organization in which diverse human resources can take on challenges toward their own goals and they aspire toward personal growth, while upholding Nissan Chemical's strength and identity of "integrity."

In order to continuously create new products, services, and the seeds of technologies, it is important to "co-create" new value through collaboration that transcends boundaries, rather than closing in solely on one's own field (technologies or departments). I hope that each employee will break out of his or her shell of assumptions, preconceptions, prejudices, and insecurities so that they do not unconsciously close in themselves to their own domain and miss opportunities to expand their possibilities.

# Identifying what is required by society and enhancing our discernment ability to create new value

We refer to the people who have the ability to identify new markets that emerge from the solution of customer issues as "connoisseurs." At the same time, connoisseur is the ability to identify the people and talent needed to create new value. It is not possible for any one person to deeply exploit a technology from a new research theme, create a product or service, and develop it into a business. It is important that employees who have same aims build a team and operate and grow as an optimal organization while being discerning of new talent that joins the team. About 40% of our regular position employees are involved in R&D, but we cannot develop connoisseurs by focusing solely on research. We are increasing opportunities for researchers to be transferred to marketing positions so that they can improve



their ability to discern market trends and what is required of us by society, which we believe will truly enhance our "discernment abilities "

In addition, we have established a new Human Resources Development Meetings for each division and department to provide a forum for the managers of each division and the HR department to exchange opinions on employee career development, personnel exchange, personnel evaluation, and other issues. As a result, we believe this will clarify the image of on-site human resources needed and enable us to identify and resolve human resource development issues unique to each department. Furthermore, we introduced a talent management system in FY2024. By utilizing this function, we aim to visualize the expertise, experience, and skills of our employees and to optimize the allocation of human resources in a few years' time.

# Supporting each employee's career plan Fostering human resources capable of co-creation across domains

One of the major challenges, not only for our company but for Japan as a whole, is labor shortages and the securing of outstanding personnel. With the aim of treating employees appropriately according to their job responsibilities and roles, we have renewed our personnel system and adopted a role grading system in 2022. At the management level, we clarified roles by dividing them into two categories, managers and experts. Looking ahead to the career they are aiming for, we expect our employees to autonomously consider and execute self-improvement and transfers.

In FY2023, we started a career dialogue between employees and their supervisors, separately from the evaluation interview. This is an opportunity for employees to grasp the current status of their knowledge, skills, and careers, and to share with their supervisors their visions for the future, and to think about their own growth. Going forward, we would like to implement personnel transfers that take into account employees' career plans and wishes even more than before, and we will consider an open recruitment system as a system to achieve this. These efforts will ideally lead to an increase in the number of employees who are willing to transfer to departments across their domain, beyond their domain, thereby improving productivity and increasing the reserve pool of discerning personnel.

The role of the Personnel department is to secure outstanding personnel and to develop human resources with a long-term perspective. To achieve this, it is important to value the career plans of each employee and to foster a corporate culture that is

# Key factors for realizing the organization's vision

Human resource development	who will continue to challenge to	Pro			
	improve value				
	Creating a culture of diversity that	at respects			
Improvement	individuality				
of an internal					
environment					
	Prom	noting emp			
Indicators					
Positive response rate	e in survey of employee attitude on willing	ness			

Indicators	FY2022 (Result)	FY2023 (Result)	FY2024 (Target)
Positive response rate in survey of employee attitude on willingness to take on challenges	67.0%	71.0%	70.0%
Number of co-creation themes	134 cases*	144 cases	160 cases
Positive response rate in survey of employee attitude on diversity and career planning	65.5%	66.0%	70.0%
Positive response rate in survey of employee attitude on the degree of understanding and empathy toward our corporate philosophy	64.4%	64.9%	70.0%
Ratio of employees with high stress	8.1%	7.8%	7.0% or less

#### Kev factor 1

# Producing leading human resources who will continue to challenge to improve value

For Nissan Chemical to continue to grow in the future, our challenge is to produce human resources who can drive the business forward by thinking independently and challenging themselves, based on "vision (self-motivation)," to make improvements and proposals that will lead to improve value. Therefore, we have set the "positive response rate in survey of employee attitude on willingness to take on challenges" as an indicator of this factor. We aim to improve this figure through initiatives such as hypothesis verificationbased training, the Ai Campaign, and the 10% Challenge starting in FY2023

# Hypothesis Verification-based Training (renewed from FY2020)

In the training before promotion to C3 class (equivalent to subsection manager), participants formulate a vision for the future and initial hypotheses (questions and answers) and then spend several months examining and revising the vision and hypothesis to refine the action plan for the purpose of "acquiring future-creating leadership skills."

comfortable to work in, where employees can contribute to the Company's growth. We will continue to develop human resource who are willing to take on challenges in new areas with vision, while upholding the our corporate culture "integrity" that we have cultivated over the years.



# ployees' mental and physical health

© Related Information: "Ideal State in FY2050" P25

\* The number of initiatives for the 10% Challenge introduced from FY2023 is not included in FY2022 results.

In training before promotion to managerial position (equivalent to section manager), with the aim of "acquiring leadership that unleashes the future creativity of people and organizations," participants train their ability to interpret information by accessing the knowledge of the world, and collect and analyze valuable information, while demonstrating leadership and promoting transformation. Based on this, they conceive ideas for new businesses, products and services, and go through the process of hypothesis verification that leads to the commercialization of products and services for the Company.

#### 10% Challenge (started in FY2023)

In FY2023, we newly introduced a system that allows employees to devote 10% of their annual working hours to challenges in areas outside of their normal work or in areas not specified in department policies, based on self-motivation. With this 10% Challenge, we hope to foster a culture of enjoying the challenge, regardless of success or failure, and to broaden employees' own possibilities through the experience of taking on new challenges. We also expect that the promotion of this challenge will lead to the creation of innovation and the realization of a future-creating company, as well as to synergistic effects

# **Human Capital**

with our core business through the acquisition of experience, skills, knowledge, and human resource networks that cannot be obtained only through our core business, and to the career development of our employees themselves.

#### Ai Campaign

This activity unique to Nissan Chemical attempts to make improvement proposal from small group activities at each plant. It started in 1978 with almost all operators from each plant taking part every year. We aim to improve our stance to continue to make improvements that lead to improve value from on-site perspective, and to improve our ability to make proposals without being bound by precedent.

## Key factor 2 Producing co-creators who transcend domains

To continuously produce new products, services, and seeds of technology that contribute to solving social issues, our challenge is to produce human resources who can "co-create" new value by collaborating across borders rather than closing in solely on their own areas (technologies or departments). Therefore, we have set the "number of co-creation themes" in our hypothesis verification-based training, the 10% Challenge, and the Ai Campaign, as an indicator, and making efforts to increase this number. In addition, we aim to create a state that outside parties can be involved and co-created in order to newly acquire, improve the value of, and develop, our own technologies. We will promote cross-border collaboration, not fixed solely to one area, such as joint research and joint patent applications with other companies, as well as the loan, transfer, and dispatch of human resources outside the Company.

### Kev factor 3

# Producing discerning human resources who able to judge business potential and commercialize it

To develop new products and services that will be the source of growth for the next generation, our challenge is to produce discerning human resources who can identify the product needs that is irreplaceable "Must-Have" while taking into account market needs, and judge the growth potential of the value chain. To produce such discerning human resources, we are implementing an intrapreneurship program aimed at developing the abilities of entrepreneurs and fostering in-house entrepreneurs.

And by actively rotating staff across job categories, such as research, manufacturing, and sales, we will provide opportunities for researchers and engineers to directly discuss with customers as much as possible, and foster the ability to identify business opportunities not only from a perspective of technological point, but also from the perspective of the customer, market, and social issues.

#### Intrapreneurship Program

We have started an intrapreneur (in-house entrepreneur) training program in FY2019 with the goal of developing the abilities of entrepreneurs and fostering them. With the support and coaching of active entrepreneurs, participants practice behavioral skills through actual project in mixed teams selected from multiple departments. By repeatedly gathering information from potential customers in Japan and overseas and verifying hypothesis in a short cycle, they will promote the brushing up of promising themes and learn how to act as innovators.

Although there were some years when the program was cancelled due to the COVID-19 pandemic, it is held every two years, and in FY2024, eight students from the third term are currently enrolled in the program.

#### Topics

# Voice of Participants in the Intrapreneurship Program

In our company, it was a kind of common practice to present prototypes of our products to customers and in exchange, we would develop products while receiving information such as market and customer needs. Of course, I thought that we could eliminate waste if we grasped what customers really wanted before starting work on a product, but this was my first experience in approaching a customer without any prototypes, just a concept. At first, I was reluctant to go to a customer, but after my coach gave me strict instructions to "think of a way to go, not a reason not to go," I was determined to try. As a result, I was able to get reactions from customers that I had not imagined, as well as firsthand information that I could not have obtained even by researching, and I was able to grasp the "true problems" of customers. This program has made me realize that I have not been able to listen to the essential voice such as customer needs and problems of our customers. When awareness changes, behavior changes. Now, I go to customers more and more from the initial stages of other themes and always think about what they really want.



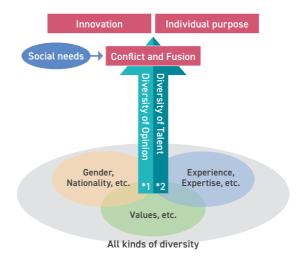
# Key factor 4

# Creating a culture of diversity that respects individuality

To develop human resources who will continue to challenge to improve value, our challenge is to create a corporate culture that respects and accepts diversity of all people who work together, and at the same time, allows the exchange of ideas (different opinions) held by such diverse individuals. Therefore, we have set the "positive response rate in survey of employee attitude on diversity and career planning" as an indicator to assess this factor. We aim to improve this figure by setting opportunities for direct dialogue between employees and the officer in charge of human resources, career dialogue to develop individual career plans, and introducing various systems to promote work styles that match the lifestyles of each employee.

#### Promotion of Diversity

Nissan Chemical has a diverse workforce, regardless of age, gender, or nationality, working in a wide range of fields. In the future, we will further promote diversity in order to enhance corporate value by taking advantage of diversity in terms of values, abilities, and experience, which cannot be expressed in terms of attributes.



\*1 Diversity of Opinion (fusion of diverse opinions): A state in which diverse opinions are expression of the second secon

# Promotion of Active Participation of Females in the Workplace and Support for the Development of the Next Generation

To achieve our diversity vision, we believe that a corporate culture that respects and accepts all kinds of diversity and the realization of work-life balance is essential for each individual to fully demonstrate his or her individuality and talent.

With regard to the promotion of women, by setting the target of 30% or more for the ratio of females among new graduates in the regular position and by working to expand the job categories in each department within the Company, the ratio of females in the regular position increased to 11.8% in FY2023.

### Nissan Chemical Corporation Action Plan (Excerpt)

Period of the plan	• Five years from April 1, 2021 to March 31, 2026
Issue	<ul> <li>The penetration of diverse work styles according to individuality and life stage of each individual is insufficient</li> </ul>
Target 1	Increase the ratio of female among employees in the regular position to 13% or more
Action	<ul> <li>Increase the ratio of female among new graduates in the regular position to 30% or more</li> <li>Support for networking among female employees (workshops, In-house networking events, etc.)</li> </ul>
Target 2	• Double the number of female managers (above section chief level)
Action	<ul> <li>Consideration of personnel system to enable early selection</li> <li>Providing opportunities to consider mid- to long-term careers</li> <li>Support for networking with internal and external female executives and managers through in-house networking events, etc.</li> </ul>
Target 3	Encourage male employees to take childcare leave
Action	<ul> <li>Consideration and implementation of measures to recommend male employees to take childcare leave at birth of child and for their superiors to recommend them to take childcare leave</li> </ul>
Target 4	<ul> <li>Continue to maintain the ratio of taking annual leave (including managers) of 70% or more</li> </ul>
Action	<ul> <li>Thorough implementation of our own taking annual leave target (10 days per year) set through labor-management consultation</li> </ul>

## Topics

### Women's Leadership Program

We held a leadership program for female employees from January to April 2024. The purpose of this program is to develop change leaders who are not bound by the conventional image of managers, but who work on their own initiative to influence workplace relationships and the environment through their own unique leadership style. The 15 participants, who gathered by a voluntary system, faced the discomfort they felt in their workplaces on a daily basis and experienced the transformation of themselves and their organizations by taking small actions on an ongoing basis. In the second half of the program, the participants were divided into three teams and gave presentations on how to realize an organization that maximizes the individuality and talent of each person on the basis of extensive internal surveys and interviews. The program was attended by the president, female outside directors, as well as the participants' supervisors. and provided an opportunity to think about an organization that embraces diversity in a common language based on the recommendations. A network that transcended departmental boundaries was also formed among the participants, who took action through trial and error together with their peers over the four months. We will continue to implement various measures to promote women's activities as a major pillar of diversity promotion.



# **Human Capital**

# **Research and Development**

## Career Dialogues

In FY2023, we began holding dialogues between employees and their superiors once a year to develop their career plans, separately from the performance evaluation interviews, in order to make the most of each person's individuality and foster job satisfaction.

Going forward, content of the dialogues will focus not only on their "work," but also on the "people" themselves, so that employees can see their careers not only in terms of "career = work experience at a company, and transfer" but also as "career = life experience based on one's own values and way of being."

# Introduction of Systems for Promoting a Good Work-Life Balance

We have introduced a flextime system, hourly annual leave system, improvement of annual leave rate (target: at least 80% of available annual paid leave time taken), and a system that allows expired paid leave to be used for nursing/caregiving. Since FY2023, the telecommuting system has been made a permanent system. Also,

in 2023, we were granted the Next Generation Accreditation Mark (Kurumin) by the Ministry of Health, Labour, and Welfare for our efforts as a company to support childcare. This is the second time we have received such accreditation following 2018.



# Web

Promotion of Diversity

https://www.nissanchem.co.jp/eng/csr\_info/communication/employee/respect.html Creation of a Comfortable Workplace

https://www.nissanchem.co.jp/eng/csr\_info/communication/employee/dialogue.html

# Key factor 5

# Creating a culture of understanding and empathy toward the corporate philosophy

For Nissan Chemical to contribute to solving social issues and grow together with society, our challenge is for each and every employee to align the corporate philosophy with their own individual purpose to increase their sense of understanding toward the corporate philosophy, which is the basis of our business activities. Therefore, in order to foster a corporate culture in which each employee can work with the feeling that they are contributing to the realization of our corporate philosophy and vision, we are promoting efforts such as holding sustainability and IR inhouse briefings and having the president visit each site every year to provide opportunities to speak with employees and engage in direct dialogue. Through these efforts, we aim to improve the "positive response rate in survey of employee attitude on the degree of understanding and empathy toward our corporate philosophy.

# Key factor 6 Promoting employees' mental and physical health

We are implementing various measures based on the belief that employees' health is a "foundation that supports sound corporate growth" with the goal of maintaining and improving the physical and mental health of employees. Specifically, we are promoting regular health checkups, conducting stress checks, and holding seminars on improving the ability to manage health for all employees, with the aim of reducing the ratio of employees with high stress and increasing the ratio of employees with optimal weight (body mass index (BMI) of between 18.5 and 25 0)

And through our responsible care management system, we are working to prevent occupational accidents, promote the good health of staff, and create a comfortable workplace environment in our efforts to improve the level of health and safety at each business site.

As a result of these and other efforts, we aim to reduce productivity loss by presenteeism and continue to acquire comprehensive and objective certifications related to health management, such as the White 500.

#### Mental Health Care

We introduced a stress check in 2015. Each year, organizational analysis of the results is conducted and the reporting session is held at each business site. More than 200 people, including heads of plants and laboratories, management level employees, and union officers, etc., participate in the reporting session to formulate workplace environment improvement plans.

For management level employees, Line-Care Training is provided on a regular basis. For employees, we have introduced e-learning for Self-Care and counseling services available to employees and their families.

## Certified Health and Productivity Management Organization (White 500)

In cooperation with the Health Insurance Association, we are implementing measures to promote the health of our employees, focusing on lifestyle-related diseases and mental health care, etc. which are key items in our Basic Health Policy. As a



result of these efforts, we have been certified by the Ministry of Economy, Trade and Industry and the Nippon Kenko Kaigi as a "White 500 Health and Productivity Management Outstanding Organization" for eight consecutive years.

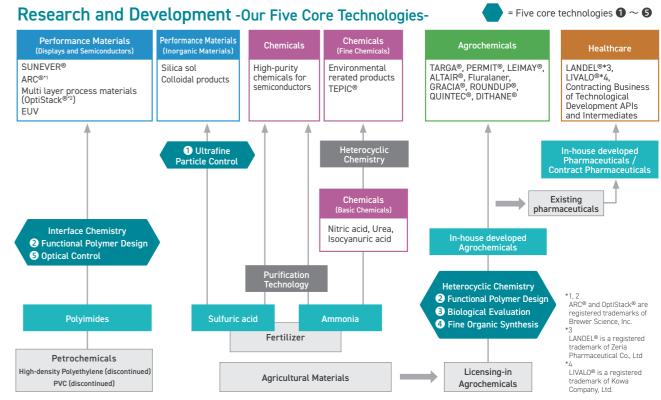
#### Web

#### Maintenance and Improvement of Employees' Health

https://www.nissanchem.co.jp/eng/csr info/communication/employee/workplace.html

# **Basic Policy and Features**

Nissan Chemical considers research and development (R&D) as the source of growth, and continues to maintain one of the highest sales-to-R&D expenses ratio among chemical manufacturers. By Distributing management resources toward R&D, we create the seeds of new technologies and nurture them into businesses. We have transformed our business operations in response to social conditions. We have continued to take on the challenge of creating new technologies and businesses by nurturing the five core technologies of "Fine Organic Synthesis," "Functional Polymer Design," "Ultrafine Particle Control," "Biological Evaluation," and "Optical Control," and fusing them across fields. In Atelier2050, the long-term business plan that we launched in FY2022, we are challenging to create completely new technologies and products related to three growing businesses, Information & Communication, Life Science, and "Environment & Energy," by adding "Microbial Control" and "Information



# New Core Technologies

# Microbial Control

By controlling microbiome in soil, in intestines, on skin, etc., we intend to expand our business to broader areas such as agrochemicals, healthcare, and environment. We aim to contribute to solving various social issues by commercializing medical materials, biostimulants, etc. in addition to microbial agrochemicals.



ENDO Hideyuki Managing Executive Officer CTO Head of Planning and Development

Science" to our existing core technologies.

We will continue to strengthen our R&D capabilities while promoting internal coordination and external research institutes, advance R&D on "Must-Have" products and services so that we can live up to our customers' voice, such as "it doesn't work without this product" and "this product is irreplaceable."

# Information Science

It is positioned as "technology that drives new value creation through simulation and data science." We will promote company-wide DX as well as materials informatics (MI) in research departments for the establishment of technology as a source of value creation in all business domains.

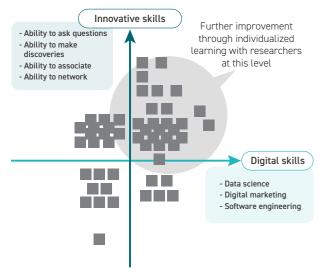
# **Research and Development**

# Improving Data Science Literacy of Researchers

As part of our efforts to make information science a new core technology, we have established learning opportunities, including e-learning, for the entire R&D department starting in FY2023, with the aim of improving the data science literacy of our researchers. This is an area of focus for many companies, but the unique feature of our approach is that we conduct periodic assessments as well as the overall learning to visualize our researchers' proficiency and ability in data science in numerical form. While it is sometimes difficult to evaluate the effectiveness of human resource development, we self-evaluate that we have been able to avoid this risk by introducing the assessment system.

The assessment is based on two axes: digital skills (skills in data science, digital marketing, software engineering, etc.) and innovative skills (ability to ask questions, discover, associate, network, etc.), and the second phase started in FY2024, focusing on the top-level researchers. In the second phase, we are working on an individualized program to ensure that participants focus on the digital skills needed in their assigned research themes and apply them to their daily research activities.

#### Assessment results of the overall learning



# Theme Management of Research and Development

We are considering many R&D themes, mainly in the fields of performance materials and life sciences, and managing progress and gaps from targets for all themes. We conduct this management every six months, and evaluate and report on R&D progress from many angles, mainly on the technology axis, including the state of technological progress, technical goals for the next six months, schedules for commercialization, intellectual property information, and the status of manpower allocation. The head of each research laboratory and supervising officer of each research field participate in the debriefing sessions, and for R&D themes that are behind schedule, they discuss the background to the delays and ways to make up for them. When it is necessary to discuss theme interruptions, we make our decision taking into account whether there are recovery strategies, changes in market conditions, and business models for each theme area.

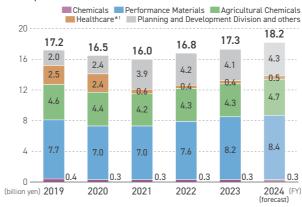
On the other hand, at the debriefing sessions, newly initiated R&D themes are also shared, allowing each research and development department to recognize newly started themes and to exchange effective ideas for advancing research.

# **R&D** Expenses

We consider R&D is the source of growth, and have intensively invested our management resources in R&D.

Over the last five years, R&D expenses have totaled 83.8 billion yen. The R&D expenses in Performance Materials and

# R&D Expenses



\*1 The figures of FY2019-2020 are the former Pharmaceuticals Division

# Voices of Researchers

# The forefront of drug discovery research using data science



SAITO Noriko Chemical Research Laboratories Pharmaceutical Research Dept.

What I have learned in my dual role as a researcher and sales representative for oil and gas (O&G) development



**MURAKAMI** Satoru Materials Research Laboratories Inorganic Materials Research Dept.

Our department has been engaged in "improving the efficiency of drug discovery research by predicting activity and toxicity using informatics and AI" and "arranging inhouse drug discovery research databases also working on "acquisition of nucleic acid themselves. molecular simulation technology," "arrange of research databases in the life science field," which will expand into various modalities including nucleic acids and peptides,

and the agrochemical field, and "utilization

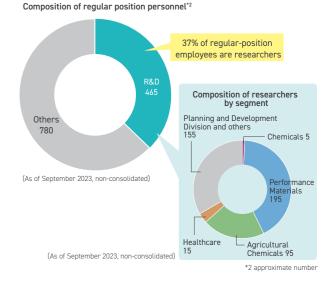
of the supercomputer Fugaku." Researchers who are skilled in synthetic experiments are now working on data science and have the digital literacy to code and develop methods themselves, which allows them to quickly necessary for building prediction models apply data science methods to drug discovand utilizing Al." Starting in FY2023, we are ery research and improve their methods

> existing core technologies such as "fine organic synthesis" and "functional polymer design" by streamlining non-core operations, improving the computer environment, and introducing ro-

For about five years, until April 2024, I worked on development in the O&G field, concurrently serving in the Inorganic Materials Research Dept. and the Inorganic Materials Sales Dept. In the early stages of development, we were not able to have in-depth discussions with customers due to our lack of knowledge of 0&G. but our team worked as one and were able to advance the development of water shut-off agent and EOR (enhanced oil recovery) chemicals to tests at oil fields in Japan and overseas. In addition, we have launched a new CCS theme in line with the accelerating global decarbonization, and are promoting the development of environmentally friend-

ly technologies. During my time in this dual role, I was able to gain valuable experience by being involved in the entire development process, including new customer development, problem identification, development policy formulation, material development, introduction of materials through presentations at academic conferences and exhibitions, raw material procurement, scale-up manufacturing, and delivery. Building relationships with customers is especially important, and there have been occasions when we have made significant progress in development through dialogue with key persons and the information they have provided. I have been in charge of

Life Science that combined with Agricultural Chemicals and Healthcare account for about 40% each. In addition, about 40% of employees of regular position are allocated as researchers.

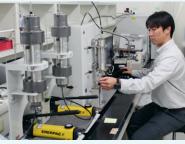


In the future, we intend to maximize our

bots for further automation, in order to provide products required by the market.



0&G and polishing research since April 2024, and I aim to increase real demand in the O&G field and expand real demand for polishing applications while maintaining close cooperation with customer



# **Intellectual Property**

Our Group regards research and development (R&D) and the intellectual property it results in as "the foundation of business" and "the source of growth."

# **Basic Policy and Features**

Nissan Chemical carries out its intellectual property activities based on the "Management Policy of Industrial Property" formulated in 1997, with the three following pillars: "prompt acquisition of intellectual property rights," "appropriate utilization of intellectual property," and "intellectual property risk management." In recent years, "advanced utilization of intellectual property and non- intellectual property information (promotion of IP landscape)" and "intellectual property contracts and external relations support" have also become important activities, and the Intellectual Property Department leads these initiatives as a "good navigator of R&D and business development."

The biggest feature of our intellectual property activities is that "business divisions, R&D departments, and Intellectual Property Department unite seamlessly." This feature has been achieved through our emphasis on R&D, with 70% of new employees and 40% of regular positions being researchers. Outside of the Intellectual Property Department, business divisions and planning departments at the Head Office also include many employees with experience in research, and a large number of personnel familiar with both R&D and intellectual property leads to lively discussions on patents and measures regarding other companies' rights. Moreover, intellectual property liaisons are established in each division to engage in intellectual property activities in collaboration with the Intellectual Property Department

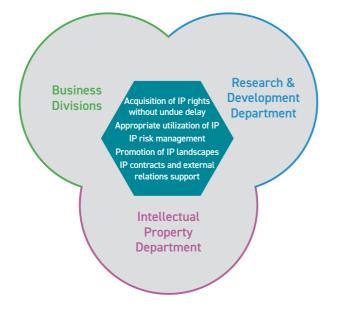
"Intellectual property conference" held in the business divisions and planning departments of the Head Office, all laboratories and plants are another our characteristic activity. By sharing intellectual property strategies as well as internal and external issues related to intellectual property at the conference, we are working to improve company-wide intellectual property literacy and cultivate and raise the intellectual property mindset.

To further accelerate these intellectual property activities, we revised the Intellectual Property Department system in April 2024 and newly established the Information Strategy Office and IP Development Office with the aim of promoting strategic use of intellectual property and to further strengthening and integrated management of inter-operational collaboration related to IP operations.

In this way, we seamlessly implement three-pronged intellectual property activities through business divisions, R&D departments and the Intellectual Property Department, and possesses a high level of intellectual property literacy as a whole company.

# Seamless intellectual property activities

One concrete example of such seamless intellectual property activities is the "patent meeting" attended by core members of R&D and business. At Nissan Chemical, these patent meetings are opportunities to comprehensively discuss each strategy of business, R&D, and intellectual property, which is reflected in each policy and generates speed and competitiveness.



In order to achieve this, it is necessary for people involved in business and R&D to be able to quickly access intellectual property information, and the Intellectual Property Department is responsible for developing the platform for this. As an example, we have established an environment that allows company-wide use of patent search tools and regularly hold educational training sessions on how to use them. Also, in the hypothesis verification-based training (training before promotion, P32), the Intellectual Property Department provides guidance on skills to collect essential IP information and provides information through IP analysis and IP landscape, thereby supporting further improvement of the IP mindset of each employee.

While we promote patent applications as a result of R&D. we review the necessity of various post-application procedures (application to foreign countries, entry of PCT applications into the national phase, requests for examination, etc.) in light of the business situation through discussions between the business department, the R&D department, and the Intellectual Property department, and obtain rights appropriately. On the other hand, we conduct periodic "inventories" of registered patents. We review not only patents directly related to the business being conducted, but also the effectiveness of patents that constitute a barrier to entry against competitors, to determine whether to maintain or abandon their registration. Thus, through appropriate intellectual property management, we are building a valuable patent portfolio that can contribute to the expansion of our business.

As a characteristic of our intellectual property activities in each field, we are promoting the strategic establishment of a patent portfolio ahead of our competitors in order to obtain a high market share in the field of performance materials.

On the other hand, in the agrochemical and pharmaceutical

fields, we are implementing intellectual property strategy that "alobal" and "can win in the case of litigations." We have experienced disputes in many countries and, if necessary, will directly eliminate other companies by litigating.

# Aggressive Acquisition of Intellectual Property Rights

As shown in the trend in the number of patents owned (p.12), we are actively acquiring patent rights both in Japan and overseas.

Our overseas percentage of patents owned ([number of overseas patents owned / total number of patents owned x 100] %) is approximately 70%, which is the highest among major domestic chemical manufacturers. This is the result of our promotion of a patent application strategy to ensure that we can conduct our business with confidence both domestically and internationally.

In the same way, compared to thirty major domestic chemical manufacturer, the number of patents owned as a percentage of sales ranks first, and the number of patents owned as a percentage of R&D expenditures ranks fourth. Excluding the agricultural chemicals and pharmaceuticals fields where the number of patents owned is low relative to R&D expenses, the number of patents owned materials field is approximately double

# Construction of a patent portfolio for photo-alignment materials for IPS mode liquid crystal (LC)

Nissan Chemical currently holds a high share of the global market for photo-alignment materials for IPS mode LC used in LCD panels, with more than 95% of the global market. Around 2010, when LCD panel manufacturing technology was switching from rubbing IPS to photo IPS, we discovered high-performance photo-alignment materials for IPS mode LC ahead of our competitors and intensively applied for many patents. As a result, we have succeeded in securing an extremely high business advantage.

More specifically, we have achieved many patent applications in a short period of time by formulating patent application strategies based on business strategies after close discussions between business department, R&D department, and the Intellectual Property Department at patent conferences led by the Intellectual Property Department. In addition, we were able to build a robust patent portfolio by conducting research and patent applications based on a research plan designed to put up barriers to entry against competitors in cooperation with our R&D department.

As shown in the graph, the total number of External Subsequent Art Citations of the active patent group related to photo-alignment materials for IPS mode LC increased rapidly from 2010 to 2016, indicating that while the number of patent applications from competitors in this field increased, our patent portfolio demonstrated a strong restraining and exclusivity effect in the examination process of those applications. On the other hand, we speculate that the trend of

the average of major domestic chemical manufacturer in terms of R&D expenses.

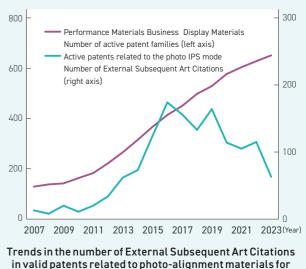
#### Our overseas percentage of patents owned and the number of patents owned compared to thirty major domestic chemical . manufacturer

	2022		2023	
	Nissan Chemical	Average of 30 companies in the chemical industry	Nissan Chemical	Average of 30 companies in the chemical industry
Overseas percentage of patents owned (%)	69.8 (1)	50.1	69.4 (1)	49.2
Number of patents owned / Sales (cases/100 million yen)	2.7 (2)	1.1	2.7 (1)	1.0
Number of patents owned / R&D expenses <sup>+2</sup> (cases/100 million yen)	35.1 (5) 59.7	26.9	36.3 (4) 59.7	26.2

\*1 Figures in parentheses indicate our ranking among major domestic chemical manufacturer \*2 Figures in the lower row are calculated only for the Performance Materials field

# Examples of Intellectual Property Activities

- a decrease in the total number of External Subsequent Art Citations since 2017 is an indication that our competitors are developing materials by circumventing our patent portfolio, given the continued dominance of our business since 2017.
- In recent years, we have been supporting our current LCD alignment materials business through continuous intellectual property activities, such as patent applications for improved and peripheral inventions and the elimination of intellectual property risks.



IPS mode LC

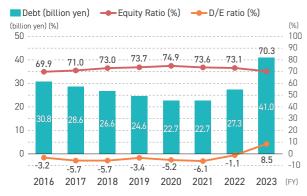
# **Financial Capital and Manufacturing Capital**

# **Financial Capital**

## **Financial Standing**

Financial capital is essential for conducting business activities. Nissan Chemical has built up a robust financial base, having given careful consideration to a balance between shareholders' equity and debt. Our equity ratio remains at a high level, while our debt is falling. As a result, the D/E ratio, one of the key indicators of financial soundness, keeps low level (Lower D/E ratio is preferable). We are in a very favorable state in terms of cash flow and can continue to utilize this cash for investment and shareholder returns as needed

#### Debt: Equity ratio: D/E ratio



# Manufacturing Capital

Our plants are located in five prefectures in Japan, and while the stone-built facilities, which have been designated as a chemical heritage, still remain, state-of-the-art equipment and facilities are being steadily introduced. With a history of over 130 years, we are still moving forward focused on the stable manufacture of products.

### The Sodegaura Plant (Chiba Prefecture)

Located in the petroleum complex in Chiba Prefecture, the Sodegaura Plant is a core plant of our Specialty Chemicals business. It engages in production of inorganic materials and electronic materials used in a wide range of industrial fields, including the cutting-edge information and electronics industries. The plant is a development-oriented plant that works closely with research laboratories.

## The Saitama Plant (Saitama Prefecture)

Located in the rich natural environment of northwestern Saitama Prefecture, the Saitama Plant produces herbicides for paddy rice, insecticides and fungicides, and contributes to agriculture in Japan and around the world.

## The Toyama Plant (Toyama Prefecture)

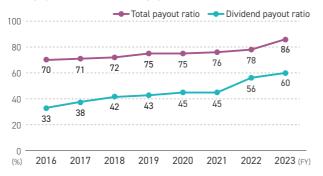
Located in the central part of Toyama Prefecture, the Toyama Plant has developed into one of Japan's leading integrated ammonia

©Related Information: Message from the CEO P19-22, Financial Review P95-102

### Shareholder Returns

Nissan Chemical emphasizes ROE, an indicator of earnings power, while aiming to take full advantage of shareholders' equity. Nissan Chemical's ROE always exceeds the Tokyo Stock Exchange Prime Market average, 17.1% in FY2023. The dividend payout ratio has been gradually increasing from 30.7% in FY2015, and the result for FY2023 was 60.1%. The total shareholder payout ratio has also been at a high level, hovering above 70% since FY2015. Our proactive approach to returning profits to shareholders, which combines dividends and share repurchase, has attracted long-term capital investment and contributed to the enhancement of shareholders' equity.

### Total payout ratio / Dividend payout ratio



©Related Information: Corporate Information P103-106

chemical plants, backed by abundant water and electricity. The plant is still manufacturing many derivatives. In recent years, the plant has also made inroads into the field of electronic materials, contributing greatly to the advancement of the global semiconductor industry and IT technology. The plant has research laboratory, which enables us to respond quickly to next-generation needs.

### The Nagoya Plant (Aichi Prefecture)

Facing the Port of Nagoya, the Nagoya Plant has developed mainly through the production of sulfuric acid, and has developed products ranging from industrial use to high-grade products for semiconductor cleaning in response to the needs of the times. The plant currently produces refined sulfuric acid, high purity sulfuric acid, sodium bisulfite, and AdBlue<sup>®</sup>, a high-grade urea solution for purifying emissions from diesel vehicles.

# The Onoda Plant (Yamaguchi Prefecture)

Located in the southwestern part of Yamaguchi Prefecture, the Onoda Plant has a history of more than 130 years, having produced Japan's first agrochemicals in 1910. It currently produces veterinary drugs and agrochemicals such as insecticides, acaricides, and herbicides, as well as pharmaceuticals such as hyperlipidemia treatments, and organic fine chemical products.

# **Social Capital and Natural Capital**

# **Social Capital**

The relationships of trust that we have cultivated over a long period of time with a variety of stakeholders, including investors, local communities and NPO/NGOs, form the basis for supporting our business activities. With the Nissan Chemical Group's sites as the foundation for social contribution, we are engaged in a variety of social contribution activities as a corporate citizen, focusing on the four areas: promotion of education, science, and culture; contribution to local communities; conservation of the global environment; and promotion of health and welfare and promotion of sports.

#### Interaction with Local Residents

We hold plant tours and explanatory meetings on regular basis for local residents and schools. In addition to explaining the main

#### Web Contribution to Communities and Society

https://www.nissanchem.co.jp/eng/csr info/communication/community.html **Biodiversity Conservation** 

https://www.nissanchem.co.jp/eng/csr\_info/responsible\_care/conservation.html

# **Natural Capital**

In manufacturing products, it is difficult to avoid placing burdens on the environment, such as the use of energy, water and raw materials as well as greenhouse gas (GHG) emissions. We identified "Continuous improvement of responsible care activities" as one of our materialities. We have identified the mitigation of climate change and reduction of industrial waste and pollutant emissions as key materiality factors, and are striving to reduce our environmental impact through responsible care activities that consider the environment, health, and safety.

### Supply of environmentally friendly products and services

We define environmentally friendly products as those which reduce our environmental impact or play a major role in achieving this objective, in each of our processes, including manufacturing, distribution, use, and disposal. By increasing the percentage of our products that are environmentally friendly, we aim to contribute to society in harmony with the environment.

#### Web Responsible Care Management

https://www.nissanchem.co.jp/eng/csr\_info/responsible\_care/management.html Mitigation of Climate Change https://www.nissanchem.co.jp/eng/csr\_info/responsible\_care/environment/reduction.html Reduction of Industrial Waste and Pollutant Emissions https://www.nissanchem.co.jp/eng/csr\_info/responsible\_care/environment/management.html Management of Chemical Substances https://www.nissanchem.co.jp/eng/csr\_info/responsible\_care/chemical.html Water Resources Conservation https://www.nissanchem.co.jp/eng/csr\_info/responsible\_care/environment/effective.html **Biodiversity Conservation** https://www.nissanchem.co.ip/eng/csr info/responsible care/conservation.html Supply of environmentally friendly products and services https://www.nissanchem.co.jp/eng/csr\_info/contribution/environment.html

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equipment, we also explain our efforts in disaster prevention and the environment, striving to instill understanding that our factories are safe and secure. In addition, we also participate in local beautification activities such as cleaning of public roads and nearby stations around the plants, and planting flowers together with local residents. In FY2023, we conducted plant tours at our Saitama, Toyama, and Onoda plants.



Plant tour (at Saitama Plant)

©Related Information: Responsible Care P71-73

## Initiatives to Reduce GHG Emissions

At the Toyama Plant and the Onoda Plant, we have significantly reduced CO<sub>2</sub> emissions by converting naphtha that is raw material and fuel for ammonia, and heavy oil that is fuel for boilers into natural gas. The Company's carbon efficiency (GHG emission rate) is relatively good in the chemical industry due to the low-carbon investments it has made to date and the characteristics of its products.

### Carbon efficiency



# Materiality

In order to realize our ideal state in 2050 as set out in our long-term business plan "Atelier2050," to be "a future-creating company that grows through seeking to enrich people and nature," and "a group of co-creators that face challenges for change with a strong passion," in FY2022, we reviewed the materiality that we need to address. With the aim of achieving sustainable development for society and the Nissan Chemical Group, we are managing our progress on an annual basis by using the KPIs up to FY2027 set in our mid-term business plan for "Vista2027" as indicators for sustainable management.

# **Three Materiality of Nissan Chemical Group**



# **Materiality Identification Process**

Social issues and social changes looking ahead to 2050 and issues to be addressed by Nissan Chemical were discussed across the Company in the "Business Planning Project" led by the President and the Vice President, and it was confirmed that there have been no major changes in social issues and social changes since the previous formulation.

Social Issues and Social Changes

	Social Issues and So	cial Changes	
Gain Understanding	Environment	Social	Economy
Social Changes	<ul> <li>Advanced climate change</li> <li>Global crisis</li> <li>Exacerbation of the food issues</li> </ul>	<ul> <li>Increase of requests for consideration of health and safety in the work environment</li> <li>Advent of a smart society</li> <li>Changes in lifestyle</li> <li>Labor shortage</li> <li>Worsening health issues</li> </ul>	<ul> <li>Intensification of inter-corporate competitions</li> <li>Diversification of risk factors</li> <li>Increase of requests for sustainability considerations in the supply chain</li> <li>Increase of interest in corporate governance reform</li> <li>Increase of requests for information disclosure</li> </ul>
Review of Materiality and Materiality Factors	related evaluation orga lines such as SASB, and "Vista2021" remains a p san Chemical's busines	nizations such as DJSI and FTSE, a d determined that the materiality id priority issue for Nissan Chemical.	ference to the SDGs, evaluation items of ESG- and sustainability information disclosure guide- lentified in the previous mid-term business plan On the other hand, in light of the priority of Nis- ies under Vista2021, we have added "safety and harized into 30 materiality factors.
Management of Impact on Our Group	In regards to the 30 materiality factors, we considered and analyzed the social issues and social changes, and then made arrangements to manage the impact on the Group.		
Exchange of Opinions with Directors and Audit & Supervisory Board Members, including Outside Officers	with directors and audi		ve exchanged opinions in intensive discussions cluding outside officers, regarding the materiali- siness Planning Project.
Identification of Materiali- ty and Materiality Factors (through resolution at the Board of Directors)	and key performance ir		priateness of the materiality, materiality factors, y factor, which were identified based on the dis- of the officers.

# Materiality Initiatives and KPI

Materiality	Materiality factor	Vista2027 Major Initiatives	FY2027 Target	FY2022 Result	Relat with S	
	Supply of environmental- friendly products and services	<ul> <li>Development of materials that contribute to the expansion of renewable energy</li> <li>Development of materials that contribute to the achievement of a circular economy</li> <li>Reduction of the application amount of agrochemicals</li> <li>Introduction of recyclable packaging materials</li> <li>Supply of exhaust gas removal materials</li> <li>Supply of disinfectants and water treatment for septic tanks</li> <li>Supply of materials that enable reduction of</li> </ul>	Net sales: +10% compared to FY2021	Net sales: +9% compared to FY2021	2 mm 3 mm mm 	
Provision of	Contribution to smart society	oil and fat waste Supply of materials that contribute to higher capacity/speed of data communication and sensing	Net sales: +55% compared to FY2021	Net sales: +10% compared to FY2021	7 #100000000 	
new value for nelping to enrich people's ives	Contribution to food issues	<ul> <li>Supply of agrochemicals to increase crop yields and conserve agricultural labor in food production</li> <li>Contribution to the maintenance of health of livestock</li> </ul>	Net sales: +15% compared to FY2021	Net sales: +20% compared to FY2021		
1963	Contribution to improvement of the quality of life	<ul> <li>Supply of disinfectants for drinking water</li> <li>Contribution to maintaining the health of companion animals</li> </ul>	Net sales: +15% compared to FY2021	• Net sales: +42% compared to FY2021		
	Contribution to health issues	<ul> <li>Supply of generic drugs</li> <li>Offer of contracted manufacturing and service for pharmaceuticals</li> <li>Development of materials for regenerative medicine market</li> <li>Development of drugs for intractable diseases</li> </ul>	Net sales: +5% compared to FY2021	• Net sales: -5% compared to FY2021	13 annel 13 annel 14 anne essa 14 anne essa 15 anne	
	Rate of total sales of prod social issues in consolida Nissan Chemical Sustain		Maintain at least 55%	Above 55%	<u>•</u>	
	Enhancement of R&D capability	<ul> <li>Acceleration of R&amp;D through the use of AI</li> <li>Expansion of core technologies</li> <li>Further use of open innovation</li> </ul>	<ul> <li>Total number of patent applications (FY2022 to 2027): 2,500</li> </ul>	<ul> <li>Cumulative number of patent applications since FY2022: 775 (FY2023: 397)</li> </ul>		
	Improvement of products quality	<ul> <li>Prevention of serious complaints</li> <li>Prevention of quality fraud and data tampering</li> </ul>	<ul> <li>Number of serious complaints: Zero</li> <li>Attendance rate of quality training: At least 90%</li> </ul>	<ul> <li>Number of serious complaints: Zero</li> <li>Attendance rate of quality training: 92%</li> </ul>		
	Maintenance and improvement of employees' health	<ul> <li>Promotion of measures against lifestyle- related diseases</li> <li>Implementation of mental health measures</li> <li>Awareness activities for employees on maintaining their health</li> <li>Promotion of female's health</li> </ul>	<ul> <li>Rate of employees within appropriate weight*: At least 70%</li> <li>*BMI (body mass index): 18.5 to 25.0</li> </ul>	69.6%	5 1000 T 8 1000 1000 8 1000 1000	
Ca	Creation of a comfortable workplace	<ul> <li>Promotion of work-life balance</li> <li>Implementation of measures against harassment</li> <li>Support for childcare and nursing care, encouraging male employees to take parental leaves</li> </ul>	<ul> <li>Utilization rate for annual paid leaves: At least 80%</li> </ul>	85.1%		
Strengthening of Nissan Chemical's ousiness base	Personnel retention and trainings	<ul> <li>Introduction of a new personnel system (role grading system)</li> <li>Strengthening of career development</li> <li>Enhancement of self-development support programs</li> </ul>	<ul> <li>Positive response rate in survey of employee attitude on human resources development: At least 65%</li> </ul>	• 58.5%		
	Promotion of diversity	<ul> <li>Promotion of active participation of females</li> <li>Recruitment of international students</li> <li>Promotion of employment of persons with disabilities</li> </ul>	<ul> <li>Proportion of females in the regular position: At least 13%</li> <li>Proportion of female researchers in the regular position: At least 18%</li> </ul>	<ul> <li>Proportion of females in the regular position: 11.8%</li> <li>Proportion of female researchers in the regular position: 16.0%</li> </ul>	13 CAME	
	Promotion of fair-trading	<ul> <li>Holding in-house training sessions, and conduction of other educational and awareness activities</li> <li>Conduction of educational and awareness activities for compliance</li> </ul>	<ul> <li>Zero violations of antitrust laws</li> <li>Zero bribery of foreign public officials</li> </ul>	<ul> <li>Number of violations of antitrust laws: Zero</li> <li>Number of bribery of foreign public officials: Zero</li> </ul>	16 101 100 17 101 101 17 101 101 16 101 17 101 101 10 100 10 100	
	Promotion of sustainable procurement	<ul> <li>Provision of feedbacks on results of sustainable procurement survey</li> <li>Provision of supports in improvement for suppliers that do not meet the Company's standards</li> </ul>	<ul> <li>Provision rate of supports in improvement for suppliers that do not meet the Company's standards: At least 90%</li> </ul>	83.3%	- 00	
	Adaptation to climate change	<ul> <li>Maintaining and improving the resilience of business activities in the event of natural disasters</li> </ul>	<ul> <li>Update and maintenance of Business Continuity Plans (BCPs) for products that account for 50% of ordinary income</li> </ul>	• Updated or maintained BCPs for products that account for 41% of ordinary income		
	Mitigation of climate change	GHG emissions reduction	<ul> <li>GHG emissions: Reducing by at least 30% from FY2018 level</li> </ul>	GHG emissions: Reduced by 21.5% from FY2018 level		
Continuous	Promotion of occupational health and safety	<ul> <li>Strengthening of occupational safety management</li> </ul>	<ul> <li>Zero accidents requiring staff time off from work</li> <li>Number of occupational accidents: Reducing by half compared to FY2020</li> </ul>	<ul> <li>Accidents requiring staff time off from work: 4</li> <li>Occupational accidents: 10 (FY2020: 8)</li> <li>Held e-learning course on occupational safety (at Nissan Chemical and 3 Group companies)</li> </ul>	8 ministration 12 ministration 12 ministration 0000	
mprovement of responsible	Biodiversity conservation	<ul> <li>Promotion of biodiversity conservation activities</li> </ul>	<ul> <li>Establishment and operation of Bio-Parks at Nissan Chemical's plants</li> </ul>	<ul> <li>Established the Onoda Plant Bio-Garden (Establish and operate at 4 out of 5 plants)</li> </ul>	ts)	
care activities	Management of chemical substances	<ul> <li>Compliance with laws and regulations regarding the use of chemical substances</li> </ul>	<ul> <li>Continuation of zero serious violations of laws and regulations</li> </ul>	<ul> <li>Serious violations of laws and regulations: Zero (maintained)</li> </ul>		
	Reduction of industrial waste and pollutant emissions	<ul> <li>Reduction of industrial waste and pollutant emissions for final disposal</li> </ul>	<ul> <li>Reduction in final disposal ratio at Nissan Chemical's plants (compared to FY2020)</li> </ul>	• 22.8% (FY2020: 14.3%)	کھر 15 ≣سر ⊈~~	
	Safety and disaster	Strengthening of the management of safety	Zero fires, explosions and chemical spills	Fires: 2, Explosions: 0, Chemical spills: 0		

Value

# Main Products and Services

One of the materialities of the Nissan Chemical Group is the "provision of new value for helping to enrich people's lives." In response to the ever-changing needs of society, we will advance R&D on products and services that contribute to solving social issues.

Each product and service name is color-coded to indicate the business under its jurisdiction Chemicals Healthcare

# Supply of environmental-friendly products and services

# AdBlue<sup>®\*1</sup>

# Venus<sup>®</sup> Oilclean

Decomposition agent for oils and

fats in wastewater. It uses novel

microorganisms to powerfully break

down oils and fats to reduce waste.

High-grade urea solution used in purification systems to meet diesel vehicle emission regulations.



# Inorganic Materials (CCS/CCUS applications)

We engaged in initiatives related to CCS ( $CO_2$  capture and storage) and CCUS (CO<sub>2</sub> capture, utilization, and storage) applications, as a way to develop applications toward carbon neutrality.

# ROUND NOZZLE® ULV5 Utilization of the ROUNDUP® MAXLOAD

dedicated nozzle contributes to shorter spraying time and reduced CO<sub>2</sub> emissions

# Lithium-ion Secondary **Battery Materials**

● HI-LITE<sup>®</sup>

and water

purification

tanks, and thus

contributes to

public hygiene.

It is used for sterilization and

disinfection of swimming pools

31890

1474 - 90GH

颗粒剤

日産化学株式会社

We develop materials for lithium-ion batteries, such as LIBSOLVER™, a slurry additive, that contribute to improve battery characteristics and productivity.

# Contribution to food issues

# 

GRACIA®, a pesticide developed in-house, is fast-acting on a wide range of crop pests and has little impact on honeybees which are useful insects.



# Fluralaner (for livestock)

Fluralaner, which was invented by Nissan Chemical, is used as an active ingredient in EXZOLT®\*2, an animal health product for chickens, cattle, and sheep, and contributes to maintaining the health of livestock.



\*1 AdBlue® is a registered trademark of the Verband der Automobilindustrie (VDA).

\*2 EXZOLT® and BRAVECTO® are registered trademarks of Intervet International B.V., a subsidiary of Merck & Co., Inc.

# Contribution to improvement of the quality of life

# ● HI-LITE<sup>®</sup>

Some grades of HI-LITE<sup>®</sup> have received standard certification as raw materials for disinfectants for drinking water in developing countries and other regions where drinking water sanitation is inadequate.



# Contribution to smart society

# SUNEVER<sup>®</sup>, Rayalign<sup>®</sup>

These are polyimide-based liquid crystal alignment materials used to coat the surface of the outer glass panels to align liquid crystal molecules in a certain direction.



# Contribution to health issues

# Active pharmaceutical ingredients

We manufacture APIs which was discovered by Nissan Chemical, generic APIs, and commissioned products (Finetech®) and provides them to various pharmaceutical manufacturers. The level of quality of our products, as well as our compliance with cGMP, is highly regarded and contributes to the maintenance of people's health.



\*3 ARC<sup>®</sup> is a registered trademark of Brewer Science, Inc.

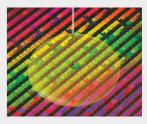
# Fluralaner (for pets)

Fluralaner, which was invented by Nissan Chemical, is used as an active ingredient in BRAVECTO®\*2, an animal health product for dogs and cats. These products are highly safe and acts rapidly against major species of fleas and ticks and has a longer insecticidal effect than existing products as its effects remains even when highly diluted.



# ● ARC®\*3

ARC® is an anti-reflective coating developed for semiconductor lithography. It is used to coat the part under the photoresist, to resolve a number of issues with lithographic exposure such as reflection from varying substrate levels. This makes it possible to significantly reduce the device failure rate.



# Oligonucleotide Drug Discovery Platform

Nissan Chemical's oligonucleotide drug discovery platform, consisting of (1) modified nucleic acid MCEs, (2) singlestranded herteroduplex oligonucleotides, and (3) in silico sequence design algorithms, provides antisense oligonucleotide therapeutics with high efficacy and safety.

# Cell culture material

The cell culture material "FCeM® series" realizes suspension

and dispersion culture of adherent cells, and provides a culture environment that reduces stress and damage to cells during culture.



# **Business Segments**

In the Mid-term Business Plan "Vista2027," we have set "expand market shares and profits of existing businesses" as one of the basic strategies. While keeping a close eye on changes in the environment surrounding our customers and markets, we will promote the expansion of existing products, which are the source of growth, and the steady development of new products.



Most of the products of this division are comprised of industrial chemicals, such as ammonia and sulfuric acid, and derivative products/ high-purity products that have been developed downstream with added value. These products are supporting people's lives in a wide range of fields. By building an efficient production system, we strive to provide excellent products and technologies while reducing the environmental burden.

# Chemicals



### **Basic Chemicals**

We sell industrial chemicals such as sulfuric acid, nitric acid, ammonia, and urea, and their derivative products to a wide variety of industries. The Company is further improving the efficiency of our production system in order to create a stronger business foundation to minimize the impact on our earnings due to external factors, such as changes in economic trends in Japan or oversea and fluctuating fuel prices.

We are also manufacturing and supplying products to support cutting-edge fields, and providing products to the market such as high-purity sulfuric acid, nitric acid, aqueous ammonia and liquid ammonia from which impurities are removed to utmost level.

In addition, we established a manufacturing and supply system for our high-grade urea solution AdBlue®\* that decomposes nitrogen oxide contained in exhaust gas from diesel vehicles, which is considered to be the cause of air pollution, into nitrogen and water, thereby reducing environmental impact. \*AdBlue® is a registered trademark of the Verband der Automobilindustrie (VAD).

### **Fine Chemicals**

We offer environmental chemicals such as HI-LITE®, used for sterilization and disinfection of swimming pools and water purification tanks, and Venus® Oilclean, a microorganism formulation that decomposes oils and fats in wastewater from food factories, as well as other chemicals such as FINEOXOCOL®, higher alcohol used in products including cosmetics.

We have lineup of high-performance chemicals derived from isocyanuric acid, a derivative of urea, such as TEPIC® and Melamine Cyanurate. In addition to being used as a curative agent for coating powders, TEPIC® is seeing an increase in demand for use in electronic materials such as solder resist ink and sealants for LED. Melamine cyanurate is used as a non-halogen flame retardant or an auxiliary flame retardant for various engineering plastics. In addition to focusing on the expansion of applications for these existing products, we are promoting R&D of our own isocyanuric acid derivatives.

# **1** Isocyanuric Acid

Isocyanuric acid is a material used in TEPIC®, HI-LITE®, and melamine cyanurate, which is used as a flame retardant. In order to facilitate the stable provision of TEPIC® and HI-LITE®, which are sources of growth of this division, to the market, we expanded our isocyanuric acid production facilities in December 2020, which contributed to an increase in sales

# 2 TEPIC<sup>®</sup>

The high-performance chemical TEPIC<sup>®</sup>, which has a distinctive triazine ring, is used in a wide range of applications. For electronic material applications, we expect that demand for TEPIC® will continue to grow in various fields, including the information & communication field (5G base stations for solder resist ink applications, substrates for autonomous driving, etc.). In FY2023, we fell short of our plans due to the increased competitiveness of competing Chinese products, but we forecast an increase in sales in FY2024. Sales prices of general-purpose grades were on a downward trend as international market conditions declined due to the economic slowdown in China, the largest market. We will pursue a well-balanced sales strategy by expanding sales of high-quality grades while avoiding low-price competition in general-purpose grades.

# **3** HI-LITE<sup>®</sup>

"Clean Water and Sanitation," one of the SDGs, is an important global issue. We have exported some grades of HI-LI-TE® since they have been certified as materials for disinfectants for drinking water in areas where hygiene management is insufficient, such as in developing countries. We will respond to the global demand for disinfection, as well as the demand for disinfectant applications for drinking water.

# 4 High-Purity Sulfuric Acid

Demand for high-purity sulfuric acid is expected to grow in the information & communications field, a business field which will continue to grow. In FY2023, demand began to improve in the second half, but fell short of our plan for the entire year due to production adjustments at semiconductor plants. In FY2024, we forecast demand to recover and shipments to increase. We will continue to maintain high quality and high availability.

# **Business Strategies of Vista2027**

# **Opportunities and Risks**

- Rising prices of raw materials and fuels
- Expansion of semiconductor market
- Increasing demand for environmentally friendly products
- Introduction of carbon pricing

# Strengths

- Manufacturing process for products with high selfextinguishing rates as well as high value-added products by developing derivative products using ammonia as a core raw material
- Accumulation of more than half a century of research and know-how regarding ultra-high purity of industrial chemicals



In June 2022, the first year of Vista2027, we discontinued the production of melamine, which had been a core product in our ammonia-related products for more than half a century. Meanwhile, for sulfuric acid products, we will make capital investments and upgrade facilities in response to increasing demand. The Chemicals business is susceptible to the effects of fuel prices, supply demand balance, and market environment. Therefore, we will continue to strive to secure stable earnings while flexibly mental changes.

reviewing business strategies in response to environ-As a source of sustainable growth for the business, we will focus on the development and deployment of new products, mainly isocyanuric acid derivatives, while strengthening sales of products for the electronic materials field. We started the full-fledged commercialization of STARFINE® (zinc cyanurate), from which ef-

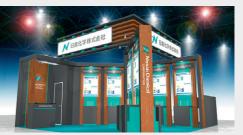
# Main Measures

- 1. Improve profitability of ammonia-related business after the withdrawal from the melamine business
- 2. Expand sales of high purity sulfuric acid
- 3. Expand sales and improve profitability of isocyanuric acid, HI-LITE®, and TEPIC®
- 4. Develop the business of Venus® Oilclean (a microorganism formulation)



# **Progress in FY2023**

fects as an additive for paints and adhesives can be expected. Together with the new grades of TEPIC<sup>®</sup>, it has already been evaluated by many users for various purposes. We will also contribute to waste reduction with Venus® Oilclean, a microorganism formulation.



Exhibited STARFINE® at Converting Technology Exhibition 2024 (STARFINE®)

In this rapidly evolving business, it is necessary to quickly and accurately grasp the needs and technological trends of the market. For this, sales, research, and production, including overseas bases, are integrated, and we emphasize activities that are closely related to customers. We aim to contribute to the development of society by providing products and services based on the reliable technical capabilities that we have cultivated.

# Performance **Materials**

ISHIKAWA Motoaki Director, Senior Managing Executive Officer Head of Performance Materials Division



## **Display Materials**

We are working on alignment materials for aligning liquid crystal molecules in a certain direction. SUNEVER® was made available for sale in 1989, and we have expanded our market share by increasing the functionality of alignment materials, even when the liquid crystal type used is changed from TN to STN or TFT. In addition, in 2014, we started the sale of Rayalign<sup>®</sup>, a photo-alignment materials for IPS mode liquid crystal (LC) and this has become our main product. This product has been used in many smartphones, tablets and laptops. In the future, it is expected that product demand for Rayalign® will further increase as resolutions in monitor and automotive applications increase.

## Semiconductor Materials

We started the manufacture and sale of ARC<sup>®\*1</sup> in 1998 based on a licensing agreement with US company, Brewer Science, Inc. ARC® is a coating material designed to prevent issues such as irregular reflection and interference of light, and coating failure during micro-fabrication of the photoresist. We launched OptiStack<sup>®\*2</sup> (multi-layer process material) in 2007 which greatly expanded our business.

In 2018, EUV exposure technology (wavelength: 13.5 nm, semiconductor circuit width: 7 nm and under) was introduced into mass production and our products are applied to resist under layers materials for EUV. We are currently promoting high-quality improvements in the mass production and next-generation development of EUV materials, and also focusing on three-dimensional packaging technology preparing for the limits of optical shrink. \*1, 2 ARC<sup>®</sup> and OptiStack<sup>®</sup> are registered trademarks of Brewer Science, Inc.

### Inorganic Materials

SNOWTEX®, a nano silica water dispersion serving as a fiber processing agent, went on sale in 1951. Now we also offer organosilicasol serving as an organic solvent dispersion, and monomer sol, a product that can be used without solvent. These products are indispensable materials used in coating materials for optical films and in abrasives for electronic substrate materials and for other purposes. In the future, we will work on the development of CCS/CCUS-related materials and expand their applications to new eco-friendly products.



# **Progress in FY2023**

### **1** Liquid Crystal Alignment Materials for TVs

Currently, our major materials for displays are alignment materials for smartphones and tablets, and especially the photo-alignment material for IPS LCDs. In the future, we will also use them for TVs. Although demand for LCD TVs is predicted to decrease somewhat, we predict that demand for alignment materials will continue to increase based on screen sizes. Also, since we believe that screen resolutions will continue to improve, we recognize that it is an important theme to accurately respond to technical requests from customers and expand the market share of our products. In FY2023, sales of alignment materials for VA LCDs, which expand our market share in the previous year, increased by 20% due in part to increased production by major customers.

# 2 Strengthening Development Capabilities and Establishment of a Structure to Increase **Production for Semiconductor Materials**

We strengthened the development capabilities in EUV materials for cutting-edge applications. We also focused our efforts on increasing the guality of current EUV materials and developing the next-generation versions. Moreover, in order to increase the speed of development for South Korea market, we established the new Semiconductors Division of R&D center at NCK (April 1, 2023). And also in order to respond to future market growth in demand, the 3rd NCK BARC plant in Dangjin, South Korea was completed in May 2023 and is currently under evaluation for approval by customers.

# **3** Material Development toward Achieving Carbon Neutrality

We are working to develop a variety of materials toward achieving carbon neutrality. Progress was made in the development of water shut-off agent for crude oil drilling, CCS and CCUS materials, and materials for EV motors.

# **Business Strategies of Vista2027**

# **Opportunities and Risks**

- Expansion of application of photo-alignment material for IPS mode LC and growth of the OLED market
- Expansion of the semiconductor market and progress in 3D packaging technology
- Development of a smart society
- Intensification of inter-corporate competitions

# Strengths

- A sales and research system closely linked to customers in China, Taiwan, and South Korea
- Optical control technology
- Functional polymer design technology
- Ultrafine particle control technology

# Efforts to achieve ista2027

#### **Next-Generation Display Materials**

OLEDs, which are thinner, lighter, and have faster response times than LCDs, and provide added value such as foldability, are increasingly being used in smartphones premium TVs and other products. Recently, following OLED, next-generation self-luminous displays incorporating technologies of quantum dot (QD) and LED, which promise higher image quality, have been actively developed. We will aim to commercialize new products by developing proprietary materials, such as optical control materials, functional film materials. and QD-related materials.

# Main Measures

- 1. Improve existing products and expand their application
- 2. Reinforce and increase manufacturing facilities and other facilities
- 3. Develop and launch new products
- 4. Start the commercial operation of the new NCK plant
- 5. Improve profitability of the inorganic material (inorganic colloid) business



# Semiconductor Packaging Materials

Technologies related to high-speed, large-capacity information and communication such as IoT, 5G, and sensors, are making rapid progress. For this reason, further miniaturization and higher integration in the formation of electronic circuits are occurring. As we have been working on the development of materials for the process of 3D packaging with thinned semiconductor wafers, we plan to expand sales the materials in the growing market.

We contribute to a stable food supply through consistent business activities from the research for new agricultural chemicals to their development, manufacture, and sales, and expansion of a broad product lineup through the acquisition of ingredients from other companies and joint development of products.

# Agricultural Chemicals



# Agrochemicals

Our agrochemical business started in the 1910s when our predecessors Nippon Seimi Seizo and Kanto Soda began manufacturing and selling insecticides and fungicides. Starting with TARGA® (herbicide for grassy weeds) launched in 1984, we have continued to manufacture and sell products developed in-house such as SIRIUS<sup>®</sup> (herbicide for paddy rice), SANMITE<sup>®</sup> (insecticide/ acaricide) and PERMIT<sup>®</sup> (herbicide for paddy rice and corn), which have steadily improved profitability.

Afterwards, we experienced hard times as a result of inhouse development delays and intensifying competition with competitors. However, since the launch of LEIMAY® (fungicide) in 2008, we have returned to introducing products developed inhouse, and started sale of STARMITE® (acaricides) in 2009, ALTAIR<sup>®</sup> (paddy rice herbicide) in 2012, and GRACIA<sup>®</sup> (general purpose pesticide) in 2018. In addition, we are actively pursuing the acquisition of other companies' agents and have enhanced our agricultural chemical product portfolio by taking over the global product Quintec<sup>®</sup> (fungicide) in 2019 and Japanese and Korean operations for the versatile DITHANE® (fungicide) in 2020.

# Veterinary Pharmaceuticals

Through our development of agricultural pesticides, we have discovered compounds that are not only effective for use on agricultural crop pests, but also on fleas and ticks that are parasitic in dogs and cats, and have continued to examine these compounds as veterinary pharmaceuticals. In 2008, we entered a licensing agreement with Intervet Inc. Development of veterinary pharmaceuticals using Fluralaner, a compound invented by us, as an active ingredient has advanced.

Since launched in Europe and the United States under the brand name BRAVECTO®\* in 2014, veterinary pharmaceuticals containing Fluralaner as an active ingredient are now used in more than 100 countries and are leading the growth of Agricultural Chemicals Division. In addition to our products for dogs and cats, EXZOLT®\* for chickens, cattle, and sheep is also obtaining a marketing authorization in an increasing number of countries.

\* BRAVECTO® and EXZOLT® are registered trademarks of Intervet International B.V., a subsidiary of Merck & Co. Inc.

## **Progress in FY2023**

# **1** GRACIA<sup>®</sup>

GRACIA®, a pesticide developed in-house, is fast-acting on a wide range of crop pests and has little impact on honeybees which are useful insects. It was released in South Korea in 2018 and went on sale in Japan in May 2019. The product has been launched in Indonesia, India, Vietnam, and Middle East countries since 2021, and will be launched in other countries in the future.

# 2 ROUNDUP®

In addition to the ROUND NOZZLE® ULV5, which enables labor-saving spraying of ROUNDUP® MAX LOAD, for backpack and boom sprayers, we launched the ULV5 for Hokkaido and the coverless ULV5-Light in 2023. We are increasing sales of Roundup® Max Load while responding to the needs of producers. Sales of ROUND-UP® MAXLOAD AL for general consumers are expected to increase due to continued acquisition of new users and expansion of retail distribution.

# **3** Fluralaner

Veterinary pharmaceuticals for companion animals and livestocks containing Fluralaner as an active ingredient are available in more than 100 countries. In FY2023, sales of animal health products containing Fluralaner as an active pharmaceutical ingredient continued to increase year on year, mainly for companion animals. Along with the low birthrate and aging population, the idea that companion animals are like a family to their owners is growing in popularity. We expect that the demand for veterinary pharmaceuticals will increase in the future as people become more aware about companion animal health.

# **Business Strategies of Vista2027**

# **Opportunities and Risks**

- Labor shortage due to the population decline in Japan
- Growing need for measures to increase food production due to the increase in global population
- Growth of bio-based agrochemicals and materials
- Expansion of market for companion animals

## Strengths

- Ability to create distinctive, new agrochemicals from the core technologies of fine organic synthesis and biological evaluation
- Experiences and track records spanning many years from research for new agricultural chemicals to manufacturing and sales
- High level of motivation cultivated through maintaining high profit margins and continuous growth

# **Main Measures**

- 1. Popularize and expand sales of main products such as GRACIAR, and continue to enhance our respective marketing efforts for large-scale producers and agricultural corporations, and general consumers
- 2. Conduct steady development of VELDER® (novel herbicide), NC-656 (novel herbicide) and NC-520 (novel nurserybox insecticide for paddy rice), and create new pipelines
- 3. Promote bio-research



In order to enhance our product portfolio, we will continue to introduce and jointly develop products from other companies, including biological agrochemicals.

In addition, as in-house developed products, following the development of a herbicide for paddy rice flooding treatment (VELDER®), we also have begun development of a herbicide for application on stems and leaves of paddy rice (development code NC-656) and a nurserv-box insecticide for paddy rice (development code NC-520). Moreover, we have established a joint venture (Nissan Bharat Rasayan PVT. LTD.) in India for the purpose of manufacturing the active ingredients in agrochemicals. It started commercial operation in March 2023. By having this joint venture's manufacturing plant together with the Onoda Plant, we can respond to growing demand for our agrochemicals. We expect it will contribute to the growth of our agrochem-





icals business by establishing a robust active production and supply system that is cost-competitive.



In order to appropriately respond to changes in the business environment and achieve mid- to long-term growth, we are accelerating the selection and concentration of business areas. In addition, we contribute to the resolution of health issues by developing and launching new pharmaceuticals, generic drugs and medical materials based on our unique technologies.

# Healthcare



## Healthcare

In the 1970s, a number of companies from other industries entered the pharmaceutical business. We focused our research and development on lifestyle-related diseases and launched efonidipine hydrochloride, an antihypertensive drug, in 1994. It is distributed in Japan by Zeria Pharmaceutical and Shionogi as LANDEL®\*1, and in South Korea by GC Biopharma as FINTE®tab.

In 2003, Kowa Company launched the anti-cholesterol drug pitavastatin calcium hydrate as LIVALO®\*2, which is currently sold in over 30 countries around the world. After its substance patent for Japan expired in 2013, due to the decline in market share by generic drugs and the impact of drug price revisions, the domestic conditions continue to be harsh. The creation of new drugs is an urgent issue for us.

With the organizational restructuring in April 2022, the drug discovery research function was transferred to the Planning and Development Division, where it is handled by the Healthcare Business Development Department. The Healthcare Division is taking charge from the out-licensing stage, developing the business from a comprehensive perspective of broader healthcare together with medical materials.

#### Custom Chemicals

We operate a "solution proposal" contract business and a joint development business that provide total support for the development of active pharmaceutical ingredients (APIs) in response to customer needs. We accept contracts for the development of manufacturing processes at each stage from preclinical to commercial production and for the manufacture of active pharmaceutical ingredients (APIs) and intermediates under cGMP-compliant conditions, as well as for the associated quality design, stability testing, synthesis of impurity/metabolite samples, and preparation of application materials for the drug master file.

Recently, we have expanded our business of supplying APIs for generic drugs, and are not only handling highly active APIs that reguire containment, but also efficiently manufacturing highly active vitamin D3 APIs in addition to prostaglandin derivatives using our proprietary two-component coupling method based on our diverse fine organic synthesis technologies. In addition, we have developed our proprietary liquid-phase synthesis technology SYNCSOL® for innovative contract peptide production.

\*1 LANDEL® is a registered trademark of Zeria Pharmaceutical Co., Ltd. \*2 LIVALO® is a registered trademark of Kowa Company, Ltd

# **Progress in FY2023**

# 1 Construction of Basic Technologies to Accelerate Oligonucleotide Drug Discovery and Promotion of Joint Drug Discovery with Pharmaceutical Companies Oligonucleotide therapeutics are attracting attention in their main roles as next-generation pharmaceuticals. In addition to accelerating our research by strengthening our unique technologies in oligonucleotide drug discovery, we have been jointly working with multiple pharmaceutical companies to create development compounds since 2019 and expanding these partnerships.

# **2** Establishment of an Efficient Peptide Manufacturing Technology and its Commercialization

In 2018, we invested in PeptiStar, which is aiming to establish a stable supply system for APIs of constrained peptides. Meanwhile, we have developed a novel liquid phase peptide synthesis technology (SYNCSOL®) that enables dramatic cost reduction. We are currently developing new generic APIs by SYNCSOL making full use of this technology. In the future, we intend to develop this technology for not only APIs but also peripheral medical materials.

# **3** Continuous Launch and Market Expansion of Highly Bioactive Generic Drugs

The containment facility for development have been put into operation, and technology cooperate agreements with partner company have been signed to accelerate new development following prostaglandin (limaprost) and active vitamin D3 (maxacalcitol and eldecalcitol). In the future, we will develop a stable supply system and nurture it as a source of growth, with a view to expanding into overseas markets in addition to the domestic market.

# **Business Strategies of Vista2027**

### **Opportunities and Risks**

- Increasing demand for generic drugs
- Expanded efforts in middle molecule drug development
- Aging population and diversification of healthcare
- Intensification of inter-corporate competitions

# Strengths

- Fine organic synthesis technology
- GMP compliant high-level containment technology Chemistry, Manufacturing, and Controls (CMC) support
- for APIs
- Cutting-edge evaluation functions

# Main Measures

- 1. Healthcare: Focused investment in the oligonucleotide drug discovery, commercialize and expand sales of medical materials (biointerface control materials, cell culture materials)
- 2. Custom Chemicals: Strengthen highly profitable business models, expand into overseas markets, and aim for joint development (peptides, etc.)



We will focus on oligonucleotide therapeutics utilizing generic drug APIs which leverage our strength, and be our proprietary basic technology for oligonucleotide fully engaged in business not only in Japan but also in drug discovery and steadily promote joint drug discovoverseas markets. Furthermore, leveraging the overery platform with pharmaceutical companies. In the whelming technological superiority of our proprietary area of small molecule drugs, we will work on the use liquid-phase synthesis technology "SYNCSOL®," we of AI as a shift from existing drug discovery method. will develop the peptide contracted business and the The API of LIVALO® will be developed by taking advanjoint-development business. Through these measures, tage of economies of scale. As for medical materials, we will further develop Custom Chemicals into a highly profitable business. we will commercialization and sales expansion of new It will take time to obtain results for new pharmaproducts, such as biointerface control materials and cell culture materials. In addition to the generic drug ceuticals and medical materials. Until then, we will maxacalcitol, which was launched in FY2015, eldecontinue to boldly take on the challenge of developing calcitol, which was launched in FY2020, has achieved new pharmaceuticals and medical materials while significant growth as a pillar of our business. In the supporting the backbone with our highly profitable future, we will accelerate the development of new Custom Chemicals business.





**Planning and** 

Development

Division

# By combining our core technologies with new materials and technologies, we are striving to create new products and businesses with high added value that meet the needs of society. In order to further accelerate development, we established the Planning and Development Division in FY2020 and through the establishment of new groups, we are now developing products in a wide range of fields, including information & communications, environment & energy, human healthcare, and animal care.

ENDO Hideyuki Managing Executive Officer CTO Head of Planning and Development Division

## Healthcare

We carry out drug discovery, mainly oligonucleotide therapeutics, and development for commercialization of materials for regenerative medicine and raw materials for cosmetics.

In the drug discovery, we are focusing on oligonucleotide therapeutics. In order to contribute to improving patients' quality of life through the creation of innovative new drugs, we are strengthening our platform through collaboration with academia and our partner companies and building our robust R&D portfolio through alliances with pharmaceutical companies.

In the field of regenerative medicine, as well as starting investigator-initiated clinical research using Cellhesion®, a scaffold that enables 3D mass culture of undifferentiated mesenchymal stem cells said to be highly safe, we started paid shipments of Advance-CR, a material for non-frozen transportation and storage of cell clumps (spheroids). In addition, prevelex<sup>®</sup>, an agent to prevent adhesion of proteins and cells, etc. to containers has contributed significantly to the start of clinical trials at partner companies. We will continue to aim for applications in the containers for test and research, fields of gene medicines and antibody pharmaceuticals.

In the cosmetics field, in addition to the increased use of NFG® in skin care products by cosmetics manufacturers, its use in hair care products has increased significantly due to its hair damage repair function attracting attention, and we are working to further expand its use in these products.

### Information & Communication

We are working on the development of new materials that support cutting-edge devices required to realize Society 5.0.

We are promoting market development for materials including µLED-related materials attracting attention as next-generation displays with high brightness and high reliability, wafer-level package-related materials that enable miniaturization and thinness, SUNCONNECT®, an optical interconnect material that support highspeed, large-capacity data communications, and liquid metal-based thermal interface material developed by Arieca Inc.

# Environment & Energy

We are committed to product development that contributes to the realization of a sustainable society through Green Transformation (GX)

In the field of lithium-ion batteries (LIB), we are developing slurry additives with the aim of improving input/output characteristics, extending service life, and increasing productivity, and are working to commercialize them as soon as possible. We are developing materials for catalyst layers in polymer electrolyte fuel cells and ammonia electrolyte synthesis catalysts for utilizing hydrogen energy, as well as charge transport materials that contribute to improve the efficiency of lightweight flexible solar cells.

Toward the realization of a recycling-oriented society, we are working toward the early commercialization of ECOPROMOTE®, a resin additive that contributes to cost reduction in the molding process and improving a heat-resisting property of polylactic acid, which is rapidly becoming popular as a biodegradable bioplastic.

### **Animal Care**

We are working on planning and development for commercialization in the field of veterinary pharmaceuticals. We are planning and developing veterinary drugs using the R&D technology of small molecule drugs cultivated by Nissan Chemical over many years, and formulating strategies for establishing a sales and distribution system for veterinary drugs in Japan.

### New Material Planning and Research Management

Through venture capital based investment and other means. we are working to discover high-quality start-up companies and new development themes. We are working at the revitalization of development themes by introducing new materials and technologies in each field and accelerate commercialization by strategically investing in startup companies.

In addition, we are working on enhancement of R&D capabilities through training of researchers and support of R&D themes, and are working on evolution of existing technologies and creation of new technologies.



# 1 Oligonucleotide drug discovery

Since March 2019, Nissan Chemical and Sanwa Kagaku Kenkyusho Co., Ltd. have been conducting drug discovery research to identify potential novel oligonucleotide therapeutics. And we have already discovered a preclinical antisense candidate for a rare disease. Considering this achievement, we expand into the strategic collaboration to advance next-generation oligonucleotide therapeutics programs and aim to o discover and develop new oligonucleotide therapeutics candidates.

# **2** SUNCONNECT®

SUNCONNECT®, an optical interconnect material with high heat resistance and low optical loss, has been evaluated by customer companies as a material for polymer optical waveguides, and its paid sales have already started. For opto-electronic hybrid technology, which is expected to see further development in the future, we will widely deploy this material, mainly to semiconductor package substrate manufacturers in Japan and overseas.

## 3 LIBSOLVER<sup>™</sup>

Lithium-ion batteries (LIBs) for electric vehicles (EVs) are required to have high capacity to extend the cruising range, and we are working on the development of materials "LIBSOLVER<sup>TM</sup>" used for high capacity LIBs. In addition to improving the characteristics of the LIBs, this material also makes a significant contribution to improving manufacturing stability.

# **Business Strategies of Vista2027**

# **Opportunities and Risks**

- Expansion of regenerative medicine market, growth of beauty and health market
- Development of digital society and expansion of ICT market
- Increasing demand for technological development aimed at the realization of a low-carbon society
- Development delays and late arrival of expected new fields

- 1. Acceleration of development by allocating resources to important themes
- 2. Incorporation of new technologies and materials from inside and outside the Company and their incorporation into in-house technology
- 3. Improvement of contact with customers and strengthening of solution proposals capability

# **Progress in FY2023**

# Strengths

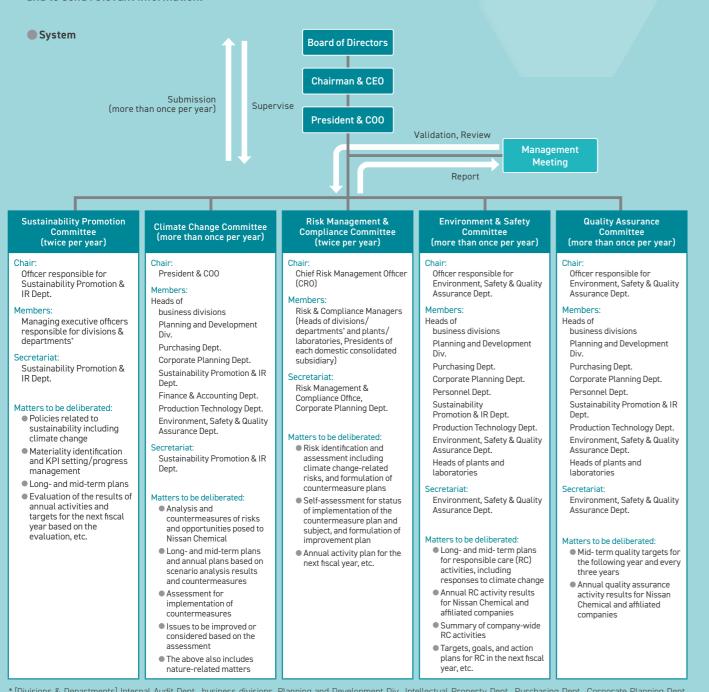
- Design of small molecule and polymer and its functionalization, formulation capability and biological evaluation technology
- Thin film coating based interface control technology Networking with external research institutions across multiple disciplines

# Main Measures

# **Sustainability Promotion Structure**

Amid unpredictable and volatile world, Nissan Chemical Group has made its corporate philosophy of "Contribute to the protection of the global environment and the existence/development of humanity, offering the value sought by society" the basis of its business activities. We have established the Sustainability Promotion Group within the Sustainability Promotion & IR Department to enhance our sustainability activities with the mission "to draw up sustainability strategies in response to social trends, to raise awareness of sustainability internally, and to send relevant information."

We have also established the Sustainability Promotion Committee, the Climate Change Committee, the Risk Management & Compliance Committee, the Environment & Safety Committee, and the Quality Assurance Committee in order to promote sustainability activities. The Board of Directors supervise these initiatives by discussing and resolving the content of deliberation at each committee.



\* [Divisions & Departments] Internal Audit Dept., business divisions, Planning and Development Div., Intellectual Property Dept., Purchasing Dept., Corporate Planning Dept., Personnel Dept., Sustainability Promotion & IR Dept., Finance & Accounting Dept., Digital Transformation Dept., Production Technology Dept., Environment, Safety & Quality Assurance Dept

# Information Disclosure in Line with TCFD and TNFD Recommendations

Nissan Chemical announced its support for the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) in August 2020. We also supported the recommendations of the Taskforce on Nature-related Financial Disclosures (TNFD) in April 2023. We will continue to strive to improve our company's value by promoting initiatives related to climate change TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES and natural capital, as well as gradually expanding Forum information disclosure.

# Governance

Our initiatives to address climate change are examined and deliberated at the Sustainability Promotion Committee, Climate Change Committee, Risk Management & Compliance Committee, and Environment & Safety Committee. The Board of Directors supervises those efforts by discussing and approving the Committee's deliberations at its meetings. Since natural capital, including biodiversity, is significantly related to climate change, it is examined and deliberated by the Climate Change Committee.

One of our initiatives for nature-related stakeholder engagement is the Nissan Chemical Group Human Rights Policy, which covers all our stakeholders' human rights. Based on the Policy, we conduct a risk assessment (due diligence) concerning stakeholders, which includes nature-related metrics, such as health, safety, and use of natural resources (including water). As the "health and safety of local communities" is our priority, we are committed to enhancing countermeasures. Specifically, we constantly hold plant tours and briefings for residents and neighboring schools to encourage their understanding of the safety and security of our plants and two-way communication with them.

Please see the following pages for stakeholder human rights responses and interactions with local communities. Respect for Human Rights https://www.nissanchem.co.jp/eng/csr\_info/management/hrp.html Contribution to Communities and Society https://www.nissanchem.co.jp/eng/csr\_info/communication/community.html

#### Sustainability Promotion Committee (twice per year)

This Committee considers and deliberates on material issues in order to more strategically tackle global social issues, including climate change. The Committee is chaired by the officer responsible for the Sustainability Promotion & IR Department (Director, Senior Managing Executive Officer). Policies, targets, plans, etc. related to sustainability, including climate change, are deliberated, and after approval at the management meeting, the following matters are submitted to the Board of Directors.

#### Resolving matters at the Board of Directors

- Policy planning related to sustainability
- Long- and mid-term and yearly plans for sustainability

### Climate Change Committee (more than once per year)

This Committee was established to accurately grasp the risks and opportunities that the Company faces due to the increasingly serious problem of climate change, and connect them more strongly with our management strategies to strengthen our comprehensive climate change measures. The Committee is chaired by the president (COO). The Committee also comprehensively addresses natural capital as it is closely linked with climate change.

Analysis of risks and opportunities related to climate change







and natural capital, as well as policies, targets, plans, etc., are deliberated, and after approval at the management meeting, the following matters are submitted to the Board of Directors.

# Resolving matters at the Board of Directors

- Scenario analysis and countermeasures for climate change and natural capital
- Long- and mid-term and yearly plans for climate change and natural capital-related measures

# Risk Management & Compliance Committee (twice per year)

This Committee was established to enhance the effectiveness of risk management, and to maintain and promote compliance. The Committee is chaired by the Chief Risk Management Officer (CRO/ Director, Managing Executive Officer) appointed by the Board of Directors.

The Risk & Compliance Managers (heads of divisions/ departments and plants/laboratories, presidents of domestic consolidated subsidiaries) who are members of this Committee. periodically identify and assess climate change-related and other risks, draw up a countermeasure plan, self-assess the status of implementing those measures and issues to be addressed, and suggest improvements. In addition, they offer education and training at each division/department, plant/laboratory, and domestic consolidated subsidiary about risk management and compliance. The Committee deliberates on those risk management initiatives and creates an activity plan for the next fiscal year.

For nature-related risks, we have undertaken the risk assessment based on the TNFD recommendations. In light of the importance of those risks, we are considering whether they should be included in the risks managed by the Risk Management & Compliance Committee.

# Resolving matters at the Board of Directors

- Identification of the Group's major risks ("Group Major Risks") and countermeasures against them
- Mid-term and yearly plans for risk and compliance

# Environment & Safety Committee (more than once per year)

This Committee oversees and promotes responsible care (RC) activities within Nissan Chemical and affiliated companies. The Committee is chaired by the officer responsible for the Environment, Safety & Quality Assurance Department (Director, Managing Executive Officer).

The Committee discusses the results of RC activities at each site for the fiscal year, a summary of Company-wide activities, and objectives, targets, and action plans for RC in the next fiscal year. The Committee also shares information with the Sustainability Promotion Committee and discusses plans, including responses to

climate change and environmental impact reduction.

The contents of deliberations are validated and reviewed at least once a year at the management meeting. After approval at the management meeting, the following matters are submitted to the Board of Directors.

Resolving matters at the Board of Directors - Draft of RC-related policy

- Long- and mid-term and yearly plans for RC

#### **Risk Management**

In the framework of the Risk Compliance Committee, we clarify risks including climate-change related risks taking into account the business characteristics of each division and the surrounding businesses, including global political, economic and social conditions. For each risk identified, a risk assessment is conducted from the viewpoint of probability and impact on business, and a risk map is subsequently created based on the results of the risk assessment to identify the Group Major Risks.

The Group Major Risks are deliberated at the Risk Management & Compliance Committee, approved at the management meeting, and then resolved by the Board of Directors. For nature-related risks, we have undertaken the risk assessment based on the TNFD recommendations. In light of the importance of those risks, we are considering whether they should be included in the risks managed by the Risk Management & Compliance Committee.

#### Management Process of Group Major Risks

A division/department in charge and a risk owner are designated for each Group Major Risk selected. The Risk & Compliance Managers of the divisions/departments in charge of those Major Risks play a central role in drawing up the countermeasure plan for Group Major Risks, which is deliberated at the Risk Management & Compliance Committee and approved by the Board of Directors. The implementation status of countermeasures is also deliberated at the Risk Management & Compliance Committee, and the result of the deliberation is reported to the Board of Directors.

Regarding typhoons and torrential rain, one of the Group Major Risks, we set the KPI of "Update and maintain the BCPs for products that account for 50% of ordinary income by FY2027" as a measure to mitigate the risks of increased equipment restoration costs and the reduction of production at major plants. We have completed the update and maintenance of the BCPs for products accounting for 41% of ordinary profits as of the end of FY2023.

In addition, we regularly clarify risks, assess their impact on our business and their probability, and review the Group Major Risks.

Please see the following web page for the process of identifying the Group's Major Risks, the risk map, the Group's Major Risks, and countermeasures against risks.

https://www.nissanchem.co.jp/eng/csr\_info/risk\_management/policy.html

# Strategy for Climate Change

TCFD Recommendations require companies to conduct a scenario analysis\* to understand how the risks and opportunities arising from climate change affect their finances.

In 2020, we developed the 2°C scenario in which the transition to a decarbonized society would be realized (the transition risks would be evident) and the 4°C scenario in which climate change would progress (the physical risks would be evident). Based on those scenarios, we identified business risks and opportunities, examined their importance, and mapped out their effects on the Company and our strategies. However, at the Conference of the Parties to the United Nations Framework Convention on Climate Change (COP26) held in 2021, it was agreed to pursue efforts to limit the rise in average temperature to 1.5°C; accordingly, we revised our scenario analysis in July 2023.

\* Scenario analysis is a method to project the degradation of the natural environment, such as climate change, water scarcity, as well as changes or shifting of the business environment due to long-term policy trends regarding climate change and to examine how those changes may influence the corporate's business and operation.

#### Referenced Scenarios



\*1 The scenario where necessary measures are implemented to keep the increase in global average temperature below 1.5°C above pre-industrial levels. \*2 The scenario where the global average temperature increases by 4°C above pre-industrial

Investigation of the 21st century.
 \*3 International Energy Agency "World Energy Outlook" (2022)

ology Perspectives" (2023) \*4 International Energy Agency "Energy Techn

\*5 Intergovernmental Panel on Climate Change (IPCC) "Shared Socio-economic Pathway"

# Scope of Analysis: Chemicals business, Performance Materials business, Agricultural Chemicals business, Healthcare Business, Planning and **Development Division**

Period of Analysis: 2030 and 2050

Process of Identifying Risks and Opportunities



## Results of Scenario Analysis on Climate Change (climate change risks/opportunities)

As a result of scenario analysis and quantifying the financial impact using the 1.5°C scenario, we identified important risks, such as increased operating costs with the introduction of carbon pricing and decreased sales from an inability to provide low-carbon products. In response to the introduction of carbon pricing and decrease in demand for products with high life-cycle carbon emissions, we will work to reduce the risks by not only further promoting the use of renewable energy and conversion of fuel and feedstock at our plants, which we have been working on thus far, but also by further promoting decarbonization investments that take into account reducing GHG emissions through the use of internal carbon pricing.

Furthermore, in response to market changes due to increasing demand for environmental consideration, we assume that demand for environmentally friendly biological agrochemicals and low-carbon products, such as materials for secondary battery, will increase. In terms of biological agrochemicals, we established the Biological Group within the Agricultural Chemicals Research & Development Department of the Biological Research Laboratories in April 2022 and conduct R&D toward commercial-

# Risks/Opportunities and Countermeasures Identified in the 1.5°C Scenario

Scenario	Factors	Value Chain		Impact on Business	Relevant Business	Main Measures																
		Upstream	Risk	<ul> <li>Increase in raw material procurement costs due to the introduction of carbon pricing such as carbon taxes, and compliance with regulations and decarbonization investment, by suppliers</li> </ul>		<ul> <li>Price pass-through to products</li> <li>Multiple sourcing of several key raw materials</li> </ul>																
	<ul> <li>Regulations on GHG emissions</li> </ul>	Direct	NISK	<ul> <li>Increase in operating costs due to the introduction of carbon pricing such as carbon taxes, and compliance with regulations and decarbonization investments</li> </ul>	All	<ul> <li>Fuel and feedstock conversion at plants</li> <li>Update to energy-saving equipment, etc.</li> <li>Increased use of renewable energy</li> <li>Zero emissions of N20 from nitric acid production</li> </ul>																
		Operations	Opportunity	<ul> <li>Avoid the impact of carbon pricing by reducing GHG emissions</li> </ul>		capacity (planned investment: 830 million yen) • Optimization of the manufacturing process • Promotion of decarbonized investment by introducing internal carbon pricing																
		Upstream		<ul> <li>Increase in raw material procurement costs due to renewable energy procurement by suppliers</li> </ul>		<ul> <li>Price pass-through to products</li> <li>Multiple sourcing of several key raw materials</li> </ul>																
	<ul> <li>Changes in energy policy</li> <li>Changes in energy demand and supply</li> </ul>		Risk	Increase in logistics costs		• Optimization of transportation routes, systems, etc.																
				<ul> <li>Increase in operating costs due to in-house renewable energy procurement</li> </ul>	All	<ul> <li>Update to energy-saving equipment, etc.</li> </ul>																
		Direct Operations		<ul> <li>Reduce operating costs by improving energy efficiency and saving energy</li> </ul>		• Optimization of the manufacturing process																
1.5℃ Scenario			Opportunity	<ul> <li>Acquiring opportunities for funding (subsidies, etc.)</li> </ul>		<ul> <li>Advanced GHG emission reduction efforts and appropriate information disclosure</li> </ul>																
Scenario		anges due increasing mand for vironmental	Risk	<ul> <li>Decrease in sales of agricultural chemicals business due to the introduction of regulations on the use of agrochemicals</li> </ul>	Agri	<ul> <li>Development of environmentally friendly agrochemicals</li> <li>Development of biological agrochemicals</li> <li>Acquisition of biostimulant technology</li> </ul>																
	<ul> <li>Market</li> </ul>		Opportunity	<ul> <li>Increase in demand for biological agrochemicals, etc.</li> </ul>		<ul> <li>Promote registration of agrochemicals in new countrie</li> </ul>																
	changes due to increasing demand for environmental consideration		Downstream	Downstream	Downstream	Downstream	Downstream	Downstream	Downstream	Downstream	Downstream	Downstream	Downstream	Downstream	Downstream	Downstream	Downstream	Downstream	Downstream	Risk	<ul> <li>Decrease in sales due to inability to provide low-carbon products</li> <li>Decrease in demand from customers due to the retention of products and businesses with large GHG emissions</li> </ul>	All
			Opportunity	<ul> <li>Increase in demand and sales of parts and materials for low-carbon products</li> </ul>		<ul> <li>Promotion of decarbonized investment by introducing internal carbon pricing</li> <li>Increased use of renewable energy</li> <li>Fuel and feedstock conversion at plants</li> </ul>																
	Increased demand from investors and others for     Direct		Risk	<ul> <li>Damage to ESG evaluation and reputation, decrease in market capitalization, and financing difficulties due to delay in measures to address climate change, such as heavy use of fossil fuels</li> </ul>	All	<ul> <li>Further advanced GHG emission reduction efforts</li> <li>Appropriate information disclosure</li> </ul>																
	addressing climate change	Operations	Opportunity	<ul> <li>Improve ESG evaluation and reputation, and increase market capitalization through advanced initiatives and information disclosure</li> </ul>		Abbi obilare inioi mation discrosule																





ization. Additionally, in the Environment & Energy field, we aim to commercialize secondary battery materials, energy harvesting materials, and CCS/CCUS materials, by accelerating their development

Meanwhile, regarding the risk of flood damage, which we recognize as a risk in the 4°C scenario, we have identified the possibility of flooding at our major production and distribution bases as a material risk. To address this risk, we will continue to formulate and revise the BCPs for our plants and major products from time to time, raise the floors and foundations of our plant equipment, secure product inventory, and purchase key raw materials from multiple sources.

Meanwhile, in response to market changes owing to rising temperatures and abnormal weather, we assume that demand for agricultural chemicals and disinfectants for drinking water will increase due to the increase in pests and weeds, as well as water shortages and spread of infectious diseases. Based on the prospects for market growth, we aim to expand our opportunities. Furthermore, by building a business portfolio that is less susceptible to the effects of climate change, we will increase the resilience of our business activities and strive to minimize risks and maximize opportunities.

All: All businesses/Planning and Development Division Agri: Agricultural Chemicals business Chem: Chemicals business

#### Risks/Opportunities and Countermeasures identified in the 4°C Scenario

	<ul> <li>Rising temperatures •</li> </ul>			<ul> <li>Increase in risk of impacts on plant operations, equipment, inventory, and supply chains due to flooding caused by heavy rains, floods, and rising sea levels</li> </ul>		<ul> <li>Formulate BCPs (business continuity plans) for key products in each plant</li> <li>Raise the foundation of the plant buildings, and place equipment and other key items on higher floors, depending on the risk</li> </ul>
	Increase in abnormal weather	Direct Operations	Risk	<ul> <li>Decline in production capacity (such as shortage of cooling capacity) and increase in product and material management costs due to water shortages caused by drought and heat waves</li> </ul>	All	<ul> <li>Formulate BCPs (business continuity plans) for key products in each plant</li> <li>Optimization of the existing cooling system</li> <li>Introduce equipment for water-saving and water-recycling</li> <li>Introduce energy-saving air conditioning and cooling equipment</li> </ul>
4°C Scenario	<ul> <li>Market changes caused by rising temperatures and abnormal weather</li> </ul>		Risk	<ul> <li>Reduction of planted area due to increase in frequency and intensity of storms/floods and difficulties in securing irrigation water</li> <li>Changes in the distribution of planting and reduction in planted area due to rising temperatures</li> </ul>	Agri	<ul> <li>Promote registration of agrochemicals in new countries</li> <li>Enhancing the agrochemicals portfolio</li> </ul>
		Downstream	Opportunity	<ul> <li>Increase in sales of existing agrochemicals and opportunities to develop new agrochemicals due to the spread of pest insects, weeds, and pathogens, and the emergence of resistance</li> </ul>		<ul> <li>Develop new agrochemicals</li> <li>Enhancing the agrochemicals portfolio</li> <li>Promote registration of agrochemicals in new countries</li> </ul>
				<ul> <li>Increase in sales of disinfectants due to the reduction of usable (fresh) water resources and the growth of global demand for drinking water</li> </ul>	Chem	Expand sales of disinfectants for drinking water

### Financial impact

Scenario		Impact on Business	Calculation Method	Financial impact (☆2027)
		<ul> <li>Increase in operating costs due to the introduction of carbon pricing such as carbon taxes, and compliance with regulations and decarbonization investments</li> </ul>	Calculation of the increase in operating costs in 2030 due to the introduction of carbon pricing from estimated emissions and carbon price * Assumed the cases in which emissions reduction does not progress compared to the base year (FY2018) results * Carbon price (2030): 140\$/t-CO <sub>2</sub> Referred to IEA WE02022 NZE	5.9 billion yen/year
	Risk	<ul> <li>Increase in operating costs due to in-house renewable energy procurement</li> </ul>	Calculated the increase in operating costs for procurement of renewable energy power in 2030, based on the sales plan for 2027, if all electricity used is switched to renewable energy power * Estimated renewable energy power procurement unit price refers to the non-fossil certificate price, etc.	0.46 billion yen/year
1.5°C		<ul> <li>Decrease in sales of agricultural chemicals business due to the introduction of regulations on the use of agrochemicals</li> </ul>	Calculated the decrease in sales in 2030 due to regulations on agrochemicals such as the MIDORI Strategy for Sustainable Food Systems	2.3 billion yen/year
Scenario		<ul> <li>Decrease in sales due to inability to provide low-carbon products</li> </ul>	Calculated the decrease in sales in 2030 where decarbonization in the Company's chemical manufacturing process does not progress, and sales volume of existing products with high product life cycle emissions (product carbon footprint) decreases * Sales of existing products are actual figures for FY2021 * Forecasted decrease in sales volume of existing products is estimated by referring to IEA Net Zero by 2050, etc.	4.2 billion yen/year
	Opportunity	<ul> <li>Avoid the impact of carbon pricing by reducing GHG emissions</li> </ul>	Calculated the amount of avoidable increase in operating costs in 2030 due to the introduction of carbon pricing, if the FY2027 target (reducing by at least 30% from FY2018 level) is achieved * Carbon price (2030): 140\$/t-CO2 Referred to IEA WE02022 NZE	1.8 billion yen/year
		<ul> <li>Increase in demand and sales of parts and materials for low-carbon products</li> </ul>	For low-carbon products that demand is expected to increase, calculated the increase in sales from FY2021 based on the formulated sales plan for FY2027	☆ 1.2 billion yen/ year
4°C Scenario	Risk	<ul> <li>Increase in risk of impacts on plant operations, equipment, inventory, and supply chains due to flooding caused by heavy rains, floods, and rising sea levels</li> </ul>	Calculated the financial impact as the decrease in sales and damage to equipment and inventory during the period when production sites that have a particularly large impact, have ceased operations in the event that a site is flooded, based on 2030 and 2050 assumptions * Aqueduct floods used to analyze flood depth * Damage rate due to flooding is set with reference to the Manual for Economic Evaluation of Flood Control Investment (Draft), etc. published by the Ministry of Land, Infrastructure, Transport and Tourism * The amount of financial impact is calculated as the maximum risk where floods occur at a site with a large impact and where no countermeasures are taken, based on FY2021 site sales, equipment and inventory levels, etc.	2030: 7.6 billion yen 2050: 12.8 billion yen

# Metrics and Targets of Climate Change

Positioning climate change mitigation as one of the Materiality elements, we recognize that reducing the Company's emissions, which account for approximately 95% of the Group-wide GHG (Scope1 and 2) emissions, is crucial for diminishing our climate change-related risks. For this reason, we set "achieving carbon neutrality by 2050" in the long-term and "reducing GHG emissions by at least 30% from the FY2018 level by FY2027" in the mid-term to reduce the Company's GHG emissions (Scope1+2). Those targets are included in the Group's non-financial targets in the long-term business plan "Atelier2050," and the mid-term "Vista2027," and the progress of those initiatives is being checked and managed. In addition, the degree of attainment of those

### Mid-term and Long-term Targets

Category	Category Metrics		Scope	FY2027 Target	2050 Target
GHG emissions	Scope1+2	Absolute Emissions	Non- consolidated	Reduce emissions by at least 30% from the FY2018 level	Carbon neutrality

#### Climate change-related data

	Scope	Unit	2018	2020	2021	2022	2023	FY2027 Target
Scope1	Non-consolidated	t-CO <sub>2</sub> e	245,469	216,276	231,713	223,388	174,133	-
Scope2	Non-consolidated	t-CO2e	117,926	102,182	113,623	104,275	111,187	-
Scope1+2	Non-consolidated	t-CO2e	363,395	318,458	345,336	327,663	285,320	254,377
GHG emission rate per unit to sales*1 (Scope1+2)	Non-consolidated	t-CO₂e/ million yen	2.33	1.96	2.03	1.79	1.58	-
Scope3*2	Non-consolidated	t-CO2e	703,562	763,007	803,461	885,046	927,262	-
Energy consumption rate <sup>*3</sup>	Non-consolidated	*4	82.8	76.2	81.5	63.3	62.0	-
Scope1	Consolidated*5	t-CO <sub>2</sub> e	253,785	220,243	238,958	230,424	180,409	-
Scope2	Consolidated*5	t-CO2e	128,647	116,516	124,663	115,893	124,730	-
Scope1+2*	Consolidated*5	t-CO2e	382,432	336,759	363,621	346,316	305,138	-
Non-consolidated / Consolidated (Scope1+2)		%	95.0	94.6	95.0	94.6	93.5	-

\*1 Amount of emissions (t-C0:e) / Non-consolidated sales (million yen) \*2 Data of each category: https://www.nissanchem.co.jp/eng/csr\_info/index/esg\_data.html \*3 Energy consumption / Non-consolidated sales \*4 FY2013 is set at 100 \*5 Nissan Chemical Corporation and consolidated subsidiaries with manufacturing facilities (Nihon Hiryo Co., Ltd., Nissan Chemical America Corporation, NCK Corporation) \*6 Due to rounding of figures, some of the above Scope1 and Scope2 sums do not match

#### Web Mitigation of Climate Change

https://www.nissanchem.co.jp/eng/csr\_info/responsible\_care/environment/reduction.html



reduction targets is reflected in the ESG-linked portion of our officers' performance-related remuneration.

Since FY2018, we have been steadily reducing GHG emissions by terminating melamine production, converting boiler fuel at the Onoda Plant, and saving energy by upgrading aging facilities. In FY2023, emissions decreased from FY2022 due to the normalization of nitric acid plant troubles that occurred in 2022 and the suspension of operations at the Toyama Plant due to the Noto Peninsula earthquake.

The Company's GHG emissions and energy consumption have been subject to third-party verification since FY2018. We will continue to advance our approaches to reduce emissions and environmental impact and strive to disclose highly reliable information.

# Information Disclosure in Line with TCFD and TNFD Recommendations

## Strategy of Natural Capital

We have employed the LEAP approach recommended by TNFD as an integrated analytical approach for natural capital-related evaluation. The LEAP approach consists of four phases: Locate (The interfaces with nature), Evaluate (Dependencies and impacts on nature), Assess (Nature-related risks and opportunities), and Prepare (To respond and report).

Scope of analysis: Agrochemicals in the agricultural chemicals business (some risks and opportunities also apply to other businesses) Analysis period: 2030 and 2050

# Locate: Identify priority areas

We analyzed and assessed specific areas related to the Group's business activities using tools like the WWF Biodiversity Risk Filter to locate interfaces between the Company and nature and identify our priority areas.

As agrochemicals use petroleum, natural gas, and various minerals as raw materials, the Company manufactures finished products through the extraction and processing of materials and the production of intermediate products. In light of Japan's import conditions and the world's reserves of those resources, the value chain (VC) upstream (extracting and processing raw materials) is considered to have been mostly carried out in overseas countries,

such as Saudi Arabia, the UAE, Australia, China, Canada, and Peru. Accordingly, we find it difficult to locate specific oil and gas fields, minerals, and processing plants; however, some locations are highly likely to correspond to the priority areas.

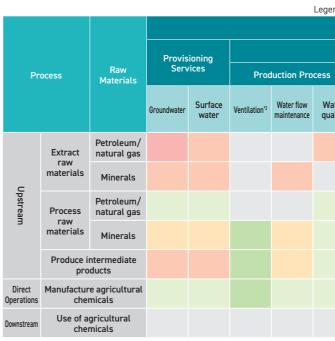
The Company manufactures agricultural chemicals at the Onoda Plant, the Saitama Plant, and the plants of NC Agro Hakodate Corporation and Nissan Bharat Rasayan PVT. LTD.(India). Considering our business activities' dependencies and impacts on nature, we recognize the importance of the "Sensitive Locations" criteria defined in TNFD. Therefore, we have identified the following locations as our priority areas.

		Sensitive	Sensitive Locations							
Name of Base	Ecosystem Integrity	Biodiversity Importance	Physical Water Stress	Importance of Providing Ecosystem Services						
Saitama Plant		<ul> <li>As it is away from protected areas, biodiversity importance is low</li> </ul>	<ul> <li>Flood risk is high</li> </ul>	<ul> <li>No case of infringement on the rights of indigenous peoples and communities</li> </ul>						
Onoda Plant	The ecosystem integrity	As it is near protected	• Frood Fisk is high							
NC Agro Hakodate Corporation	has not declined	areas, biodiversity importance is high	Flood risk is moderate							
Nissan Bharat Rasayan PVT. LTD.	<ul> <li>As it is away from protected areas, biodiversity importan is low</li> </ul>	protected areas, biodiversity importance	<ul> <li>The water quality risk is very high</li> <li>Water scarcity risk/flood risk is high</li> </ul>							

Tools used: WWF Risk Filter Suite, Global Forest Watch map

# • Evaluate: Identify and evaluate nature-related dependencies and impacts

The value chain of agricultural chemicals comprises materials sourcing and processing, production of intermediate products, manufacturing of finished products by the Company, and the use



				Impact									
Process		Raw Materials	Water use	Use of terrestrial ecosystem	Use of freshwater ecosystem	Use of marine ecosystem	GHG emissions	Air pollutant	Water pollution	Soil pollution	Solid waste	Noise and light pollution, etc.	
	Extract	Petroleum/ natural gas											
C	raw materials	Minerals											
Upstream	Process raw materials	Petroleum/ natural gas											
E		Minerals											
		ntermediate ducts											
Direct Operations													
Downstream Use of agricultural chemicals													

Summary of ic	Ientification and evaluation of nature-related de
Impacts	- Throughout the entire value chain, the impacts on v
	- In the value chain upstream, the impacts on water very high.
Dependencies	<ul> <li>In the value chain upstream (particularly in the materia water cycle, water quality, climate regulation, and prote</li> <li>In the process of manufacturing by the Company, the company, the company of the company.</li> </ul>

\*1 ENCORE (Exploring Natural Capital Opportunities, Risk and Exposure) is a tool jointly developed by the Natural Capital Finance Alliance (NCFA), an international network of financial institutions, and the United Nations Environment Programme World Conservation Monitoring Center (UNEP-WCMC). Using this tool, companies can explore dependencies and impacts on nature by each sector, sub-industry, and production process (under GICS or the Global Industry Classification Standard).

\*2 Ventilation: Ventilation provided by natural or planted vegetation that is vital for good indoor air quality
 \*3 Filtration: Filtration, sequestration, storage, and accumulation of pollutants by plants, animals, and algae
 \*4 Climate regulation: Long-term storage of carbon dioxide in soils, oceans, etc., and regulation of temperature, humidity, wind speed, etc. by vegetation

of products in agriculture. Employing ENCORE\*1, we identified and evaluated each process's nature-related dependencies and impacts to prepare a heatmap, as shown below

	Legend: Extremely high High Moderate Low Extremely low									
		Depen	idence							
	Regulation & Maintenance Services									
ocess Mitigates Direct Impacts Protection from Disru								sruption		
	Water quality	Decomposition of pollutants	Dilution by air and water	Filtration*3	Alleviation of noise and light pollution	Climate regulation*4	Floods and Storms	Soil erosion		
	Legend:	Extreme	ely high	High	Moderat	te Lov	w Ext	remely low		

## lependencies and impacts

water use, GHG emissions, air, water, and soil pollution are high. r use and the use of terrestrial/freshwater/marine ecosystems are

ials sourcing process), the dependencies on groundwater, surface water, tection from floods and storms are relatively high. e dependencies on ecosystem services are low.



### • Assess: Identify and assess risks and opportunities

Taking into consideration our priority areas identified in the "Locate" phase and the dependencies and impacts identified and evaluated in the "Evaluate" phase, we identified and assessed nature-related risks and opportunities projected to affect the Company's businesses.

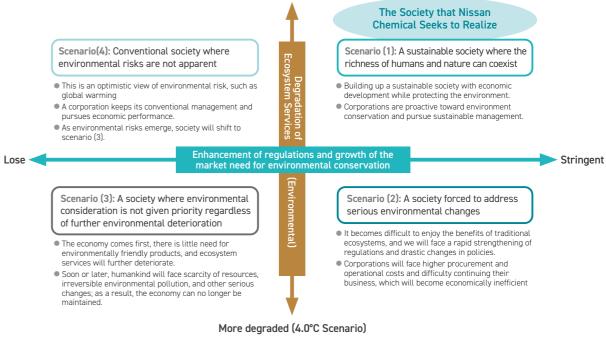
#### Relevant Business All: All businesses/Planning and Development Division Agri: Agricultural Chemicals business

0					All: All businesses/Planning and Development Division Agri: Agricultural		
Social changes	Factors	Value Chain	Risk/ Opportunity	Relevant Business	Impact on Business	FY2030	FY2050
		Upstream			Increase in raw materials procurement costs due to tightening of environmental laws and regulations for materials sourcing, processing, and production of intermediate products	High	High
Enha	Enhancement of nature- related regulations		Risk		Increase in operation costs in our plants due to the enforcement of regulations on pollution	Mid	High
incement of c		Direct Operations			Increase in operation costs due to the introduction of tax on plastics; generation of additional costs for replacing production equipment and switching packaging materials by introducing biomass plastics and other recyclable materials	Mid	High
ur company's	Growth of demand from investors and others seeking	Direct Operations	Risk	All	Declines in the ESG rating, the Group's reputation, and market capitalization, and difficulty in financing due to the delay in countermeasures against climate change, such as the massive use of fossil-derived raw materials	High	High
s initiati	initiatives for nature-related issues		Opportunity		Rises in the ESG rating, the Group's reputation, and market capitalization through progressive approaches and information disclosure	High	High
ves ar		Down stream	Risk	Agri	Reputational risk related to product safety	Mid	Mid
ıd regula					Decrease in sales of agricultural chemicals business due to the introduction of regulations on the use of agrochemicals	High	High
Enhancement of our company's initiatives and regulations for environmental conservation (transition)			Risk		Reduction of the use volume and decline in sales of agrochemicals due to expansion of the organic beverage and food markets	High	High
					Reduction of the use volume and decline in sales of agrochemicals by using various technologies, such as big data, drones, and farm management software	High	High
	Market changes due to	_		Agri Opportunity	Growth of demand for biological agrochemicals; increase in opportunities to develop new agrochemical products	Mid	High
onservation	increasing demand for environmental consideration	Down stream			Increase in sales of new agrochemicals suitable for Smart Agriculture (such as drone spraying of agrochemicals*) * It contributes to the reduction of the use volume of agrochemicals	High	High
(transition)			Opportunity		Increase in sales of agrochemicals* for agricultural products in countries and territories where farming lands are being expanded for food production due to population growth (*Those products that contribute to the prevention of farmland expansion by improving yields and that are environmentally friendly)	High	High
					Increase in sales of agricultural business other than agrochemicals, such as investments in the development of agriculture-related technologies for Smart Agriculture and breed improvement	Mid	Mid
Transition• Physical	Market changes due to degradation of ecosystem services and increasing demand for environmental consideration	Upstream	Opportunity	All	Increase in sales of low-carbon products by switching to biomass- derived raw materials	Mid	High
Environ tei	Degradation of ecosystem services	Upstream	Risk	All	Increase in raw materials procurement costs due to water scarcity, floods, or similar risks in materials sourcing and processing and production of intermediate products Supply shortage of those materials due to the suspension of or limitations on production	High	High
mental deg mperatures		Direct Operations			Decline in production capacity (such as shortage of cooling capacity) and increase in products/materials management costs due to water scarcity caused by drought and heat waves	Low	Low
Environmental degradation•Rising temperatures (physical)	Market changes due to degradation of ecosystem	Down	Risk	Agri	Reduction of planted area due to increase in frequency and intensity of storms/floods and difficulties in securing irrigation water Changes in the distribution of planting and reduction in planted area due to rising temperatures	Low	Low
ing	services	stream	Opportunity		Increase in sales of existing products and opportunities to develop new agrochemicals due to the spread of pest insects, weeds, and pathogens, and the emergence of resistance	High	High

#### Natural capital-related scenarios

In the analysis, referring to the TNFD guidance, we prepared the figure below to project four scenarios for future natural capital-related outcomes. The chart's vertical axis shows the degree of degradation of ecosystem services (environment) in the cases of the less degraded 1.5°C scenario and the more degraded 4°C

## Less degraded (1.5°C Scenario)



#### Referenced Scenarios

1.5°C Scenario*1	<ul> <li>IEA-WEO'<sup>3</sup>, ETP'<sup>4</sup> Net Zero Scenario (NZE)</li> <li>IPCC SSP'<sup>5</sup> 1-1.9, 1-2.6</li> </ul>	*1 The temp *2 The
4°C Scenario⁺²	<ul> <li>IEA-WEO Stated Policies Scenario (STEPS)</li> <li>IPCC SSP5-8.5</li> </ul>	end *3 Inter *4 Inter *5 Inter

#### Scenario (1)

## A sustainable society where the richness of humans and nature can coexist

This is the society that the Company/Group aims for. We will pursue sustainable management to enable our businesses to continue while preserving the environment. In the Agricultural Chemicals business, we have set the goals of: "stable supply of foods" and "sustainable agriculture," based on the long-term management plan "Atelier2050."

## Scenario (2)

A society forced to address serious environmental changes As future changes in natural capital are uncertain, there is the risk that the degradation of ecosystem services will not be curbed, and people will have to face a rapid tightening of regulations and drastic changes in policies.





scenario (in terms of climate changes), indicating physical risks and opportunities. The horizontal axis shows the enhancement of regulations and the growth of the market need for environmental conservation, indicating transition risks and opportunities.

scenario where necessary measures are implemented to keep the increase in global average perature below 1.5°C above pre-industrial levels.

scenario where the global average temperature increases by 4°C above pre-industrial levels by the of the 21st century. ernational Energy Agency "World Energy Outlook" (2022)

ernational Energy Agency "Energy Technology Perspectives" (2023) ergovernmental Panel on Climate Change (IPCC) "Shared Socio-economic Pathway"

# Scenario (3) A society where environmental consideration is not given priority regardless of further environmental deterioration

There is a risk that even though ecosystem services are further degraded, environmental regulations will not be enhanced without changes in the market; thereby, ecosystem services will seriously deteriorate. As a result, society will suffer substantial damage to economic activities.

## Scenario (4) Conventional society where environmental risks are not apparent

As future changes in natural capital are uncertain, there is also the possibility that ecosystem services will not deteriorate till 2030, and social conditions will not change as much as anticipated. However, it is certain that the loss of biodiversity and environmental changes, such as climate change, will advance gradually, and it is considered that environmental risks will become evident by 2050 in the long view. In that case, society will likely shift to scenario (2) or (3); therefore, we will take countermeasures for risks and opportunities as described in (2) and (3).

#### High-impact risks/opportunities and countermeasures

	Impact on the Company	Countermeasures	Related Scenarios
High-impact Risks	<ul> <li>Increase in raw materials procurement costs due to tightening of any increase laws and any lations for materials or union</li> </ul>	<ul> <li>Multiple sourcing of several key raw materials</li> <li>Price pass-through to products</li> </ul>	(1) (2)
	of environmental laws and regulations for materials sourcing, processing, and production of intermediate products	<ul> <li>Switch suppliers to those who use biomass-derived raw materials</li> <li>Develop products that use biomass-derived raw materials</li> </ul>	(2)
	<ul> <li>Increase in operation costs in our plants due to the enforcement of regulations on pollution</li> </ul>	<ul> <li>Change equipment and manufacturing processes in line with the strengthening of regulations</li> <li>Distribute facility investment methodically to maintain regulatory compliance as the strengthened regulatory requirements are determined</li> <li>Check the trends of tightening regulations in RC (Responsive Care) management activities</li> </ul>	(2)
	<ul> <li>Increase in operation costs due to the introduction of tax on plastics; generation of additional costs for replacing production equipment and switching packaging materials by introducing biomass plastics and other recyclable materials</li> </ul>	<ul> <li>Reduce the use of plastics for containers and packages</li> <li>Switch containers/packages materials from fossil-derived plastics to biomass-derived and other recyclable materials</li> </ul>	(2)
	<ul> <li>Declines in the ESG rating, the Group's reputation, and market capitalization, and difficulty in financing due to the delay in countermeasures against climate change, such as the massive use of fossil-derived raw materials</li> </ul>	<ul> <li>Enhance RC management</li> <li>Enhance initiatives for reducing environmental impacts</li> <li>Develop environmentally friendly agrochemicals and promote their sales</li> <li>Appropriate information disclosure</li> </ul>	(2)
	<ul> <li>Decrease in sales of agricultural chemicals business due to the introduction of regulations on the use of agrochemicals</li> </ul>	<ul> <li>Develop environmentally friendly agrochemicals</li> <li>Develop biological agrochemicals</li> <li>Acquire biostimulant technologies</li> <li>Promote registration of agrochemicals in new countries</li> </ul>	(2)
	<ul> <li>Reduction of the use volume and decline in sales of agrochemicals due to expansion of the organic beverage and food markets</li> </ul>	<ul> <li>Develop environmentally friendly agrochemicals</li> <li>Develop biological agrochemicals</li> <li>Acquire biostimulant technologies</li> <li>Promote registration of agrochemicals in new countries</li> </ul>	(1) (2)
	<ul> <li>Reduction of the use volume and decline in sales of agrochemicals by using various technologies, such as big data, drones, and farm management software</li> </ul>	<ul> <li>Develop agrochemicals for drone spraying and promote their sales</li> <li>Promote registration of agrochemicals in new countries</li> </ul>	(1) (2)
	<ul> <li>Increase in raw materials procurement costs due to water scarcity, floods, or similar risks in materials sourcing and processing and production of intermediate products Supply shortage of those materials due to the suspension of or limitations on production</li> </ul>	<ul> <li>Multiple sourcing of several key raw materials</li> <li>Price pass-through to products</li> <li>Switch suppliers to those who use biomass-derived raw materials</li> <li>Develop products that use biomass-derived raw materials</li> </ul>	(2) (3)
	<ul> <li>Rises in the ESG rating, the Group's reputation, and market capitalization through progressive approaches and information disclosure</li> </ul>	<ul> <li>Enhance RC management</li> <li>Enhance initiatives for reducing environmental impacts</li> <li>Develop environmentally friendly agrochemicals and promote their sales</li> <li>Appropriate information disclosure</li> </ul>	(2)
High-impact Opportunities	<ul> <li>Growth of demand for biological agrochemicals; increase in opportunities to develop new agrochemical products</li> </ul>	<ul> <li>Develop environmentally friendly agrochemicals</li> <li>Develop biological agrochemicals</li> <li>Acquire biostimulant technologies</li> <li>Promote registration of agrochemicals in new countries</li> </ul>	(1) (2)
	<ul> <li>Increase in sales of new agrochemicals suitable for Smart Agriculture (such as drone spraying of agrochemicals*)</li> <li>* It contributes to the reduction of the use volume of agrochemicals</li> </ul>	<ul> <li>Develop agrochemicals for drone spraying and promote their sales</li> <li>Promote registration of agrochemicals in new countries</li> </ul>	(2)
	<ul> <li>Increase in sales of agrochemicals* for agricultural products in countries and territories where farming lands are being expanded for food production due to population growth (*Those products that contribute to the prevention of farmland expansion by improving yields and that are environmentally friendly)</li> </ul>	<ul> <li>Promote sales of agrochemicals in developing countries where deforestation (farmland expansion) is concern</li> <li>Develop environmentally friendly agrochemicals</li> </ul>	(1) (2)
	<ul> <li>Increase in sales of low-carbon products by switching to biomass-derived raw materials</li> </ul>	<ul> <li>Switch suppliers to those who use biomass-derived raw materials</li> <li>Develop products that use biomass-derived raw materials</li> </ul>	(2) (3)
	<ul> <li>Increase in sales of existing products and opportunities to develop new agrochemicals due to the spread of pest insects, weeds, and pathogens and the emergence of resistance</li> </ul>	<ul> <li>Develop new agrochemicals</li> <li>Enhancing the agrochemicals portfolio</li> <li>Promote registration of agrochemicals in new countries</li> </ul>	(2) (3)

## Indicators and targets related to natural capital

For agricultural chemicals, the Kunming-Montreal Global Biodiversity Framework adopted in December 2022 set global targets, including "reducing the overall risk from pesticides and highly hazardous chemicals by at least half (by 2030)." In addition, the Ministry of Agriculture, Forestry and Fisheries of Japan (MAFF) launched the "Strategy for Sustainable Food Systems, MIDORI," under which MAFF aims to develop innovative technologies to realize a "50% reduction

in risk-weighted use of agrochemicals."

Although agricultural chemicals entail environmental risks, their appropriate use helps increase harvest efficiency and prevent deforestation caused by excessive farmland expansion. Furthermore, we will contribute to biodiversity conservation by properly managing and revitalizing abandoned farmland. Specifically, the "stable supply of food" and "sustainable agriculture" are clearly stated in the Group's long-term management plan, "Atelier2050," and the mid-term "Vista2027," as future directions to pursue in the

Agricultural Chemicals business. To achieve those goals, we need to tackle agricultural subjects, including "reduction of environmental

## Metrics, Mid-term and Long-term Targets

Under the long-term management plan "Atelier 2050" and the midterm management plan "Vista 2027," we currently have the following mid-term and long-term goals for reducing environmental risks.

Category	Metrics	Scope	FY2027 Target	2050 Target
GHG emissions	Scope1+2 (Absolute Emissions)	Non- consolidated	Reduce emissions by at least 30% from the FY2018 level	Carbon neutrality
Waste	Industrial waste and pollutant emissions for final disposal	Non- consolidated	Reduce the final disposal ratio at Nissan Chemical's plants (compared to FY2020)	-

#### Indicator

	Indicator	Scope	Unit	FY2022	FY2023
HG emissions (Scope1+2	)	Non-consolidated	t-CO2e	327,663	285,320
	Total surface area controlled/managed by the organization	*2	m²	1,171,692	1,171,692
tal spatial footprint	Total disturbed area	*2	m²	1,171,692	1,171,692
	Total rehabilitated/restored area	*2	m²	137,264	137,264
	Extent of land/freshwater/marine ecosystem use change	*2	m²	0	0
tent of use change	Extent of land/freshwater/marine ecosystem conserved or restored*1	*2	m <sup>2</sup>	472	800
oil Pollutants (PRTR Sub	(PRTR Substances) Non-consolidated ton 0				0
	Effluent*3	Non-consolidated	1000 m <sup>3</sup>	14,082	13,834
	COD	Non-consolidated	ton	259	139
	Total phosphorus emissions	Non-consolidated	ton	13	7
ater pollution	Total nitrogen emissions	Non-consolidated	ton	2,413	1,686
	PRTR Substances	Non-consolidated	ton	0.4	0.4
	Effluent temperature	Non-consolidated	°C	Remain in a water reservoir for sev days and drain at the same level as outside temperature.	
	Volume of industrial waste	Non-consolidated	ton	39,624	30,098
	Volume of specially controlled industrial waste	Non-consolidated	ton	6,717	5,971
	Incineration	Non-consolidated	ton	13,743	11,650
aste	Landfill disposal	Non-consolidated	ton	5,743	4,852
	Waste otherwise disposed*4	Non-consolidated	ton	18,794	12,795
	Waste with unknown disposal method	Non-consolidated	ton	0	0
	Recycled volume	Non-consolidated	ton	8,062	6,772
	Volatile organic compounds (VOCs)	Non-consolidated	ton	0.5	0.3
	NOx	Non-consolidated	ton	96	63
mospheric pollution	S0x	Non-consolidated	ton	19	23
	Dust	Non-consolidated	ton	7	8
	PRTR Substances	Non-consolidated	ton	0.5	2.7
ompliance violation" <sup>5</sup>		Non-consolidated	Cases	0	0
azardous waste recyclin	g during production	Non-consolidated	%	0	0
zardous waste recycling at end of-life			%	0	0

\*1 Percentage change from the previous year
 \*2 Nissan Chemical and its consolidated subsidiaries related to agrochemical production (NC Agro Hakodate Corporation, Nissan Bharat Rasayan PVT. LTD.)
 \*3 Water returned to the source of extraction at similar or higher quality as raw water extracted
 \*4 Industrial waste: Neutralization, roushing, dehydration, mechanical drying, etc. Specially controlled industrial waste: Neutralization, oil-water separation, dehydration, etc.
 \*5 Significant violations of environmental laws and regulations

Indicator	Scope	Unit	FY2022	FY2023
Fines or penalties related to violations of environmental laws and regulations	Consolidated	Yen	0	0



risks," "improvement of yields," and "management of farmland and green space."

# **Responsible Care**

As a company that handles chemical substances, Nissan Chemical Group has a great responsibility to society. In order to fulfill this responsibility, we engage in Responsible Care (RC) activities. RC activities aim to voluntarily ensure environment, health and safety throughout the entire process from development of chemicals to manufacturing, distribution, use, final consumption, disposal and recycling. These activities also serve as a form of communication with society through the announcement of their results.

#### **Responsible Care Management**

#### System

We have been engaged in RC activities since 1992. To achieve our RC mid-term plan (2022-2027), established in FY2022, we manage targets and make continuous improvements through PDCA (Plan, Do, Check, Act) in our RC management system based on ISO14001\* throughout the Company. In addition, we have established the Environment & Safety Committee, which is chaired by the officer responsible for the Environment, Safety & Quality Assurance Department, as the organization in charge of promoting RC activities, and hold its annual meeting. The contents of the discussion, including targets for the next fiscal year, are reported to the management meeting. After approved at the management meeting, the contents are resolved at the Board of Directors.

\* International standard for environmental management system. All of our plants have acquired ISO 14001 third party certification.



#### RC Audits

RC audits are activities in which the Environmental Safety & Quality Assurance Department inspects RC activities at each plants, laboratory, and affiliated companies in accordance with RC audit regulations. They are carried



out by Environment, Safety & Quality Assurance Department in accordance with the RC audit guidelines. In these audits, the auditors check whether RC activities, as well as internal audits and patrols, are carried out appropriately and the PDCA cycle is implemented steadily, and compliance about environment, health and safety (EHS) at each site. The Environmental Safety and Quality Assurance Department has established an RC audit program to promote improvements in response to visible or potential risks to the EHS.

In FY2023, total of 17 RC audits were conducted for our plants. research laboratories and affiliated companies.

#### Web Responsible Care Management

https://www.nissanchem.co.jp/eng/csr\_info/responsible\_care/management.html

#### Mitigation of Climate Change and Environmental Conservation

#### Efforts for Reducing Greenhouse Gas (GHG) Emissions

Nissan Chemical actively strives to protect the environment, including the reduction of greenhouse gas (GHG) emissions, and has been promoting initiatives to mitigate climate change, such as energy savings and fuel conversion. With regard to reducing our GHG emissions (Scope1+2), we have set a FY2027 target of "reducing GHG emissions by at least 30% from FY2018 level" aiming for achievement of carbon neutrality in 2050

GHG emissions in FY2023 decreased from FY2022 as a result of reductions in dinitrogen monoxide emissions from nitric acid plants and other measures.



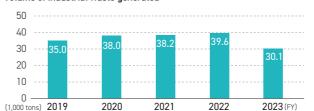
CO2 emissions from non-energy use CO2 emissions from energy use

#### Efforts to Reduce Industrial Waste

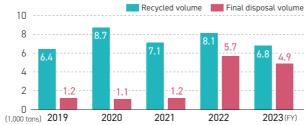
Through our RC activities, we further promote the 3Rs (Reduce, Reuse, Recycle) and strive to reduce industrial waste emissions, while at the same time thoroughly implement control measures to ensure that waste is disposed of properly. In FY2023, the amount of industrial waste generated decreased significantly to the lowest level in the past five years, and the recycled volume was the same as in previous years. The final disposal volume decreased from FY2022.

In line with the enforcement of the Act on Promotion of Re-source Circulation for Plastics (enforcement date: April 1, 2022), we have started counting the amount and recycling rate of plastic waste since FY2021. The amount of plastic waste in FY2023 decreased compared to FY2021 and FY2022 due to reductions in the amount of plastic waste at plants and laboratories. For the second year in a row, we achieved our FY2027 recycling target of "50%" of plastic waste. Going forward, we will continue to promote initiatives such as recycling.

Volume of industrial waste generated\*



Recycled volume/Final disposal volume\*



\* Waste soil from plants was added to calcul

	Amount of plastic waste	Recycling rate of plastic waste
FY2021	795t	44%
FY2022	830t	55%
FY2023	592t	53%

#### **Biodiversity Conservation**

Our corporate philosophy is "Contribute to the protection of the global environment and the existence/development of humanity, offering the value sought by society." We engage in business activities that take into account biodiversity and help protect the global environment. We have set the "establish and operate Bio-Park at Nissan Chemical's plants" as a target for FY2027, and are promoting biodiversity initiatives. In FY2023, a new biotope was completed at the Onoda Plant. This facility was created by renovating a pond that was originally located in the central plaza of the plant. The biotope is divided into two areas. The west side is developed as an area where various waterfront living things can live, native species are released, masonry is used in and around the pond to provide a habitat for the living things, and trees are planted to produce fruits that birds and insects like. On the other hand, on the east side, a terrace and benches are placed by the pond to provide an area for employees to relax, and flowerbeds are arranged so that seasonal flowers can be enjoyed throughout the year. The carp that were the primary inhabitants of the pond also live here in good health. Insects such as butterflies and

#### Web Mitigation of Climate Change

https://www.nissanchem.co.ip/eng/csr\_info/responsible\_care/environment/reduction.html Reduction of Industrial Waste and Pollutant Emissions https://www.nissanchem.co.jp/eng/csr info/responsible care/environment/management.html Water Resources Conservation https://www.nissanchem.co.jp/eng/csr\_info/responsible\_care/environment/effective.html **Biodiversity Conservation** https://www.nissanchem.co.jp/eng/csr\_info/responsible\_care/conservation.html



Onoda Plant Biotone

dragonflies, as well as many birds, are flying in and out of the area, making it a lively place.

### **Safety and Disaster Prevention**

We carry out risk assessment, process risk predictions, and facility risk predictions by prior assessment for manufacture with the aim of ensuring safety, achieving stable operations, and improving our process safety capability. As a result, there were no accidents such as explosions in FY2023, but there were two fires. Of these, the fire at the Nagoya Plant was caused by an electrostatic precipitator at the sulfuric acid manufacturing facility. This is assumed to be due to a grounding failure caused by a tear in the grounding material of the electrostatic precipitator, leading to the generation of localized sparks. The public fire department immediately extinguished the fire, and there was no significant human damage and impact on the environment and neighborhood. We are taking thorough measures



Disaster drills (Toyama Plant)

### **Responsible Care**

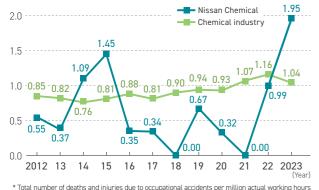
to prevent such a small fire from happening again, and deploying measures to all plants and laboratories. Our plants, laboratories, and affiliates carry out various drills and training sessions such as earthquake fire prevention drill every year, and are designed to make us ready to respond to emergencies or accidents in a speedy and reliable manner.

### Promotion of Occupational Health and Safety

Through our RC management system, we prevent occupational accidents, promote the good health of staff, and build a comfortable workplace environment in our efforts to improve the level of safety and health at each business site. In addition, we carry out various drills and training sessions annually with the aim of ensuring safety, achieving stable operations, and improving our process safety capability to make us ready to respond to emergencies or accidents in a reliable manner.

In 2023, there were 6 accidents requiring staff time off from work, and 6 accidents not requiring staff time off from work in our company, resulting in a worsening of the lost-time injury frequency rate, but an improvement in the lost-time injury severity rate. We will continue aiming to foster a culture of safety and achieve zero accident by promoting safety activities such as risk assessment, prior-work risk predictions, risk predictions training, HHK. 5S. and appropriate wearing of protective equipment and by raising awareness of safety through the safety meeting and the occupational safety newspapers.

#### Lost-time injury frequency rate\*



Lost time injury severity rate\*

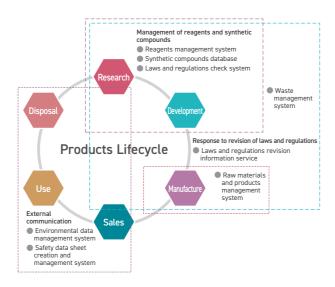


#### Management of Chemical Substances and **Products Safety**

#### Risk Assessment in Products Lifecycle

We conduct a risk assessment (prior assessment) at each step in handling chemical products, such as R&D, manufacture, sales and revision. The risk assessment is performed based on legal and regulatory information, safety data evaluated by internal or external laboratories or obtained from SDS (Safety Data Sheet) for raw materials and literature, and data on physicochemical properties and work environment conditions. Based on the results of risk assessment, we take appropriate measures; i.e., legal and regulatory compliance, improving facilities to reduce worker exposure at manufacturing sites, improvement of operation procedures, clarification and documentation of the procedures, and the training, etc. Moreover, these results are reported to all the relevant people in the Company.

In addition, we also participate in Long-range Research Initiative, an international initiative promoted by Japan Chemical Industry Association (JCIA) that seeks to provide long-term support for research on the impact of chemicals on human health and the environment. The activities we engage in aim to advance research on the assessment of risks to human health and the environment



Web Promotion of Safety and Disaster Prevention. and Occupational Safety and Health

https://www.nissanchem.co.jp/eng/csr\_info/responsible\_care/safety.html

#### Management of Chemical Substances

https://www.nissanchem.co.jp/eng/csr\_info/responsible\_care/chemical.html

# **Improvement of Products Quality**

Our Quality Policy is "Providing products and services that satisfy customers," and based on this policy, we set mid-term quality targets and work on quality activities.

- [Quality Targets] "Elimination of Quality Risks" with thorough governance
  - "Logistics and Supplier Management" to maximize guality performance

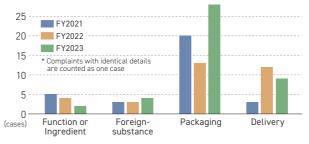
# System

The quality assurance office at each plant, which is independent from the manufacturing divisions, inspect the quality of each product. In addition, the quality assurance division at the head office, which oversees the company-wide quality assurance activities, conducts quality audits at each plant and affiliated company. To promote quality assurance activities on a company-wide basis, the Quality Assurance Committee meets regularly to report the results of quality activities, the results of quality audits and the status of improvements, and complaints and status of corrective actions. The committee discusses the next year's action policy of quality assurance, etc. The reports and contents of the discussions are reported to the Board of Directors, and quality management systems are in place under management review.

### Indicators

The number of complaint cases was trending downward slightly from FY2020 to FY2022, but there was an increase in complaint cases in FY2023. This is due to the increased sensitivity to complaint information within the company as a result of in-house training implemented when the customer's complaints management system was renewed in FY2023, which we believe has enabled us to respond to complaints even more appropriately. The percentage of complaints attributable to contract logistics suppliers, such as packaging and delivery, remains high. The numbers of serious complaints have been declined, with two cases in FY2021, and one case in FY2022. In FY2023, we achieved zero case.

#### The number of complaint cases



Web "Improvement of Products Quality" https://www.nissanchem.co.jp/eng/csr\_info/communication/customer.html



- "Visualization of Quality Management and Quality Activities" that leads to enhancement of corporate value

# Activities

#### Internal Network of Product-quality Intelligence

We have established an internal network to promptly collect and evaluate customer feedback (complaint information) regarding our products and to take necessary corrective action. Customer feedback is promptly communicated to each division to enable response to customers and quality improvements.

#### Prevention of Quality Fraud and Data Tampering

In FY2020, we established and began implementing the guidelines aimed to prevent fraud and tampering regarding quality control. At each plant, we are working to develop a framework that is less likely to cause errors, fraud, or tampering by reducing manual operations and tasks, and enhancing the integrity of inspection data through the introduction of laboratory information management system (LIMS), etc. Even in the sites and departments that do not use LIMS, we have established a control system for issuing test results using an electronic signature system to obtain confirmation and approval logs, thereby preventing falsification of test data.

#### **Fostering Quality Culture**

In FY2021, we established the "Quality Behavior Model" aiming to enhance the quality of our employees' behavior, and disseminated it as our top message

In FY2023, we conducted in-house training on "Quality Behavior Model" for whole company, and a training on "Change control" with the aim of reducing quality risks due to change for our all laboratories. We will continue to develop company-wide in-house training on quality compliance.

#### Logistics and Supplier Management

We aim for total quality assurance, considering not only the quality of the manufactured products themselves, but also the packaging materials, transportation, attached documents, and demonstration of function at the customers, as part of our products.

Since a high percentage of our abnormal guality attributable to packaging and transportation work process, we share our improvement targets with contract logistics suppliers and strive for improvement. In addition, we have established internal guidelines for suppliers including contract manufacturers, and conduct evaluations through quality audits to maintain appropriate management.

# **Corporate Governance**

## **Directors and Audit & Supervisory Board Members**

Officers appointed during the 154th General Meeting of Shareholders held on June 26, 2024.



ination and Remuneration Advisory Committee 8/8

# 1977 Joined the Company

Reason for appointment

2002 Director, Head of Corporate Planning Department 2006 Managing Director, Head of Corporate Planning Department 2008 Representative Director, President & CEO 2021 Representative Director, Chairman & CEO (to the present)

Mr. KINOSHITA served as General Manager of the Business Strategy Department, Chemicals General Headquarters and also as Head of the Corporate Planning Department. In addition, as President & CEO of the Company since June 2008, and as Chairman & CEO since April 2021, he has been promoting strategies to enhance the corporate value of the Company group. Considering his wide-ranging experience, achievements, and insights, the Company judges that Mr. KINOSHITA is qualified to be a director that performs decision- making on business operations and oversees the execution of duties by directors.

Mr. YAGI has been engaged in production technology for

many years, and served as the Deputy Plant Manager of the

Onoda Plant and the Plant Manager of the Sodegaura Plant.

He has been contributing to the improvement of production

systems for the Company group's products and to their stable

supply. In addition, as President & COO of the Company since

April 2021, he has been promoting strategies to enhance

the corporate value of the Company group. Considering his

wide-ranging experience, achievements, and insights, the

Company judges that Mr. YAGI is qualified to be a director

that performs decision-making on business operations and

oversees the execution of duties by directors.



as of the Board of Directors 12/12 ration Advisory Committee 8/8

YAGI Shinsuke (Representative Director, President & COO)

**HONDA** Takashi

1981 Joined the Company

(Director, Senior Executive Vice President)

Agricultural Chemicals Divisio

Agricultural Chemicals Division

Chemicals Division

2012 General Manager of Planning & Development Department,

2014 Executive Officer, Deputy Head of Agricultural Chemicals Division

General Manager of Planning & Development Department, Agricultural Chemicals Division

2021 Director, Senior Managing Executive Officer, Head of Agricultural

2017 Managing Executive Officer, Head of Agricultural Chemicals

Division, Director, Managing Executive Officer, Head of

022 Director, Senior Executive Vice President (to the present)

1985 Joined the Company 2013 Deputy Plant Manager of Onoda Plant 2016 Executive Officer, Plant Manager of Sodegaura Plant 2018 Managing Executive Officer, Head of Production Technology

- Department 2020 Senior Managing Executive Officer, Head of Production echnology Department Director, Senior Managing Executive Officer, Head of Production
- echnology Department 2021 Representative Director, President & COO (to the present)

# Reason for appointment

Reason for appointment



nce at meetings of the Board of Directors 12/12

Mr. HONDA has been engaged in the agricultural chemicals business focused on agricultural chemicals development and business development for many years. He served as General Manager of the Planning & Development Department, and Division Head, and after that, he had not only led the agricultural chemicals business but also managing all of the Company's life science business and research since April 2022. Since April 2024, he has been leading the healthcare business and research, and as the person responsible for business development, involved in formulating the Company's strategies. Considering his wide-ranging experience, achievements, and insights, the Company judges that Mr. HONDA is gualified to be a director that performs decision- making on business operations and oversees the execution of duties by directors.



### ISHIKAWA Motoaki

- (Director, Senior Managing Executive Officer)
- 1986 Joined the Company 2009 General Manager of Display Materials Department, Electronic Materials Division
- 2012 General Manager of Display Materials Research Department, Electronic Materials Research Laboratories 2015 General Manager of Business Strategy Department, Performance Materials Divis
- 2016 Executive Officer, Deputy Head of Performance Materials Division, General Manager of Business Strategy Department, Performance Materials Division
- 2020 Managing Executive Officer. Head of Performance Materials 2022 Senior Managing Executive Officer, Head of Performance

Materials Division Director, Senior Managing Executive Officer, Head of

tings of the Board of Directors 12/12

**DAIMON Hideki** 

- (Director, Senior Managing Executive Officer) 1988 Joined the Industrial Bank of Japan, Ltd. (current Mizuho Bank,
- 2014 General Manager of Trust Business Department IV of Mizuho
- Trust & Banking Co., Ltd. 2016 Executive Officer, General Manager of Corporate & Institutional
- Coordination Department of Mizuho Trust & Banking Co., Ltd. 2018 Managing Executive Officer in charge of Trust & Banking of Mizuho Trust & Banking Co., Ltd.
- 2020 Executive Officer. Head of Finance & Accounting Department of the Company
- 2022 Managing Executive Officer, Head of Sustainability Promotion & Director, Managing Executive Officer, Head of Sustainability Promotion & IR Department
- 2023 Director, Senior Managing Executive Officer, Head of Sustainability Promotion & IR Department
- 2024 Director, Senior Managing Executive Officer, Head of Finance & Accounting Department (to the present)



tings of the Board of Directors 12/12

# MATSUOKA Takeshi

(Director, Managing Executive Officer)

#### 1996 Joined the Company

Planning Departmen

2017 General Manager of CSR & Public Relations Office, Corporate 2019 Executive Officer. Head of Internal Audit Department 2021 Executive Officer. Head of Chemicals Division 2022 Managing Executive Officer, Head of Corporate Planning

Department Director, Managing Executive Officer, Head of Corporate Planning Department (to the present)

Attendance at meetings of the Board of Directors 12/12

#### Reason for appointment

Performance Materials Division (to the present)

Mr. ISHIKAWA has been engaged in the performance materials business focused on display materials for many years. He has served as General Manager of the Business Strategy Department, a Division Head, and as head of the Company's overseas business locations, and since April 2022, he has been managing all of the Company's performance materials business and research, which is a driver of the Company group's growth. The Company judges that Mr. ISHIKAWA is qualified to be a director that performs decisionmaking on business operations and oversees the execution of duties by directors.

Reason for appointment

Mr. DAIMON, while leveraging his abundant experience and wide-ranging insight cultivated at financial institutions in Japan and abroad, has been overseeing the formulation of financial strategy, conducting active IR activities, and leading sustainability promotion across the entire Company since joining the Company in April 2020. In addition, since April 2024, he has made contributions to enhancing the Company's corporate value from a variety of perspectives as Head of Finance & Accounting Department. The Company judges that Mr. DAIMON is qualified to be a director that performs decision-making on business operations and oversees the execution of duties by directors.

#### Reason for appointment

Mr. MATSUOKA joined the Company with wide-ranging business and planning experience in the chemicals industry. He has been involved in formulating major strategies not only in the Chemicals Division, but also in operational divisions including the Corporate Planning Department, CSR & Public Relations Office, and Internal Audit Department. Since April 2022, he has been focusing on assessing the status of operations across the entire Company and achieving groupwide targets as Head of the Corporate Planning Department. The Company judges that Mr. MATSUOKA is qualified to be a director that performs decision-making on business operations and oversees the execution of duties by directors.



#### **OBAYASHI Hidehito** Outside

1969 Joined Hitachi, I td.

(Director)

2001 Director of Hitachi High-Technologies Corporation (current Hitachi High-Tech Corporation) 2003 Vice President and Executive Officer of Hitachi High-Technologies

Corporation 2006 Representative Executive Officer, Senior Vice President and Executive Officer of Hitachi High-Technologies Corporation

2007 Director, Representative Executive Officer, President and Chief Executive Officer of Hitachi High-Technologies Corporation 2011 Chairman of the Board of Hitachi High-Technologies Corporation

2013 Consultant of Hitachi High-Technologies Corporation 2015 Honorary Consultant of Hitachi High-Technologies Corporation (to the

present) 2019 Outside Director of the Company (to the present)

#### Reason for appointment

After having served as director of Hitachi High-Tech Corporation, Mr. OBAYASHI serves as Honorary Consultant for the same company. As an experienced manager of a corporate group active in diverse sectors of global business, Mr. OBAYASHI has reflected his abundant experience and wide-ranging insight in the management of the Company from an outside perspective and from an objective standpoint. The Company judges that Mr. OBAYASHI will appropriately perform his duties as outside director. In addition, he has contributed to the selection of candidates for the Company's directors and the determination of director compensation, etc., from an independent standpoint as a member of the Nomination and Remuneration Advisory Committee



### KATAOKA Kazunori Outside

1979 Research Associate of Institute of Biomedical Engineering at Tokyo Women's Medical University

- 1988 Associate Professor of Institute of Biomedical Engineering at Tokyo Women's Medical University
- 1994 Professor of Faculty of Industrial Science and Technology at Tokyo University of Science

1998 Professor of Graduate School of Engineering at The University of Tokyo 2004 Professor of Graduate School of Medicine at The University of Tokyo 2015 Director General of Innovation Center of NanoMedicine, Kawasaki Institute of Industrial Promotion (to the present)

- 2016 Project Professor at The University of Tokyo Professor Emeritus at The University of Tokyo (to the present) Deputy Chairman of Kawasaki Institute of Industrial Promotion (to the present)
- 2020 Outside Director of the Company (to the present) Outside Director of NanoCarrier Co., Ltd. (current NANO MRNA Co., Ltd.) (to the present)

2008 Counsellor, Judicial System Department, Minister's Secretariat, Ministry of Justice

General Manager of General Administration Department, Saitama District Public

2011 Counsellor. Cabinet Secretariat. Assistant Chief Cabinet Secretary Office

NAKAGAWA Miyuki Outside

1990 Prosecutor. Tokvo District Public Prosecutors Office

2013 Prosecutor. Tokvo High Public Prosecutors Office

Prosecutors Office

Reason for appointment

Mr. KATAOKA has been engaged in research involving the application of nanotechnologies in the fields of biomedical engineering and biomaterial engineering for many years and is currently serving as the Director General of Innovation Center of NanoMedicine, Kawasaki Institute of Industrial Promotion. As a doctor of engineering, Mr. KATAOKA has reflected his expertise, abundant experience, and wide-ranging knowledge in the management of the Company from an outside perspective and from an objective standpoint. The Company judges that Mr. KATAOKA will appropriately perform his duties as outside director. In addition, he has contributed to the selection of candidates for the Companys directors and the determination of director compensation, etc., from an independent standpoint as a member of the Nomination and Remuneration Advisory Committee.

11/12 ation and Remuneration Advisory Committee 8/8

2022 Outside Audit & Supervisory Board Member of Shinsei Bank, Limited (current SBI Shinsei Bank, Limited) (to the present) Outside Audit & Supervisory Board Member of ASKUL Corporation (to the present Ms. NAKAGAWA worked for many years as a prosecutor in the Tokyo District Public Prosecutors Office and the Tokyo High Public Prosecutors Office and she has abundant practical experience in legal circles. She has reflected her legal expertise, abundant experience, and wide-ranging insight in the management of the Company from an outside perspective and from an objective standpoint. The Company judges that Ms. NAKAGAWA will appropriately perform her duties as outside director. In addition, she has contributed to the selection of candidates for the Companys directors and the determination of director compensation, etc., from an independent standpoint as a member of the Nomination and Remuneration Advisory Committee.



tion and Remuneration Advisory Committee 7/7

#### TAKEOKA Yuko Outside (Director)

2001 Assistant Professor of Department of Chemistry, Faculty of Science and Technology, Sophia University 2002 PRESTO Researcher of Japan Science and Technology Agency

- 2006 Lecturer of Department of Chemistry, Faculty of Science and chnology, Sophia University
- 2010 Associate Professor of Department of Materials and Life Sciences, Faculty of Science and Technology, Sophia University 2018 Professor of Department of Materials and Life Sciences, Faculty of Science and Technology, Sophia University (to the present) 2023 Director of Center for Research Promotion & Support, Sophia University (to the present) Outside Director of the Company (to the present)

synthesis and characterization of functional polymers for many vears, and is currently serving as a Professor of Department of Materials and Life Sciences, Faculty of Science and Technology, Sophia University. As a doctor of engineering, Ms. TAKEOKA has reflected her expertise, abundant experience, and wide-ranging knowledge in the management of the Company from an outside perspective and from an objective standpoint. The Company judges that Ms. TAKEOKA will appropriately perform her duties as outside director. In addition, she has contributed to the selection of candidates for the Company's directors and the determination of director compensation, etc., from an independent standpoint as a member of the Nomination and Remuneration Advisory Committee.

Ms. TAKEOKA has been engaged in research centered on the



Attendance at meetings of the Audit & Supervisory Board 12/12

ors 12/12

#### TAKEMOTO Shuichi Outside (Audit & Supervisory Board Member)

1982 Joined the Fuji Bank, Limited (current Mizuho Bank, Ltd.) 2002 Deputy General Manager, IT & Systems Control Departr Bank, Ltd.

2004 General Manager, Human Resources Division of Mizuho Research Institute, Inc. (current Mizuho Research & Teo 2008 General Manager, Fukuoka Branch of Mizuho Bank, Ltd.

2009 General Manager, IT & Systems Planning Department of Mizuho Trust & Banking Co., Ltd. 2010 Executive Officer. IT & Systems Planning Department of Mizuho Trust

& Banking Co., Ltd. 2011 Managing Executive Officer of Mizuho Trust & Banking Co., Ltd.

2013 Managing Executive Officer of Mizuho Trust & Banking Co., Ltd., and Managing Executive Officer of Mizuho Financial Group, Inc. 2014 Deputy President of Mizuho Private Wealth Management Co., Ltd.

2017 Advisor of Mizuho Trust & Banking Co., Ltd. Outside Audit & Supervisory Board Member of the Company (to the

# **OHRAI Kazuhiko** (Audit & Supervisory Board Member)

#### 987 Joined the Company

2007 General Manager of Pharmaceutical Research Department, Chemical Research Laboratories

2016 Executive Officer. Head of Pharmaceuticals Division 2021 Executive Officer, Head of Internal Audit Department 2022 Audit & Supervisory Board Member (to the present)



#### KATAYAMA Noriyuki Outside (Audit & Supervisory Board Member)

1990 Qualified for attorney-at-law, Joined Nagashima & Ohno Nagashima Ohno & Tsunematsu)

1996 Qualified for attorney-at-law in New York State, USA Joined Tokyo City Law & Tax Partners 2003 Joined City-Yuwa Partners (to the present 2004 Statutory Auditor of Deutsche Asset Management (Japa

the present) 2014 Outside Audit & Supervisory Board Member of the Com

present) 2017 Supervisory Director of HEIWA REAL ESTATE RFIT. Inc.

2018 Outside Director of Nippon Denkai, Ltd. (to the present) 2019 Outside Corporate Auditor of Livesense Inc. (to the pres 2021 External Statutory Auditor of AIDA ENGINEERING, LTD. tarce at meetings of the Audit & Supervisory Board 12/12 2022 Outside Director of create restaurants holdings inc. (to the present)



12/12

### TAKAHAMA Shigeru Outside (Audit & Supervisory Board Member)

- 1986 Joined Aoyama Audit Corporation (ChuoAoyama Audit 1990 Qualified for certified public account
- 2006 Representative Partner (currently Partner) of PricewaterhouseCoopers Aarata LLC (currently PricewaterhouseCoopers Japan LLC)
- 2010 General Manager of Osaka office, PricewaterhouseCoop 2013 Chairman of kinki Chapter of the Japanese Institute of C Accountants
- Deputy President of the Japanese Institute of Certified Accountants
- 2019 Committee Chair of Ethics Standards Committee of the Institute of Certified Public Accountants
- 2024 Audit & Supervisory Board Member, the Company (to the Established Takahama CPA Office (to the present)

neration Advisory Committee 8/8

12/12

(Director)

# Reason for appointment

Reason for appointment

2015 Specially Appointed Professor and Public Prosecutor, Chuo Law School, Chuo University Retired as Prosecutor Retired as Prosecutor Qualified for attorney-at-law Professor Chuo Law School, Chuo University (to the present) Established Kousui Law Office (to the present) Ouside Director of NITTO KOGYO CORPORATION (to the present) 2021 Outside Director of the Company (to the present) Outside Audit & Supervisory Board Member of FANCL CORPORATION (to the present)

#### Reason for appointment

.d.)	Mr. TAKEMOTO has a wide range of knowledge, including
tment of Mizuho	extensive experience and finance expertise those are cultivated
	through many years of business at financial institutions. We
no Information & echnologies. Ltd.)	believe that he has reflected his knowledge in our corporate audit
d.	with objective and neutral standpoint, and will fulfill the duties

extensive experience and finance expertise those are cultivated hrough many years of business at financial institutions. We pelieve that he has reflected his knowledge in our corporate audit vith objective and neutral standpoint, and will fulfill the duties appropriately.

Reason for appointment
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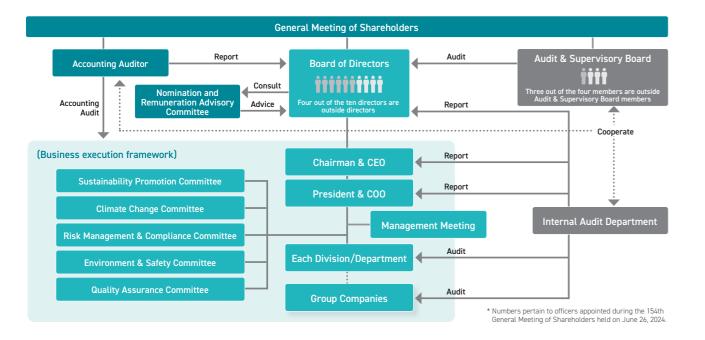
Mr. OHRAI has extensive expertise in the Company groups business based on many years of involvement in research and development, particularly of pharmaceuticals, and experience serving as the General Manager of the Pharmaceutical Research Department, Head of the Pharmaceuticals Division, and Head of the Internal Audit Department. Considering his abundant work experience and specialized knowledge, the Company judges that Mr. OHRAI is qualified to be an Audit & Supervisory Board member with responsibility for ensuring the appropriateness of Directors' execution of duties.

	Reason for appointment
no (current	Mr. KATAYAMA has an extensive experience including the experience of outside director/auditor at several companies and expertise as attorney-at-law. We believe that he has reflected his knowledge in our corporate audit and will fulfill the duties
pan) Limited (to	appropriately.
mpany (to the	
c. (to the present) ) esent) . (to the present)	

New	Reason for appointment
Corporation)	Mr. TAKAHAMA has been engaged in auditing duties of numerous listed companies for many years as a certified public accountant. We believe that he has reflected his advanced expertise in corporate accounting, abundant experience, and wide-ranging
opers Arata Certified Public	knowledge in our corporate audit from an outside perspective and from an objective and neutral standpoint, and will fulfill the duties appropriately.
I Public	
e Japanese	
the present)	

### **Corporate Governance**

Based on our culture of "integrity" and "transparency," we have strengthened our governance system in line with the changing times. We have implemented various initiatives, such as increasing the number of female directors and deliberating on the formulation of succession plans for the President and CEO at the Nomination and Remuneration Advisory Committee. We will continue to strengthen our governance in the future as well.



#### Execution and Supervision of Operations

By introducing a system with executive officers, we clarify the management's function of prompt decision-making and supervision and the function of executing operations, thereby strengthening both. We also strive to improve management's capabilities to develop and execute our management strategies. In addition, we have set a one-year term for each director and executive officer, thereby clarifying the management responsibility and the responsibility for executing operations.

#### Board of Directors

Our Board of Directors members meet monthly in principle, to resolve important management matters. It also supervises the execution of operations by directors and executive officers. We ensure that important management matters are determined through careful deliberations at the Board of Directors or management meetings in our efforts to eliminate or reduce business risks. In addition, the details of decisions made at the management meetings and the results of business executions based on decisions made at the Board of Directors are reported to the Board of Directors to enhance the supervising function of the Board of Directors. We strive to ensure and improve effectiveness in execution of roles and responsibilities of the Board of Directors by conducting the effectiveness evaluation on the overall Board of Directors every year.

#### Audit & Supervisory Board

We have established the Audit & Supervisory Board. In accordance with auditing plans formulated by the Audit & Supervisory Board with a majority that consists of independent outside members, the Audit & Supervisory Board members audit the execution of directors' operation by participating in the Board of Directors and other important meetings, and by regularly visiting each division/department of the Head Office and plant/ laboratory to exchange opinions.

#### Nomination and Remuneration Advisory Committee

We established a Nomination and Remuneration Advisory Committee mostly consisting of independent outside directors under the Board of Directors for the purpose of strengthening the Board of Directors' independence, objectivity, and accountability in relation to matters such as the nomination and remuneration of directors and further strengthening corporate governance.

#### Accounting Audit

We have appointed the Yaesu Audit Company as our accounting auditor. They audit at the end of each fiscal year, and during the fiscal year as necessary.

#### Internal Audit

We have established an Internal Audit Department to pursue the achievement of the Group's management objectives effectively. With the object of ensuring the proper duties under the internal control system, the Internal Audit Department conducts internal audits for the Group. The department submits its internal audit activity plan and reports the outcomes to the Chairman & CEO, the President & COO, the directors in charge, and the Board of Directors. It also shares information with our accounting auditor and the Audit & Supervisory Board members to cooperate with them.

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

The Corporate Planning Department supports outside directors by providing them with explanations of the contents of the agenda and other matters to be discussed at the Board of Directors in advance and also provides management information necessary for growth strategies, enhancement of governance, etc. For outside Audit &

Indicator	Scope	Unit	FY2020	FY2021	FY2022	FY2023	FY2024
		People	6	6	6	6	6
		People	3 (3)	4 (4)	4 (4)	4 (4)	4 (4)
	Total	People	9	10	10	10	10
	Inside Audit & Supervisory Board members	People	1	1	1	1	1
Audit & Supervisory Board Members*1	Outside Audit & Supervisory Board members (Independent)	People	3 (3)	3 (3)	3 (3)	3 (3)	3 (3)
	Total	People	4	4	4	4	4
Ratio of Independent Outside Directors*1			33	40	40	40	40
Ratio of female directors <sup>*1</sup>			0	10	10	20	20
Number of executive directors*1			6	6	6	6	6
Average tenure of di	rectors*1	Years	5.2	5.1	4.0	4.2	5.2
Meetings of the Board of Directors*2			11	12	12	12	-
Attendance of directors at meetings of the Board of Directors*2			96	99	98	99	-
Attendance of Audit & Supervisory Board members at meetings of the Board of $Directors^{*2}$			100	100	100	100	-

### View on the Appropriate Balance between Knowledge, Experience and Skills of the Board, and on Diversity

The Company considers the board to be formed by members selected from various viewpoints to make decisions appropriately and expeditiously and oversee the execution of business activities in diverse fields (including chemicals, performance materials, agricultural chemicals, and healthcare). Those points include the balance of knowledge, experience, skills, and other capacity and diversity, including gender, internationality, and practical experience in totality of the board.

To ensure a well-balanced and diverse board composition. based on the company philosophy and management strategy, the Company has identified the expertness and experience required

		The expertness and experience required for the Company's directors						
Director	Corporate Management	R&D/ Technologies*	Finance & Accounting	Legal/Risk Management/ Internal Control	Personnel Affairs/ Personnel Strategies	Global Experience		
Representative Director, Chairman	KINOSHITA Kojiro	O		O	$\bigcirc$	O		
Representative Director, President	YAGI Shinsuke	O	O		$\odot$	O		
Director, Senior Executive Vice President	HONDA Takashi	O	O		$\bigcirc$		O	
Director, Senior Managing Executive Officer	ISHIKAWA Motoaki	O	O		$\bigcirc$		$\bigcirc$	
Director, Senior Managing Executive Officer	DAIMON Hideki	O		O	$\bigcirc$		O	
Director, Managing Executive Officer	MATSUOKA Takeshi	Ô		Ô	$\bigcirc$	O	$\bigcirc$	
Outside Director	OBAYASHI Hidehito	O	O				O	
Outside Director	KATAOKA Kazunori	Ô	Ô				$\bigcirc$	
Outside Director	NAKAGAWA Miyuki				$\bigcirc$			
Outside Director	TAKEOKA Yuko		O					

\* "R&D/Technologies" include the expertness and practical experience in the fields of IT, DX (Digital Transformation), environmental safety, and quality assurance.

Supervisory Board members, we have appointed audit assistants from our employees to respond to the requests from them. To enable Audit & Supervisory Board to fulfill their duties efficiently and smoothly, the audit assistants serve as coordinators for holding hearings pertaining to divisions, etc., Audit & Supervisory Board and other meetings, help conduct audits, and collect information.

\*1 Data is as of after the General Meeting of Shareholders held in June of each fiscal year. \*2 Data from April to March of each fiscal year

for its directors (skills requirements): "corporate management," "research and development/technologies," "finance and accounting," "legal/risk management/internal control," "personnel affairs/ personnel strategies," and "global experience." And the Company makes the board consist of appropriate persons as its directors, who have met the above-skills requirements appropriately, and who are healthy, physically and mentally, and trusted and respected for their excellent characters, a high level of insight, and a sense of ethics.

We will review the above skills requirements as necessary based on the management strategy and relevant policies.

# Policy and Procedures in the Nomination of Officer Candidates

Proposal of nomination of director and Audit & Supervisory Board member candidates are explained in advance to independent outside directors. After receiving proper guidance from them, the proposal is finalized by the Board of Directors through deliberation/ reporting by the Nomination and Remuneration Advisory Committee

and submit to the General Meeting of Shareholders. In addition, nominations of Audit & Supervisory Board member candidates are approved by the Audit & Supervisory Board in advance.

	Policy			
Director	Inside Directors         People who have expertise, knowledge and other capacities in each business field such as corporate planning, personnel, finance & accounting, research and development, production technology, environment, safety & quality assurance and others.           Outside Director         People who are capable of giving opinions proactively, raising questions and giving advice on growth strategies, the enhancement of governance and other issues from the viewpoints of various stakeholders and society.           Each outside director may serve up to six terms of one year in total; provided, however, that shall not prevent the director from serving up to eight terms of one year in total under a special circumstance. In addition, each outside director may concurrently serve as a director or Audit & Supervisory Board member of five listed companies, including the Company, at a maximum in principle.			
Audit & Supervisory Board Members	rvisory management from a fair and neutral standpoint, in addition to auditing the execution of operations. Each Audit & Supervisory Board member may serve up to two terms of four years in total; provided however, that shall not prevent the member from a fair and neutral is the three terms of four years in total; provided however, that shall not prevent the member from the terms of four years in total; provided however, that shall not prevent the member from the terms of four years in total; provided however, that shall not prevent the member from the terms of four years in total; provided however, that shall not prevent the member from the terms of four years in total; provided however, that shall not prevent the member from the terms of four years in total; provided however, that shall not prevent the member from the terms of four years in total; provided however, that shall not prevent the member from terms of four years in total; provided however, that shall not prevent the member from terms of four years in total; provided however, that shall not prevent the member from terms of four years in total; provided however, that shall not prevent the member from terms of four years in total; provided however, the terms of four years in total; provided however, the terms of four years in total; provided however, the terms of four years in total; provided however, the terms of four years in terms of four y			

# **Overview of Succession Plan for President and CEO**

#### (1) Purpose of Succession Planning

To ensure the Company's sustainable development and enhancement of the mid-to-long term corporate value, we, the Company, recognize that it is indispensable to replace our President and CEO with an adequate successor at an appropriate time. To actualize such replacement, we formulate the "Succession Plan for President and CEO" ("Plan"), which is resolved by the Board of Directors.

#### (2) Basic Idea

In the Plan, looking at the future replacement of our President and CEO, we select and train potential candidates for succession and develop their knowledge, skills, and abilities as required before identifying a person who perfectly fits, as a principle.

#### (3) Road Map

We compile a road map of necessary processes to implement the Plan appropriately.

# **Officers' Remuneration**

The fundamental principle in directors' remuneration is to maintain its system that is in line with management policy by ensuring that directors contribute to increasing operating performance on a continual basis over the mid- to long-term and toward increasing the overall value of the Group, thereby meeting shareholder expectations. At the same time, the basic policy (Policies on determining details of remuneration, etc. for individual Directors) is to set remuneration at an appropriate level, taking into account such factors as the management environment, operating performance and consistency with the treatment of employees.

The remuneration system for directors consists of monetary

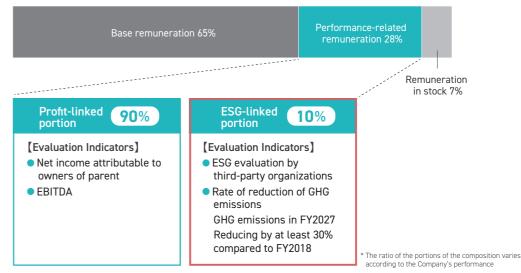
#### (4) Roles and Functions

In the Plan, the President and CEO, the Nomination and Remuneration Advisory Committee, and the Board of Directors have their respective roles and functions as follows:

- 1) President and CEO
- The President and CEO prepares an original draft of the Plan and puts it into practice.
- 2) Nomination and Remuneration Advisory Committee
- To enhance its supervisory function in the Plan, the Committee thoroughly reviews and deliberates the original draft of the Plan and its implementation progress and reports it to the Board of Directors to support their proactive engagement in the Plan.
- 3) Board of Directors
- Based on the Committee's report, the Board of Directors checks the implementation progress and oversees the whole process so that the Plan is appropriately carried out through its proactive engagement.

remuneration (base remuneration and performance-related remuneration) and performance-linked stock compensation. However, the outside directors' remuneration package shall consist of only the base remuneration as a monetary payment. In the light of their roles and independence from the Company, their remuneration package does not contain the performance-related remuneration as monetary payment nor the performance-linked stock compensation.

Regarding performance-linked stock compensation, we have adopted in FY2019, with the aim of increasing awareness about improving earning over the mid- to long-term and contributing to enhancing corporate value by clarifying the link between the Company's Composition of Officers' Remuneration\*



performance and its stock price, and by having directors share with the shareholders not only the benefits of increases in the stock price, but also the risk of decreases in the stock price.

Excluding performance-linked stock compensation, the remunerations of individual directors are determined at the Board of Directors after deliberations of the Nomination and Remuneration Advisory Committee mostly consisting of independent outside directors as well as within the total amount determined by resolution of the General Meeting of Shareholders. The remunerations of individual Audit & Supervisory Board members are determined through discussions among Audit & Supervisory Board members.

#### Overview of performance-related remuneration

We establish the base amount for each title and determine the annual amount according to the fluctuation of performance indicators. Those indicators consist of the profit indicators for the previous fiscal year (the net income attributable to owners of parent, EBITDA, and the like) and ESG indicators (the third-party evaluation result, the reduction of GHG emissions, and the like).

ESG initiatives are an important management issue that is indispensable for the sustainable growth of the Company. In order to further improve the effectiveness of sustainable management, we have decided to link it with remuneration.

#### Overview of Performance-linked Stock Compensation Plan

The Company grants its directors points based on its net income attributable to owners of parent (average rate of change over the last three years), EBITDA (average rate of change over the last three years), ROE (actual result for the current fiscal year), and comparison of rates of year-on-year volatility with respect to the Company's stock price and TOPIX. Each fiscal year, the Company determines whether the points are to be granted or not and the number of points to be granted. Upon their retirement, directors are to be paid performance-linked stock compensation equivalent to their accumulated points. (For details on how to calculate performance-linked stock compensation plan amounts, etc., please refer to P53 "Compensation, etc. for Officers" of the 154th Securities Report.)

#### **Performance Evaluation Coefficient**

(Mid- to long-term net income attributable to owners of parent coefficient ×30%) + (Mid- to long-term EBITDA coefficient ×30%) + (ROE coefficient x 30%) + (the Company stock price and TOPIX year-on-year volatility comparison coefficient × 10%)

If a director subject to performance-linked stock compensation is dismissed through the General Meeting of Shareholders or the Board of Directors during the period until retirement (excluding dismissal when the director concerned is appointed as an Audit & Supervisory Board member), commits any illegal act during tenure and retires, commits any inappropriate act that causes damage to the Company during tenure, or if the director is found to have violated laws, regulations, articles of incorporation, or internal rules, etc., the director will be unable to acquire the right to receive performance-linked stock compensation.

# **Messages from Outside Officers**

# Major activities of the Nomination and Remuneration Advisory Committee (FY2023)

The Nomination and Remuneration Advisory Committee convened eight times in FY2023. It deliberated matters, such as appointment of candidates as directors and Audit & Supervisory Board members and management executives, succession plans for the President and CEO, and remuneration for directors in response

Consideration of target ratio of female board members Deliberations of the draft for formulating the Succession Plan

Deliberations of skills matrix for the Board of Directors. etc.

to consultation from the Board of Directors, and reported the content of their deliberations to the Board of Directors. As other matters, we discuss and examine ways to share deliberations with the Board of Directors at the committee.



**Effectiveness Evaluation of Boards** 

Nissan Chemical believes that the primary roles and responsibilities of the Company's Board of Directors are defined as: (1) establishing a strategy for achieving sustainable growth and increase in corporate value over the mid- to long-term, and facilitating the execution of the foregoing; (2) establishing an environment that supports risk-taking by the management, including the internal control system and the risk management system; (3) strengthening the swift management decision-making, and oversight function and the execution function through clarification of both functions; and (4) further enhancing management transparency, soundness and objectivity through, among other efforts, appointment of outside officers who monitor and oversee the management from external viewpoints, and from FY2015, the Company performs analysis and evaluation (the "Effectiveness Evaluation") every year to see if the Board of Directors has fulfilled these roles and responsibilities. In addition, we carry out a third-party evaluation every three years using an external organization that holds no relationships of interest with us in order to ensure neutrality and objectivity. The Effectiveness Evaluation for FY2023 was conducted using the third-party evaluation method.

#### **Evaluation Procedure**

The evaluation procedure is in the form of a questionnaire answered by all directors and Audit & Supervisory Board members to grasp the current status and identify issues from two perspectives, guantitative evaluation and gualitative evaluation, through a combination of five-grade evaluation and free writing. An external organization is contracted to collect the responses and collate the data in order to ensure anonymity.

In the third-party evaluation for FY2023, based on the questionnaire responses and individual interviews, we had an internal opinion exchange meeting in March 2024. The attendees were independent Officers, the Chairman & CEO, and the President & COO. They discussed, analyzed, and evaluated the issues to address and the measures to be taken. The outcomes of their analysis and the selection of the priority issues to address were further deliberated and confirmed at the Board of Directors held in May 2024.

#### Issues Identified in the Effectiveness Evaluation for FY2022

(1) To provide a forum for "free discussion" at the Board of Directors to deepen the debate on the roles and responsibilities to be

fulfilled by it.

(2) To consider at the Nomination and Remuneration Advisory Committee the measures to sufficiently share the status of its deliberations with the Board of Directors

#### Effectiveness Evaluation Result for FY2023

With the object of performing its key roles and responsibilities, the results of the Effectiveness Evaluation for the FY2023 concluded that generally, the Company's Board of Directors was operating appropriately in its totality, and the improvements have been overall made to solve issues identified in the Effectiveness Evaluation for the FY2022. Thus, the effectiveness of the overall Board of Directors was positively assessed and confirmed as being sufficiently ensured.

#### Points of Future Improvement

Based on the discussions at the opinion exchange meeting, we recognized the following issues to address for further enhancing the effectiveness of the Board of Directors and determined to work on improvements.

- (1) We should deepen our discussions on, among other things, the material issues of each business segment, our business portfolio in the mid-to-long term, and the allocation of management resources.
- (2) We should discuss the future composition of the Board of Directors and what the Board of Directors should be about.
- (3) We should create an enabling environment for all the Directors and Audit & Supervisory Board Members to exchange opinions and discuss the agenda more frankly or openly by explaining the agenda or propositions more sufficiently and improving necessary equipment for the conference. Further, internal Directors should strive to join the discussions from the company-wide perspectives to promote such an environment.

By enabling deeper discussion in the Board of Directors based on the recent evaluation result and continuing to implement measures to improve the effectiveness of the Board of Directors, the Company will ascertain the status of improvement on a regular basis through the Effectiveness Evaluation and further enhance the effectiveness of the Board of Directors in an effort to achieve sustainable growth and increase in corporate value.

# Working together on-site for the early start-up of the next growth business



Outside Director **OBAYASHI Hidehito**  Since assuming this position, I have been consciously continuing to provide comments from a different perspective from that of Nissan Chemical's proper officers. While shortterm issues are important for a company, I share my experience and knowledge and provide advice on how the Nissan Chemical Group can achieve a growth path from a long-term perspective.

At the beginning of my tenure, I felt that our Board of Directors focused on a lot of financial reports and that the overall management discussions were somewhat biased. I have proposed this improvement and we are now spending more time explaining and discussing the resolutions. Additionally, we provide opportunities for executive training camps and topical discussions on specific management issues, such as long-term management plans and changes to our research structure. Furthermore, an annual the effectiveness evaluation of Boards is conducted, and a mechanism to summarize the opinions of all directors and Audit & Supervisory Board members is functioning.

Based on my belief that "the on-site is the shoreline of change," I feel that on-site oriented management and a initiatives to safety are especially important. I have not limited myself to the meeting room of the Board of Directors, but I have also conducted on-site inspections of plants and overseas bases, and have actively provided lectures from an outside perspective to young employees on the job.

In my capacity as an independent director, I also play a role in making known Nissan Chemical's mid- and long-term growth strategies. While the issues to be addressed will change as the company grows, I will continue to make efforts as a member of the Board of Directors to proactively disseminate information in order to build a business strategy that can anticipate social conditions.

# Aiming to be a company where each and every employee can grow while feeling a job satisfaction



Outside Director NAKAGAWA Miyuki We work in a wide range of business fields, including chemicals, performance materials, agricultural chemicals, and health care, and we are constantly engaged in new R&D to contribute to the existence and development of humanity and the protection of the global environment. I believe that my role is to provide oversight and advice from a perspective that is distinct from whether new products and R&D are consistent with corporate philosophy and customer needs, and whether governance is functioning properly. Drawing on my many years of experience confronting injustice in society as a legal professional, I will examine the role that corporations should play in the face of uncertain social conditions from a long-term, multifaceted perspective.

situation in 2050.

When important issues in corporate management are discussed at the Board of Directors, we will contribute to ensuring the effectiveness of the meetings by submitting questions along with materials in advance so that in-depth discussions can take place at the meetings.

In addition, with the end of the COVID-19 pandemic in FY2023, I have visited domestic plants, attended in-house conference on R&D, and inspected overseas plants. New initiatives have also been launched, including the implementation of a leadership program for female employees, a first for the Company. I will continue to actively participate in efforts to promote diversity.

While being sensitive to the rapidly changing environment in which we operate, we will not lose sight of our main point, and all of us will earnestly discuss the direction in which we should take, and discuss our corporate strategy with a view to the global

# Contributing to human resources development and R&D from multiple perspectives



Outside Directo TAKEOKA Yuko

In order to realize our mission statement and corporate philosophy, it is necessary to enhance our fundamental technological capabilities while maintaining a broad perspective, develop products that are safe and secure for both the manufacturer and the user, and create a workplace where our employees feel a job satisfaction. I believe that my role is to oversee and advise on whether governance is being fulfilled, whether technological development and safety are compatible, and whether the work environment and diversity within the company are improving.

I myself am an active university professor and researcher specializing in materials chemistry with a focus on polymer chemistry. In my current role as Director of Center for Research Promotion & Support, Sophia University, I am in a position to mentor the next generation of students. By leveraging these features, I will contribute to improving our diversity and thereby revitalizing Nissan Chemical by developing technology, improving our technical capabilities, and providing advice on the development of young employees and the career advancement of female researchers. I also actively participate in free discussions on ideas for business improvement and new product development.

As this is the first year for the directors, in FY2023, I toured the Toyama Plant, met with our female employees, and exchanged opinions with them in order to deepen my understanding of our company. In addition, I have also worked to raise awareness of career advancement through visits to our laboratories and presentations at seminars for female employees. I will continue to proactively share information related to the young people who will lead the next generation and ensure the vitality and effectiveness of the **Board of Directors** 

# Using my experience at an audit corporation to add credibility to non-financial information



Outside Audit & Supervisory Board Member TAKAHAMA Shigeru I am the first Outside Audit & Supervisory Board Member with a certified public accoun-Based on this experience, I would like to be actively involved in confirming the con-

tant qualified by Nissan Chemical. At the audit corporation I worked for until the end of June 2024, I was an engagement partner in the audit of a wide variety of listed companies and was responsible for the audit of their securities reports. In addition, I have actively discussed and provided advice on the disclosure of non-financial information, which in recent years has become an increasingly common topic of disclosure in securities reports. sistency between non-financial information disclosed legally in securities reports and ESG-related information disclosed voluntarily in this report, as well as in introducing assurance services for such information, which will be introduced based on market capitalization. in order to improve the reliability of information disseminated to the outside.

Furthermore, we are a development-oriented company that has expanded our business areas through the development of new products based on R&D activities, and we are a highly homogeneous organization with a heavy emphasis on R&D in terms of human capital. Through discussions at the Board of Directors and other meetings, I will check the unique organizational governance and compliance awareness that is often associated with such highly homogeneous organizations from an external third-party perspective.

In order to achieve sustainable corporate value enhancement of a company, it is of paramount importance to expand and develop business areas in response to changes in the environment and society, and as an Outside Audit & Supervisory Board Member, I would like to work to prevent any loss of trust due to lack of governance.

# With high hopes for the next leap forward



Outside Audit & Supervisory Board Member **TAKEMOTO Shuichi** 

It has been seven years since I became an Audit & Supervisory Board Member of Nissan Chemical, and during this time, corporate governance initiatives have been strengthened and the importance of Audit & Supervisory Board Member has steadily increased. I myself have been catching up with these trends by making use of my past practical experience as well as honing my knowledge and skills as an Audit & Supervisory Board Member.

The effectiveness of the Board of Directors has improved dramatically over the past seven years. The Board of Directors was relatively quiet when I was appointed, but recently it has been very active with a lot of questions and discussions taking place. I think this may be due in part to the effectiveness of the annual Effectiveness Evaluation of the Board of Directors. I believe that the PDCA process is fully functioning, in which directors and Audit & Supervisory Board Member look back on their own activities from the previous year to confirm whether they are fulfilling their expected roles in the process of the Effectiveness Evaluation, identify issues in the current state of operation, and improve them in the following year.

FY2023 was a severe year for us, as the long-lasting growth in sales and operating profit broken off, and in terms of internal control, an increase in occupational accidents and frequent plant troubles. Some plant problems are unavoidable, such as aging facilities, but many are also caused by human factors, including occupational accidents. In light of this situation, FY2024 will be a year of dynamic review in preparation for the next mid-term management plan. I believe that this will be a year of significant growth for our company to be reborn in a new form, and I intend to be involved in the process.

# Compliance

Since our Group regards compliance with laws and social norms as a condition for the survival and development of the company, our course of action stipulates that we need to conduct "sensible business activities" and conduct ourselves as "good corporate citizens and decent members of society." In response, we have recognized that compliance means complying with laws and social norms and established a compliance basic policy, in addition, we have been promoting compliance activities such as training sessions on corporate ethics for all employees.

#### **Compliance Basic Policy**

- 1. We consider compliance to be an important management issue and ensure thorough compliance in every aspect of its business activities, thereby establishing corporate ethics.
- 2. All officers and employees of Nissan Chemical Group shall be sufficiently aware of compliance and prevent the occurrence of a compliance violation.
- 3. In the event that a compliance violation has occurred or is likely to occur, we take a prompt and appropriate response.

#### System

In our group, the Risk Management & Compliance Committee, which is held twice a year, has been established as an organization to enhance the effectiveness of risk management, and to maintain and promote compliance. The committee is chaired by the Chief Risk Management Officer (CRO), who is appointed at the Board of Directors, and is composed of the Risk & Compliance Managers of each division/department, plant/laboratory, and domestic consolidated subsidiary appointed by the CRO. The important matters and countermeasure plans, etc. related to compliance are approved at the Board of Directors after discussion at the committee

The Risk Management & Compliance Office under the Corporate Planning Department has been established as a specialized organization to promote continuous improvement in all of our group's compliance activities. In addition to providing education and guidance on risk management and compliance, the Risk Management & Compliance Office receives reports on the status of compliance with laws and regulations and measures related to compliance, etc. in each department on a regular basis from Risk & Compliance Managers, and when necessary, supports improvement, and shares information within our group.

Furthermore, we have established a system to prevent compliance violation or resolve the problem early on, including the Consultation Hotline as an internal reporting system based on the Whistleblower Protection Act.

#### Number of compliance violations

Indicator	Scope	Unit	2020	2021	2022	2023
Consultation Hotline Reports	Consolidated*	Cases	2	1	8	8
Legal actions received for anti-monopoly/ anticompetitive practices (under investigation)	Consolidated*	Cases	0 (0)	0 (0)	0 (0)	0 (0)
Fines charged and settlement fees for anti-monopoly/anticompetitive practices	Consolidated*	1,000 yen	0	0	0	0
Confirmed corruption incident (under investigation)	Consolidated*	Cases	0 (0)	0 (0)	0 (0)	0 (0)
Fines charged and settlement fees for corruption	Consolidated*	1,000 yen	0	0	0	0
Other incidents related to compliance (excluding environmental)	Consolidated*	Cases	0	0	0	0
Fines charged and settlement fees for other compliance related incidents (excluding environmental)	Consolidated*	1,000 yen	0	0	0	0

\* Includes domestic unconsolidated group companies

### **Activities**

#### **Top Message Transmission**

Every year, top message is transmitted to all employees in order to clearly convey the Group's stance for compliance.

#### Compliance Status Reporting

Twice a year, the entire Group, including each division/department, plant/laboratory, and affiliate, checks the status of compliance, and in case of a risk of compliance violation or potential compliance violation, the Risk Management & Compliance Office receives reports including the response status. The content is reported to management and shared within the Group through the Risk Management & Compliance Committee to help prevent recurrence.

#### **Consultation Hotline**

We have set up a Consultation Hotline as an internal reporting helpdesk to prevent compliance violations or resolve problems early on. When an employee discovers a compliance violation or potential compliance violation, the employee shall address the problem in normal operation in principle, through measures that include reporting the matter to their superior. However, if the employee thinks it would be difficult to address the problem promptly and effectively, they can use the Consultation Hotline.

The contact point for reporting shall be the Risk Management & Compliance Office, outside attorneys, or outside Audit & Supervisory Board members, and the means for reporting may be selected from e-mail, mail, or telephone. Upon receipt of a report, the contents are reported to the Audit & Supervisory Board members. The Board of Directors periodically receives reports from the Risk Management & Compliance Office on the status of the operation of the internal reporting system and supervises it. While accepting anonymous

# **Compliance Manual Rules**

#### As a corporate citizen

- Comply with the laws/regulations of the industry
- Restrict contributions and political donations
- Terminate any relationships with antisocial forces Implement safety and disaster
- Comply with antitrust laws
- Conduct fair transactions with suppliers and comply with the "Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors"
- Prevent unfair competition
- Comply with laws and regulations related to security trade control
- Comply with laws and regulations related to import/export
- Prohibit excessive entertainment and gifts
- Prohibit bribery of foreign officials, etc.
- Implement appropriate marketing and advertising Implement appropriate tax payment based on
- the tax systems in each country and international tax standards
- workplace

discrimination

Protect privacy

processina

consultations, we have established a system that allows us to provide peace of mind by clearly defining in our rules the prohibition of interference with investigations, finding informants, and harass-

### Compliance Training

We hold training sessions on corporate ethics for officers and employees, including new employee, working to ensure that each and every one of us looks at compliance and actively promotes it.

In addition, regarding various laws and regulations, we regularly hold training on important business themes such as the "Antitrust Law," insider trading regulations, and regulations on the "Combating Bribery of Foreign Public Officials." We also conduct training with an emphasis on practicality, such as holding in-house seminars themed on familiar legal matters lectured by internal instructors and on-demand online training.

Various trainings are provided to officers and employees of our company as well as those of affiliated companies as efforts to improve the knowledge of the entire Group. © Refer to the list on P89 for information on training in FY2023

#### **Compliance Manual**

The Compliance Manual sets forth rules so that executives and employees, etc. (regular employees, contract employees, part-time workers, temporary workers and dispatched workers) of the Nissan Chemical Group comply with laws and regulations, company rules, social norms, and ensure compliance. It is regularly reviewed depending on the situation, such as the enforcement and revision of laws and regulations. In addition, by including information about the Consultation Hotline system and details about its features in the Compliance Manual, we are raising awareness about our internal reporting system.

#### As a manufacturer

Ensure the safety of products Protect the environment prevention measures

#### As a public corporation

 Disclose management information Conduct appropriate accounting

#### As a member of the workplace

- Comply with work regulations Respect human rights; prohibit
- Prohibit harassment
- Ensure the health and safety of the
- Prohibit political and religious activities

#### As a stakeholder of the Company

- Prohibit conflict of interest
- Use corporate assets appropriately
- Prohibit insider trading

#### As a person who handles work-related information

- Manage confidential corporate information appropriately
- Use information systems appropriately
- Manage personal information
- appropriately
- Protect intellectual property rights

# Compliance

#### Anti-corruption Initiatives

Our group strives to ensure the transparency of transactions. In our compliance manuals, we have specified matters to be observed: Comply with antitrust laws, Conduct fair transactions with suppliers and comply with the "Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors," Prevent unfair competition, Prohibit excessive entertainment and gifts, and Prohibit bribery of foreign officials, etc. With regard to anti-corruption advocated by the 10 principles of the United Nations Global Compact (UNGC), in April 2018, we joined the UNGC, and in 2019, we formulated anti-corruption policies covering our company, affiliated companies and their subsidiaries in April 2018. Furthermore, we have established a system to prevent compliance violation or resolve the problem early on, including the Consultation Hotline as an internal reporting system based on the Whistleblower Protection Act.

#### **Nissan Chemical Group Anti-Corruption Policy**

#### 1. Definitions

"Corruption" means the abuse of entrusted official authority for personal or company gain, including bribery. "Bribery" means that, when company conducts its businesses,

- any of its officers or employees provides improper benefits to a third party for the purpose of inducing a third party to conduct fraudulent or illegal acts, or upon request from a third party, or
- any of its officers or employees demands or receives improper benefits from a third party.

#### 2. Commitment to Anti-Corruption

The Nissan Chemical Group has zero tolerance for corruption of any kind.

It shall not engage in any form of corruption relating to public officials, governmental agencies and any other clients ("Business Partners"). It shall also continuously ask the Business Partners not to engage in any corruption.

#### 3. Compliance with respect to Anti-Corruption

The Nissan Chemical Group shall comply with and require the Business Partners to comply with domestic and international laws and regulations concerning the prohibition of bribery and corruption, such as the Unfair Competition Prevention Act, the U.S. Foreign Corrupt Practices Act and the Anti-Unfair Competition Law of the People's Republic of China (commercial bribery rules). It shall also keep and maintain accurate financial records relating to business transactions involving itself.

#### 4. Remediation

In the event that the Nissan Chemical Group violates this Policy in the course of its business activities, it shall make efforts to remedy and correct the said violation through appropriate means and fully cooperate with investigations by the relevant authorities.

#### Web Compliance

https://www.nissanchem.co.jp/eng/profile/compliance.html

Promotion of fair-trading

https://www.nissanchem.co.jp/eng/csr\_info/communication/employee/acp.html

#### Measures for promoting compliance (FY2023)

General Compliance	Training for mid level employees, training for new employees
Anti-monopoly Act and Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors	Training related to the Anti-monopoly Act and Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors (including the Act on the Promotion of Subcontracting Small and Medium-sized Enterprises; Internal audit related to the Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors
Information Management	Information management training; Internal audit related to information management and My Number Act related management
Insider Trading Regulation	Training for insider trading prevention
Anti-bribery	Training for the prevention of corruption and Combating Bribery of Foreign Public Officials
Security Export Control	Foreign Exchange Law related training
Consultation Hotline	Continuous dissemination of related information via the in-house newsletter and posters
Others	Compliance awareness survey, training for newly-appointed board members, training for board members, and contract-related training

# **Risk Management**

We are promoting risk management under the supervision of the Chief Risk Management Officer (CRO) with the aim of contributing to the achievement of our management strategic goals through recognizing the various risks involved in the Nissan Chemical Group, preventing the occurrence of loss risk and minimizing the impact of their occurrence.

#### **Risk Management Basic Policy**

- Chemical Group.
- ties from a company-wide perspective.
- strive to improve their abilities, and endeavor to prevent the occurrence of loss risk.
- 4. We promptly share the information on risk throughout the Group.
- minimize losses.

#### System

The Risk Management & Compliance Office under the Corporate Planning Department has been established as a specialized organization to promote continuous improvement in all of our risk management activities.

In addition, the Risk Management & Compliance Committee, which is held twice a year, has been established as an organization to enhance the effectiveness of risk management, and to maintain and promote compliance. The committee is chaired by the Chief Risk Management Officer (CRO), who is appointed at the Board of Directors, and is composed of the Risk & Compliance Managers of each division/department, plant/laboratory, and domestic consolidated subsidiary appointed by the CRO.

The Risk & Compliance Managers periodically conduct risk identification and assessment, formulate countermeasure plans, conduct self-assessment for status of implementation of the countermeasure plan and subject, formulate improvement plan, and regularly perform education and training at each division/



1. We place top priority on the safety of the lives of officers and employees of the Nissan

2. We consider risk management as an important management issue, and engage in the activi-

3. All officers and employees of the Group shall be sufficiently aware of risk management,

5. We make efforts to respond promptly and accurately to the occurrence of loss risk and to

department, plant/laboratory and domestic consolidated subsidiary.

The important matters related to risk management and countermeasure plans, etc. are approved at the Board of Directors after discussion at the committee.

#### **Overall Risk Assessment Process**

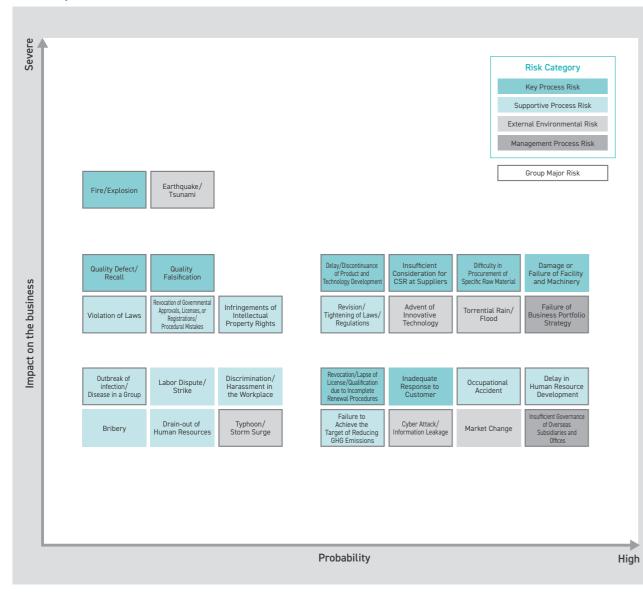
We clarified risks taking into account the business characteristics of each division and the surrounding businesses, including global political, economic and social conditions. Subsequently, risk assessment was conducted from the viewpoint of probability and impact on the business. By following the assessment, a risk map was created and Group Major Risks were identified. The contents of major risks were deliberated at the Risk Management & Compliance committee and approved at the Board of Directors.

# **Risk Management**

#### • Overall Risk Assessment Process



#### Risk Map



#### Group Major Risks and Countermeasures

Group Major Risk	Summary of Risk	Countermeasures against Risk
Delay/Discontinuance of Product and Technology Development Advent of Innovative Technology	Risk of the failure of payback of invested capital to R&D Risk of losing competitive power of our products	Expanding/reviewing existing businesses and products evaluating periodically the degree of achievements of strategies established
Failure of Business Portfolio Strategy	Risk of decline in business performance due to the failure of the business portfolio strategy	in the mid-term business plan for new businesses and products, and making correction
Difficulty in Procurement of Specific Raw Material	Risk of being unable to supply the product to customer due to the discontinuance of specific raw material	Taking countermeasures to stabilize procurements based on the nature of the businesses
Fire/Explosion	Risk of suspension of business activities and the death or injury of many employees, and being sued by neighborhood resident for the damage by fire/ explosion at plant	Establishing and operating a safety and disaster prevention management system
Quality Defect/Recall Quality Falsification	Risk of reimbursement for large expenses by customers and discontinuance of transactions when a product liability-related accident or examination data fraudulent occurs involving a product containing materials provided by our company	Preventing troubles/misconducts about quality through thorough governance
Infringements of Intellectual Property Rights	Risk of being subjected to a large amount of damages and product injunction claims from other company due to infringement on other company's patent	Making continuous improvements of "IP verification process" to reduce the risk of infringing on other companies' patents, and promoting education with and prevailing the process
Occupational Accident	Risk of being subjected to a damage claim due to serious accidental deaths and injuries involving employees	Establishing and promoting an occupational safety management system
Violation of Laws Revision/Tightening of Laws/ Regulations Revocation of Governmental Approvals, Licenses, or Registrations/ Procedural Mistakes Revocation/Lapse of License/ Qualification due to Incomplete Renewal Procedures	Risk of administrative disposition or sanction, such as suspension of business or payment of surcharges, due to violation of laws or regulations, and, along with this, risk of unwilling discontinuance of sales of product, or unwilling change in business or capital investment plan	Optimizing the operation of managements of legal regulations and enhancing education to improve all employees' mind and knowledge
Torrential Rain/Flood Earthquake/Tsunami Typhoon/Storm Surge	Risk of damage of facilities, death or injury of many employees, and suspension of business activities due to a massive earthquake or a large typhoon	Reviewing and strengthening countermeasures to enable early recovery/business continuity
Cyber Attack/Information Leakage	Risk of shut-down of operations for a long period of time, and losing credibility of customer and society because of leak of customer's or the Company's confidential information by cyber attack	Considering and promoting countermeasures from the prospectiv of "prevention," "damage minimization" and "education"
Insufficient Governance of Overseas Subsidiaries and Offices	Risk of losing credibility due to detection of fraud at overseas subsidiary and office caused by inadequate control	Establishing rules and systems to strengthen governance of the corporate group
Insufficient Consideration for CSR at Suppliers	Risk of deterioration of reputation and decline in business performance due to environmental destruction and violations of social ethics by suppliers where we procure raw materials	Making CSR evaluations of and feedbacks to suppliers and supporting their improvements
Failure to Achieve the Target of Reducing GHG Emissions	Risk of deterioration of reputation from our stakeholders due to delay in efforts to reduce GHG emissions	Establishing a company-wide organization, promoting initiatives an managing the progress
Delay in Human Resource Development (Cultivation of Diverse Human Resources)	Risk of personnel shortage which occurs in each division due to delay in the human resource development	Enhancing programs to strengthen recruiting and education for realizing the ideal organizational state/human resource image
Outbreak of infection/ Disease in a Group	Risk of being affected to the business continuity due to a large number of employees contracting the disease and their inability to work	Continuously promoting countermeasures to prevent being infected and the spread of the infectio

Risk Management

Web https://www.nissanchem.co.jp/eng/csr\_info/risk\_management/policy.html

# **Respect for Human Rights**

The Nissan Chemical Group regards compliance, including respect for human rights, as an important management issue. In April 2019, we formulated the Nissan Chemical Group Human Rights Policy in accordance with the principles on fundamental rights listed in the International Bill of Human Rights, the ILO Declaration on Fundamental Principles and Rights at Work and other international norms on human rights. In January 2023, we revised this policy in light of changes in the external environment and increased diversity and complexity of awareness of human rights. This policy was formulated with advice from outside experts and approved at the Board of Directors.

### Nissan Chemical Group Human Rights Policy (Excerpt)

The Nissan Chemical Group supports international standards including the International Bill of Human Rights, the ILO Declaration on Fundamental Principles and Rights at Work, the United Nations Global Compact, the United Nations Guiding Principles on Business and Human Rights, and any other relevant standards for human rights. This Nissan Chemical Group Human Rights Policy (this "Policy") has been established to promote efforts aimed at respecting human rights of all relevant stake-holders including employees.

This policy complements the Nissan Chemical Group's position with respect to compliance and respect for human rights.

#### 1. Scope of the application

This Policy shall apply to all officers and employees working for the Nissan Chemical Group. And the Nissan Chemical Group will also continuously encourage business partners and suppliers to support and respect this Policy.

- 2. Respect for Human Rights
- 3. No Infringement of Human Rights

#### 4. Employment and Labor

"Prohibition of Forced Labor and Child Labor," "Good Labor-Management Relations," "Proper Working Hours," "Fair and Equitable Remuneration," "Elimination of Discrimination," "Occupational Health and Safety"

5. Remediation

In the event that the Nissan Chemical Group causes or contributes to an adverse impact on human rights in the course of its business activities, it will provide remedy and make efforts to correct such impact through appropriate means.

# System

Our group has established the Sustainability Promotion Committee, whose secretariat office is Sustainability Promotion Group under Sustainability Promotion & IR Department, as an organization to promote the activities for human rights. The committee is held twice a year. The long- and mid-term plan and annual plan related to activities for human rights issues, evaluation of results of activities, and issues to be improved and examined based on the evaluation etc. are approved at the Board of Directors after discussion at the committee.

### **Activities**

#### Educational Activity/Awareness-raising Activity

With the aim of education and awareness-raising about human rights policy and promoting understanding for the purpose of practicing respect for human rights, we conducted awareness-raising activities. In FY2020, we conducted group-type training for the Directors and managers, and since FY2021, we have conducted e-learning for all employees.

#### [Human Rights Training]

#### For Directors and managers

- Importance of human rights due diligence (conducted in FY2020)
- e-learning training
- Nissan Chemical Group Human Rights Policy
- Elementary knowledge of business and human rights
- Harassment training (held in FY2023 for all employees)

#### Human Rights Due Diligence Initiatives

Our group is working to establish a system of human rights due diligence to identify and mitigate negative impacts on human rights. In FY2020, with the cooperation of outside experts, we identified and assessed risks that could have a negative impact on human rights through our business activities in major businesses and their value chains (risk mapping). We exchanged opinions with stakeholders on the results. reflected them in the results of the evaluation, and identified the risks which we need to prioritize for the Group.

In light of increased diversity and complexity in human rights awareness, in FY2023, we conducted interviews with the relevant departments and offices about our systems for human rights efforts and specific major human rights issues, after which we conducted gap analysis. In addition to gaining an understanding of the current status of our efforts and future issues, we also discussed mid- and long-term measures to be taken in the future. Regarding the identified gaps and future measures, we exchanged opinions with outside experts, and received advice about the appropriateness of our future action plans and ways to improve them.

We plan to continue to strengthen measures with reflecting the opinions of stakeholders, and regularly review our human rights risk assessment and priority risks.

#### Human Rights Due Diligence Process

#### **Investigation of Human Rights Risk**

Based on the UNEP EI (United Nations Environment Programme Einance Initiative) Human Rights Guidance Tool and other guidances on various human rights, as well as our existing internal information such as risk assessment, we investigated human rights risks that could arise in our business activities, and identified which stages of our value chain could occur and what impact they could have on anyone.

#### Identification of Risks to be Prioritized

According to the human rights risk map, we identified risks which we need to prioritize. The result was discussed by the CSR Committee (current Sustainability Promotion Committee) and resolved at the Board of Directors.

#### Risks to be prioritized

Risks to be prioritized	Group could be affected	Major human rights risks	Status of Efforts
Access to Remedy	All Stakeholders	Lack of appropriate action when human rights violations occur	<ul> <li>Establishment of whistle-blowing hotline (consultation hotline) for overseas affiliates</li> <li>Raising awareness of the whistle-blowing hotline on the intranet, compliance training, posters, etc.</li> </ul>
Employee Health and Safety	Employees of the Group	Danger, harsh working environment (related to overall occupational health and safety, including mental illness), fire and explosion	<ul> <li>Regular health checkups</li> <li>Stress check test</li> <li>Promotion of appropriate work hours</li> <li>Prior risk assessment for R&amp;D, manufacturing and sales</li> <li>Prior assessment for manufacture</li> <li>Drills for comprehensive disaster prevention/earthquake disaster prevention/initial fire fighting/communication notification</li> <li>Trainings for harassment prevention/compliance/occupational safe and health/safety and disaster prevention</li> <li>Raising awareness through the safety meeting, occupational safety newspapers and others</li> <li>RC Audits</li> <li>Establish a system for information sharing (status of initiatives, goor practices, etc.)</li> <li>[Future Efforts]</li> <li>Understand the current status of each site (including overseas and group companies)</li> </ul>
Community Health and Safety	Local Communities	Damage to local communities and health due to fires, explosions, chemical leaks and pesticide spraying	<ul> <li>Prior risk assessment for R&amp;D, manufacturing and sales</li> <li>Drills for comprehensive disaster prevention/earthquake disaster prevention/initial fire fighting/communication notification</li> <li>Training for compliance/occupational safety and health/safety and disaster prevention</li> <li>RC Audits</li> <li>Establish a system for information sharing (status of initiatives, goor practices, etc.)</li> <li>[Future Efforts]</li> <li>Understand the current status of each site (including overseas and group companies)</li> </ul>
Product Safety	Customers	Sales of unsafe products, including misuse	<ul> <li>Prior risk assessment for R&amp;D, manufacturing and sales</li> <li>Safety test of products</li> <li>Compliance with chemical substance</li> <li>Clinical trials (healthcare products)</li> <li>Distribution of safety data sheet</li> </ul>
Responsible Marketing	Customers	Interference with consumer choice due to lack of adequate product information, inadequate explanation of health risks, and inadequate response to unexpected product- related crises	<ul> <li>Prior risk assessment for R&amp;D, manufacturing and sales</li> <li>Safety test of products</li> <li>Compliance with chemical substance</li> <li>Clinical trials (healthcare products)</li> <li>Distribution of safety data sheet</li> <li>Appropriate application description</li> </ul>
Health and Safety in the Supply Chain	Suppliers	Danger, harsh working environment (related to overall occupational health and safety, including mental illness), fire and explosion	<ul> <li>Assessment by questionnaire* on Sustainability for supplier [Future Efforts]</li> <li>Understanding and quantifying risks with suppliers</li> <li>Dialogues with suppliers</li> </ul>
Child Labor in the Supply Chain	Suppliers	Labor of children under legal working age/under 15 years old, placement in hazardous work, harsh working environment	<ul> <li>Assessment by questionnaire* on Sustainability for supplier [Future Efforts]</li> <li>Understanding and quantifying risks with suppliers</li> <li>Dialogues with suppliers</li> </ul>
Conflict Minerals	Local Communities	Procurement and use of raw materials containing conflict minerals	<ul> <li>Responsible mineral procurement*</li> </ul>

\*Sustainability questionnaire and Responsible Mineral Procurement: https://www.nissanchem.co.ip/eng/csr\_info/communication/supply.html

#### Human Rights Risk Assessment

We assessed the "impacts on human rights" and "relations with the Group" for each identified risk. "Impacts on human rights" was assessed based on "impact (severity) and "probability" based on the UN Guiding Principles on Business and Human Rights (UNGP). "Relations with the Group" was evaluated based on the concept of the "Arc of Human Rights Priorities" of the Danish Institute for Human Rights.

#### Dialogue with Stakeholders Including Experts

Based on the risk assessment results, we had dialogues with stakeholders including experts

In keeping with the opinions and advices, we conducted a reassessment of human rights risks and created the human rights risk map.

#### Status of Efforts

- overseas affiliates • Raising awareness of the whistle-blowing hotline on the intranet, compliance training, posters, etc. Regular health checkups Stress check test Promotion of appropriate work hours • Prior risk assessment for R&D, manufacturing and sales • Prior assessment for manufacture
- Drills for comprehensive disaster prevention/earthquake disaster prevention/initial fire fighting/communication notification Trainings for harassment prevention/compliance/occupational safety
- and health/safety and disaster prevention • Raising awareness through the safety meeting, occupational safety
- newspapers and others RC Audits
- Establish a system for information sharing (status of initiatives, good practices, etc.)
- [Future Efforts]
- Understand the current status of each site (including overseas and group companies)
- Prior risk assessment for R&D, manufacturing and sales
- Drills for comprehensive disaster prevention/earthquake disaster prevention/initial fire fighting/communication notification
- Training for compliance/occupational safety and health/safety and disaster prevention RC Audits
- Establish a system for information sharing (status of initiatives, good practices. etc.)
- [Future Efforts]
- Understand the current status of each site (including overseas and group companies)
- Prior risk assessment for R&D, manufacturing and sales
- Safety test of products
- Compliance with chemical substance
- Clinical trials (healthcare products)
- Distribution of safety data sheet
- Prior risk assessment for R&D, manufacturing and sales
- Safety test of products
- Compliance with chemical substance
- Clinical trials (healthcare products)
- Distribution of safety data sheet
- Appropriate application description
- Assessment by questionnaire\* on Sustainability for supplier
- [Future Efforts]
- Understanding and quantifying risks with suppliers
- Dialogues with suppliers
- Assessment by questionnaire\* on Sustainability for supplier
- [Future Efforts]
- Understanding and quantifying risks with suppliers
- Dialogues with suppliers
- Responsible mineral procurement\*

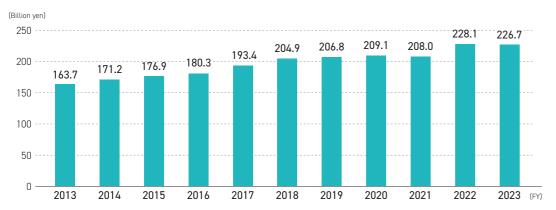
# **Financial Review**

# Long-term Financial Performance Trend

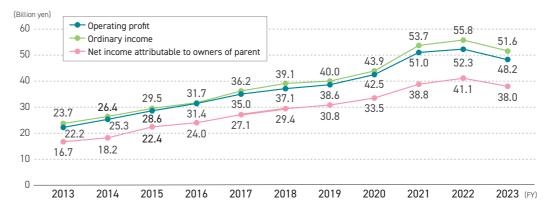
											(Billion ye
	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023
Sales	163.7	171.2	176.9	180.3	193.4	204.9	206.8	209.1	208.0	228.1	226.7
Operating Profit	22.2	25.3	28.6	31.4	35.0	37.1	38.6	42.5	51.0	52.3	48.2
Ordinary Income	23.7	26.4	29.5	31.7	36.2	39.1	40.0	43.9	53.7	55.8	51.6
Net Income	16.7	18.2	22.4	24.0	27.1	29.4	30.8	33.5	38.8	41.1	38.0
EBITDA	30.8	33.8	38.3	40.3	45.5	48.0	49.2	53.0	61.2	63.3	62.0
Operating Margin	13.6%	14.8%	16.2%	17.4%	18.1%	18.1%	18.7%	20.3%	24.5%	22.9%	21.3%
ROE	12.7%	12.7%	14.6%	15.1%	16.1%	16.6%	16.9%	17.5%	19.2%	19.4%	17.1%
EPS (¥/share)	102.11	113.99	143.37	156.97	180.30	197.67	210.09	231.73	271.88	291.36	272.82
Dividend (¥/share)	30	36	44	52	68	82	90	104	122	164	164
Dividend Payout Ratio	29.4%	31.6%	30.7%	33.1%	37.7%	41.5%	42.8%	44.9%	44.9%	56.3%	60.1%
Share Repurchase	5.0	6.0	9.0	9.0	9.0	9.0	10.0	10.0	12.0	9.0	10.0
Total Assets	208.0	223.9	228.2	231.7	246.0	247.0	249.5	265.5	279.7	298.7	323.5
Net Assets	137.8	151.3	156.9	163.7	176.4	182.1	185.5	200.6	208.0	221.5	230.9
Cash	30.8	31.3	35.3	35.7	37.7	36.2	30.6	32.4	34.7	29.6	22.7
Liabilities with Interest	36.1	35.1	33.1	30.8	28.6	26.6	24.6	22.7	22.7	27.3	41.0
Equity Ratio	65.7%	66.9%	68.1%	69.9%	71.0%	73.0%	73.7%	74.9%	73.6%	73.1%	70.3%
Capex*	9.1	8.7	9.5	13.5	14.4	9.9	15.5	14.3	12.4	19.4	20.2
Depreciation	8.5	8.5	9.7	8.9	10.5	10.9	10.5	10.4	10.2	11.0	13.8
R&D Expenses	14.2	15.0	15.8	16.1	17.2	17.8	17.2	16.5	16.0	16.8	17.3
R&D Expenses/Sales	8.7%	8.7%	8.9%	8.9%	8.9%	8.7%	8.3%	7.9%	7.7%	7.4%	7.6%

\* Capex: Cash flow basis

#### Sales (over time)



#### Key financial indicators (over time)



#### (Billion yen)

(Accounting policy has changed since FY2021)

## Financial Review of the Year Ended March 31, 2024

#### **Overview**

During the current fiscal year (April 1, 2023 to March 31, 2024), the domestic economy showed a recovery trend in consumer spending and automobile exports in the first half of the fiscal year, in addition to an increase in inbound demand driven by the weak yen. However, the recovery was limited sluggish personal consumption toward the end of the fiscal year, as well as automobile production cutbacks and other factors. Under these circumstances, in the Chemicals Segment, sales of both Basic Chemicals and Fine Chemicals decreased. In the Performance Materials Segment, sales of Semiconductor Materials declined but sales of Display Materials were fine. In the Agricultural Chemicals Segment, sales increased. In the Healthcare Segment, sales decreased.

As a result, both sales and each income were below the same period of the previous fiscal year. Although ordinary income exceeded the forecast announced in November, sales, operating income and net income attributable to owners of parent fell short of the forecast.

#### **Financial Position**

#### Position of Assets, Liabilities and Net Assets

Total assets as of March 31, 2024 were 323,458 million yen (an increase of 24.742 million ven from the previous year). It is mainly due to the increase of merchandise and finished goods, buildings and structures and machinery, equipment and vehicles.

Total liabilities as of March 31, 2024 were 92,554 million yen (an increase of 15,365 million yen). It is mainly due to the increase of short-term loans payable.

Net assets as of March 31, 2024 were 230,903 million yen (an increase of 9,376 million yen). As a result of these factors, equity ratio was 70.3% (a decrease of 2.8% from March 31, 2023).

#### Position of Cash Flow

Deducting income taxes paid from income before income taxes and non-controlling interests, depreciation and gain and loss in working capital, net cash provided by operating activities for the consolidated fiscal year ended March 31, 2024 was 33,701 million yen (35,226 million yen for the previous year).

Due to investment on plant and equipment, net cash used in investing activities for the consolidated fiscal year ended March 31, 2024 was 18,741 million yen (19,643 million yen for the previous year).

Due to payment for dividends and of long-term loans payable, share repurchase, net cash used in financing activities for the consolidated fiscal year ended March 31, 2024 was 22,101 million yen (25,030 million yen for the previous year).

As a result of these factors, cash and cash equivalents for the consolidated fiscal year ended March 31, 2024 were 22,738 million yen (29,647 million yen for the previous year), reflecting exchange of 231 million yen. It decreased by 6,909 million yen compared to the previous year.

### **Overview by segments**

#### The Chemicals Segment

In Basic Chemicals, sales of nitric acid products (metal dissolution, surface treatment, etc.) increased. Sales of melamine (adhesives agent) declined as a result of the termination of sales in the third quarter of the previous fiscal year under the structural reforms. In Fine Chemicals, sales of environmental related products (sterilizing and disinfecting agents for pools and septic tanks, etc.) and TEPIC® (powder coating agent for paint, sealants, etc.) decreased due to the impact of falling market demand.

As a result, sales of this segment were 35,562 million yen (a decrease of 3,471 million yen) and operating income was 48 million yen (a decrease of 1,330 million yen). Compared to the outlook, sales were below 3.0 billion yen and operating income was below 0.8 billion yen.

#### **The Performance Materials Segment**

In Display Materials, sales of SUNEVER® (LCD alignment coating) increased. In Semiconductor Materials, sales of ARC®\* (antireflective coating for semiconductors) and OptiStack®\* (multi-layer process material) decreased due to a decline in customer utilization. In Inorganic Materials, sales of SNOWTEX® for polishing electronic materials and hard coating, and Oilfield materials (solvents to improve the efficiency of shale oil and gas extraction) decreased.

As a result, sales of this segment were 84,567 million yen (an increase of 1,961 million yen) and operating income was 22,530 million yen (a decrease of 2,919 million yen). Compared to the outlook, sales were above 0.1 billion yen and operating income was below 0.8 billion ven.

\* ARC® and OptiStack® are registered trademarks of Brewer Science, Inc.

#### The Agricultural Chemicals Segment

Sales of Fluralaner (active ingredients for veterinary pharmaceuticals) increased. In Japanese domestic market, sales of GRACIA® (insecticide) were firm, but sales of ROUNDUP® (non-selective foliar application herbicide) decreased. In the overseas market, although sales of GRACIA® grew, sales of LEIMAY<sup>®</sup> (fungicide) decreased.

As a result, sales of this segment were 82,113 million yen (an increase of 529 million yen) and operating income was 23,398 million yen (an increase of 267 million yen). Compared to the outlook, sales were below 1.9 billion yen and operating income was above 0.1 billion ven.

#### The Healthcare Segment

Sales of LIVALO®\* (anti-cholesterol drug) declined, mainly to overseas markets. In "Custom Chemicals" (custom manufacturing and solution proposal business for pharmaceutical companies), sales of generic active pharmaceutical ingredients decreased

As a result, sales of this segment were 6,300 million yen (a decrease of 373 million yen) and operating income was 2,814 million yen (a decrease of 175 million yen). Compared to the outlook, sales were above 0.4 billion yen and operating income was above 0.2 billion yen

\* LIVALO® is a registered trademark of Kowa Company, Ltd.

#### Trading

Sales of this segment were 103,794 million yen (an increase of 4,728 million yen) and operating income was 3,701 million yen (a decrease of 0 million yen). Compared to the outlook, sales were above 2.9 billion yen and operating income was above 0.4 billion ven

#### Others

Sales of this segment were 30,167 million yen (an increase of 3,782 million yen) and operating income was 572 million yen (a decrease of 307 million yen).

# Consolidated Balance Sheets [1] (For FY2023 and FY2022)

	(Millio	(Thousand U.S. dollars)		
© Assets	As of March 31, 2024	As of March 31, 2023	As of March 31, 2024	
Current assets				
Cash and deposits	22,738	29,647	150,185	
Notes and accounts receivable - trade, and contract assets	88,800	82,670	586,526	
Merchandise and finished goods	56,804	46,950	375,192	
Work in process	5	18	33	
Raw materials and supplies	21,370	17,703	141,149	
Accounts receivable - other	2,956	2,113	19,524	
Short-term loans receivable	2,152	3,088	14,214	
Other	7,189	7,305	47,483	
Allowance for doubtful accounts	(48)	(44)	(317)	
Total current assets	201,968	189,454	1,334,003	
Non-current assets	.,	. ,	,,	
Property, plant and equipment				
Buildings and structures	85,860	72,520	567,107	
Accumulated depreciation and impairment loss	(50,898)	(46,567)	(336,182)	
Buildings and structures, net	34,962	25.952	230,925	
Machinery, equipment and vehicles	170,309	151,653	1,124,894	
Accumulated depreciation and impairment loss	(145,729)	(136,861)	(962,543)	
Machinery, equipment and vehicles, net	24,579	14,792	162,345	
Tools, furniture and fixtures	44,084	42,153	291,176	
Accumulated depreciation and impairment loss	(39,457)	(38,379)	(260,614)	
Tools, furniture and fixtures, net	4,626	3,774	30,555	
Land	9,064	8,817	59,868	
Leased assets	160	149	1,057	
Accumulated depreciation and impairment loss	(24)	(10)	(159)	
Leased assets, net	135	139	892	
Construction in progress	4,004	11,176	26,446	
Total property, plant and equipment	77,372	64,653	511,044	
Intangible assets	,			
Software	2,444	1,722	16,143	
Other	8,302	9,813	54,835	
Total intangible assets	10,747	11,535	70,984	
Investments and other assets	.0,141		10,104	
Investment securities	26,119	27,322	172,517	
Long-term loans receivable	50	0	0	
Deferred tax assets	519	531	3,428	
Net defined benefit asset	3,737	2,140	24,683	
Other	3,054	3,186	24,883	
Allowance for doubtful accounts	(111)	(110)	(733)	
Total investments and other assets	33,370	33,071	220,410	
Total non-current assets	121,489	109,260	802,437	
Total assets	323,458	298,715	2,136,446	

# Consolidated Balance Sheets [2] (For FY2023 and FY2022)

	(Millic	(Thousand U.S. dollars	
Liabilities	As of March 31, 2024	As of March 31, 2023	As of March 31, 2024
Current liabilities			
Notes and accounts payable - trade	20,427	19,942	134,921
Short-term loans payable	39,062	25,327	258,005
Current portion of long-term loans payable	634	624	4,188
Income taxes payable	4,940	7,879	32,629
Provision for bonuses	2,548	2,413	16,830
Provision for loss on business of subsidiaries and affiliates	310	-	2,048
Provision for business structure improvement	2	418	13
Other	18,638	15,556	123,104
Total current liabilities	86,563	72,161	571,750
Non-current liabilities			
Long-term loans payable	1,284	1,338	8,481
Deferred tax liabilities	1,431	98	9,452
Provision for loss on business of subsidiaries and affiliates	143	626	945
Provision for share-based remuneration for directors (and other officers)	272	256	1,797
Net defined benefit liability	467	377	3,085
Other	2,392	2,331	15,799
Total non-current liabilities	5,991	5,027	39,571
Total liabilities	92,554	77,188	611,321

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	(Milli	(Million yen)			
Net assets	As of March 31, 2024	As of March 31, 2023	As of March 31, 2024		
Shareholders' equity					
Capital stock	18,942	18,942	125,112		
Capital surplus	13,613	13,613	89,914		
Retained earnings	182,327	182,400	1,204,273		
Treasury shares	(943)	(6,111)	(6,229)		
Total shareholders' equity	213,939	208,844	1,413,071		
Accumulated other comprehensive income					
Valuation difference on available-for-sale securities	8,238	7,678	54,412		
Foreign currency translation adjustment	4,226	1,735	27,913		
Remeasurements of defined benefit plans	1,066	159	7,041		
Total accumulated other comprehensive income	13,531	9,574	89,373		
Non-controlling interests	3,432	3,107	22,668		
Total net assets	230,903	221,526	1,525,119		
Total liabilities and net assets	323,458	298,715	2,136,446		

(Note 1) This is an English translation of the consolidated financial statements of the Japanese annual securities report. (Note 2) The consolidated financial statements are expressed in Japanese yen as of and for the year ended March 31, 2024 after being converted from the currency of the country in which the Company operates. The translation of Japanese yen amounts to United States dollar amounts is included solely for the convenience of the readers outside Japan, and has been made at the rate of ¥151.40 to US \$1, which is the approximate closing exchange rate reported by the Tokyo Foreign Exchange Market on March 31, 2024. This translation should not be construed to indicate that the Japanese yen amounts shown can be converted to United States dollars at the above rate.

# Consolidated Statements of Income and Consolidated Statements of Comprehensive Income

	(Millio	(Million yen)			
Consolidated Statements of Income	As of March 31, 2024	As of March 31, 2023	As of March 31, 2024		
Net sales	226,705	228,065	1,497,391		
Cost of sales	121,930	121,262	805,350		
Gross profit	104,774	106,803	692,034		
Selling, general and administrative expenses	56,572	54,519	373,659		
Operating income	48,201	52,283	318,369		
Non-operating income					
Interest income	161	203	1,063		
Dividend income	1,560	1,323	10,304		
Equity in earnings of affiliates	536	1,485	3,540		
Foreign exchange gains	2,210	1,296	14,597		
Other	810	694	5,350		
Total non-operating income	5,280	5,004	34,875		
Non-operating expenses					
Interest expenses	526	252	3,474		
Loss on disposal of non-current assets	935	817	6,176		
Loss on sales of non-current assets	10	5	66		
Plant stop losses	169	198	1,116		
Other	211	220	1,394		
Total non-operating expenses	1,853	1,493	12,239		
Ordinary income	51,629	55,793	341,011		
Extraordinary income					
Gain on sales of investment securities	1,332	1,461	8,798		
Total extraordinary income	1,332	1,461	8,798		
Extraordinary losses					
Impairment losses	823	-	5,436		
Loss on valuation of investment securities	353	650	2,332		
Total extraordinary losses	1,176	650	7,768		
Income before income taxes and non-controlling interests	51,785	56,605	342,041		
Income taxes - current	12,847	14,554	84,855		
Income taxes - deferred	730	633	4,822		
Total income taxes	13,578	15,187	89,683		
Net income	38,206	41,417	252,351		
Net income attributable to non-controlling interests	172	329	1,136		
Net income attributable to owners of parent	38,033	41,087	251,209		

	(Millio	n yen)	(Thousand U.S. dollars)
Consolidated Statements of Comprehensive Income	As of March 31, 2024	As of March 31, 2023	As of March 31, 2024
Net income	38,326	41,417	253,144
Other comprehensive income			
Valuation difference on available-for-sale securities	559	(625)	3,692
Foreign currency translation adjustment	2,788	760	18,415
Remeasurements of defined benefit plans, net of tax	907	138	5,991
Share of other comprehensive income of entities accounted for using equity method	0	0	0
Total other comprehensive income	4,254	273	28,098
Comprehensive income	42,461	41,690	280,456
(Comprehensive income attributable to)			
Owners of parent	41,990	41,270	277,345
Non-controlling interests	470	420	3,104

# Consolidated Statements of Changes in Net Assets (For FY2023)

					(Million y		
	Total Shareholders' equity						
	Capital stock	Capital surplus	Retained earnings	Treasury shares	Total shareholders' equity		
Balance at beginning of current period	¥18,942	¥13,613	¥182,400	(¥6,111)	¥208,844		
Changes of items during period							
Dividends of surplus			(22,973)		(22,973)		
Net income attributable to owners of parent			38,033		38,033		
Change in scope of consolidation	_	_	_	_	_		
Share repurchase				(10,006)	(10,006)		
Disposal of treasury shares				40	40		
Cancellation of treasury shares			(15,133)	15,133	_		
Net changes of items other than shareholders' equity							
Total changes of items during period	_	_	(73)	5,167	5,094		
Balance at end of current period	¥18,942	¥13,613	¥182,327	(¥943)	¥213,939		

	Accum	ulated oth	-			
	Valuation difference on available-for- sale securities	Foreign currency translation adjustment	Remeasurements of defined benefit plans	Total accumulated other comprehensive income	Non- controlling interests	Total net assets
Balance at beginning of current period	¥7,678	¥1,735	¥159	¥9,574	¥3,107	¥221,526
Changes of items during period						
Dividends of surplus						(22,973)
Net income attributable to owners of parent						38,033
Change in scope of consolidation	_	_	—	—		
Share repurchase						(10,006)
Disposal of treasury shares						40
Cancellation of treasury shares						—
Net changes of items other than shareholders' equity	559	2,490	907	3,956	325	4,282
Total changes of items during period	559	2,490	907	3,956	325	9,376
Balance at end of current period	¥8,238	¥4,226	¥1,066	¥13,531	¥3,432	¥230,903

(Million yen)

# Consolidated Statements of Changes in Net Assets (For FY2022)

	Total Shareholders' equity					
	Capital stock	Capital surplus	Retained earnings	Treasury shares	Total shareholders' equity	
Balance at beginning of current period	¥18,942	¥13,613	¥172,393	(¥8,261)	¥196,688	
Changes of items during period						
Dividends of surplus			(20,084)		(20,084)	
Net income attributable to owners of parent			41,087		41,087	
Change in scope of consolidation			101		101	
Share repurchase				(9,002)	(9,002)	
Disposal of treasury shares				55	55	
Cancellation of treasury shares			(11,097)	11,097	_	
Net changes of items other than shareholders' equity						
Total changes of items during period	_	_	10,006	2,150	12,156	
Balance at end of current period	¥18,942	¥13,613	¥182,400	(¥6,111)	¥208,844	

						(Million yen)
	Accum	ulated oth	er comprehens	ive income	_	
	Valuation difference on available-for- sale securities	Foreign currency translation adjustment	Remeasurements of defined benefit plans	Total accumulated other comprehensive income	Non- controlling interests	Total net assets
Balance at beginning of current period	¥8,304	¥898	¥21	¥9,223	¥2,097	¥208,009
Changes of items during period						
Dividends of surplus						(20,084)
Net income attributable to owners of parent						41,087
Change in scope of consolidation						101
Share repurchase						(9,002)
Disposal of treasury shares						55
Cancellation of treasury shares						_
Net changes of items other than shareholders' equity	(625)	837	138	350	1,009	1,360
Total changes of items during period	(625)	837	138	350	1,009	13,516
Balance at end of current period	¥7,678	¥1,735	¥159	¥9,574	¥3,107	¥221,526

# Consolidated Statements of Changes in Net Assets (For FY2023)

					(Thousand U.S. dolla		
		Total Shareholders' equity					
	Capital stock	Capital surplus	Retained earnings	Treasury shares	Total shareholders' equity		
Balance at beginning of current period	\$125,112	\$89,914	\$1,204,756	(\$40,363)	\$1,379,419		
Changes of items during period							
Dividends of surplus			(151,737)		(151,737)		
Net income attributable to owners of parent			251,209		251,209		
Change in scope of consolidation	_	_	_	_	_		
Share repurchase				(66,090)	(66,090)		
Disposal of treasury shares				264	264		
Cancellation of treasury shares			(99,954)	99,954			
Net changes of items other than shareholders' equity							
Total changes of items during period	-	_	(482)	34,128	33,646		
Balance at end of current period	\$125,112	\$89,914	\$1,204,273	(\$6,229)	\$1,413,071		

					(Thousand	IU.S. dollars)
	Accum	Accumulated other comprehensive income				
	Valuation difference on available-for- sale securities		Remeasurements of defined benefit plans	Total accumulated other comprehensive income	Non- controlling interests	Total net assets
Balance at beginning of current period	\$50,713	\$11,460	\$1,050	\$63,236	\$20,522	\$1,463,184
Changes of items during period						
Dividends of surplus						(151,737)
Net income attributable to owners of parent						251,209
Change in scope of consolidation	-	_	—	—		_
Share repurchase						(66,090)
Disposal of treasury shares						264
Cancellation of treasury shares						_
Net changes of items other than shareholders' equity	3,692	16,446	5,991	26,129	2,147	28,283
Total changes of items during period	3,692	16,446	5,991	26,129	2,147	61,929
Balance at end of current period	\$54,412	\$27,913	\$7,041	\$89,373	\$22,668	\$1,525,119

# Consolidated Statements of Changes in Net Assets (For FY2022)

					(Thousand U.S. dollars)	
	Total Shareholders' equity					
	Capital stock	Capital surplus	Retained earnings	Treasury shares	Total shareholders' equity	
Balance at beginning of current period	\$141,845	\$101,939	\$1,290,947	(\$61,862)	\$1,472,877	
Changes of items during period						
Dividends of surplus			(150,397)		(150,397)	
Net income attributable to owners of parent			307,676		307,676	
Change in scope of consolidation			756		756	
Share repurchase				(67,411)	(67,411)	
Disposal of treasury shares				412	412	
Cancellation of treasury shares			(83,099)	83,099	_	
Net changes of items other than shareholders' equity						
Total changes of items during period	-	_	74,929	16,100	91,029	
Balance at end of current period	\$141,845	\$101,939	\$1,365,883	(\$45,762)	\$1,563,906	

(Thousand U.S. dollars)

	Accum	-				
	Valuation difference on available-for- sale securities	Foreign currency translation adjustment	Remeasurements of defined benefit plans	Total accumulated other comprehensive income	Non- controlling interests	Total net assets
Balance at beginning of current period	\$62,184	\$6,725	\$157	\$69,065	\$15,703	\$1,557,653
Changes of items during period						
Dividends of surplus						(150,397)
Net income attributable to owners of parent						307,676
Change in scope of consolidation						756
Share repurchase						(67,411)
Disposal of treasury shares						412
Cancellation of treasury shares						_
Net changes of items other than shareholders' equity	(4,680)	6,268	1,033	2,621	7,556	10,184
Total changes of items during period	(4,680)	6,268	1,033	2,621	7,556	101,213
Balance at end of current period	\$57,496	\$12,992	\$1,191	\$71,694	\$23,266	\$1,658,874

# **Consolidated Statements of Cash Flows**

	(Million yen)		(Thousand U.S. doll	
	As of March 31, 2024	As of March 31, 2023	As of March 31, 2024	
Cash flows from operating activities				
Income before income taxes and non-controlling interests	51,785	56,605	342,041	
Depreciation and amortization	13,700	10,878	90,489	
Impairment losses	823	-	5,436	
Loss on valuation of investment securities	353	650	2,332	
Amortization of goodwill	101	101	667	
Interest and dividend income	(1,722)	(1,527)	(11,374)	
Loss (gain) on sales of investment securities	(1,332)	(1,461)	(8,798)	
Interest expenses	526	252	3,474	
Loss (gain) on disposal of non-current assets	935	817	6,176	
Decrease (increase) in notes and accounts receivable - trade	(4,911)	(2,360)	(32,437)	
Decrease (increase) in inventories	(12,424)	(12,382)	(82,061)	
Increase (decrease) in notes and accounts payable - trade	(437)	217	(2,886)	
Other	477	(3,057)	3,151	
Subtotal	47,875	48,734	316,215	
Interest and dividend income received	2,242	2,153	14,808	
Interest expenses paid	(525)	(251)	(3,468)	
Income taxes paid	(15,891)	(15,408)	(104,960)	
Net cash provided by (used in) operating activities	33,701	35,226	222,596	
Cash flows from investing activities				
Purchase of investment securities	(125)	(506)	(826)	
Proceeds from sales of investment securities	1,742	2,499	11,506	
Purchase of shares of subsidiaries	(10)	(25)	(66)	
Purchase of property, plant and equipment	(18,591)	(18,236)	(122,794)	
Payments for retirement of property, plant and equipment	(820)	(716)	(5,416)	
Purchase of intangible assets	(1,587)	(1,221)	(10,482)	
Payments of long-term loans receivable	(1,007)	(0)	(10,402)	
Net decrease (increase) in short-term loans receivable	1,070	(1,505)	7,067	
Purchase of long-term prepaid expenses	(225)	(282)	(1,486)	
Purchase of shares of subsidiaries resulting in change in scope of consolidation	93	(202)	614	
Other	(288)	252	(1,902)	
		352		
Net cash provided by (used in) investing activities	(18,741)	(19,643)	(123,785)	
Cash flows from financing activities				
Net increase (decrease) in short-term loans payable	10,924	3,940	72,153	
Proceeds from long-term loans payable	580	780	3,831	
Repayments of long-term loans payable	(624)	(552)	(4,122)	
Cash dividends paid	(22,973)	(20,084)	(151,737)	
Dividends paid to non-controlling interests	-	(105)	-	
Share repurchase	(10,006)	(9,002)	(66,090)	
Other	(2)	(6)	(13)	
Net cash provided by (used in) financing activities	(22,101)	(25,030)	(145,978)	
Effect of exchange rate change on cash and cash equivalents	231	1,320	1,526	
Net increase (decrease) in cash and cash equivalents	(6,909)	(8,126)	(45,634)	
Cash and cash equivalents at beginning of period	29,647	34,658	195,819	
Increase in cash and cash equivalents resulting from inclusion of subsidiaries in consolidation	-	3,116	-	
Cash and cash equivalents at end of period	22,738	29,647	150,185	

operates. The translation of Japanese yen amounts to United States dollar amounts is included solely for the convenience of the readers outside Japan, and has been made at the rate of ¥ 151.40 to US \$1, which is the approximate closing exchange rate reported by the Tokyo Foreign Exchange Market on March 31, 2024. This translation should not be construed to indicate that the Japanese yen amounts shown can be converted to United States dollars at the above rate.

# **Corporate Information**

#### **Domestic Bases**



#### Nagoya Plant

This plant faces the Port of Nagoya. Here we manufacture sulfuric acid and high-grade urea solution, among other products.



# **Toyama Plant**

This plant is located in the center of Toyama Plain. Here we manufacture various groups of products, such as basic chemicals, environmental chemicals, and performance materials



#### Onoda Plant

This plant is located in Sanyo-Onoda City, Yamaguchi. It is our base for the production of fine organic synthetic compounds, such as agrochemicals and pharmaceuticals.



#### Saitama Plant

This plant is located in the northwest area of Saitama. Here we manufacture agricultural formulations.



#### Sodegaura Plant

These plants are located in the industrial area in Sodegaura and Ichihara City, Chiba. These are our bases for the production of performance materials



#### Materials Research Laboratories

Creates highly unique new materials, allowing us to respond quickly to increasingly sophisticated and diverse market needs. At the same time, the Laboratories focuses their efforts on researching next-generation materials in an effort to create new markets.





**Biological Research Laboratories** 

Located in Shiraoka City, Saitama Prefecture, Biological Research Lab-

oratories serves as a research center

for life sciences, including evaluation

research on the usefulness and safe-

ty of agricultural chemicals, pharmaceuticals, and medical materials.

**Chemical Research Laboratories** 

Located in Funabashi City, Chiba Pre-

fecture, Chemical Research Laboratories is Nissan Chemical's core R&D

site, and is responsible for our corpo-

rate research. In addition to R&D of

agricultural chemicals and pharma-

ceuticals that utilize the fine organic

synthesis technology, Chemical Re-

search Laboratories performs re-

search on companywide processes,

material analysis research, etc.

Sodegaura, Chiba

Funahashi Chih



#### Offices

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Kintetsu Dojima Building 2-2-2, Dojima, Kita-ku, Osaka 530-0003 Tel: +81-6-6346-7200

Fukuoka Sales Office Tokyo Tatemono Hakata Building 1-4-4, Hakata Ekimae, Hakata-ku, Fukuoka 812-0011 Tel: +81-92-432-3421

#### Plants

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Nagoya Plant 7, Tsukiji-cho, Minato-ku, Nagoya, Aichi 455-0045 Tel: +81-52-661-1676

#### Laboratories

Chemical Research Laboratories 10-1, Tsuboi-Nishi 2-chome, Funabashi, Chiba 274-8507 Tel: +81-47-465-1112

**Biological Research Laboratories** 1470, Shiraoka, Shiraoka, Saitama 349-0294 Tel: +81-480-92-2513

#### **Group Companies**

#### Japan

Nissei Corporation 1-10-5, Nihonbashihon-cho, Chuo-ku, Tokyo 103-0023 Tel: +81-3-3241-2548 Sales of chemical products and insurance, and real estate business

Nissan Green & Landscape Co., Ltd. PMO Ochanomizu 4-4-1, Kandasurugadai, Chiyoda-ku, Tokyo 101-0062 Tel: +81-3-3256-4031 Landscaping and civil engineering

NC Tokyo Bay Corporation 14, Kitasode, Sodegaura-shi, Chiba 299-0266 Tel: +81-438-62-0611 Manufacture of sulfuric acid

Nihon Hiryo Co., Ltd. 559-3, Tozaki, Okanogo, Fujioka, Gumma 375-0011 Tel: +81-274-42-1247 Manufacture and sales of fertilizers and agricultural materials

Clariant Catalysts (Japan) K.K. Bunkyo Green Court, Center Office 2-28-8, Honkomagome, Bunkyo-ku, Tokyo 113-0021 Tel: +81-3-5977-7300 Manufacture and sales of catalysts for petrochemical and petroleum products

#### Nissan Chemical Corporation 107 Integrated Report 2024

Toyama, Toyama

Sapporo Sales Office Maruito Sapporo Building 1-1, Kita-Nijyo-Nishi, Chuo-ku, Sapporo, Hokkaido 060-0002 Tel: +81-11-251-0264 Nagoya Sales Office Nagoya KS Building 3-1-18, Taiko, Nakamura-ku, Nagoya, Aichi 453-0801 Tel: +81-52-452-8623 Hiroshima Office Dai-ichi Uenoya Building 8-8, Kamihatchobori, Naka-ku, Hiroshima 730-0012

Sodegaura Plant Goi Works 12-17, Goiminamikaigan, Ichihara, Chiba 290-0045 Tel: +81-436-22-2110

Tovama Plant 635, Sasakura, Fuchu-machi, Toyama 939-2792 Tel: +81-76-433-9602

Onoda Plant 6903-1, Oaza Onoda, Sanyo-Onoda, Yamaguchi 756-0093 Tel: +81-836-83-2800

Materials Research Laboratories 488-6, Suzumi-cho, Funabashi, Chiba 274-0052 Tel: +81-47-419-3810 11-1, Kitasode, Sodegaura, Chiba 299-0266 Tel: +81-438-64-2881 635, Sasakura, Fuchu-machi, Toyama 939-2792 Tel: +81-76-465-7133

Nissan Butsuryu Co., Ltd. 1-10-5, Nihonbashihon-cho, Chuo-ku, Tokyo 103-0023 Tel: +81-3-5255-6901 Transportation

Nissan Engineering, Ltd. 634-1, Sasakura, Fuchu-machi, Toyama 939-2753 Tel: +81-76-465-5711 Plant engineering services

NC Agro Hakodate Corporation 9-23, Kitahama-cho, Hakodate, Hokkaido 040-0078 Tel: +81-138-41-1251 Manufacture of agrochemicals

Sun Agro Co., Ltd. Nihonbashikoami-cho Square Bldg. 17-10, Nihonbashikoami-cho, Chuo-ku, Tokyo 103-0016 Tel: +81-3-6311-4310 Manufacture and sales of fertilizers and agrochemicals

### Overseas Bases (As of March 31, 2024)

#### France

Nissan Chemical Europe S.A.S. 18 Chemin des cuers 69570 Dardilly, France Tel: +33-4-37-64-40-20 Sales of agrochemicals



### India

#### Nissan Agro Tech India PVT. LTD. 502-504, 5th Floor, Tower B, Spazedge

Commercial Complex, Sector-47, Sohna Road, Gurgaon-122002, Haryana, India Tel: +91-124-4214446/47 Sales support and promotional services for

agrochemicals Nissan Bharat Rasayan PVT. LTD. 502-504, 5th Floor, Tower B, Spazedge Commercial Complex, Sector-47, Sohna Road, Gurgaon-122002, Haryana, India Tel: +91-124-4214446

Manufacture and export of active ingredients of agrochemicals

# America

Nissan Chemical America Corporation 10333 Richmond Avenue, Suite 1100, Houston, Texas 77042, U.S.A. Tel: +1-713-532-4745 Manufacture and sales of inorganic materials



### Singapore

Nissan Chemical Agro Singapore Pte. Ltd. 111, North Bridge Road, #17-01 Peninsula Plaza, Singapore 179098

Sales support and promotional services for agrochemicals

#### China-

Nissan Chemical Product (Shanghai) Co., Ltd.

Rm.3210 Office Tower 1, Raffles City Changning, No.1133 Changning Road, Changning District, Shanghai 200051 PRČ

Tel:+86-21-6236-8300

Sales support and promotional services for agrochemicals

#### Nissan Chemical Materials Research (Suzhou) Co., Ltd.

Room101, NW-10, Nanopolis Suzhou 99 Jinji Lake Avenue, Suzhou Industrial Park 215123, China Tel: +86-512-62732080

R&D, sales support and promotional services for performance materials

### Taiwan-

Nissan Chemical Taiwan Co., Ltd. 5F., No.67, Luke 2nd Rd., Luzhu Dist., Kaohsiung City 82151, Taiwan (R.O.C.) Tel: +886-7-695-5252

R&D and sales support for display and semiconductor materials



### South Korea

NCK Co., Ltd. 127, Chupalsandan-ro, Paengseong-eup, Pyeongtaek-si, Gyeonggi-do, 17998, Korea Tel: +82-31-691-7044 Manufacture and sales of display and semiconductor materials

Nissan Chemical Agro Korea Ltd.

#### Room 2001, 74, Sejong-daero, Jung-gu, Seoul 04526, Korea

Tel: +82-2-774-6470 Sales of agrochemicals

### Corporate Profile (As of March 31, 2024)

Corporate Name	Nissan Chemical Corporation			
Head Office	5-1, Nihonbashi 2-Chome, Chuo-ku, Tokyo TEL: +81-3-4463-8111			
Founded	1887			
Capital Stock	18,942 million yen			
Number of Employees	Consolidated: 3,137			
Stock Listing	Tokyo Stock Exchange Prime Market			
Transfer Agent	Sumitomo Mitsui Trust Bank, Limited 1-4-1, Marunouchi, Chiyoda-ku, Tokyo 100			

### Share Information (As of March 31, 2024)

\*Includes 42,649 treasury shares

#### Major shareholders (Top ten companies)

The Master Trust Bank of Japan, Ltd. (Trust Account)

Custody Bank of Japan, Ltd. (Trust Account)

Custody Bank of Japan, Ltd. as Trustee for Mizuho Bank Retirement Trust Account Re-entrusted by Mizuho Trust and Banking Co., Ltd.

SSBTC CLIENT OMNIBUS ACCOUNT

Nissan Chemical Corporation Customer Shareholders Association

STATE STREET BANK WEST CLIENT-TREATY 505234

HSBC HONG KONG-TREASURY SERVICES A/C ASIAN EQUITIES DERIVATIVES

Meiji Yasuda Life Insurance Company

JP MORGAN CHASE BANK 385781

Sompo Japan Insurance, Inc.

(Note) Investment percentages are calculated excluding treasury shares

	Financial institutions	Securities companies	Other domestic companies	Overseas investors	Individuals/ Others	Treasury shares
Percentage of share held (%)	46.1	3.7	8.9	30.3	11.0	0.0

Organization

Web https://www.nissanchem.co.jp/eng/profile/soshiki.html



Votorantim, SP, 18110-650, Brasil Tel: +55-15-3019-8772

agrochemicals

Sales support and promotional services for

#### o 103-6119, Japan

#### 00-8233, Japan

	Number of shares held (1,000 shares)	Investment (%)
	32,860	23.7
	14,293	10.3
Benefit	5,767	4.2
	4,069	2.9
	3,765	2.7
	2,447	1.8
	2,127	1.5
	1,861	1.3
	1,804	1.3
	1,547	1.1