



**Nissan Chemical**  
CORPORATION

Nissan Chemical Corporation Integrated Report 2022



Integrated  
Report 2022

WHERE IT ALL BEGINS

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# Integrated Report 2022

WHERE IT ALL BEGINS

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## 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

FY2021 (April 2021 to March 2022)

The occupational accidents data (P10 and P69) is from January to December 2021.

### Issued

October 2022

(The previous edition was issued in November 2021, and the next edition is planned to be issued in October 2023.)

### Frequency of Issuance

Annually

### Contact for Inquiries About This Report

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TEL: +81-3-4463-8404  
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### Scope of Reporting

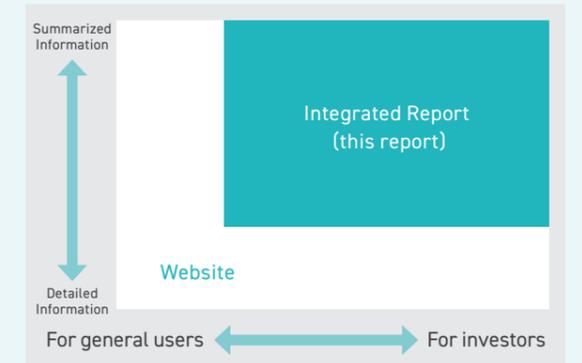
The initiatives are described mainly in the financial and ESG information of the activities of Nissan Chemical Group.

### Guidelines Used as Reference

- International Integrated Reporting Council (IIRC) "International <IR> Framework"
- 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)



### Information Disclosure System



### Third-party Evaluation

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



Member of  
**Dow Jones Sustainability Indices**  
Powered by the S&P Global CSA

2022 CONSTITUENT MSCI JAPAN  
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.

### Consolidated subsidiaries:

Nissei Corporation, Nissan Butsuryu Co., Ltd., Nissan Green & Landscape Co., Ltd., Nissan Engineering, Ltd., Nihon Hiryo Co., Ltd., Nissan Chemical America Corporation (NCA), Nissan Chemical Europe S.A.S. (NCE), NCK Co., Ltd. (NCK)

### 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, NC Agro Hakodate Corporation, Environmental Technical Laboratories, Ltd., Nissan Chemical Taiwan Co., Ltd. (NCT), Nissan Chemical Product (Shanghai) Co., Ltd. (NCS), Nissan Chemical Agro Korea Ltd. (NAK), Nissan Chemical Do Brasil (NCB), Nissan Agro Tech India PVT. LTD. (NAI), Nissan Chemical Materials Research (Suzhou) Co., Ltd. (NSU), Nissan Bharat Rasayan PVT. LTD. (NBR)

## 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.

Now we are in the third year of the global spread of COVID-19; the society and economy surrounding us continue to change dramatically. At the same time, various global issues, such as climate change associated with global warming, aggravated food issue and health issue, low birthrate and aging population, and economic divides are on the increase and threatening the sustainability of society.

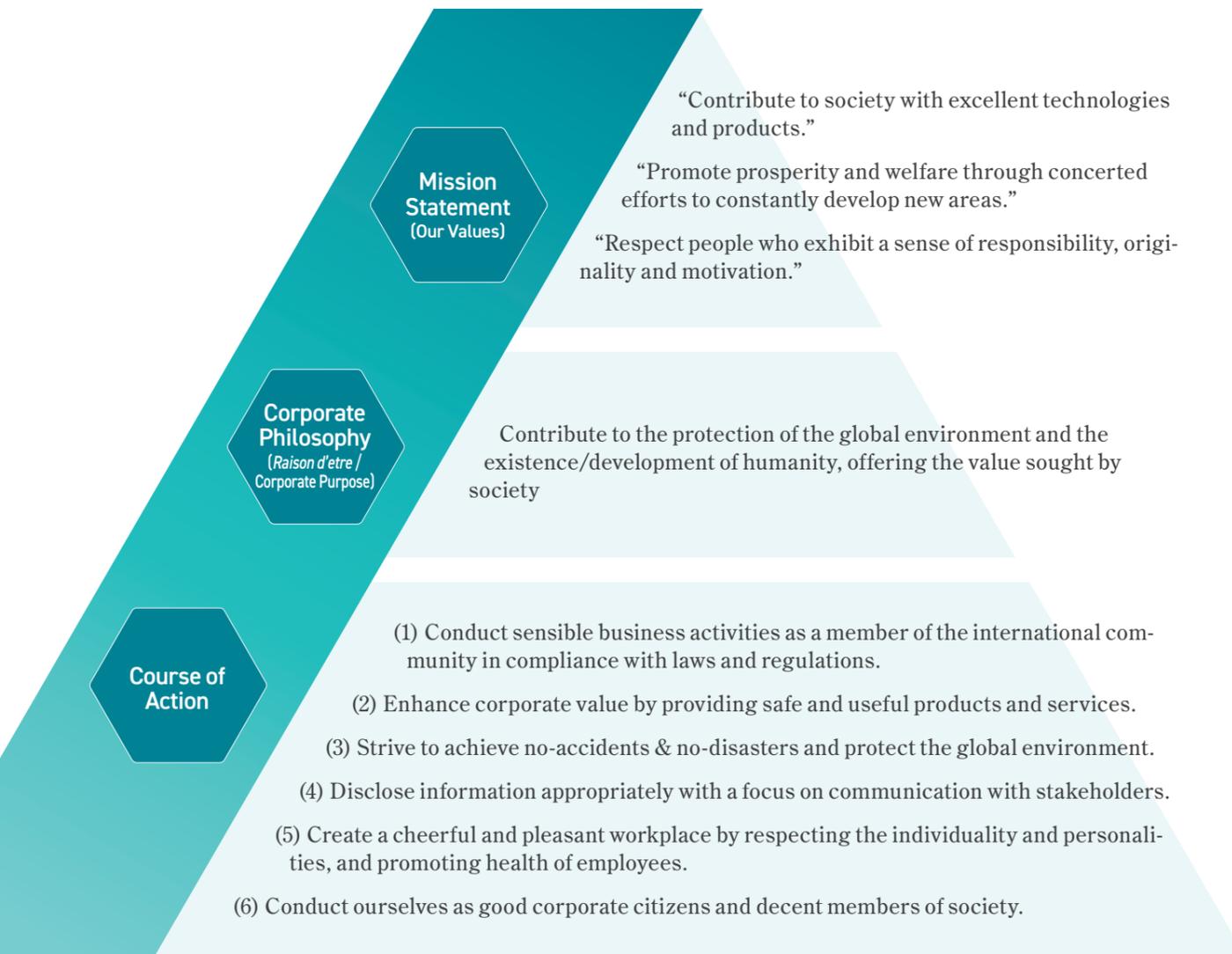
From the time of our founding to the present, we have been working to solve social issues. By thoroughly pursuing our corporate philosophy "Contribute to the protection of the global environment and the existence/development of humanity, offering the value sought by society", and continuing to take on 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

## Corporate Ethos Structure and Corporate Slogan

To determine our direction for the future and clarify the *raison d'etre* of the Group, we redefined our corporate philosophy in 2022. For the “Basic CSR Policy”, we renamed it to the “Course of Action” to express our stance on focusing on sustainability management from now, let alone CSR. In addition, we newly set up “Where it all begins” as our corporate slogan, to spread around.



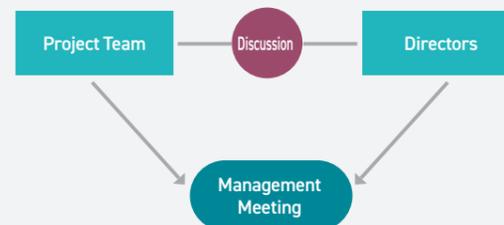
### Corporate Slogan

# “WHERE IT ALL BEGINS”

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.

### In Redefining Our Corporate Philosophy

Discussions on the formulation of the new long-term business plan “Atelier2050” were centered on the corporate philosophy, which is the foundation of our business activities. While deepening discussions in a project team with diversity, based on changes in the business environment, social issues, and management challenges, the importance of the corporate philosophy was recognized once again. To determine our direction for the future and clarify the *raison d'etre* of the Group, we redefined our corporate philosophy.



### 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.

# The History of Nissan Chemical

## Japan's first chemical fertilizer manufacturer established by the "Father of Biotechnology"

The pioneering spirit inherited since the company's founding has contributed greatly to Nissan Chemical's 135-year history. As a future-creating company, we have formulated "Atelier2050" to continue our progress.

### 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 to improve the fertilizer used in Japanese agriculture to help make Japan a modern nation, approached SHIBUSAWA Eiichi, known as the "Father of Japanese Capitalism", 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.

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.



The land in Ojima 1-chome, Koto-ku, Tokyo, now known as Kamayabori, had been selected for its convenience in transporting raw materials and products. In 1888, the production of superphosphate (fertilizer) started.



Jinzo Hiryo advertisement from an agricultural magazine in 1891

### 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.



SHIBUSAWA Eiichi (second from left) visiting Oji Plant just after the completion of the three-company joint. Seen on the left is TANAKA Eiichiro who served as company president from 1923 to 1941.

#### Three-company Joint

Manufacture of sulfuric acid, soda, etc.

Kanto Soda

Nippon Kagaku Hiryo  
(renamed from Nippon Seimi Seizo)



Dainippon Jinzo Hiryo  
(surviving company)

#### 50th anniversary of its founding

Entered under the umbrella of Nissan zaibatsu and renamed

Nissan Chemical Industries

### 1965

#### Acquired new technological ideas through entry into the petrochemical business

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.



Nissan Petrochemicals Chiba Plant (1968)

### 1989

#### Restarted as a value-creating company

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.

### 2016

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

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

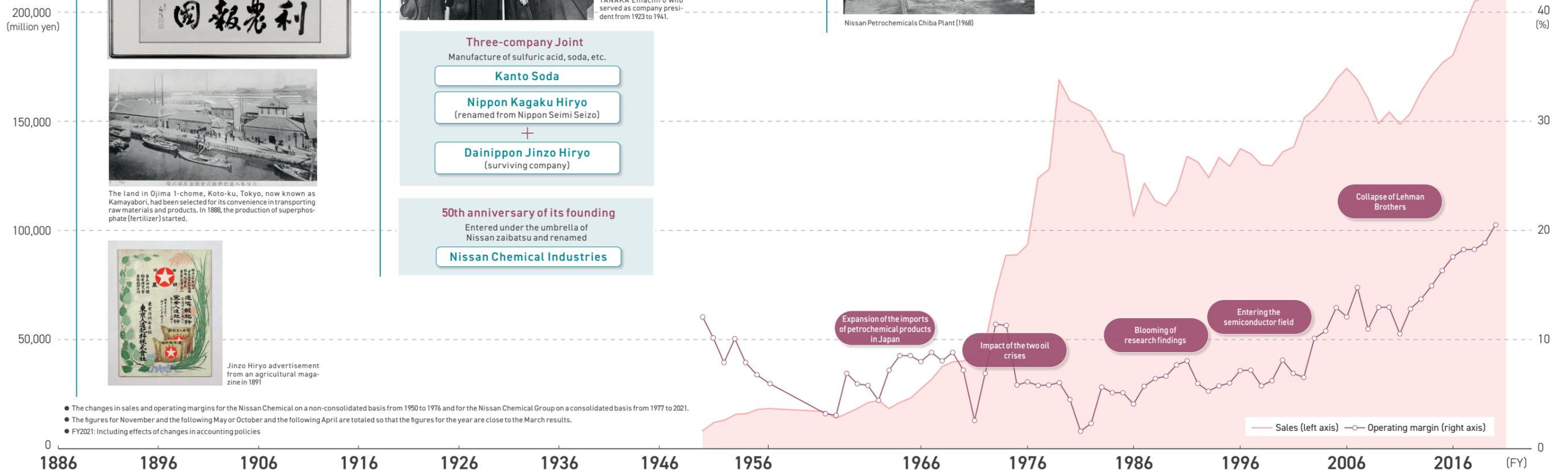
We expand our business transcending the framework of industry and accelerate this effort toward the future. In order to clarify this stance, in 2018, we changed our name to Nissan Chemical Corporation.

This year, 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.

#### Core Technologies for Sustainable Growth



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



# Financial and Non-Financial Highlights

Operating profit / Sales / Operating margin



Operating profit reached record highs for eight consecutive years. Operating margin achieved the Mid-term Business Plan (FY2019-2021) target of 18% or more. \*FY2021: Including effects of changes in accounting policies

Net income attributable to owners of parent / ROE



Net income reached record highs for nine consecutive years. ROE exceeded the previous year's result and achieved the Mid-term Business Plan (FY2019-2021) target of 16% or more

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



R&D expenses were on a declining trend in FY2020-FY2021, but are expected to recover in FY2022. Placing importance on R&D, we have maintained a high sales-to-R&D expenses ratio of 8-9%.

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



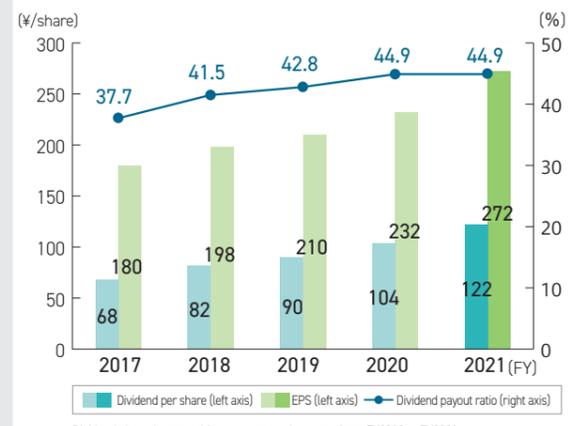
\*As of September 30

Total amount of dividend / Share repurchase / Total payout ratio



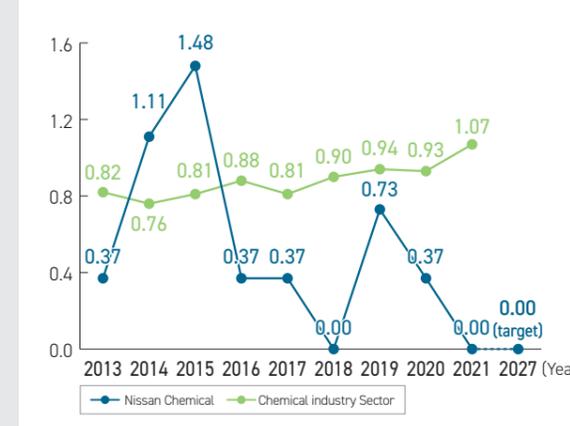
Total payout ratio was targeted at 72.5% for FY2019 and 75% for FY2020 and beyond under the Mid-term Business Plan (FY2019-2021), which were achieved.

Dividends / EPS (net income per share) / Dividend payout ratio



Dividends have increased for ten consecutive years from FY2012 to FY2021. Dividend payout ratio was targeted at 42.5% for FY2019 and 45% for FY2020 and beyond under the Mid-term Business Plan (FY2019-2021), which were achieved.

Lost-time injury frequency rate\*



\*Number of deaths and injuries due to occupational accidents per million actual working hours

Monthly average overtime / Annual paid leave acquisition ratio\*



\*Figures from FY2019 also include annual paid leave acquisition by managers

EBITDA (operating profit + depreciation)



Liabilities with interest / D/E ratio\*



\*D/E ratio = (Loans payable - Cash and deposits) / Shareholders' equity

GHG emissions / GHG emission rate (emissions/sales)



Waste generation\* / Recycling rate\*



\*Waste soil from Toyama Plant was added to the calculation for FY2021

## Message from the President



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

### In This Time of Unprecedented Transition, We Will Be the Ones to Create the Future

Rising geopolitical risks from the intense competition for hegemony, combined with the spread of COVID-19 infections with an uncertain future, and other factors continue to disrupt the global supply chain. Climate change due to global warming, world population growth, food shortages, and other global-scale problems are piling up, and the uncertainty of the environment surrounding companies is increasing.

As it becomes more difficult to predict the future, all companies are being required to make further efforts to realize a sustainable society. I feel that we, not only Japan but also the world, are now at a turning point we have never experienced before.

In our 135-year history since our founding as Japan's first chemical fertilizer manufacturer, Nissan Chemical has made every effort to build a business and management foundation suited to the times in order to respond to rapid changes in the business environment. In order to achieve sustainable growth, we have been focusing our management resources on research and development (R&D), creating technologies

and new products that will become new growth engines, and developing human resources to support our business. It is my personal theory that this is the only and best way to achieve sustainable growth.

Demands for corporate social responsibility, such as ESG (Environment, Social and Governance) and SDGs (Sustainable Development Goals), are becoming more and more sophisticated. Companies are expected not only to pursue economic values such as sales and profits in their business activities, but also to fulfill their social responsibilities as members of society and to balance economic and social values.

In the new business plan, our group has formulated financial indicators that represent economic value targets and non-financial indicators that represent social value targets, and has set strategies to achieve both of them. We will take on the challenge of co-creating the future by explaining to stakeholders our direction to aim for to gain their understanding and empathy.

With a strong desire and rich imagination to create the future, we will achieve mid- to long-term growth and enhance our corporate value.

## Build a strong business portfolio toward the ideal state in 2050

### Redefine the Corporate Philosophy as the Foundation for the New Business Plan

The environment surrounding companies is changing significantly, including the acceleration of global efforts to achieve carbon neutrality. Therefore, as a new growth strategy based on the business environment, social issues, and management issues, we have formulated and launched two plans, "Atelier2050" and "Vista2027" in April 2022. "Atelier2050" is a long-term business plan that sets a goal for 2050, and "Vista2027" is a mid-term business plan that serves as a stepping-stone for "Atelier2050".

The formulation of the business plans started in FY2021. In formulating the plans, a project team with diversity was formed with members in their 20's to 50's from various departments, and the team worked on consideration of a new long-term business plan with a broader perspective up to 2050. As the team moved forward in their discussions, we came to recognize once again of the importance of the corporate philosophy, which is the foundation of everything Nissan Chemical Group do. In allocating limited management resources toward the year 2050, the corporate philosophy will be the basis for decisions on what to start and what to stop, making

full use of methods such as business restructuring and transformation, and in some cases, M&A.

Therefore, to determine our direction for the future and clarify *the raison d'être* of the Group, we have redefined our corporate philosophy to "Contribute to the protection of the global environment and the existence/development of humanity, offering the value sought by society". And, based on this corporate philosophy, in "Atelier2050", we have drawn up the ideal state in 2050: "a "future-creating company" that grows through seeking to enrich people and nature" for the corporate state and "a group of co-creators that face challenges for change with a strong passion" for the organizational state.

However, a long-term business plan that sets a goal for 2050 is meaningless if it merely predicts the future, the year 2050. Backcasting from our ideal state in 2050, we analyzed whether we can really set a course to our goals 10 or 20 years from the present, based on the technologies and business positioning that Nissan Chemical Group possesses. Through this process, the new long-term business plan "Atelier2050" was formulated, and the new mid-term business plan "Vista2027" was formulated to show our state in 2027, which will be a stepping-stone toward the ideal state in 2050 envisioned in the "Atelier2050".

## Message from the President

● Nissan Chemical's Business Plan



I believe that our corporate philosophy should not only be stated as a mere slogan, but also be permeated throughout the Group so that each and every one of the employees feels familiar with it. As our effort to achieve this, I plan to provide opportunities on a regular basis to encourage employees to return to the starting point and think about our corporate phi-

losophy by visiting all of our business sites every year to directly explain to them through the president's lecture, as well as by using internal newsletters and in-house training programs.

Our group's corporate culture is characterized by our employees' integrity, low organizational barriers, and high transparency. While maintaining the good aspects of our group, including these strong points, and pursuing our corporate philosophy, we aim to achieve perpetual growth together with society.

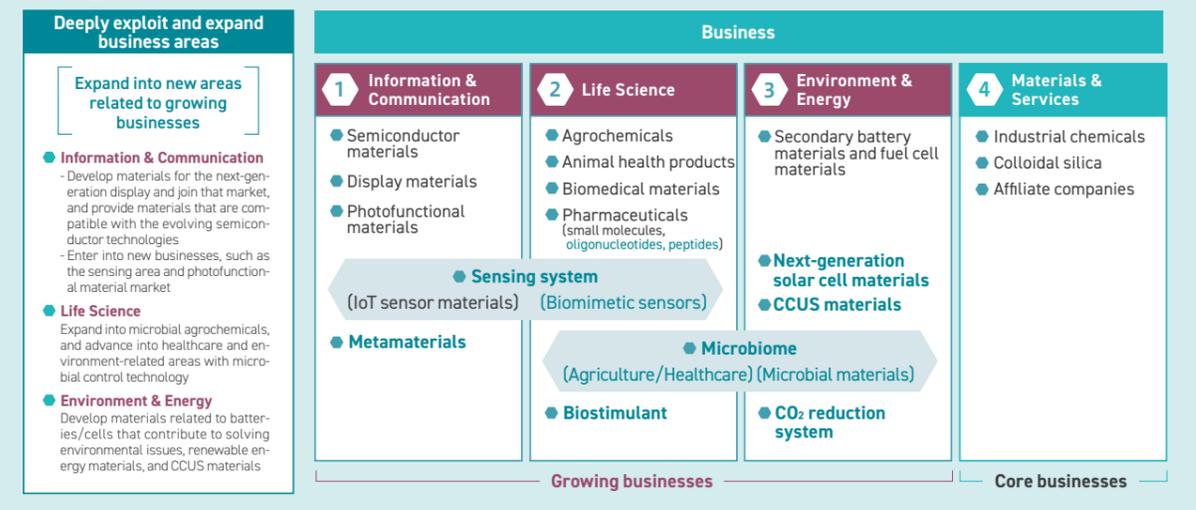
### Achieved Operating Profit Target Nine Years Ahead of Schedule

#### Promote Development of New Products, while Keeping Existing Products as the Mainstay of Growth

I will summarize FY2021, the final year of the previous mid-term business plan Vista2021. First, compared to the target set in the business plan the business results for FY2021 were sales of 208.0 billion yen, down 27.0 billion yen, and operating profit of 51.0 billion yen, up 8.0 billion yen. Although we did not achieve our sales target, partly due to the impact of the changes in accounting policies, we achieved all of our profit target, which we had made before the spread of COVID-19 infections, and were able to record our highest profits for eight consecutive years. We also achieved the operating profit target of 50 billion yen for 2030 set in the previous long-term business plan "Progress2030" nine years ahead of schedule. In addition, we achieved all the targets for management indicators set in the business plan, including a return on equity (ROE) of 19.2% compared to a target of above 16%, and a total payout ratio of 75.6% compared to a target of 75%.



### Accelerate the growth in each business area by improving and combining core technologies to contribute to solving social issues



Next, regarding the implementation status of specific measures under "Vista2021 Stage II", the second three years of the previous mid-term business plan, in the Chemicals business, we have decided to withdraw from the melamine business, which has a history of nearly 60 years. Melamine, used for adhesive agents and decorative laminate, was already in oversupply worldwide, and fierce competition with Chinese manufacturers in the melamine market was making it unprofitable. The manufacturing facility at the Toyama Plant was also aging. We have comprehensively considered these circumstances and have come to the decision to withdraw from the business. In the Chemicals business, we will promote structural reforms to shift to high value-added products.

In the Performance Materials business, as further growth of semiconductor materials is expected to continue in the future against the backdrop of increasing global demand for semiconductors, our Korean subsidiary NCK started construction of a new plant in order to strengthen our supply system.

In the Agricultural Chemicals business, we expanded our product portfolio by acquiring the fungicide DITHANE® and QUINTEC® businesses in Japan and South Korea from Corteva Agriscience (Head Office: Delaware, USA). Also, to establish a stable supply system for our products, we established a joint venture company, Nissan Bharat Rasayan Private Limited, in India as Nissan Chemical's first overseas agrochemical manufacturing base in 2020. The plant is currently under construction with the aim of starting operation by the end of FY2022.

In the Pharmaceuticals business, in order to develop oligonucleotide therapeutics into a key research area for our future drug discovery, we promoted the acquisition of drug discovery research methods and joint research, through

collaborations with pharmaceutical and bio-venture companies. In addition, to accelerate small molecule drug discovery, we have entered into a strategic alliance with Modulus Discovery Inc. (Head Office: Chiyoda-ku, Tokyo) for licensed-in cutting-edge computational science technology.

As for other major initiatives, we established a Planning and Development Division in April 2020 with the primary mission of planning new themes, etc., in order to accelerate the development of new materials. In this division, we are implementing measures such as acquiring new technologies from outside and forming alliances with other companies.

As a result, in "Vista2021 Stage II", we achieved a steady increase in business performance and many results were obtained. On the other hand, however, the plan for new products with total sales of 19.6 billion yen for FY2021 was not achieved, with actual sales of only 14.2 billion yen. There are many new products with sales of less than 300 million yen, so they are still in the development stage. Looking to the future, it must be said that the issues is to further strengthen new product development, including timely introduction to the market. In order to continue steady growth into the future, I believe it is necessary to further expand new products that will serve as growth engines.

In light of these issues, we set "expand market shares and profits of existing businesses" as one of our basic strategies in our new mid-term business plan "Vista2027", and positioned existing and new products which are expected to increase sales by 500 million yen or more in FY2024 or FY2027 compared to FY2021 as sources of growth. We will promote the solid development of new products, which will be the source of growth for the next generation, while keeping existing products as the main source of growth.

## Message from the President

### Fostering Employees Who Can Judge Ahead and Creating Irreplaceable “Must-Have” Products and Services to Win Through

I believe that we have not been able to fully grasp changes in the environment surrounding Nissan Chemical, including customers, technologies, and markets, and have not been able to accurately reflect these changes in our business plans. Based on this lesson learned, in “Vista2027”, we incorporate “deeply exploit business areas and increase marketing ability” into its basic strategies. This “increase marketing ability” includes the development of discerning personnel who can judge customers, technologies, markets, etc.

We invest about 8% of our sales in R&D. This is a high level of investment compared to other companies in the industry. In addition to our four business divisions of Chemicals, Performance Materials, Agricultural Chemicals, and Healthcare, we also have a Planning and Development Division and handle a wide range of development themes. However, even if a large amount of money is spent on R&D and there are various development themes, without a connoisseur, it is impossible to judge when to commercialize a product and bring it to market, or whether it is what the market needs in the first place. In order to win, I believe it is essential to judge how much new technologies and products will grow as a business and then to invest in technologies and products with growth potential. Whether in the semiconductor business or other businesses, the level of technology required has been quite advanced. Under these circumstances, I feel that we cannot win in the market unless we focus our R&D on niche markets, and introduce products that cannot be substituted, without which nothing can function, in other words, “Must-Have” products.

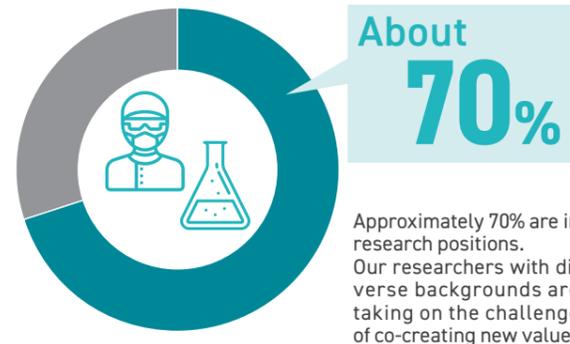
For example, the anti-reflective coating materials for semiconductors that we manufacture and sell are coated under photoresist to solve various technical problems that occur during exposure. It contributes to the technological innovation of semiconductor devices, which cannot be made without using this product as materials. I believe that we need to make positive efforts to develop human resources who can think ahead and determine not only R&D to meet the needs of customers but also the business potential beyond that.

### Strengthening Human Resource Development by Investing in Human Capital

I recognize that the Company has a high ratio of researchers, with approximately 70% of researchers in the regular positions for new employees and approximately 40% of researchers in all the regular positions. That is why we provide our researchers with as many opportunities as possible to interact directly with customers by proactively visiting customers with our sales staff, so that they can identify necessary technologies and business scale and develop their sense of management in a place closer to the market. In order to enhance our ability to respond to increasingly diverse and sophisticated market demands in the future, it is necessary for us to promote investment in human capital.

This fiscal year, we have also begun to strengthen human

### ● Ratio of Researchers in the Regular Positions for New Employees



resource development, including the introduction of a role grading system as a new personnel system and examining the creation of a system for employee career development. Until now, the development of young managers up to the section chief level has been conducted through personnel training and on-the-job training of managers. In addition to these, we plan to consider and formulate a training plan to develop manager level staff into management executives in the future. We are currently in the process of discussing the definition of qualification requirements for management executives and mid- to long-term development plans with the Nomination and Remuneration Advisory Committee, the majority of which are composed of outside directors.

### Continue Strengthening Our Efforts to Address Priority Issues (Materiality)

#### Contributing to a Sustainable Society and Sustainable Corporate Growth in a Compatible Manner

In the Atelier2050, we have included “promote sustainable management” as a basic strategies. We aim to achieve both a contribution to a sustainable society and our sustainable growth. As part of this effort, we have launched the “Nissan Chemical Sustainable Agenda”. Specifically, we will provide and expand products and services that contribute to solving social issues, starting with “what we can do for the future of the globe and human”. We also see addressing increasingly serious climate change as one of the priority issues. We have been actively promoting our efforts to reduce greenhouse gas (GHG) emissions. We will further promote our activities to achieve carbon neutrality by 2050.

In order to strategically address global social issues, including addressing climate change, the CSR Committee (renamed the Sustainability Promotion Committee on April 1, 2022) had been considering how to address these issues until last fiscal year. However, in light of the impact that climate change will have on society, the Climate Change Committee was newly established this year, on a par with the Sustainability Promotion Committee, in order to understand the risks and opportunities of climate change and promptly reflect them in our strategies. Establishing the new committee will improve

our ability to respond to climate change, including governance. In addition, ESG indicators were incorporated into the director remuneration system this fiscal year. This will enhance the effectiveness of ESG-related activities and strengthen corporate governance.

As for the highest priority challenges for corporate survival include strengthening corporate governance as well as risk management and compliance. The Risk Management & Compliance Committee has been established as a body to further enhance the effectiveness of risk management and maintain and improve compliance. In order to further improve the effectiveness of the measures, a new risk management plan has been formulated and launched with FY2022 as the first year of the plan. We will build a strong internal control system by strengthening cooperation among the Risk Management & Compliance Office, the department in charge of measures against major risks, the Environment, Safety & Quality Assurance Department, and the Production Technology Department. The contents of deliberations at the Climate Change Committee and the Risk Management & Compliance Committee are reported to the Management Meeting and evaluated for the validity, and subsequently discussed at the Board of Directors for periodic oversight.

The Board of Directors, currently consisting of six inside directors and four outside directors, recently disclosed its skills matrix. While appointing diverse members as outside directors such as those with experience in corporate management, researchers, and attorneys, we have also guaranteed the diversity of knowledge, experience, and skills of the inside directors. We will continue to improve our governance by reflecting the insights of each director in management. Specifically, at the Board of Directors, directors discuss what the optimal organization should be to realize “Atelier2050” and plan to oversee the progress of “Vista2027”.

We have identified three issues of “materiality” for our contribution to a sustainable society and our company’s sustainable growth: (1) provision of new value for helping to enrich people’s lives, (2) strengthening of Nissan Chemical’s business base, and (3) continuous improvement of responsible care activities, and set targets for FY2027 as key performance indicators. We will strengthen our commitment to materiality by promoting measures to achieve our targets, and aim to achieve both contributions to solving social issues and sustainable growth.

### Set the Sustainability Promotion & IR Department as a Command Center Disseminate Sustainability Initiatives Internally and Externally

In order to promote sustainability initiatives as one group, I believe it is important to foster a culture of co-creating the future by raising awareness of sustainability among all employees. In order to achieve this, it is necessary to actively disseminate relevant information internally and have each and every one of employees understand it correctly. On the other hand, in order to improve our corporate value, it is also important to disseminate

related information outside the company in a correct and timely manner and to engage in dialogue with various stakeholders, including investors. In light of these factors, we established the Sustainability Promotion & IR Department to take on such a role. We will strengthen the dissemination of integrated financial and non-financial information both inside and outside the company and dialogue with stakeholders.

### Sales of 285 billion Yen and Operating Profit of 67 Billion Yen in FY2027

#### To Be an Enterprise that Faces Challenges toward the Future Through Co-creation

It is often said that speed is the key to management, and I am convinced that if we increase engagement with stakeholders and make management decisions quickly in response to changes in the business environment, we will naturally build a strong business portfolio.

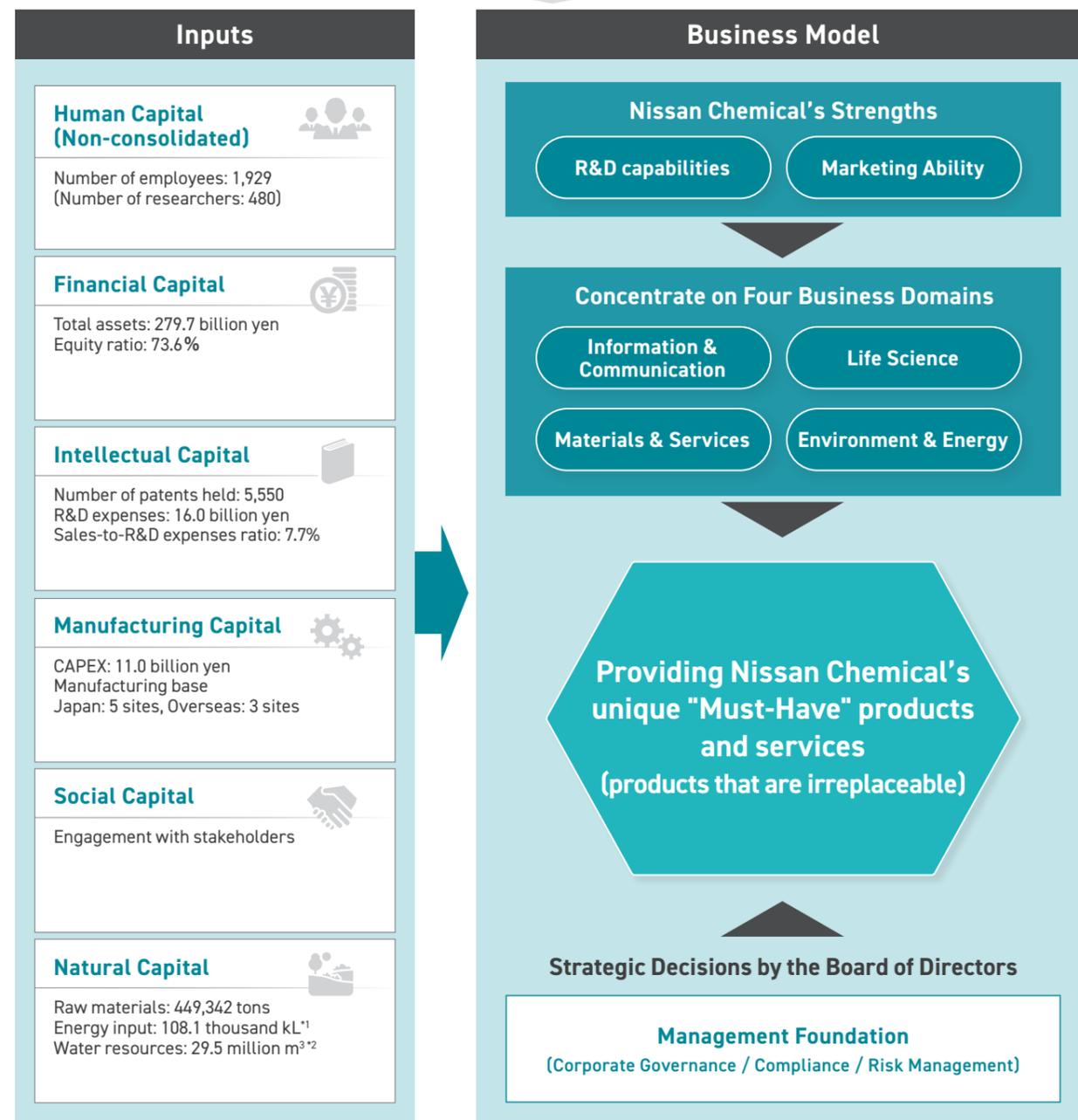
Under our previous mid-term business plan “Vista2021”, we renewed the highest results in each fiscal year of the six-year plan, and achieved record profits for 8 consecutive years in FY2021, the final year of the plan. We also achieved all of the targets set as management indicators in the plan, including ROE of above 16% and maintaining a total payout ratio of 75%. In our new mid-term business plan “Vista2027”, we will continue to make a commitment to steadily implementing various measures based on our strategies in order to achieve mid- to long-term growth and raise corporate value.

In order to realize our vision and meet the expectations of our stakeholders, our group will continue to pave the way to the future by having the same aims among all group members, sharing insights and knowledge with each other, and taking on the challenge with passion. We would appreciate your further understanding and support.

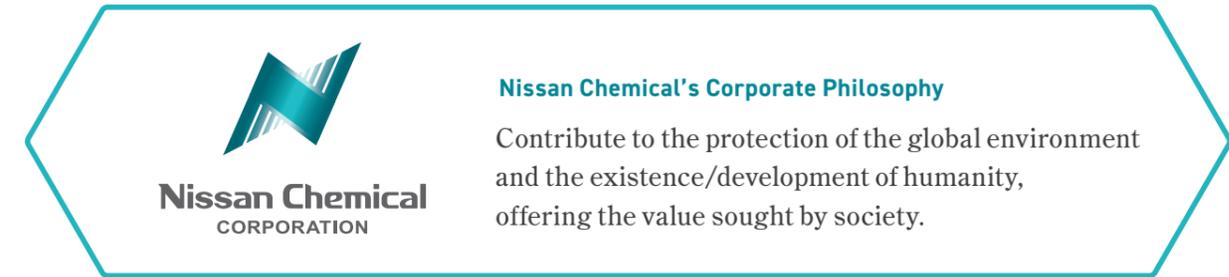


# Value Creation Process

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.

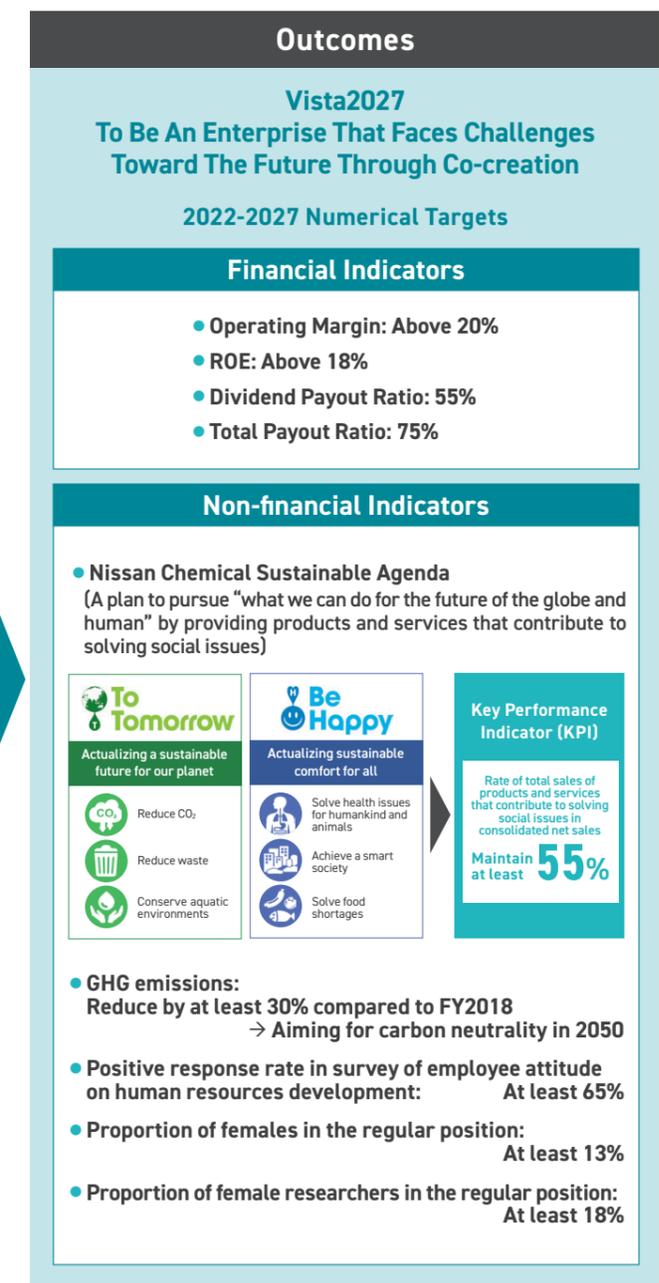


\*1 crude oil equivalent  
\*2 water resources input minus effluent



© Related Information "Management Capital" P23-24

\*3 In an employee questionnaire survey on work enthusiasm and attitudes, 28 indicators were determined based on questions related to "spontaneous action" and "positive emotions", etc., to measure the level of engagement.

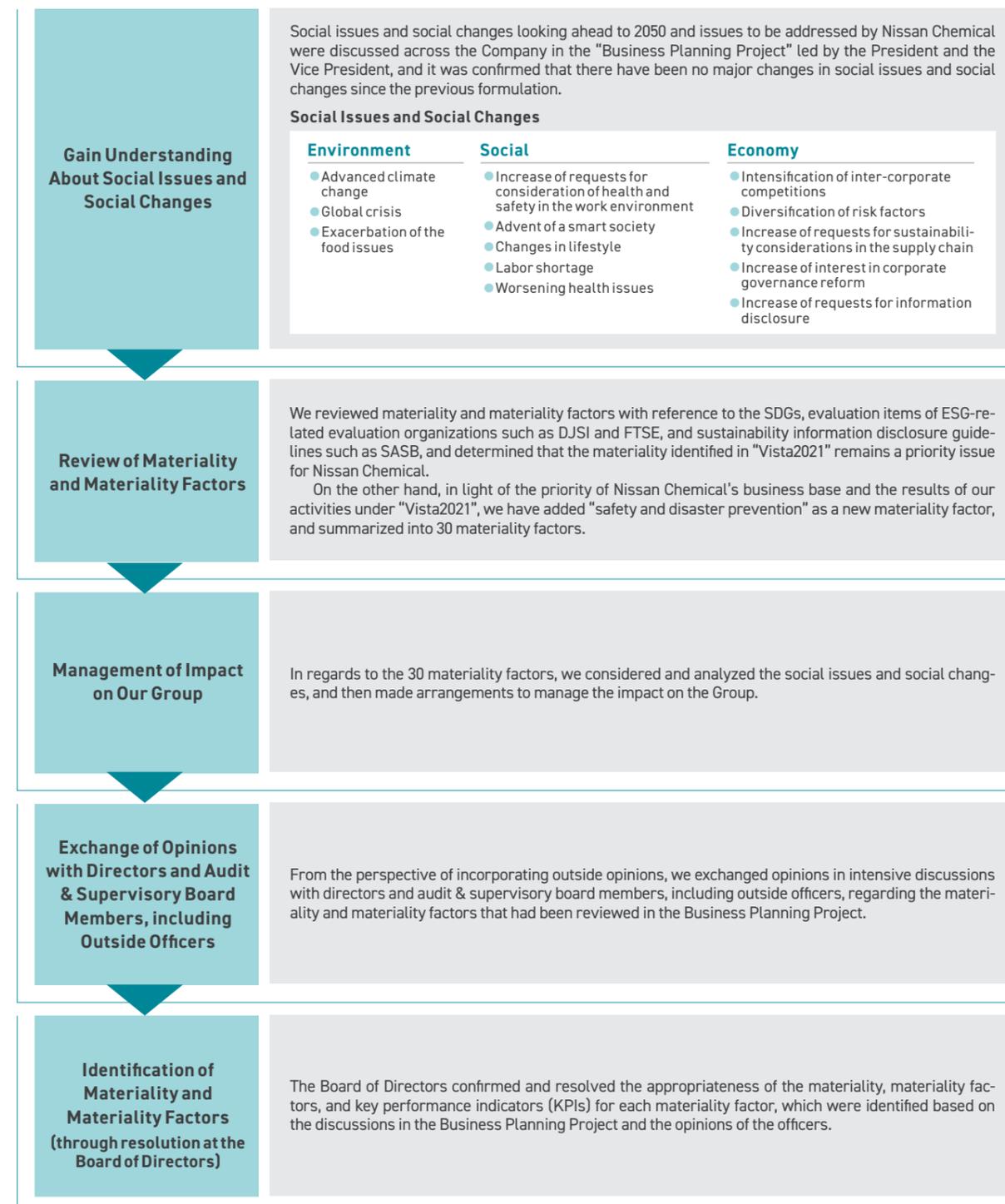


# Materiality

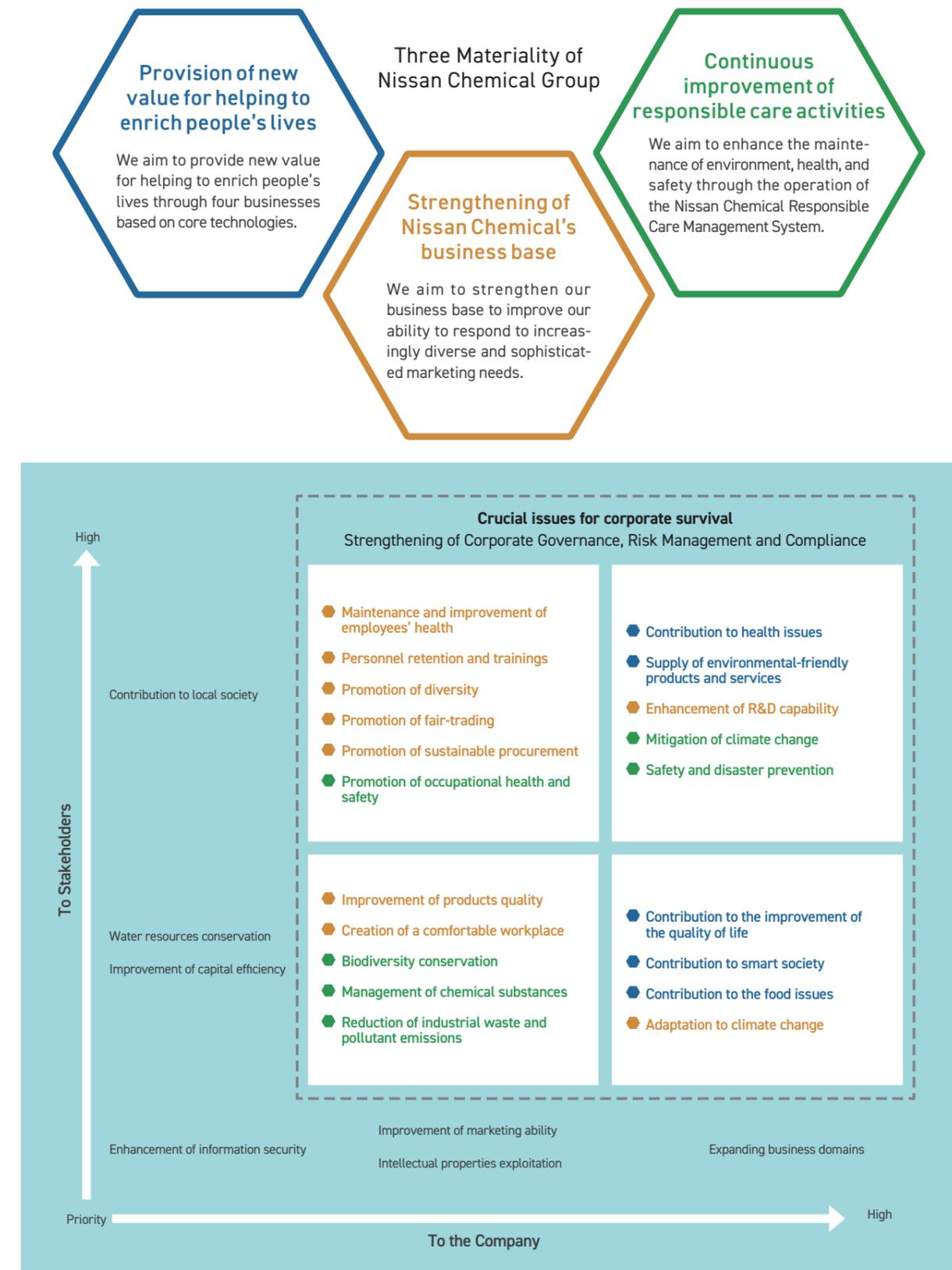
In the long-term business plan "Atelier2050", we have drawn up the ideal state in 2050 as "a "future-creating company" that grows through seeking to enrich people and nature", and "a group of co-creators that face challenges for change with a strong passion".

Toward this corporate vision, we reexamined the materiality and KPIs identified in FY2018, and reviewed the KPIs that should be addressed by FY2027.

## Materiality Identification Process



## Materiality Matrix



# Materiality

## Materiality Initiatives and KPI

Materiality	Materiality factor	Vista2021 Major Initiative	FY2021 Target	FY2021 Result	Vista2027 Major Initiative	FY2027 Target	Relation with SDGs
Provision of new value for helping to enrich people's lives	Supply of environmental-friendly products and services	Sale of high-grade urea solution for exhaust gas purification of diesel vehicles and development of energy harvesting materials that contribute to the utilization of unused energy	Launch of new environmental-friendly products	<ul style="list-style-type: none"> <li>Organic photovoltaics materials: Confirmed effectiveness, continuing evaluation</li> <li>Secondary battery materials: Expanded sample evaluation</li> <li>ORGABEADS®: Continuing evaluation for adoption</li> </ul>	<ul style="list-style-type: none"> <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 oil and fat waste</li> </ul>	<ul style="list-style-type: none"> <li>Net sales: +10% compared to FY2021</li> </ul>	
	Contribution to smart society	Development of sensor materials required for IoT and wiring materials that contribute to higher capacities and speeds of data communications	Expanded adoption of sensors and semiconductor packaging materials/Adoption and launch of materials for optical communications	<ul style="list-style-type: none"> <li>CIS materials: 61% higher sales than FY2018</li> <li>Agents for metal wiring formation: Continuing evaluation for commercialization</li> <li>Optical interconnect materials: Progressed evaluation toward commercialization</li> <li>RDL materials for FOWLP: Continuing study of material improvement</li> </ul>	<ul style="list-style-type: none"> <li>Supply of materials that contribute to higher capacity/speed of data communication and sensing</li> </ul>	<ul style="list-style-type: none"> <li>Net sales: +55% compared to FY2021</li> </ul>	
	Contribution to the food issues	Supply of agrochemicals to increase crop yields and conserve agricultural labor, and the expansion of veterinary pharmaceuticals to livestock	Achieving 10% higher sales of agrochemicals than FY2018	15.6% higher than FY2018	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Net sales: +15% compared to FY2021</li> </ul>	
	Contribution to the improvement of the quality of life	Research and supply of veterinary pharmaceuticals for companion animals and sales of disinfectants for drinking water	Number of people positively impacted by the sales of disinfectants for drinking water: 2.5 million per year	0.76 million per year	<ul style="list-style-type: none"> <li>Supply of disinfectants for drinking water</li> <li>Contribution to maintaining the health of companion animals</li> </ul>	<ul style="list-style-type: none"> <li>Net sales: +15% compared to FY2021</li> </ul>	
	Contribution to health issues	Creation of pharmaceuticals that meet medical needs and biomedical materials that contribute to advanced medical care	License out candidates of drug agents	<ul style="list-style-type: none"> <li>Anti-arrhythmic agent: Completed the investigator-initiated clinical trial</li> <li>Oligonucleotide therapeutics: Started 2 new collaborative drug discovery themes</li> </ul>	<ul style="list-style-type: none"> <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>	<ul style="list-style-type: none"> <li>Net sales: +5% compared to FY2021</li> </ul>	
	Nissan Chemical Sustainable Agenda					Provision of products and services that contribute to solving social issues	

Strengthening of Nissan Chemical's business base	Enhancement of R&D capability	Deepening core technologies, promotion of open innovation, and introduction of new technologies such as AI	Total number of patent applications in three years by FY2021: 1,350	Cumulative number of patent applications since FY2019: 1,256 (FY2021: 415 patent applications)	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Total number of patent applications (FY2022 to 2027): 2,500</li> </ul>	
	Improvement of products quality	Continuous improvement of management systems and operations based on quality policy	Outsourcer audit rate in three years by FY2021: 80%	83%	<ul style="list-style-type: none"> <li>Prevention of serious complaints</li> <li>Prevention of quality fraud and data tampering</li> </ul>	<ul style="list-style-type: none"> <li>Number of serious complaints: Zero</li> <li>Attendance rate of quality training: At least 90%</li> </ul>	
	Maintenance and improvement of employees' health	Review of health promotion measures by the health promotion committee and mental health checkups	Consecutively acquiring White 500 certification	Acquired White 500 certification for six consecutive years from FY2016	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Rate of employees within appropriate weight*: At least 70% <small>*BMI (body mass index): 18.5 to 25.0</small></li> </ul>	
	Creation of a comfortable workplace	Promotion of work-life balance, measures against harassment, and support for childcare and family care	Ratio of taking annual leave: 80% or higher	76%	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Utilization rate for annual paid leaves: At least 80%</li> </ul>	
	Personnel retention and trainings	Provision of educations and capability trainings, and introduction of overseas study program	Job training time per employee: 10% more than in FY2017	9 hours of training (11 hours in FY2017)	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Positive response rate in survey of employee attitude on human resources development: At least 65%</li> </ul>	
	Promotion of diversity	Promotion of active participation of females, hiring foreign students and people with disabilities	Proportion of females in the regular position: 10%	11.1%	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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>	
	Promotion of fair-trading	Implementation of internal training on the "Act against Delay in Payment of Subcontract Proceeds, etc. to Subcontractors" and the insider trading regulations	Holding consultation meetings with Legal Office throughout the Group by FY2021	100% (Implemented at all business sites including offices)	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Zero violations of antitrust laws</li> <li>Zero bribery of foreign public officials</li> </ul>	
	Promotion of CSR procurement	Conduction of assessment and audits of suppliers on CSR	CSR questionnaire survey coverage: 90% (in terms of monetary amount)	92.2%	-	-	
	Promotion of sustainable procurement				<ul style="list-style-type: none"> <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 style="list-style-type: none"> <li>Provision rate of supports in improvement for suppliers that do not meet the Company's standards: At least 90%</li> </ul>	

Continuous improvement of responsible care activities	Mitigation of climate change	Energy saving through equipment improvement and fuel conversion that leads to GHG emissions reduction	<ul style="list-style-type: none"> <li>GHG emissions: Reducing by 20% from FY2013 level</li> <li>Energy consumption rate: Improving by 20% from FY2013 level</li> </ul>	<ul style="list-style-type: none"> <li>GHG emissions: Reduced by 25% from FY2013 level</li> <li>Energy consumption rate: Improved by 19% from FY2013 level</li> </ul>	<ul style="list-style-type: none"> <li>GHG emissions reduction</li> </ul>	<ul style="list-style-type: none"> <li>GHG emissions: Reducing by at least 30% from FY2018 level</li> </ul>	
	Promotion of occupational health and safety	Establishment of an occupational safety management system and execution of capital investment in safety	Achieving zero accident requiring staff time off from work	One accident occurred requiring staff time off from work	<ul style="list-style-type: none"> <li>Strengthening of occupational safety management</li> </ul>	<ul style="list-style-type: none"> <li>Zero accidents requiring staff time off from work</li> <li>Number of occupational accidents: Reducing by half compared to FY2020</li> </ul>	
	Biodiversity conservation	Operation of Bio-Park and support for the NPO "Kurohama-numa Shuhen no Shizen wo Taisetsu ni Suru Kai"	Achieving 100% initiative for prefectures in which our Head Office, plants, and laboratories are located	83%	<ul style="list-style-type: none"> <li>Promotion of biodiversity conservation activities</li> </ul>	<ul style="list-style-type: none"> <li>Establishment and operation of Bio-Parks at Nissan Chemical's plants</li> </ul>	
	Management of chemical substances	Minimization of negative impacts on human health and the environment throughout the life cycle of chemical products	Creating safety summaries of chemical substances of products that account for 90% of our total production	90%	<ul style="list-style-type: none"> <li>Compliance with laws and regulations regarding the use of chemical substances</li> </ul>	<ul style="list-style-type: none"> <li>Continuation of zero serious violations of laws and regulations</li> </ul>	
	Reduction of industrial waste and pollutant emissions	Reduction of the amount of waste for final disposal volume by reusing and recycling waste and changing intermediate process methods	<ul style="list-style-type: none"> <li>Recycling rate: 99.5% or more</li> <li>Exhaust gas (SOx + NOx) emissions: Reducing by 75% from FY2013 level</li> </ul>	<ul style="list-style-type: none"> <li>Recycling rate: 97.2%*</li> <li>Exhaust gas (SOx+NOx) emissions: Reduced by 73% from FY2013 level</li> </ul> <small>*Waste soil from Toyama Plant was added to the calculation for FY2021</small>	<ul style="list-style-type: none"> <li>Reduction of industrial waste and pollutant emissions for final disposal</li> </ul>	<ul style="list-style-type: none"> <li>Reduction in final disposal ratio at Nissan Chemical's plants (compared to FY2020)</li> </ul>	
	Safety and disaster prevention				<ul style="list-style-type: none"> <li>Strengthening of the management of safety and disaster prevention</li> </ul>	<ul style="list-style-type: none"> <li>Zero fires, explosions and chemical spills</li> <li>Zero safety accidents</li> </ul>	

# Management Capital

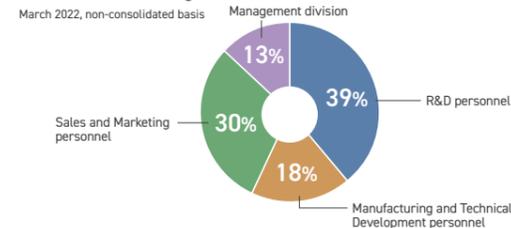
## Human Capital

### Relationship to Value Creation

The Company's growth as a "future-creating company" and its contribution to society is based on the fact that a wide range of human resources challenge for the goal while aiming for their own growth.

Therefore, we are working to develop an organizational culture where a wide range of human resources can enjoy challenges in an innovative manner in cooperation while promoting various initiatives such as enhancement of educational systems and active participation of females.

#### Personnel allocation (Regular Position)



### Features

- We have a personnel structure that focuses on R&D, with approximately 40% of all regular position employees being R&D personnel (non-consolidated basis).
- We conduct surveys on employee engagement (enthusiasm and attitude toward work) using employee questionnaires prepared by an external specialist company, and 28 indicators were determined based on questions related to "spontaneous action" and "positive emotions", etc., to measure the level of engagement.

#### Ratio of high engagement level employee



#### Related Information

Human Resources Strategies P63-65  
 Personnel Retention and Trainings [https://www.nissanchem.co.jp/eng/csr\\_info/communication/employee/system.html](https://www.nissanchem.co.jp/eng/csr_info/communication/employee/system.html)  
 Promotion of Diversity [https://www.nissanchem.co.jp/eng/csr\\_info/communication/employee/respect.html](https://www.nissanchem.co.jp/eng/csr_info/communication/employee/respect.html)  
 Maintenance and improvement of employees' health [https://www.nissanchem.co.jp/eng/csr\\_info/communication/employee/workplace.html](https://www.nissanchem.co.jp/eng/csr_info/communication/employee/workplace.html)  
 Creation of a Comfortable Workplace [https://www.nissanchem.co.jp/eng/csr\\_info/communication/employee/dialogue.html](https://www.nissanchem.co.jp/eng/csr_info/communication/employee/dialogue.html)

## Intellectual Capital

### Relationship to Value Creation

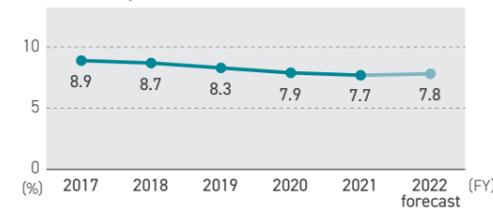
Research and development is the driving force behind the creation of new technologies and products.

We will continue to challenge ourselves to create completely new technologies and products by acquiring new technologies of "Microbial Control" and "Information Science", in addition to the five existing core technologies: "Fine Organic Synthesis", "Functional Polymer Design", "Ultrafine Particle Control", "Biological Evaluation", and "Optical Control".

### Features

- Our operating margin has remained above 10% for 19 consecutive years. This is the result of our focus on high value-added businesses and our sales-to-R&D expenses ratio, which is consistently among the highest in the chemical manufacturing industry.

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



#### Related Information

Research and Development P61-62

## Financial Capital

### Relationship to Value Creation

Financial capital is essential for conducting business activities. Equity ratio is over 70% and financial stability is well secured. 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.

### Features

- In regard to capital efficiency, ROE is given importance and has continued to rise since being recorded at 9.5% in FY2011.
- The total shareholder payout ratio has been at a high level, hovering around 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



#### Equity ratio



#### Related Information

Message from the CFO P43-46, Financial Review P83-94

## Manufacturing Capital

### Relationship to Value Creation

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.

### Features

- The Sodegaura Plant (Chiba Prefecture) is a "development-oriented plant" that works closely with research laboratories. It is the core plant of our Specialty Chemicals business, which engages in technology development and production of inorganic materials and display materials used in a wide range of fields, including the information and electronics industries.
- The Saitama Plant (Saitama Prefecture), located in the rich natural environment of northwestern Saitama Prefecture, produces herbicides for paddy rice, insecticides and fungicides, and contributes to agriculture in Japan and around the world.

- The Toyama Plant (Toyama Prefecture) has developed into one of Japan's leading integrated ammonia chemical plants, backed by abundant water and electricity, and 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 a research function, which enables us to respond quickly to next-generation needs.

- Facing the Port of Nagoya, the Nagoya Plant (Aichi Prefecture) 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. Currently, the plant also produces sodium bisulfite, AdBlue®, and other products.
- The Onoda Plant (Yamaguchi Prefecture) has a history of more than 130 years, having produced Japan's first agrochemicals in 1910. It currently produces agrochemicals such as insecticides, acaricides, and herbicides, as well as pharmaceuticals such as hyperlipidemia treatments, veterinary drugs, and organic fine chemical products.

#### Related Information

Corporate Information P95-98

## Social Capital

### Relationship to Value Creation

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.

### Features

- We have made opportunities for dialogues with stakeholders such as institutional investors and analysts as much as possible, and actively explained about and exchanged opinions on mid- to long-term growth strategies, efforts to solve social issues, etc.

[Number of briefings held]

- Dialogue with institutional investors: 297
- Dialogue with analysts: 45
- Dialogue with individual investors: 3
- ESG related dialogues: 4

- Our group's sites as foundation to social contribution, as a corporate citizen, we are engaged in a variety of social contribution activities, focusing on the following four areas: promotion of education, science, and culture; contributions to local communities; conservation of the global environment; and promotion of health and welfare and promotion of sports.



Fujimae-Higata Clean-up Activities

#### Related Information

Contribution to Communities and Society [https://www.nissanchem.co.jp/eng/csr\\_info/communication/community.html](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](https://www.nissanchem.co.jp/eng/csr_info/responsible_care/conservation.html)

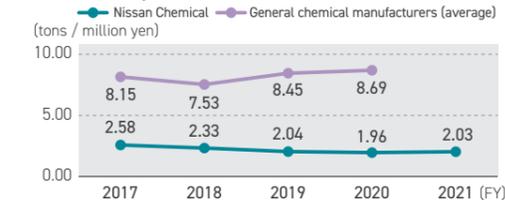
## Natural Capital

### Relationship to Value Creation

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 the emission of greenhouse gases (GHG).

Under the Responsible Care Mid-Term Plan, which includes the target of reducing GHG emissions by at least 30% from FY2018 level by FY2027, we are striving to reduce our environmental impact through responsible care activities that consider the environment, health, and safety.

#### Carbon efficiency (GHG emission rate)



### Features

- The Company's carbon efficiency (GHG emission rate) is relatively high in the chemical industry due to the low-carbon investments it has made to date and the characteristics of its products, including the conversion of fuel from heavy oil to natural gas at the Toyama Plant and the use of hydroelectric power generation by Toyama Kyodo Jikahatsuden Co., Ltd. established through investment by companies in the prefecture including us.
- We recognize that the growing demand from investors and other parties for initiatives to address climate change will become a tailwind.



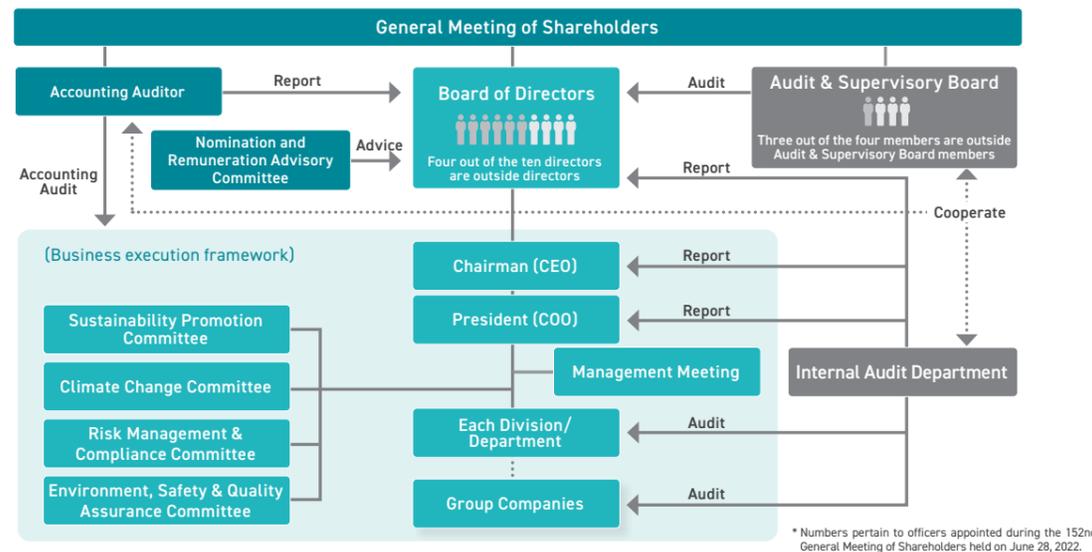
Miza Power Station

#### Related Information

Responsible Care P67-69  
 Responsible Care Management [https://www.nissanchem.co.jp/eng/csr\\_info/responsible\\_care/management.html](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](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](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](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](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](https://www.nissanchem.co.jp/eng/csr_info/responsible_care/conservation.html)

# 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 efforts, including the appointment of female directors, the publication of a skills matrix for directors, the linking of officers’ remuneration to ESG indicators, and the establishment of the Climate Change Committee. We will continue to strengthen our governance in the future as well.



\* Numbers pertain to officers appointed during the 152nd General Meeting of Shareholders held on June 28, 2022.

## ● 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, etc. 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.

The Nomination and Remuneration Advisory Committee convened 11 times in FY2021. It deliberated matters, such as appointment of candidates as directors and Audit & Supervisory Board members and management executives, succession plans for management executives, and remuneration for directors in response to consultation from the Board of Directors, and reported the content of their deliberations to the Board of Directors.

## ● 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 the Internal Audit Department, which conducts fair and independent internal audits of our group. The results of internal audits are reported to the Representative Director, President & COO, managing executive officers, and the Board of Directors. In addition, the department shares information with the accounting auditors and Audit & Supervisory Board, and collaborates with them by mainly exchanging opinions.

## ● 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 & 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.

Indicator	Scope of reporting	Unit	FY2018	FY2019	FY2020	FY2021
Directors <sup>1</sup>	Inside directors	People	6	6	6	6
	Outside directors (Independent)	People	2 (2)	3 (3)	3 (3)	4 (4)
	Total	People	8	9	9	10
Ratio of Independent Outside Directors <sup>1</sup>		%	25	33	33	40
Ratio of female directors <sup>1</sup>		%	0	0	0	10
Number of executive directors <sup>1</sup>		People	6	6	6	6
Average terms of positions held <sup>1</sup>		Years	6.5	6.7	5.2	5.1
Meetings of the Board of Directors <sup>2</sup>		Times	12	12	11	12
Attendance of directors at meetings of the Board of Directors <sup>2</sup>		%	100	99.0	96.0	99.2
Attendance of Audit & Supervisory Board members at meetings of the Board of Directors <sup>2</sup>		%	97.9	100	100	100

\*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

## 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 appropriate and expeditious decision-making and oversee the execution of business activities in diverse fields (including chemicals, performance materials, agricultural chemicals, and pharmaceuticals). 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 re-

quired 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.

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

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

## 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	<p>&lt;Inside Directors&gt; People who have expertise, knowledge and other capacities in each business field such as corporate planning, personnel, finance &amp; accounting, research and development, production technology, environment, safety &amp; quality assurance and others.</p> <p>&lt;Outside Directors&gt; 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.</p>
Audit & Supervisory Board Members	People with experience and knowledge in a wide range of fields including finance, accounting, and law who are capable of giving opinions and advice to the management from a fair and neutral standpoint, in addition to auditing the execution of operations.

## Corporate Governance

### 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 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.

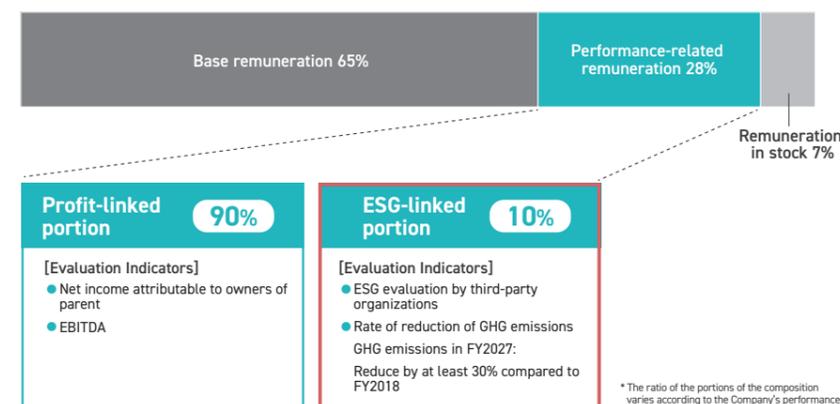
Regarding performance-linked stock compensation, we have adopted in FY2019, with the aim of increasing awareness about improving earning over the mid- to long-term and contributing to enhancing corporate value by clarifying the link between the Company's performance and its stock price, and by having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

#### ● Composition of Officers' Remuneration\*



tors. 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 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 P42 "Compensation, etc. for Officers" of the 152nd 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 × 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.

### 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 the Company performs analysis and evaluation (the "Effectiveness Evaluation") every year to see if the Board of Directors has fulfilled these roles and responsibilities. The Company started performing the Effectiveness Evaluation in FY2015, and carries out a third-party evaluation every several years using an external organization that holds no relationships of interest with the Company in order to ensure neutrality and objectivity. The effectiveness evaluation in FY2020 was conducted in the form of the third-party evaluation, and it was conducted in the form of a self-evaluation by the Company's Board of Directors in FY2021.

#### 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, quantitative evaluation and qualitative 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, which enhances the self-evaluation.

During the self-evaluation conducted in FY2021, based on the results of the questionnaire responses, an opinion-exchange meeting was held in March 2022 (with all independent Officers (4 outside directors and 3 outside Audit & Supervisory Board members (including 2 full-time Audit & Supervisory Board members)), the Chairman, President, and Senior Executive Vice President) to discuss issues and responses and conduct analysis and evaluation. The results of the analysis and the evaluation were discussed and confirmed at the Board of Directors held in May 2022.

#### Issues Identified in the Effectiveness Evaluation for FY2020

1) To promote deeper discussions at the Board of Directors with regard to the Company's directions, strategies, business portfolio, development of new business fields, and risks. When discussing on the mid- and long-term directions, the Board of Directors provides its members with a forum for "free discussion" to exchange their opinions from various viewpoints.

- 2) When discussing on mid- to long-term issues, the Board of Directors facilitates a debate about the Company's sustainability, relating to its management strategies and from the viewpoints of risks and opportunities.
- 3) To consider how to set appropriate agenda to enable the Board of Directors to focus on the discussion on material matters over the mid- to long-term.
- 4) To make further efforts to deepen outside directors' understandings of the Company business and management strategies and to use opportunities for briefings and discussions other than the Board of Directors.
- 5) To discuss at the Nomination and Remuneration Advisory Committee about the Board of Directors itself.
- 6) To discuss at the Nomination and Remuneration Advisory Committee how to share the information with the Board of Directors.

#### Effectiveness Evaluation Result for FY2021

As a result of the Effectiveness Evaluation for FY2021, it was concluded that the Company's Board of Directors was generally operating appropriately overall from the perspective of carrying out its principle roles and responsibilities, and that the effectiveness of the Board of Directors was ensured as improvement measures were taken with regard to issues identified in the Effectiveness Evaluation for FY2020.

#### Points of Future Improvement

Through the discussion that was conducted this time, we recognized the following issues to address for further enhancing the effectiveness of the Board of Directors and determined to work on improvements.

- 1) To consider how to share the status of deliberations at the Nomination and Remuneration Advisory Committee with the Board of Directors.
- 2) To consider how to set and sort out appropriate agenda and streamline the process to administer the Board of Directors to enable its members to focus on the matters requiring resolution and spend enough time deliberating them.

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.

## Corporate Governance

### Newly-appointed Officers

\* Officers appointed during the 152nd General Meeting of Shareholders held on June 28, 2022.



Attendance at meetings of the Board of Directors 11/12

#### KINOSHITA Kojiro (Representative Director, Chairman & CEO)

1977 Joined the Company  
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)

#### Reason for appointment

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.



#### ISHIKAWA Motoaki New (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 Division  
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 Division  
2022 Senior Managing Executive Officer, Head of Performance Materials Division  
Senior Managing Executive Officer, Head of Performance Materials Division (to the present)

#### Reason for appointment

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 decision-making on business operations and oversees the execution of duties by directors.



Attendance at meetings of the Board of Directors 12/12

#### YAGI Shinsuke (Representative Director, President & COO)

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

#### Reason for appointment

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.



#### MATSUOKA Takeshi New (Director, Managing Executive Officer)

1996 Joined the Company  
2017 General Manager of CSR & Public Relations Office, Corporate Planning Department  
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)

#### 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 group-wide 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.



Attendance at meetings of the Board of Directors 12/12

#### HONDA Takashi (Director, Senior Executive Vice President)

1981 Joined the Company  
2012 General Manager of Planning & Development Department, Agricultural Chemicals Division  
2014 Executive Officer, Deputy Head of Agricultural Chemicals Division, General Manager of Planning & Development Department, Agricultural Chemicals Division  
2017 Managing Executive Officer, Head of Agricultural Chemicals Division  
Director, Managing Executive Officer, Head of Agricultural Chemicals Division  
2021 Director, Senior Managing Executive Officer, Head of Agricultural Chemicals Division  
2022 Director, Senior Executive Vice President (to the present)

#### Reason for appointment

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 as a Division Head, and since April 2022, he has not only been leading the agricultural chemicals business but also managing all of the Company's life science business and research. Considering his wide-ranging experience, achievements, and insights, the Company judges that Mr. HONDA is qualified to be a director that performs decision-making on business operations and oversees the execution of duties by directors.



#### DAIMON Hideki New (Director, Managing Executive Officer)

1988 Joined the Industrial Bank of Japan, Ltd. (current Mizuho Bank, Ltd.)  
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 & IR Department  
Director, Managing Executive Officer, Head of Sustainability Promotion & IR Department (to the present)

#### Reason for appointment

Mr. DAIMON has leveraged his abundant experience and wide-ranging insight cultivated at financial institutions in Japan and overseas to formulate financial strategy and actively lead IR activities since joining the Company as the Head of the Finance & Accounting Department in April 2020. Since April 2022, he has continued to make a significant contribution to enhancing the Company's corporate value as the Head of the Sustainability Promotion & IR 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.

## Corporate Governance



**OHE Tadashi** Outside  
(Director)

1969 Qualified for attorney-at-law  
1989 Instructor for the Legal Training and Research Institute of Japan (court representation in civil proceedings)  
1994 Outside Corporate Auditor of Canon Inc.  
2004 Outside Corporate Auditor of Marui Group Co., Ltd.  
2006 Outside Corporate Auditor of Kao Corporation  
2011 Outside Director of JECO Co., Ltd.  
2015 Outside Director of the Company (to the present)

Reason for appointment

Mr. OHE has been involved in corporate legal affairs and a large number of cases of corporate litigation over many years as an attorney-at-law and boasts an outstanding track record in the legal community. He has reflected his legal expertise, abundant experience, and wide-ranging insight in the management of the Company from an outside perspective and from an objective and neutral standpoint. The Company judges that Mr. OHE 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.

Attendance at meetings of the Board of Directors 12/12



**OBAYASHI Hidehito** Outside  
(Director)

1969 Joined Hitachi, Ltd.  
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

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 and neutral 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.

Attendance at meetings of the Board of Directors 12/12



**KATAOKA Kazunori** Outside  
(Director)

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. (to the present)

Reason for appointment

As 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 and neutral 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 Company's directors and the determination of director compensation, etc., from an independent standpoint as a member of the Nomination and Remuneration Advisory Committee.

Attendance at meetings of the Board of Directors 12/12



**NAKAGAWA Miyuki** Outside  
(Director)

1990 Prosecutor, Tokyo District Public Prosecutors Office  
2008 Counsellor, Judicial System Department, Minister's Secretariat, Ministry of Justice  
2011 Counsellor, Cabinet Secretariat, Assistant Chief Cabinet Secretary Office  
2013 Prosecutor, Tokyo High Public Prosecutors Office  
General Manager of General Administration Department, Saitama District Public Prosecutors Office  
2015 Specially Appointed Professor and Public Prosecutor, Chuo Law School, Chuo University  
2019 Retired as Prosecutor  
Qualified for attorney-at-law  
Professor, Chuo Law School, Chuo University (to the present)  
Outside 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)  
2022 Outside Audit & Supervisory Board Member of Shinsei Bank, Limited (to the present)

Reason for appointment

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 and neutral 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 Company's directors and the determination of director compensation, etc., from an independent standpoint as a member of the Nomination and Remuneration Advisory Committee.

Attendance at meetings of the Board of Directors 10/10



**SUZUKI Norihiro** Outside  
(Audit & Supervisory Board Member)

1983 Joined the Norinchukin Bank  
2003 General Manager of Naha Branch  
2008 General Manager of Cooperative Finance & Administration (Kanto Area) Div.  
2010 Seconded to Eiraku Co., Ltd. as President (current Norinchukin Facilities Co., Ltd.)  
2012 Managing Director of The Norinchukin Bank  
2014 Director of Nochu Business Support Co., Ltd., and Director of Nochu Information System Co., Ltd.  
2016 Outside Audit & Supervisory Board Member of the Company (to the present)

Reason for appointment

Mr. SUZUKI has a wide range of knowledge, including extensive experience and finance expertise those are cultivated through many years of business at financial institutions. We believe that he has reflected his knowledge in our corporate audit with objective and neutral standpoint, and will continue to fulfill the duties appropriately.

Attendance at meetings of the Board of Directors 12/12

Attendance at meetings of the Audit & Supervisory Board 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 Department of Mizuho Bank, Ltd.  
2004 General Manager, Human Resources Division of Mizuho Information & Research Institute, Inc. (current Mizuho Research & Technologies, Ltd.)  
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.  
2017 Outside Audit & Supervisory Board Member of the Company (to the present)

Reason for appointment

Mr. TAKEMOTO has a wide range of knowledge, including extensive experience and finance expertise those are cultivated through many years of business at financial institutions. We believe that he has reflected his knowledge in our corporate audit with objective and neutral standpoint, and will continue to fulfill the duties appropriately.

Attendance at meetings of the Board of Directors 12/12

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



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

1987 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)

Reason for appointment

Mr. OHRAI has extensive expertise in the Company group's 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.

Attendance at meetings of the Board of Directors 12/12

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



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

1990 Qualified for attorney-at-law, Joined Nagashima & Ohno (current 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 (Japan) Limited (to the present)  
2014 Outside Audit & Supervisory Board Member of the Company (to the present)  
2017 Supervisory Director of HEIWA REAL ESTATE REIT, Inc. (to the present)  
2018 Outside Director of Nippon Denki, Ltd. (to the present)  
2019 Outside Corporate Auditor of Livesense Inc. (to the present)  
2021 External Statutory Auditor of AIDA ENGINEERING, LTD. (to the present)  
2022 Outside Director of create restaurants holdings inc. (to the present)

Reason for appointment

Mr. KATAYAMA has reflected his extensive experience and expertise as an attorney in Nissan Chemical's audits and has been involved in the management of several companies as an outside officer. We believe that he will continue to fulfill the duties appropriately.

Attendance at meetings of the Board of Directors 12/12

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

## Messages from Outside Officers



Outside Director

**OBAYASHI Hidehito**

### Solidify the foundation for dynamic business!

In FY2021, following on from the year before last, business activities were conducted under the spread of COVID-19 infections. As a result of the implementation of various infection prevention measures and business continuity plans, our business remained strong and finished with the highest profit.

In FY2021, one of our management priorities was to formulate our new long-term and mid-term business plans, which started this fiscal year. Sharing the company's major management goals through wide-ranging discussions that took place during the formulation process will be a great strength for Nissan Chemical in the future. Among these, research and development (R&D) continues to be one of our highest priority measures for Nissan Chemical. I expect the Company to create new products that drive our growth and develop them early for our competitive advantage by steadily implementing these plans.

As a chemical manufacturer, we need to continue obtaining the trust of our customers and society. I believe that one of the keys to fulfilling this social responsibility is safety and health. We should bear in mind "safety comes first", not as just a slogan but as the fundamental for our behaviors in all business sites. I have seen the sign of improvement in safety by taking measures such as safety work training for employees, including those of our group companies, but are only halfway through. I expect the Company can continue working on these efforts.

The range of the Company's business is expanding both in quality and quantity, such as by developing full-fledged overseas manufacturing bases in multiple countries. I think the Company should develop its business in a dynamic manner, paying particular attention to its governance in consolidated management, including country risks.



Outside Director

**KATAOKA Kazunori**

### Growth engine created by people with originality

Our value that comes first in our mission statement is to "Contribute to society with excellent technologies and products". To that end, it is essential to build a responsible system to supply society with products already on the market without delay, and to maintain and improve strong research and development (R&D) capabilities to create new products that will create the future society.

In FY2021, the four business divisions demonstrated their respective strengths in the difficult situation of under the spread of COVID-19 infections, and performed solid business activities. Another notable event in FY2021 was the formulation of the new long-term and mid-term business plans. As our strong common understanding in these plans, we aim to strengthen our R&D capabilities that will lead to a new growth engine looking ahead to 2030 and even 2050, and to establish a solid structure to support the R&D capabilities. In our R&D activities, we need to focus not only on exploring promising "seeds" but also on the power of "people" with passion, originality, and various abilities who can sprout these "seeds" and grow them until their harvesting.

I will strive to give my opinions and advice to help the Company share our "Diversity Statement" issued in April 2021 with not only our group companies but also our partners from a global perspective, and steadily advance R&D for creating a prosperous future.



Outside Director

**NAKAGAWA Miyuki**

### Flexible response to an increasingly diverse and sophisticated society

In 2021, as the first female outside director, I participated in the Board of Directors and the Nomination and Remuneration Advisory Committee, and intensive discussions, etc. for the development of our long-term business plan. Looking ahead to the future society of 2030 and even 2050, Nissan Chemical earnestly pursues growth strategies and specific measures to enhance corporate value while responding to the demands of an increasingly diverse and sophisticated society, as a united group of employees. Also is evident that Nissan Chemical is willing to seriously listen to the opinions of various outside officers of different ages, genders, and backgrounds. Moreover, the Company is also focusing on promoting the advancement of female employees, expanding their job categories, and supporting their childcare while issuing the Diversity Statement in April 2021.

In order to pursue the greatest happiness for people and society in the midst of a drastically changing business environment, we are required to coordinate the interests of our diverse stakeholders and to flexibly respond to the changes while reflecting on ourselves, under a spirit of harmony between the individual, the nation and society.

I aim to provide my opinions and suggestions from a third-party standpoint in order to contribute to the improvement of the Company's corporate governance.



Outside Audit &amp; Supervisory Board Member

**SUZUKI Norihiro**

### Prompt and drastic decision-making is required

As the management environment surrounding Nissan Chemical is constantly changing, we need to take new measures in our governance, including the ones for sustainability.

Our governance has also changed in response to social demands. In addition to increasing the number of outside directors, the Company appointed a female outside director in FY2021. Outside directors have exchanged their sophisticated questions and opinions based on their professional insights in the Board of Directors. On the other hand, Audit & Supervisory Board members audit the execution of directors' operation by participating in the Board of Directors, exchanging opinions with the Representative Directors and outside directors and sharing information with accounting auditors, as well as by visiting each division/department of the Head Office, plants, laboratories, subsidiaries, etc. in order to understand the current status of the Company.

The Company has grown over the long term through a good balance between its activities such as R&D and the internal control. In order to continue stable growth in the future, the internal control must be further upgraded on a group-wide and global basis. I expect the Company to continue making the prompt and drastic decision as it does now by keeping a good balance between R&D, etc. and the internal control.

# Business Plan

## Summary of "Vista2021 Stage II" Mid-term Business Plan

### Achieved and Significantly Exceeded all Income Targets for Vista2021 Stage II (FY2019-FY2021)

In April 2019, Nissan Chemical Group started "Vista2021 Stage II", the second three years of the mid-term business plan "Vista2021". Looking ahead to FY2030 under the long-term business plan "Progress2030", we set our ideal situation in FY2021 as a stepping-stone, and defined our basic strategies: "Increase profitability of products that are the sources of growth", "Strengthen ability to create new products", and "Improve ability to adapt

to social/market changes" to achieve that long-term plan.

As a result, despite the spread of COVID-19 infections, operating profit reached the record high for 8 consecutive years, and we achieved the operating profit target of 50 billion yen in the long-term business plan "Progress2030", 9 years ahead of schedule.

(billion yen)

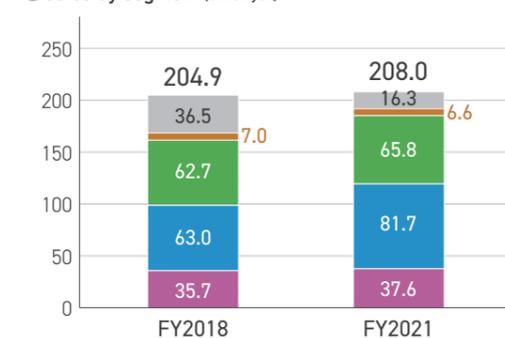
	FY2018 (actual)	FY2019 (actual)	FY2020 (actual)	FY2021 (actual)	FY2021 (plan)	Difference
	①	②	③	④	⑤	④-⑤
Sales	204.9	206.8	209.1	*208.0	235.0	*-27.0
Operating profit	37.1	38.6	42.5	51.0	43.0	+8.0
Ordinary income	39.1	40.0	43.9	53.7	44.0	+9.7
Net income	29.4	30.8	33.5	38.8	33.0	+5.8
EPS (¥/share)	197.67	210.09	231.73	271.88	230.00	+41.88
ROE	16.6%	16.9%	17.5%	19.2%	Above 16%	+3.2%
FX rate (¥/\$)	111	109	106	112	110	+2
Crude oil (JCC)(\$/bbl)	72	68	43	77	64	+13

\*Including effects of changes in accounting policies (-22.9 billion yen)

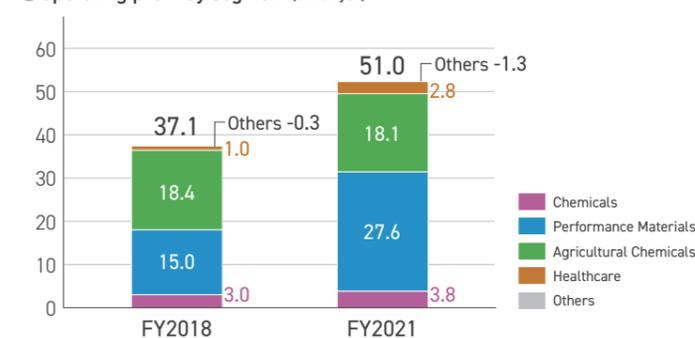
	FY2018 (actual)	FY2019 (actual)	FY2020 (actual)	FY2021 (actual)	FY2021 (plan)	
Operating margin	18.1%	18.7%	20.3%	24.5%	Above 18%	Achieved
ROE	16.6%	16.9%	17.5%	19.2%	Above 16%	Achieved
Dividend payout ratio	41.5%	42.8%	44.9%	44.9%	45%	Achieved
Total payout ratio	72.0%	75.1%	74.6%	75.6%	75%	Achieved

- Achieved and significantly exceeded all income targets for FY2021 in the mid-term plan formulated prior to COVID-19 (announced in May 2019)
- Operating profit reached the record high for 8 consecutive years
- Achieved the operating profit target "50 billion yen" in the long-term business plan "Progress2030", 9 years ahead of schedule

● Sales by segment (billion yen)



● Operating profit by segment (billion yen)



\* Organizational restructuring was implemented in April 2022; figures for FY2018 are for the former organizational classification; figures for FY 2021 are after changing the organizational classification.

### Progress in Implementing Measures Based on Basic Strategies

#### Basic Strategy 1. Increase profitability of products that are the sources of growth

- Decided to withdraw from melamine business to promote structural reform of Chemicals Business
- Expanded sales and by increasing product lines, widened target applications of photo IPS
- Decided to establish a new NCK plant to increase production capacity of semiconductor materials (Investment amount: 8.5 billion yen (rounded number), planned completion: July 2023)
- Expanded the agrochemical product portfolio through acquiring businesses of fungicides, "DITHANE®" and "QUINTEC®"
- Established Nissan Bharat Rasayan Private Limited (India), the first overseas agrochemical production site, to expand the capacity to supply products

#### Basic Strategy 2. Strengthen ability to create new products

- Established Planning and Development Division (April 1, 2020)  
Functions were integrated such as new theme and market developments, for stronger planning and development abilities.  
[Life Science Materials Development Dept.] Materials for cosmetics market and regenerative medicine market, etc.  
[Information & Communication Materials Development Dept.] Novel electronic materials for information & communication, etc.  
[Environment & Energy Materials Development Dept.] Materials for secondary batteries and solar cells, etc.  
[Innovative Materials Planning Dept.] Creation and introduction of new themes and technology
- Invested in a venture capital and considered introducing technology and products from start-up companies
- Promoted joint research and development with pharmaceutical companies and strategic alliance with bio-venture companies (Secured 7 oligonucleotide target themes)

#### Basic Strategy 3. Improve ability to adapt to social/market changes

- Established a Nomination and Remuneration Advisory Committee
- Introduced a performance-linked stock compensation plan
- Increased the number of outside directors (one each in June 2019 and June 2021, for a total of four outside directors)
- Appointed first female outside director (June 2021)
- Established a long-term target for reducing GHG emissions by 30% compared to FY2018 by FY2030 and promoted related measures
- Conducted and published climate change scenario analysis and announced the support for recommendations of Task Force on Climate-related Financial Disclosures (TCFD)
- Established and published a Diversity Statement and Diversity Vision
- Established Health Promotion Office and strengthened the promotion of health and productivity management

### Sales of Main New Products FY2021 Actual\*

	Below 0.3 billion yen	0.3 to 0.6 billion yen	Above 0.6 billion yen	Total
<b>Chemicals</b>	<ul style="list-style-type: none"> <li>● Fine Chemicals               <ul style="list-style-type: none"> <li>New TEPIC® (Liquid type)</li> <li>Venus® Oilclean</li> </ul> </li> </ul>			0.0 billion yen
<b>Performance Materials</b>	<ul style="list-style-type: none"> <li>● Display               <ul style="list-style-type: none"> <li>Light control film materials</li> <li>Hole injection layer materials</li> <li>Repellant bank layer materials</li> </ul> </li> <li>● Semiconductors               <ul style="list-style-type: none"> <li>3D packaging process materials</li> <li>CMOS image sensor materials</li> </ul> </li> <li>● Inorganic               <ul style="list-style-type: none"> <li>Organosol (Insulation CTE)</li> <li>New high refractive materials (IM layer film)</li> <li>Monomer sol (3D-printing)</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● Inorganic               <ul style="list-style-type: none"> <li>Oilfield materials</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>● Semiconductors               <ul style="list-style-type: none"> <li>EUV under layer</li> </ul> </li> </ul>	3.4 billion yen
<b>Agrochemicals</b>	<ul style="list-style-type: none"> <li>● Licensed-in               <ul style="list-style-type: none"> <li>NEXTER®</li> <li>TRANSFORM™</li> <li>EXCEED™</li> <li>VIRESCO™</li> </ul> </li> <li>● In-house               <ul style="list-style-type: none"> <li>CLARE®</li> <li>ALEILE®</li> </ul> </li> </ul>		<ul style="list-style-type: none"> <li>● In-house               <ul style="list-style-type: none"> <li>GRACIA®</li> <li>ROUNDUP®AL II / III</li> </ul> </li> <li>● Acquisition               <ul style="list-style-type: none"> <li>QUINTEC®</li> <li>DITHANE®</li> </ul> </li> </ul>	9.7 billion yen
<b>Pharmaceuticals</b>	<ul style="list-style-type: none"> <li>● Custom Chemicals               <ul style="list-style-type: none"> <li>New Generic API</li> <li>New Generic API</li> </ul> </li> </ul>		<ul style="list-style-type: none"> <li>● Custom Chemicals               <ul style="list-style-type: none"> <li>Eldecalcitol</li> </ul> </li> </ul>	1.1 billion yen
<b>Planning and Development Division</b>	<ul style="list-style-type: none"> <li>● Life Sciences Materials Development Dept.               <ul style="list-style-type: none"> <li>Cell culture medium</li> </ul> </li> </ul>			0.0 billion yen

\*Including R&D costs deduction due to the sample shipments

14.2 billion yen

## Business Plan

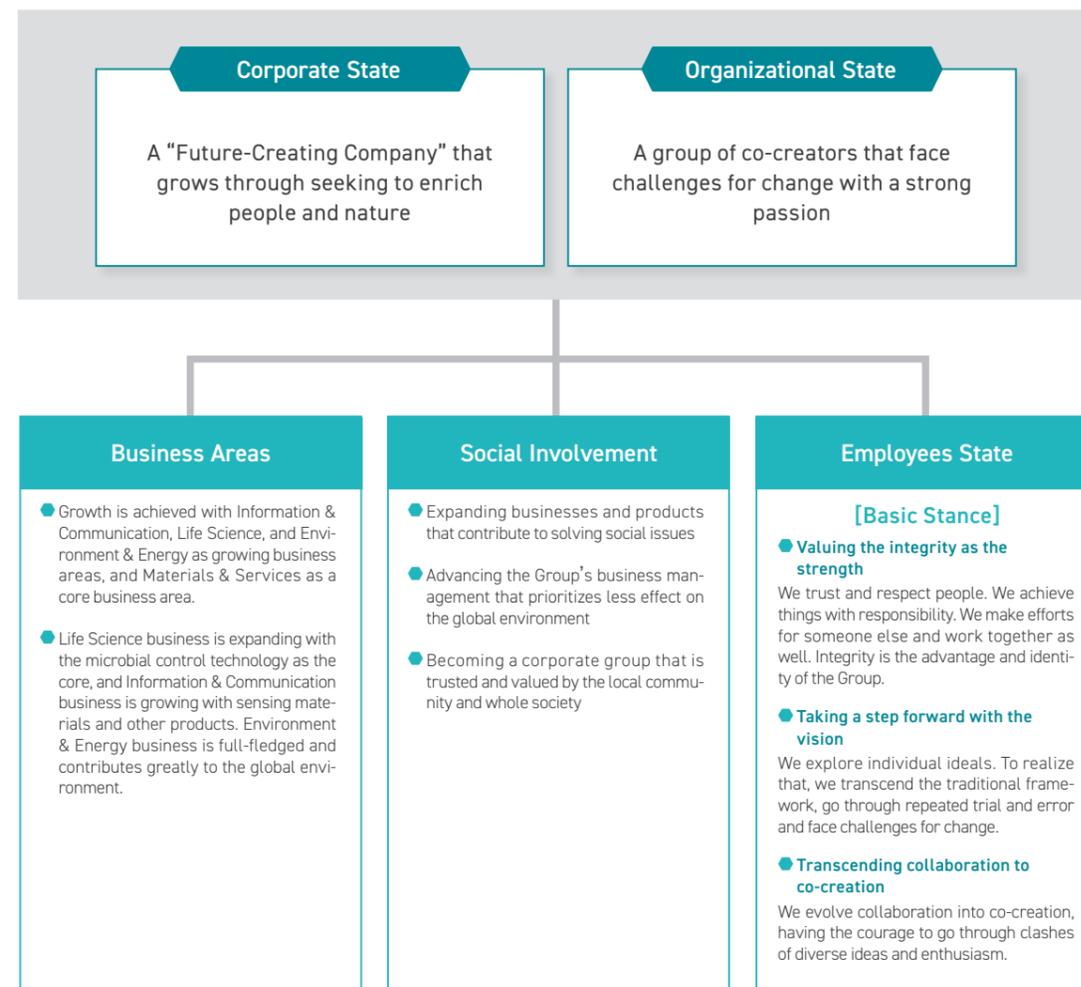
### “Atelier2050” Long-term Business Plan

Considering that the business environment has changed significantly since the previous long-term business plan was formulated, we once again discussed social issues and social changes with a view to 2050, and formulated a new business plan by backcasting from issues to be resolved and necessary initiatives.

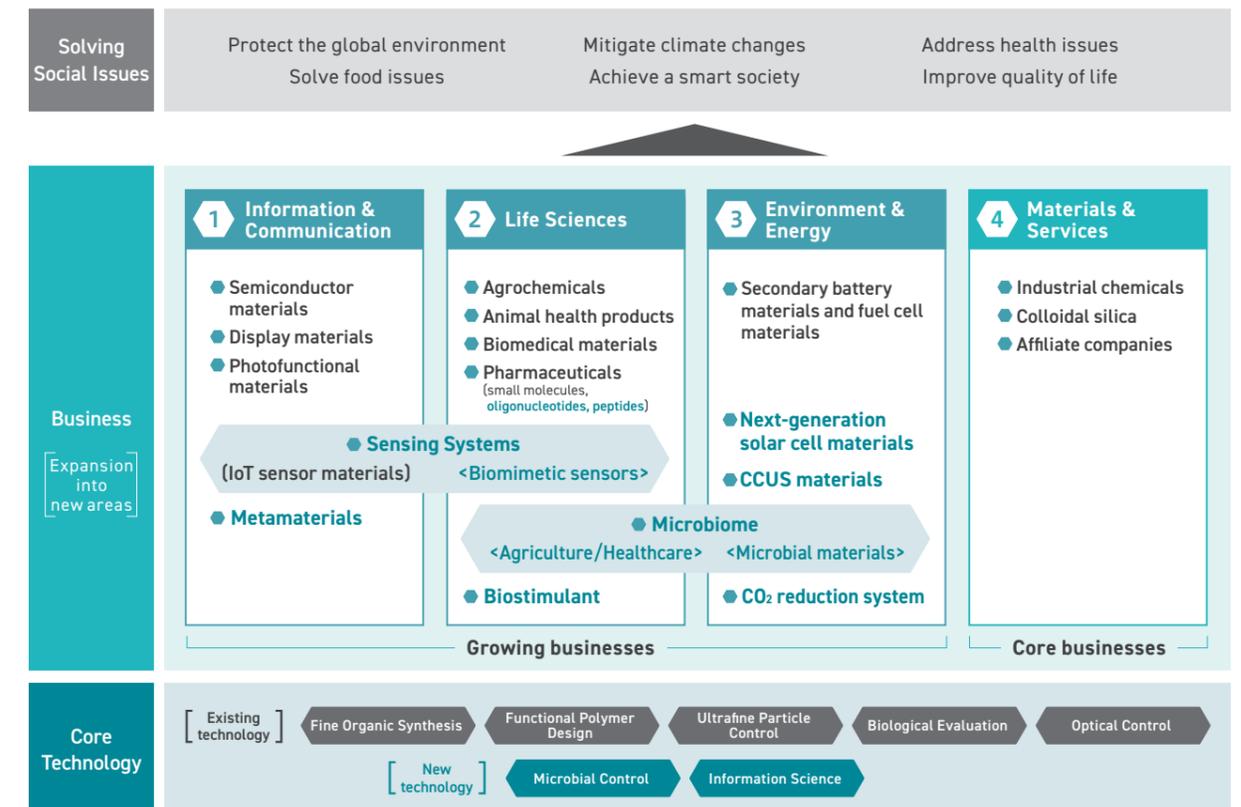
“Atelier2050” gives the Group a path to contribute to solving social issues and keep growing for the future.

“Vista2027” indicates the ideal state of the Group in FY2027 as a stepping-stone to attain the long-term plan.

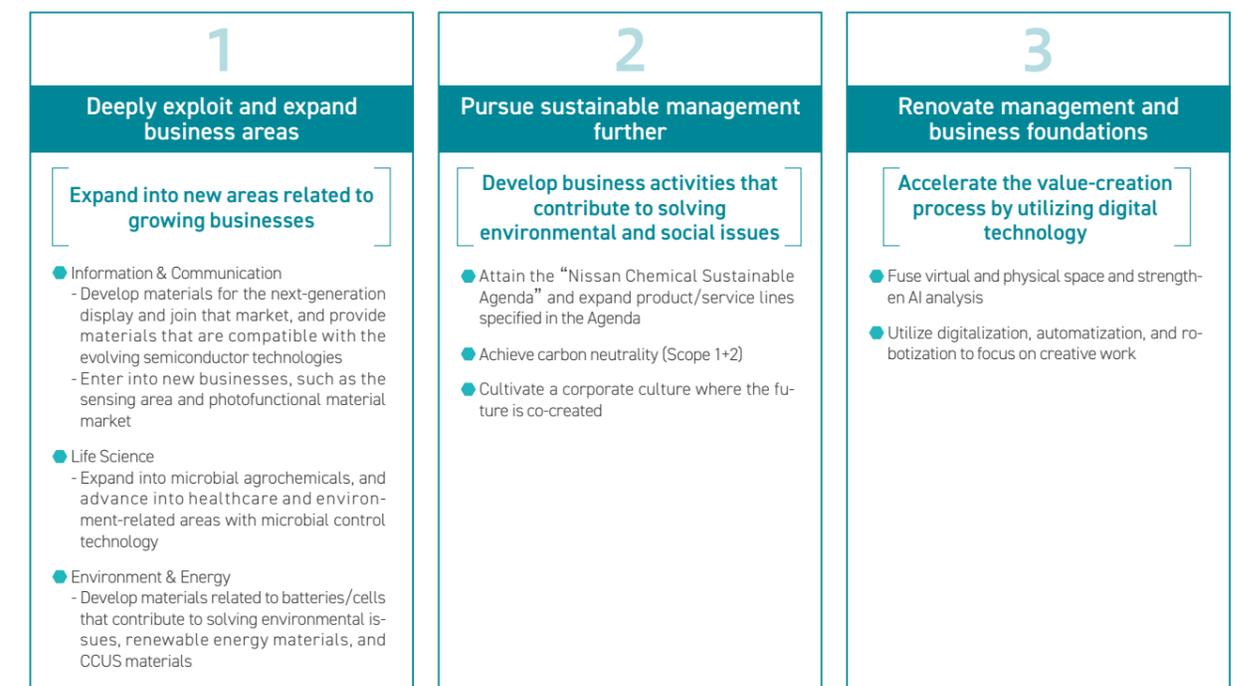
### Ideal State in 2050



### Business Areas



### Basic Strategy



# Business Plan

## “Atelier2050” Long-term Business Plan

### Nissan Chemical’s contribution to the enrichment of people and nature

#### Setting Targets for the Nissan Chemical Sustainable Agenda

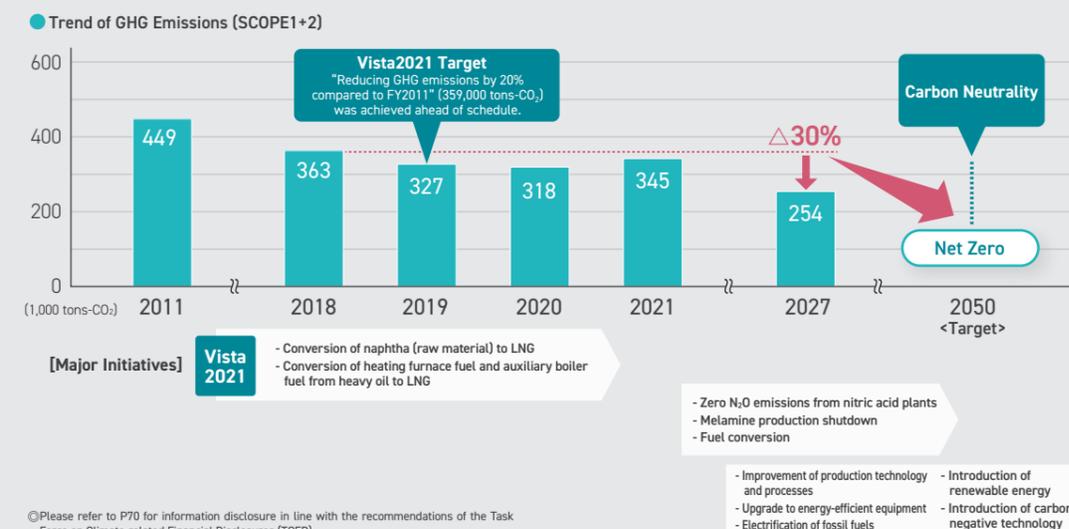
The Nissan Chemical Sustainable Agenda is a plan to pursue “what we can do for the future of the globe and human” by providing products and services that contribute to solving social issues.

We define “Actualizing a sustainable future for our planet (To Tomorrow)” and “Actualizing sustainable comfort for all (Be Happy)” as areas of contribution, and define the rate of total sales of products and services that contribute to these areas as a key performance indicator (KPI). In “Vista2027”, we have set a target of “maintaining at least 55%”, aiming to further expand our target products and services by fostering core technologies toward 2050.



#### Achievement of Carbon Neutrality by 2050

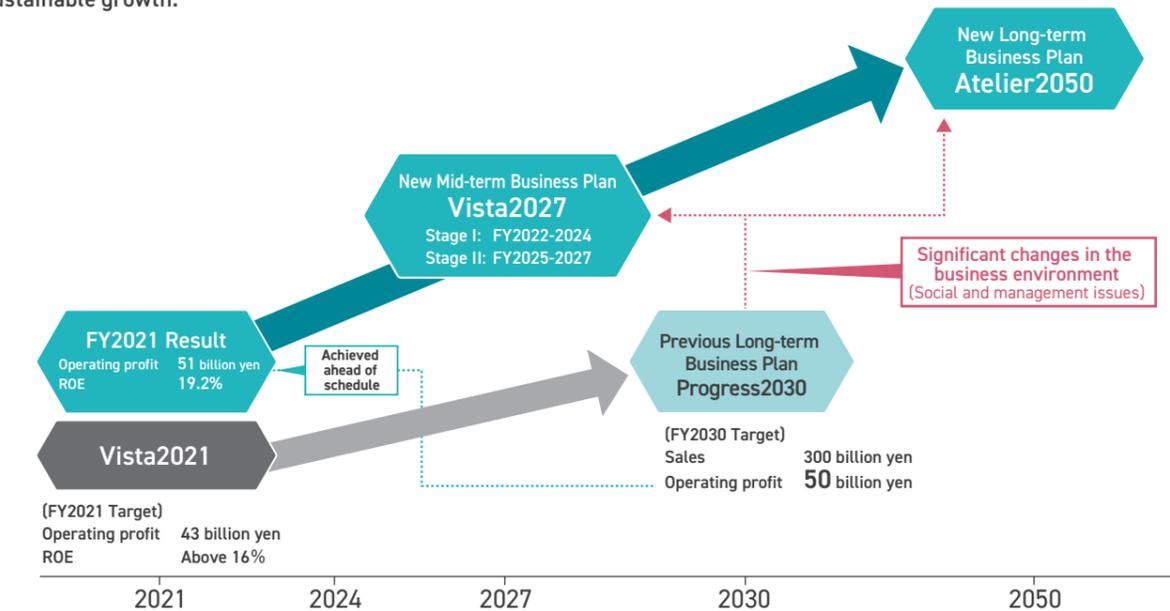
We will focus on achieving carbon neutrality by FY2050 by changing raw materials and fuels, promoting energy savings, adopting renewable energy, introducing carbon negative technology, and taking other related measures.



©Please refer to P70 for information disclosure in line with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

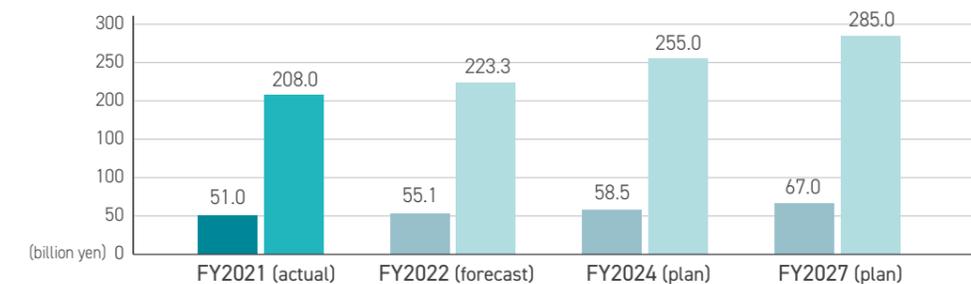
## “Vista2027” Mid-term Business Plan

As a stepping-stone on the way to the ideal state set forth in our long-term business plan “Atelier2050”, we have formulated a six-year mid-term business plan “Vista2027”, starting in FY2022. Using this plan as a road map, we aim to achieve sustainable growth.



#### Numerical Targets

Sales  
Operating profit



#### Financial Indicators

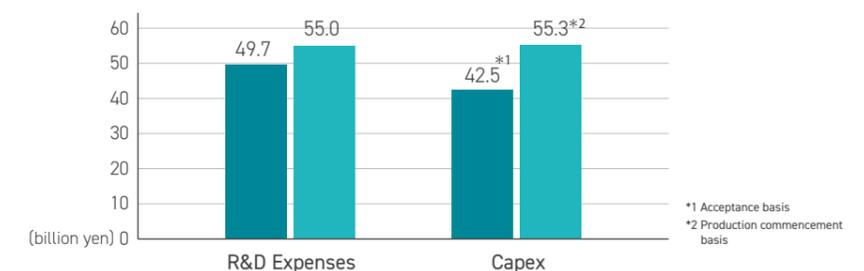
Operating margin	Above 20%	Dividend payout ratio	55%
ROE	Above 18%	Total payout ratio	75%

#### Non-financial Indicators

Rate of total sales of Nissan Chemical Sustainable Agenda target products and services in consolidated net sales	Maintain at least 55%
GHG emissions	Reducing at least 30% (compared to FY2018)
Positive response rate in survey of employee attitude on human resource development	At least 65%
Proportion of female researchers	At least 18%

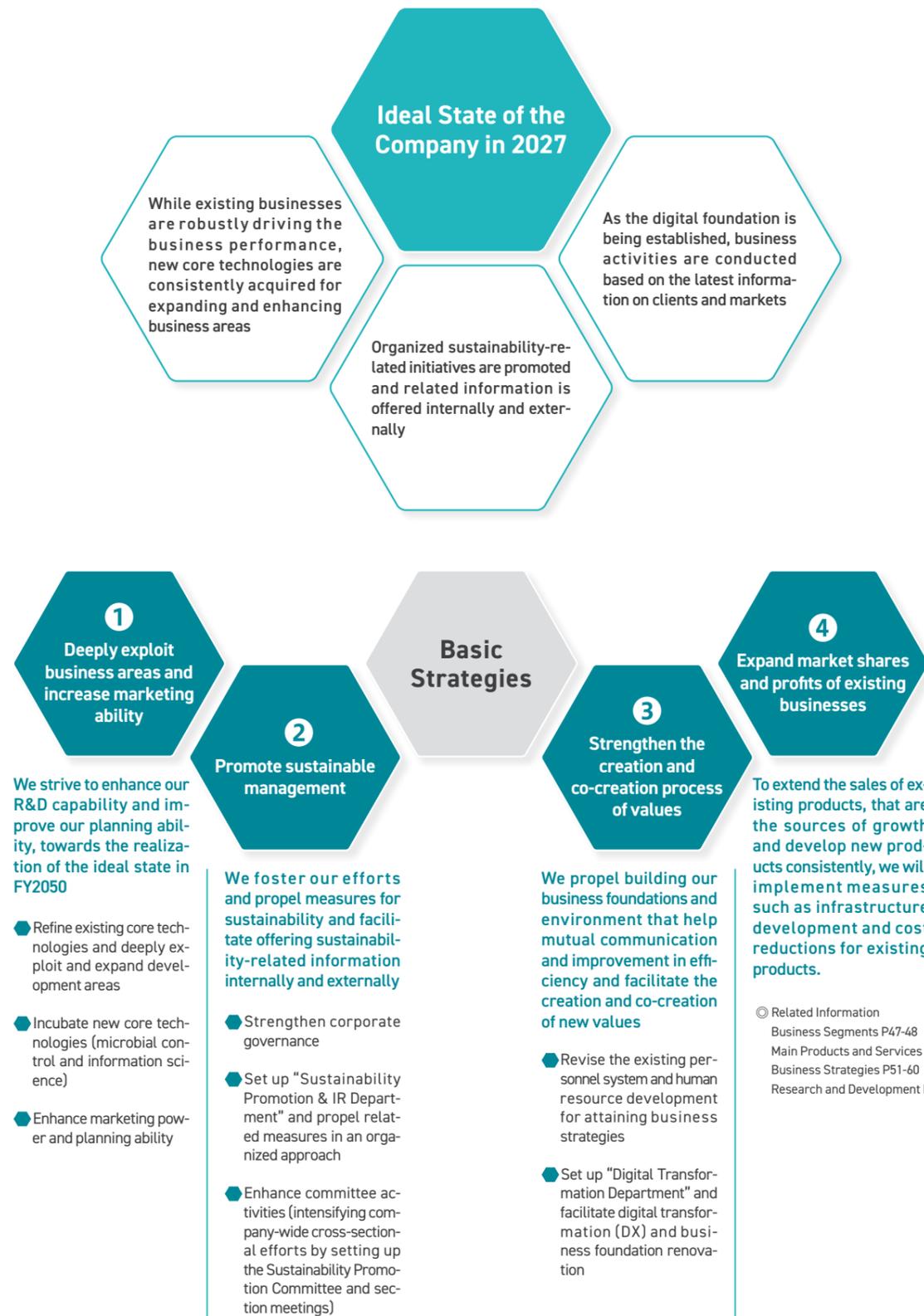
#### R&D Expenses and Capex

Total FY2019-2021  
Total FY2022-2024



# Business Plan

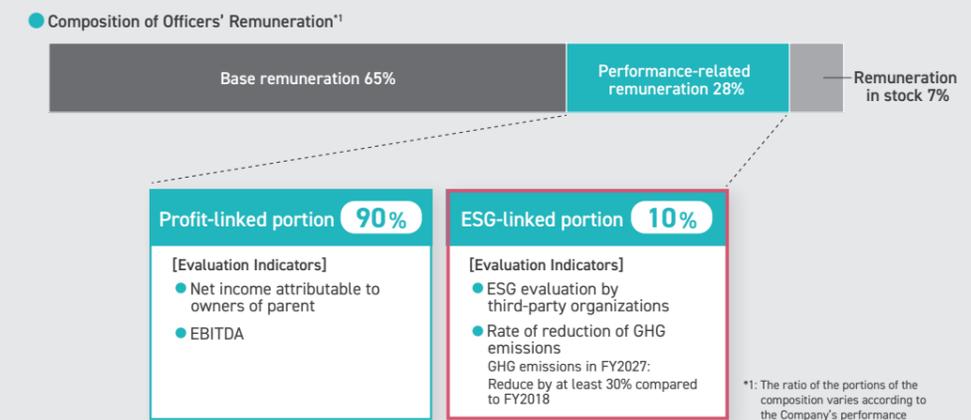
## “Vista2027” Mid-term Business Plan



## Introduction of the concept of sustainable management into corporate governance

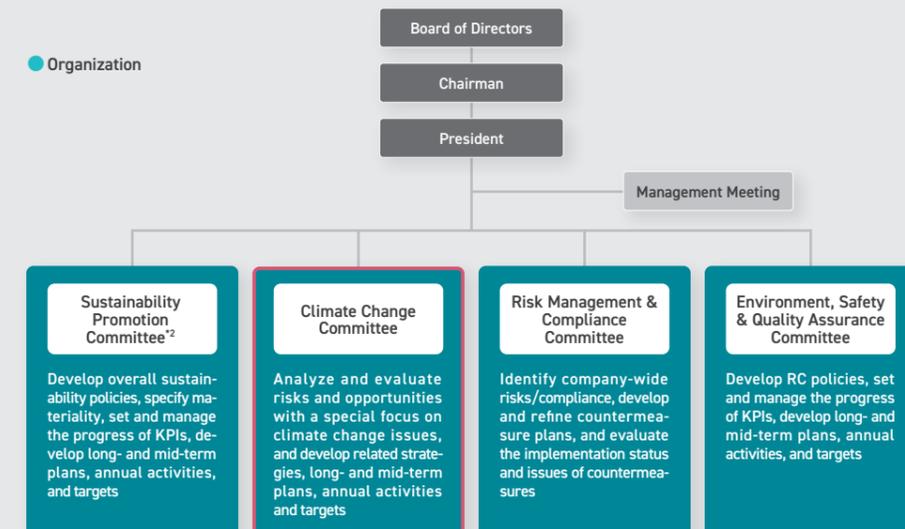
### Incorporation of ESG indicators into the officers’ remuneration system

The Company incorporates ESG indicators into the officers’ remuneration system to strengthen its effectiveness for the initiatives to promote sustainable management and corporate governance.



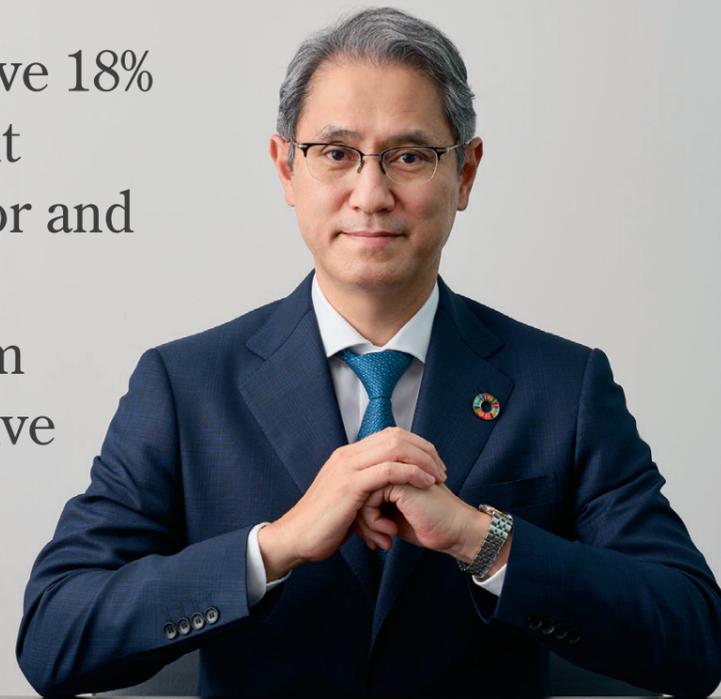
### Establishment of the Climate Change Committee

We established the Climate Change Committee as an independent organization to accurately grasp the risks and opportunities posed by the increasingly serious climate change issue to our company, and to take comprehensive measures linked to our management strategy and to refine and sophisticate the information disclosure.



## Message from the CFO

Maintain ROE of above 18% as the most important management indicator and execute financial and capital strategies from a long-term perspective unwaveringly



### DAIMON Hideki

Director,  
Managing Executive Officer, CFO  
Head of Sustainability Promotion &  
IR Department

#### As the New CFO, Focus on Dialogue with Stakeholders on Both Financial and Non-Financial Aspects

With Nissan Chemical's organizational restructuring in April 2022, I took over the CFO position from the previous Vice President MIYAZAKI Junichi, and also being in charge of the Sustainability Promotion & IR Department.

As CFO, I consider it an important mission to achieve our return on equity (ROE) target, which is our most important management indicator. At the same time, we also have the task of promoting sustainable management so that we can continue to achieve sustainable growth while contributing to solving social issues.

Investors are increasingly interested not only in financial aspects but also in non-financial aspects such as ESG (Environment, Social, and Governance). Starting from this mid-term business plan, we have decided to define and disclose both financial and non-financial aspects equally in the management indicators that we should aim for, as the "two wheels of the car". The Sustainability Promotion & IR Department, newly established in April, will actively engage in dialogue with stakeholders on both financial and non-financial aspects.

#### Our Financial and Capital Strategies Remain Unchanged Continued Emphasis on ROE and Proactive Shareholder Returns

Since the mid-2000s, Nissan Chemical has placed ROE as its most important financial target, and this will remain the same in the future. ROE, an indicator of capital efficiency, is the financial indicator that best matches our business strategy of

efficiently investing limited management resources to continue producing essential products in highly profitable business fields, and is widely supported by investors as an easy-to-understand single indicator.

Since the early 2010s, our ROE has steadily increased, achieving 19.2% in FY2021, although in our previous mid-term business plan "Vista2021 Stage II" (2019-2021), we targeted maintaining above 16%. In the new mid-term business plan "Vista2027" (2022-2027) as well, the target was further raised to maintain the rate at above 18%, which is about twice the average of chemical manufacturers in the same industry.

We have achieved proactive shareholder returns over the long term, and we will continue this policy. The total payout ratio, including share dividends and share repurchase, is targeted at 75% of net income after taxes, and was 75.6% in FY2021. Under the new mid-term business plan, the target of the total payout ratio of 75% remains unchanged, but the dividend payout ratio was increased from 45% to 55%, taking into account the opinions of investors.

In addition, our capital policy is to actively invest in research and development (R&D) expenses that are necessary and sufficient for our business and still return ample cash to shareholders. Our target is to invest 8-9% of sales each year in R&D expenses to ensure continued growth in the future. Since the average in the chemical industry is 3-4% of sales, this shows how we Nissan Chemical is continually investing our management resources in producing high value-added products. In terms of human resources, about 40% of employees of regular position are assigned as R&D (non-consolidated basis).

I believe that a major factor in our operating margin of 24.5% in FY2021, which has remained above 10% for 19 consecutive years since FY2003, is our unwavering strategy based on such a long-term perspective.

#### Promote a Stronger Business Portfolio Actively Making New Investments in Accordance with the New Mid-Term Business Plan

As for our business performance, in FY2021, the final year of the previous mid-term business plan, we achieved all of the management indicator targets, and our operating profit exceeded 50 billion yen, nine years ahead of the planned FY2030 level.

With such high profitability and growth potential, our business portfolio is highly resilient and balanced even against a rapidly changing external environment. Despite the spread of COVID-19 infection and soaring resource prices, Nissan Chemical has steadily generated profits mainly in the Performance Materials, such as Display Materials and Semiconductor Materials, and the Agricultural Chemicals, and has achieved stable high growth rates, including record profits for eight consecutive years (operating profit and ordinary income; current net income for nine consecutive years). I believe this is evidence of the superior sustainability of our business portfolio compared to other major chemical companies with petrochemical businesses, which are more susceptible to market fluctuations.

However, there are challenges. Although sales of existing product lines have grown significantly, sales of new product lines, which are the next growth sprout, have not yet reached our expectations. In order to steadily generate returns that

#### ● Sales/Operating profit/Operating margin

Achieved operating profit of 51.0 billion yen in FY2021, nine years ahead of the planned FY2030 level.



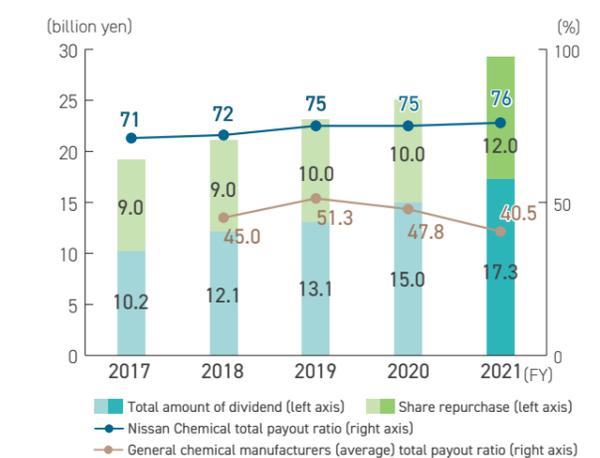
#### ● Net income attributable to owners of parent/ROE

Achieved ROE of 19.2% in FY2021. Maintained high ROE by focusing on creating high value-added products.



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

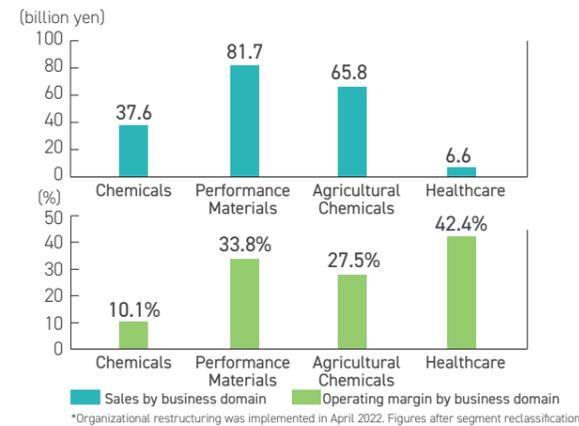
Total payout ratio was targeted at 72.5% for FY2019 and 75% for FY2020 and beyond under the Mid-term Business Plan (FY2019-2021), which were achieved.



## Message from the CFO

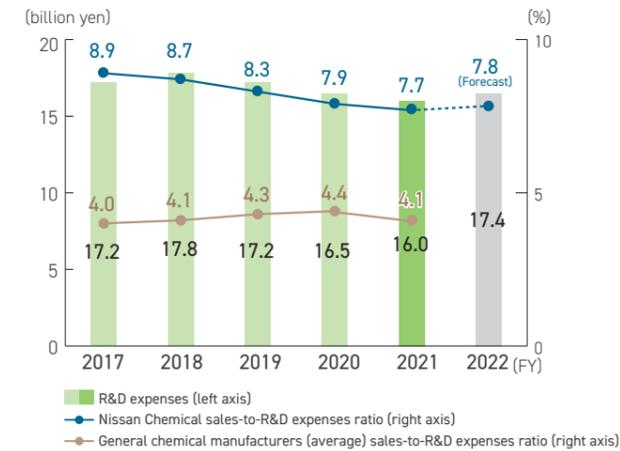
### ● Sales and operating margin in FY2021 by business domain.

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



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

Sales-to-R&D expenses ratio is maintained at around 8-9%, with a target of 8-9% annually in the future as well



exceed the expectations of the capital entrusted to us by our shareholders, we need to make appropriate investments in carefully selected themes and monetize them with a sense of speed.

In the Healthcare Division, including pharmaceuticals, which underwent organizational restructuring in April 2022, we will specialize in marketing not only pharmaceuticals but also medical materials, and in R&D, the Healthcare Business Development Department of the Planning and Development Division will focus on selection and concentration in order to achieve the targets of the new mid-term business plan.

Meanwhile, as new investments, major investments are in progress in growth business fields, including an investment to increase production capacity of semiconductor materials (new NCK plant in South Korea, 8.5 billion yen) and an investment to expand the supply capacity of agrochemical products (establishment of a joint venture in India). We will also make a series of DX-oriented investments with the intention of rebuilding the long-term data infrastructure of plants, divisions, and the entire Head Office.

In the previous mid-term business plan, we executed two acquisitions of fungicide businesses to expand our portfolio of agrochemical products, and we will continue to seize opportunities for investments and acquisitions that contribute to future growth with the aim of further deepening our major business areas.

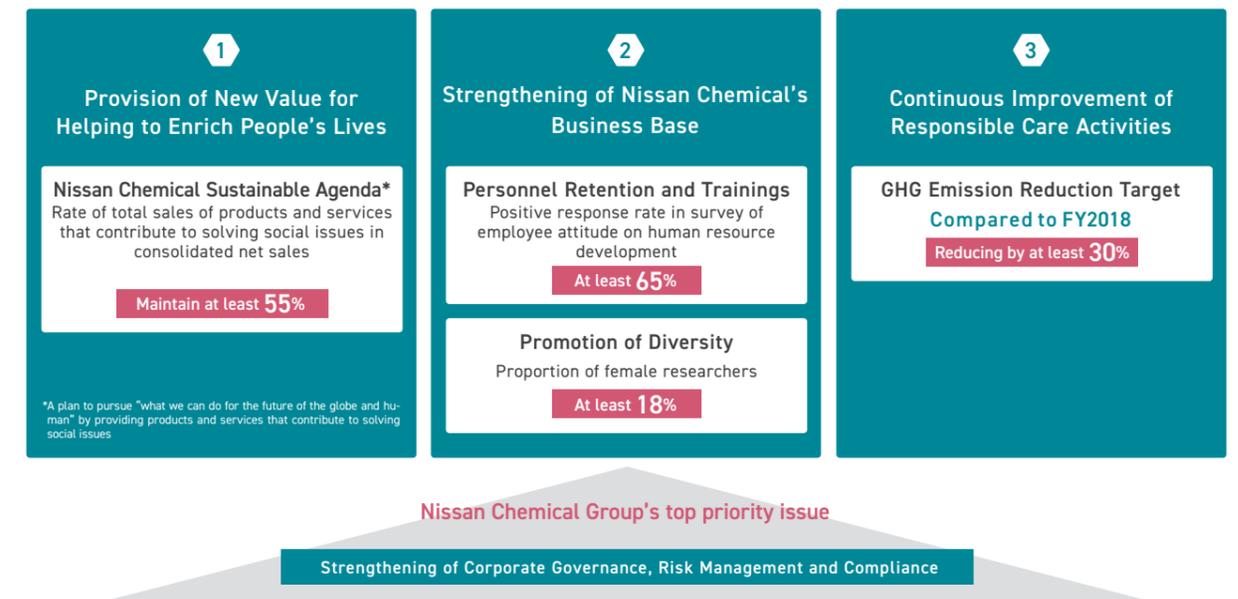
### Products and Services that Contribute to Society and the Environment to Be at least 55%

With regard to sustainability, we have launched the “Nissan Chemical Sustainable Agenda”, a plan to pursue “What we can do for the future of the globe and human” as a practice to deepen sustainable management, which is one of the basic strategies of the new long-term business plan “Atelier2050”. Under “Actualizing a sustainable future for our planet (To Tomorrow)”, we will contribute to the areas of “Reduce CO<sub>2</sub>”, “Reduce waste”, and “Conserve aquatic environment”. Under “Actualizing sustainable comfort for all (Be Happy)”, we designate “Solve health issues for humankind and animals”, “Achieve a smart society”, and “Solve food shortages” as our areas of contribution. We define the rate of total sales of products and services that contribute to solving social issues in consolidated net sales as a key performance indicator (KPI). Under the mid-term business plan “Vista2027”, the products and services identified in the Nissan Chemical Group’s materiality “Provision of new value for helping to enrich people’s lives” are included in the “Nissan Chemical Sustainable Agenda”, with a target of “maintaining at least 55%”. Toward 2050, we will further expand our target products and services by fostering core technologies in the four business areas of Information & Communication, Life Science, Environment & Energy, and Materials & Services.

With the goal of achieving carbon neutrality by 2050, we will also focus on improving production technologies and introducing renewable energy in addition to our existing efforts. Toward that goal, in the new mid-term business plan “Vista2027”, we moved the target of reducing greenhouse gas (GHG) emissions by 30% from FY2018 level by FY2030, three years ahead of schedule, to be achieved by FY2027.

As one of the measures to achieve this goal, we plan to invest 500 million yen to achieve zero N<sub>2</sub>O emissions from nitric acid plants. We also plan to reduce GHG emissions by suspending melamine production, converting fuels at the Onoda Plant, fully introducing internal carbon pricing (ICP), reducing CFC equipment, and upgrading to energy-efficient equipment.

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



Climate change involves both risks and opportunities. We would like to increase the ratio of Nissan Chemical Sustainable Agenda by increasing the number of environmental-friendly products and at the same time contribute to profit growth. Therefore, our technologies will be put to the test, and we will contribute to the reduction of GHG emissions by further demonstrating our strengths in R&D.

In April 2022, the CSR Committee was replaced by the Sustainability Promotion Committee to assume a commanding role in maintaining more sustainable growth. In parallel, Climate Change Committee was established in July 2022. With a special focus on the increasingly serious issue of climate change, we will analyze and assess risks and opportunities, formulate strategies and mid- to long-term plans for addressing them, as well as annual activities and targets, and promptly reflect them in our business strategies.

In August 2020, we expressed our support for the Task Force on Climate-related Financial Disclosures (TCFD) recommendations, and we will continue to make appropriate disclosures as climate change is of great interest to investors.

Foreign investors sometimes point out that Japanese companies are not good at promoting their technologies and products. We must properly convey information about our technologies and services that we can be proud of. For example, the world population is expected to grow and reach nearly 10 billion by 2050. Our agrochemicals, which are among the best in our new product development capabilities, are our core products that contribute to increasing crop yields and solving food problems, while passing thorough safety tests and taking biodiversity into consideration. We will also actively promote our efforts to further strengthen this agrochemical portfolio and expand our product supply capacity.

### Establish Feasible Numerical Targets and Gain Stakeholders' Trust

We have consistently achieved many of the targets of our mid-term business plan.

I believe that we have gained the trust of our stakeholders by calmly establishing feasible numerical targets and continuing to thoroughly disclose them. The backbone of this track record, our emphasis on ROE and shareholder returns, will remain unchanged in the future. While responding flexibly to changes in external factors such as the demands of society and the environment surrounding our business, we will continue to execute our financial and capital strategies from a long-term perspective without wavering.

# Business Segments

In the new 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.

\* Organizational restructuring was implemented in April 2022; figures for FY2018-2020 are for the former organizational classification; figures for FY 2021 are after changing the organizational classification.



**Chemicals**

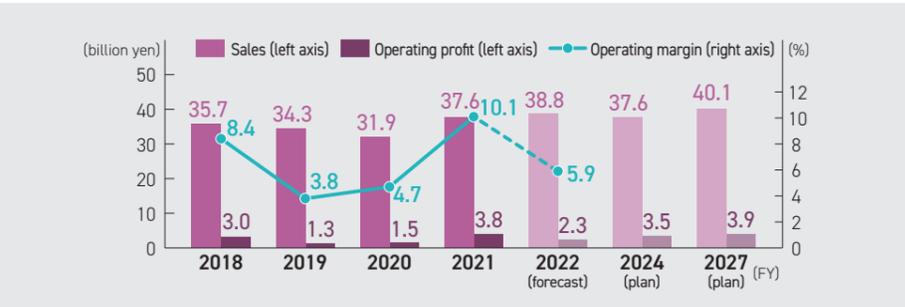
Our Chemicals business started with the manufacture of sulfuric acid and ammonia, which are basic raw materials for fertilizer. In addition to general industrial use, we provide our customers with products and technologies that are used in a wide range of fields, including high-purity chemicals for electronic material applications, high-grade urea solution for removing air pollutants, and cyanuric acid derivatives for use in water quality improvement applications.

**Social Issues and Needs**

- Advent of a smart society
- Escalation of global environmental issues
- Emergence of new needs in various fields reflecting social issues

**Business Vision**

- Product development focused on advanced user requirements
- Provision of products and technologies that contribute to solving social issues




**Performance Materials**

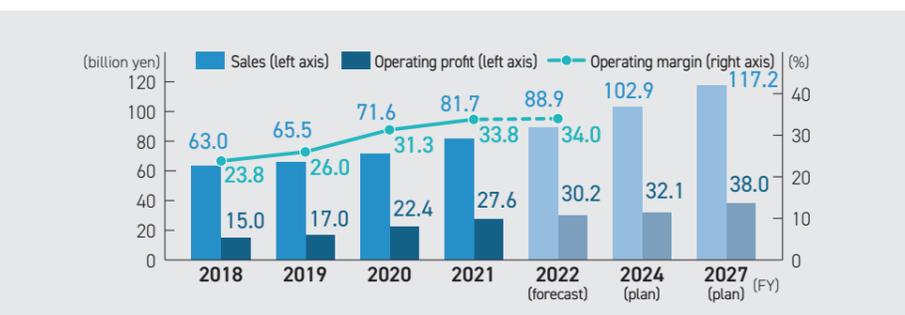
Advancements in semiconductors, sensors, and displays are required to realize a smart society. Performance Materials Division contributes to the realization of a smart society through the expansion of applications for existing products and the development of new products in the three pillars of displays, semiconductors, and inorganic materials.

**Social Issues and Needs**

- Expansion of IoT and 5G communications, evolution of AI and autonomous driving technology
- Response to carbon neutrality

**Business Vision**

- Development and provision of key materials that contribute to the realization of a smart society
- Development of new environmental-friendly materials




**Agricultural Chemicals**

Agricultural Chemicals Division provides customers with agrochemicals, agents for green space management, and veterinary pharmaceuticals based on the idea of a stable food supply for people around the world and agrochemicals that are also friendly to the global environment. As a company that provides products which contribute to a stable food supply, we are promoting various efforts to solve social issues.

**Social Issues and Needs**

- Stable food supply
- Growing need for low-risk pesticides that reduce residual agrochemicals in harvested crops and reduce environmental burden
- Agricultural sustainability, transition to smart-agriculture

**Business Vision**

- Provision of chemically synthesized agrochemicals with distinctive features
- Development of biological agrochemicals
- Provision of services for smart agriculture




**Healthcare**

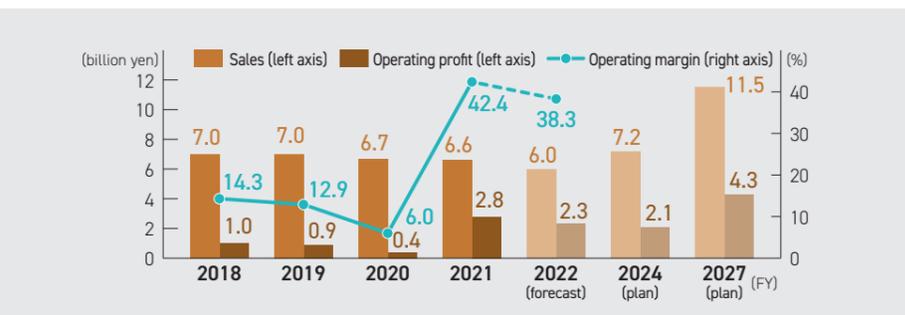
Since entering the pharmaceutical business in 1982, Nissan Chemical has developed and launched a variety of products, starting with the external preparation of EP-ATEC®, which contains ketoprofen as its main ingredient. With the technology we have cultivated so far, Healthcare Division will provide superior pharmaceuticals and medical materials for the sake of irreplaceable lives and smiles around the world.

**Social Issues and Needs**

- Growing importance of medical services and pharmaceuticals due to low birthrate and aging population
- Growing awareness of extending healthy life expectancy
- Safer and more effective pharmaceuticals in addition to personalized medicine and preventive medicine

**Business Vision**

- In addition to the manufacturing of conventional pharmaceuticals, the manufacturing of new products in the broader healthcare area, including medical materials
- Contribution to solving health issues by addressing unmet medical needs




**Planning and Development Division**

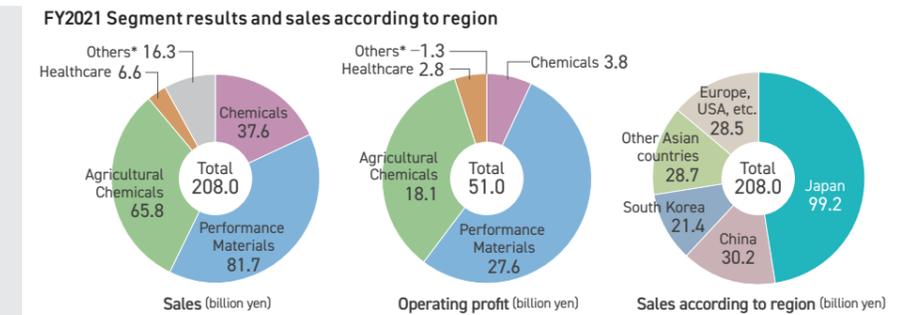
The mission of the Planning and Development Division is to create new materials and new businesses that will become future pillars in the fields of Information & Communication, Environment & Energy, and Life Science. As a future-creating company, we will challenge the unlimited possibilities of chemistry and strive to create high value-added products that meet the "trust" of our customers.

**Social Issues and Needs**

- Solving social issues that arise toward a sustainable society, such as climate change issues, global environmental conservation, low birthrate and aging population, and transformation to a smart society, etc.

**Business Vision**

- Building new businesses that contribute to solving social issues
- Co-creation of new materials that meet market and customer needs and promotion of real demand for them by deepening core technologies, introducing new technologies, and integrating them



## Main Products and Services

In response to the ever-changing needs of society, we will advance R&D on “Must-Have” products and services so that we can hear our customers’ voice, such as “it doesn’t work without this product” and “this product is irreplaceable”.

### Chemicals

#### Basic Chemicals

##### High-purity chemicals

Agents used for semiconductors/LED require extremely high purity. We provide sulfuric acid, nitric acid and ammonia to this industry, receiving high acclaim in the process.

##### AdBlue®\*1

AdBlue® is a high-grade urea solution used in “urea SCR system”, a technology for purifying emissions. When sprayed onto emissions from diesel vehicles, it breaks down nitrogen oxide (NOx) into harmless nitrogen and water, which helps to reduce environmental impact.



#### Fine Chemicals

##### HI-LITE®

Chlorinated isocyanurate is the main ingredient in this product, which is used for sterilization and disinfection of swimming pools and water purification tanks, and thus contributing to public hygiene.

##### TEPIC®

TEPIC® is an epoxy compound which possesses excellent heat resistance, weather resistance, and transparency. It is widely used in semiconductors, LEDs, and substrate-related electronic materials as well as in powder coating curing agents.



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

### Performance Materials

#### Display Materials

##### SUNEVER®

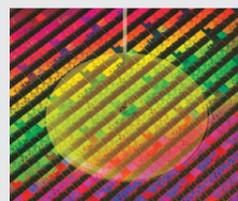
SUNEVER® is a polyimide-based liquid crystal alignment material. It is used to coat the surface of the outer glass panels to align liquid crystal molecules in a certain direction.



#### Semiconductor Materials

##### ARC®\*2

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.



#### Inorganic Materials

##### SNOWTEX®

SNOWTEX® is a colloidal solution in which ultrafine particles of silicic acid anhydride are dispersed in water using water as a dispersion medium. Utilizing various functions, it is used for a wide range of products such as batteries, coating materials for optical films, electronic substrate materials, and abrasives for manufacturing electronic recording media.

\*2 ARC® is a registered trademark of Brewer Science, Inc.

### Agricultural Chemicals

#### Agrochemicals

##### ROUNDUP®

ROUNDUP® is a herbicide used all over the world which has low toxicity to humans and animals and does not remain in the soil or in the environment. In 2002, we acquired exclusive marketing rights in Japan from Monsanto.

##### ALTAIR®

ALTAIR® is a wide-spectrum herbicide that is highly effective in eliminating bulrush and cyperaceous perennial weeds. It is also effective for weeds that are resistant to conventional sulfonylurea-based herbicides. We market this product in Japan, South Korea, and China.

##### GRACIA®

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. Released in South Korea in 2018 and went on sale in Japan in 2019.



#### Veterinary Pharmaceuticals

##### Fluralaner

Fluralaner is a compound invented by Nissan Chemical used as an active ingredient in the veterinary pharmaceutical “BRAVECTO®\*3” developed by MSD Animal Health (MAH). We manufacture and supply it to MAH as an API of veterinary pharmaceuticals. Fluralaner has remarkable features: it is 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.



\*3 BRAVECTO® is a registered trademark of Intervet International B.V. and Intervet Inc.

### Healthcare

#### Healthcare

##### LIVALO®\*4 (API)

Featured by its potent LDL cholesterol-lowering effect and few drug-drug interactions, LIVALO® is used in the treatment of hyperlipidemia.

##### LANDEL®\*5 (API)

LANDEL® is a long-acting calcium antagonist featured by its renoprotective effect and used in the treatment of hypertension and angina pectoris.

#### Custom Chemicals

The Onoda Plant manufactures active pharmaceutical ingredients (APIs) and their intermediates. In addition to GMP compliance, it is regularly inspected by domestic and foreign regulatory authorities as well as by customers to whom it delivers APIs, and its level of quality is highly evaluated.

##### Maxacalcitol

Maxacalcitol is used in the treatment of psoriasis vulgaris and secondary hyperparathyroidism.

##### Eldecalcitol

Eldecalcitol increases bone mass and is used in the treatment of osteoporosis.



\*4 LIVALO® is a registered trademark of Kowa Company, Limited. \*5 LANDEL® is a registered trademark of Zeria Pharmaceutical Co., Ltd.

# Business Strategies

Chemicals

## Chemicals

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.



**OKIKAWA Toshiaki**

Executive Officer, Head of Chemicals Division

### 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 overseas 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.

In addition, TEPIC®, a high-performance chemical derived from cyanuric acid, a derivative of urea, and melamine cyanurate are positioned as key products for earnings growth. 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 cyanuric acid derivatives.

### Progress of Vista2021 Stage II

#### 1 Cyanuric Acid

Cyanuric 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 cyanuric acid production facilities in December 2020, which contributed to an increase in sales in FY2021.

#### 2 TEPIC®

The high-performance chemical TEPIC®, 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 FY2021, we fell short of our plan due to the shortage of semiconductors for the automobiles, but we forecast an increase in sales in FY2022 as the shortage is expected to show a tendency to be solved. For general-purpose grades, we revised the sales prices in response to soaring international market prices due to rising raw fuel and materials costs and logistics costs. 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®

“Clean Water and Sanitation”, one of the SDGs, is an important global issue. We have started exporting some grades of HI-LITE® 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. We also witnessed an increase in sales in FY2021 due to a favorable level of demand by the semiconductor business. We will continue to maintain high quality and high availability.

## Vista2027 Business Strategies

### Opportunities and Risks

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

### Strengths

- Manufacturing process for products with high self-extinguishing 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

### 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 cyanuric acid and HI-LITE®
4. Develop the business of Venus® Oilclean (a microorganism formulation)

### Efforts to achieve Vista2027

In June 2022, the first year of Vista2027, we discontinued the production of melamine, which has 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 reviewing business strategies in response to environmental changes.

As a source of sustainable growth for the business, we will focus on the development and deployment of new products, mainly cyanuric acid derivatives, while strengthening sales of products for the robust electronic

materials field. We started the full-fledged commercialization of STARFINE® (zinc cyanurate), from which effects as an additive for paints and adhesives can be expected. Together with the new grades of TEPIC®, it has already been evaluated by many users for various purposes. We will also contribute to waste reduction with Venus® Oilclean, a microorganism formulation.



Dry film resist made with TEPIC® -VL (new grade TEPIC®)

## Business Strategies

### Performance Materials

# Performance Materials

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.



## 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®, a photo-alignment material for IPS liquid crystal, and this has become our main product. This product has been used in many smartphones. In the future, it is expected that product demand for Rayalign® will further increase as tablet and monitor resolutions 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.

Currently, with the adoption of EUV exposure technology (wavelength: 13.5 nm, semiconductor circuit width: 7 to 3 nm), we are promoting the mass production and next-generation development of EUV materials and also focusing on three-dimensional (3D) packaging technology preparing for the limits of optical shrink.

\*1,2 ARC® and OptiStack® 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 recording devices 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 of Vista2021 Stage II

### 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 liquid crystal. 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 FY2021, we were able to increase sales of alignment materials for VA liquid crystal due in part to the smooth start-up of our customers' plants.

### 2 Agents to Increase Oil and Gas Extraction Efficiency

In areas with excellent oil and gas wells, it was said that extraction efficiency reduced due to a decrease in oil recovery amounts amid crowded conditions in areas where oil wells are in close proximity. In response to these issues, we aimed to expand sales of agents to increase oil and gas extraction efficiency by developing applications for use of our inorganic materials. We faced a harsh environment in the first half of FY2021, however, we secured sales at the same level as the previous fiscal year in the second half, partially due to the rise in crude oil prices and our acquisition of new customers.



## Vista2027 Business Strategies

### Opportunities and Risks

- Expansion of applications of photo-alignment materials for IPS liquid crystal 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

### Main Measures

1. Improve existing products and expand their applications
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

Efforts to achieve Vista2027

### OLED Materials

OLEDs are thinner and lighter than liquid crystals, offer high-speed response, and possess excellent design characteristics, such as flexibility. They are being used more often in smartphones, high-resolution, large screen TVs and other products. Recently, sales of foldable smartphones with screens of OLED have begun. We will aim to commercialize new products as OLED materials by developing proprietary materials, including ELsource®, a soluble hole injection material, NPAR®, a liquid-repellent bank layer material, materials that enhance light extraction efficiency, and release layer materials. We are also developing materials for next-generation self-luminous displays which will be the future display technology following OLEDs.

### 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.

## Business Strategies

### Agricultural Chemicals

## Agricultural Chemicals

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.

### SATO Yuji

Managing Executive Officer, Head of Agricultural Chemicals Division



#### 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® (herbicide for paddy rice), SANMITE® (insecticide/acaricide) and PERMIT® (herbicide for paddy rice and corn), which have steadily improved profitability.

Afterwards, we experienced hard times as a result of in-house development delays and intensifying competition with competitors. However, since the launch of LEIMAY® (fungicide) in 2008, we have returned to introducing products developed in-house and started sale of GRACIA® (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® (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. and Intervet Inc.

### Progress of Vista2021 Stage II

#### 1 GRACIA®

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 2019. The product was launched in India and Indonesia in 2022, and will be launched in Bangladesh in 2023, Vietnam in 2024, and Thailand in 2025.



#### 2 ROUNDUP®

ROUND NOZZLE® ULV5, a product that allows for dispersion of ROUNDUP® MAXLOAD in a way that reduces farmer workload, is gaining popularity. We are working to increase sales of ROUNDUP® MAXLOAD by utilizing the boom sprayer nozzle for large-scale farmers released in FY2021. Sales of ROUNDUP® 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 livestock containing Fluralaner as an active ingredient are available in more than 100 countries. In FY2021, 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.

### Vista2027 Business Strategies

#### 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 GRACIA®, and continue to enhance our respective marketing efforts for large-scale farmers and agricultural corporations, and general consumers
2. Conduct steady development of NC-653 (novel herbicide), NC-656 (novel herbicide) and NC-520 (novel nursery-box insecticide for paddy rice), and create new pipelines
3. Establish a biological research team

#### Efforts to achieve Vista2027

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 (development code NC-653), we also started to develop a herbicide for application on stems and leaves of paddy rice (development code NC-656) and a nursery-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. We aim to start its operations as soon as possible. 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 agrochemicals business by establishing a robust active production and supply system that is cost-competitive.

## Business Strategies

Health Care

# Healthcare

We accelerated the selection and concentration of business areas in order to appropriately respond to changes in the business environment and achieve mid- to long-term growth. In April 2022, the drug discovery research functions were transferred to the Planning and Development Division, and the Healthcare Division will be responsible for manufacturing and sales of new drugs and medical materials as well as the Finetech business.

## ISHIWATA Norihisa

Executive Officer, Head of Healthcare Division



### 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 an antihypertensive drug efonidipine hydrochloride in 1994. It is distributed in Japan by Zeria Pharmaceutical and Shionogi as LANDEL<sup>®</sup>\*1, and in South Korea by GC Biopharma as FINTE<sup>®</sup>.

In 2003, Kowa Company launched the anti-cholesterol drug pitavastatin calcium hydrate as LIVALO<sup>®</sup>\*2, which is now sold in 30 countries around the world. After domestic substance patents have expired in 2013, the decline in market shares due to generic drugs and the impact of drug price revisions have resulted in a continuing difficult situation in Japan, and the creation of new drugs is an urgent need.

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 will take 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, as well as for the manufacture of APIs and intermediates under GMP-compliant conditions. Accompanying this, we also handle services such as 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 require 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<sup>™</sup>” for innovative contract peptide production.

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

## Progress of Vista2021 Stage II

### 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 2018, we began joint research with pharmaceutical companies and bio-venture companies for oligonucleotide drug discovery, entering into this area at full scale. In addition to accelerating drug discovery by strengthening our proprietary basic technologies for oligonucleotide drug discovery, we are jointly working with multiple pharmaceutical companies to create development compounds.

### 2 Commencement of Strategic Alliance with Modulus to Accelerate Small Molecule Drug Discovery

With recent advances in supercomputers, it is becoming possible to design small molecule drug candidates for target molecules with high precision. In 2021, we entered into a strategic drug discovery collaboration agreement with Modulus Discovery, Inc., which leverages its basic technologies such as cutting-edge computational technology. In this agreement, Nissan Chemical share the development of drug candidates and jointly out-license them to pharmaceutical companies with Modulus Discovery, Inc.

### 3 Establishment of an Efficient Peptide Manufacturing Technology

We invested 900 million yen in 2018 in a third-party allocation of shares of 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<sup>™</sup>) that enables dramatic cost reduction. In the future, we intend to develop this technology for not only APIs but also peripheral medical materials.

### 4 Continuous Launch of Highly Bioactive Generic Drugs

The demand for eldecalcitol, a drug for treatment of osteoporosis, is growing because the number of patients with osteoporosis is expected to increase due to population aging. Based on the production results of maxacalcitol, a highly active vitamin D3 API, in FY2020, we started the sale of eldecalcitol, which requires high-quality control because of the susceptibility to decomposition and impurities caused by oxygen, moisture, and heat in the air. In the future, with an eye to expanding into overseas markets, we will establish a stable supply system and nurture it as a source of growth.

\*Progress of Vista2021 Stage II shows the progress of the former Pharmaceuticals Division

## Vista2027 Business Strategies

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

Efforts to achieve Vista2027

We will focus on oligonucleotide therapeutics utilizing our proprietary basic technology for oligonucleotide drug discovery and steadily promote joint drug discovery platform with pharmaceutical companies. In the area of small molecule drugs, we will work on the use of AI as a shift from existing drug discovery method. Pitavastatin calcium hydrate, the API of LIVALO<sup>®</sup>, will be developed by taking advantage of economies of scale. In medical materials, we will promote actual demand and sales expansion of new products such as biointerface control materials and cosmetic materials.

In addition to the generic drug maxacalcitol, which was launched in FY2015, eldecalcitol, which was launched in FY2020, has achieved significant growth as a

pillar of our business. In the future, we will be fully engaged in business not only in Japan but also in overseas markets. Furthermore, we will launch a peptide contract business and joint development business, leveraging the overwhelming technological superiority of our proprietary liquid-phase synthesis technology “SYNCSOL<sup>™</sup>”. Through these measures, we will further develop Custom Chemicals into a highly profitable business.

It will take time to obtain results for new pharmaceuticals and medical materials. Until then, we will continue to boldly take on the challenge of developing new pharmaceuticals and medical materials while supporting the backbone with our highly profitable Custom Chemicals business.

## Business Strategies

### Planning and Development Division

# 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. The Planning and Development Division was newly established in FY2020 to further accelerate development. In FY2022, we established the Healthcare Business Development Department by integrating functions of drug discovery and medical materials.



**ENDO Hideyuki**

Managing Executive Officer, Head of Planning and Development Division

#### Healthcare

We carry out planning and development of new drugs, mainly oligonucleotide therapeutics, and planning and development for commercialization of materials for regenerative medicine and raw materials for cosmetics.

In the planning and development of new drugs, we are focusing on oligonucleotide therapeutics targeting a specific molecule in the cells, and are strengthening our platform and building our R&D portfolio through collaboration with academia and our partner companies in order to contribute to improving patients' quality of life through the creation of innovative new drugs.

In the field of regenerative medicine, we are focusing on the development of Cellhesion®, a scaffold that enables high-density culture of undifferentiated mesenchymal stem cells with high migration performance, and a material for non-freezing storage for cell clumps (spheroids). We aim to apply prevelex®, an agent to prevent adhesion of proteins, cells, etc. to containers in the fields of genetic medicine and antibody drugs, as well as containers for testing and research.

In the cosmetics field, we are working to expand into hair care products, etc., starting with the adoption of NANOFIBERGEL® in skin care products provided by cosmetics manufacturers.

#### 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  $\mu$  LED-related materials attracting attention as next-generation displays with high brightness and high reliability, wafer-level package-related materials that enable miniaturization and thinness, nucleating agents for electroless plating for micro wiring, and SUNCONNECT®, an optical interconnect material that support high-speed, large-capacity data communications.

#### Environment & Energy

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

As for lithium-ion batteries (LIB), we are developing slurry additives with the aim of improving input/output characteristics, extending service life, and reducing process costs, for their early commercialization. Focusing on fuel cell technology for utilizing hydrogen energy and ammonia synthesis as a hydrogen energy carrier, we are developing materials for catalyst layers in polymer electrolyte fuel cells, ammonia electrolytic synthesis catalysts, hole transport layers that contribute to improving the efficiency of organic photovoltaics (OPV), which are lightweight flexible solar cells.

With the aim of realizing a recycling-oriented society, we are promoting the development of a gas separation membrane technology expected to reduce costs for CO<sub>2</sub> separation and recovery, and the development 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 spreading as a biodegradable bioplastic, to commercialize them as soon as possible.

#### 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.

Also, through the training of researchers and the proper allocation of resources, we are working for enhancement of R&D capabilities by creating a mechanism that leads to the evolution of existing technologies and the creation of new technologies.

### Progress of Vista2021 Stage II

#### 1 NANOFIBERGEL®

In addition to promoting skin penetration of active ingredients such as vitamins C derivatives, NANOFIBERGEL® has been confirmed to have an anti-pollution effect that inhibits the adhesion of PM2.5 and pollen, and has been adopted in a skincare product by a major cosmetics manufacturer. The product was also adopted for use in SUGI Pharmacy's private brand "Prieclat". We will expand it to other items in the future.

#### 2 prevelex®

We have started sales of culture vessels coated with "prevelex®CC1" for clinical research and trials of iPS cell-derived cardiomyocyte spheroid transplantation. In addition, containers for drug discovery screening coated with "prevelex®AP1" are being developed as the ability to prevent adhesion of biological substances is highly evaluated. In the future, we will promote sales expansion of current products and accelerate the development of "prevelex®AP2" that have achieved further functional improvements, and spheroid mass production materials.

#### 3 SUNCONNECT®

SUNCONNECT®, an optical interconnect material with high heat resistance and low optical loss, has been evaluated by several 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.

#### 4 Hole Transport Layer for OPV

Regarding organic photovoltaics (OPV), lightweight and flexible solar cells that practical application preceded, efficiency improvement by adopting next-generation active layers, has become one of the most important issues, and we have developed a hole transport layer for OPV for next-generation active layers, which is being evaluated by customers. At present, the effectiveness of our material has been confirmed by the largest OPV customer, and the evaluation is currently ongoing.

### Vista2027 Business Strategies

#### 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

#### Strengths

- Fusion of fine organic synthesis, functional material design and biological evaluation
- Thin film coating based interface control technology
- Extensive network with external research institutes



#### Main Measures

1. Accelerate development by allocating resources to important themes
2. Incorporate new technologies and materials from inside and outside the Company into in-house technology
3. Improve contact with customers and strengthen solution proposals capability

# Research and Development

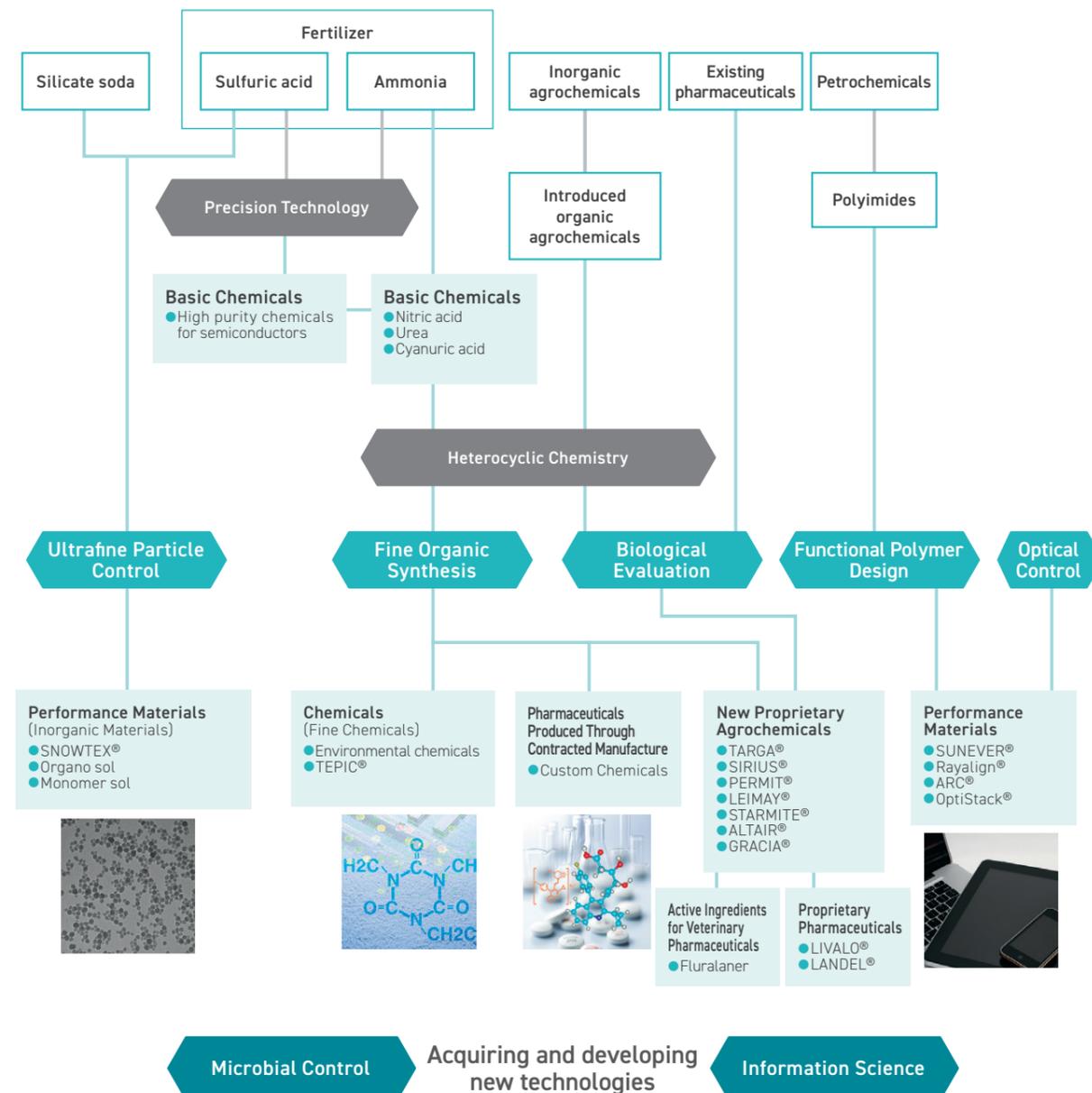
R&D capabilities are the source of Nissan Chemical's competitiveness. We have made continuous investments in R&D and have focused on recruiting and training researchers. By continuing to strengthen our R&D capabilities, we will develop "Must-Have" products and services so that we can hear our customers' voices, such as "it doesn't work without this product" and "this product is irreplaceable". We will aim to realize our ideal state in 2050: "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".

## Business Domains and Core Technologies

Originally started as a fertilizer manufacturer, over our long history, we have grown with "Fine Organic Synthesis", "Functional Polymer Design", "Ultrafine Particle Control", "Biological Evaluation", and "Optical Control" serving our core technologies.

We will enter new domains related to three growing businesses, "Information & Communication", "Life Science", and

"Environment & Energy", by adding "Microbial Control" and "Information Science" to our existing core technologies. By working closely with between research laboratories or research laboratories and related departments to deeply exploit and integrate our core technologies, we aim to accelerate growth in each business domain.



## Fostering 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.

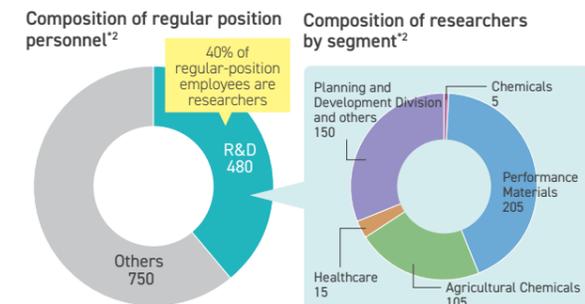
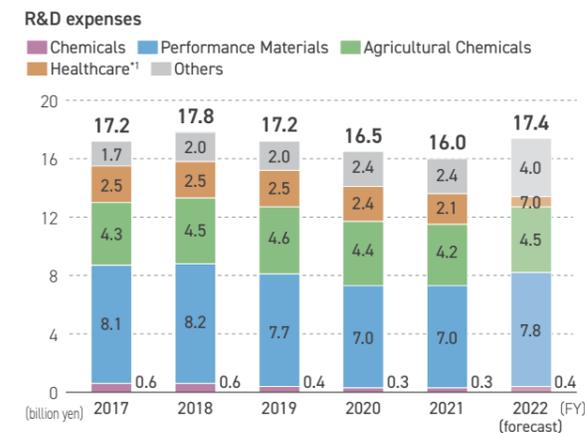
### Information Science

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.

## 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 84.7 billion yen. The R&D expenses in Performance Materials and Life Sciences that combined with Agricultural Chemicals and Healthcare account for more than 40% each. In addition, about 40% of employees of regular position are allocated as researchers.



<sup>1</sup>The Pharmaceutical Div. was reorganized into the Healthcare Div. in FY2022; R&D expenses is the figures for the Pharmaceuticals Division until FY2021.  
<sup>2</sup>As of April 2022

## Voices of Researchers

Newly establishment of Biological Group, Agricultural Chemicals Research & Development Department, Biological Research Laboratories



**NISHIMURA Kenji**

Biological Group, Agricultural Chemicals Research & Development Department, Biological Research Laboratories

Recently, policies to decrease the use of agricultural chemicals have been announced in Europe and Japan, for the purpose of reducing environmental impact. In response to such changes in the external environment, our Biological Group was established in the Agricultural Chemicals Research & Development Department at Biological Research Laboratories on April 1, 2022, with the aim of developing our proprietary biological agrochemicals and acquiring a microbial control technology utilizing bioinformatics, from a different perspective we never used before.

It is said that there are about 100 million microorganisms per gram in the soil. Some of them may be useful. Our mission is to contribute to safe food supply for both producers and consumers by maximizing the potential of useful microorganisms through our R&D activities, which will lead to our company's profit. I expect all of our group members to work hard to develop good products.



Analyzing microorganisms to accelerate product development



**SASATSUKI Hitoshi**

Medicinal Research Department, Biological Research Laboratories

My mission is to identify beneficial substances contained in a culture fluid of microorganisms, and then discover microorganisms which lead to new products and a method of their culture based on the substances. I'm now working for the project to develop biological agrochemicals. While I'm responsible for presenting data that significantly affects the progress of the project, I'm engaged in my work with a sense of responsibility and satisfaction. In addition, I always keep myself open to the latest findings and technologies to achieve our mission, and I enjoy working as a researcher, taking on the challenge of bioinformatics, which will become an important tool in biology in the future. I will strive to develop a microbiome analyzing method utilizing these technologies, and use the method for not only biological agrochemicals but also the fields of healthcare and environmental cleanup, which will result in accelerating the product development.



# Human Resources Strategies

The greatest asset of Nissan Chemical is the people. Creating an environment where people with diverse backgrounds and values can fulfill their potential enhances their ability to respond to society, generates innovation, and supports our business foundation. To realize our management strategy, we are reforming our personnel system and developing human resources.

## 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.

### Diversity Statement

At Nissan Chemical, it is important that the individuality and talents of each individual be demonstrated and that the purpose of the individual be connected to society through the Company. We believe that this will nurture a sense of fulfillment in work and a sense of purpose in life, and create a strong force that fulfills the future of people and society with hope and happiness as well as realizing the well-being of people who work.

We regard diversity initiatives as an important theme for achieving both the well-being of our workers and the happiness of society, and aim to achieve our Diversity Vision through all measures.

### Diversity Vision

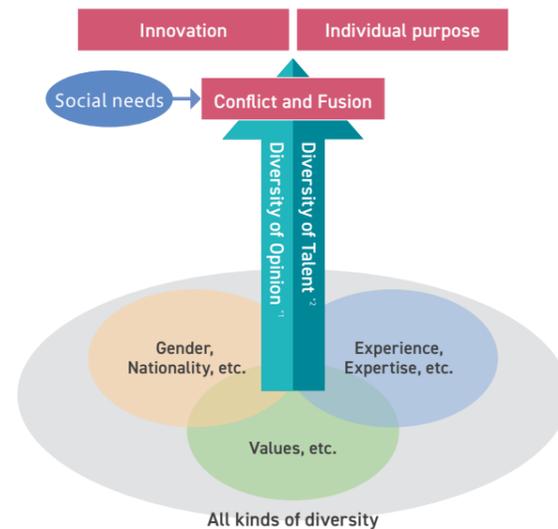
- We will become a vibrant company that is full of job satisfaction and fulfillment in life through a corporate culture that respects and accepts various opinions and ideas arising from all kinds of diversity\*, and creating the opportunities to demonstrate individual talents.
- We will bring innovation into society with creative and unique ideas that are born from conflict and fusion of various opinions and ideas.
- We will create a truly valuable future by respecting and accepting the diversity of everyone working together, whether inside or outside the Company, and collaborating with society

\* It refers to all kinds of diversity, including not only external attributes such as gender, age, nationality, and physical characteristics, but also internal attributes such as capability, experience, beliefs, religion, values. (Established in April 2021)

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

With regard to the promotion of females, 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 10% in April 2021.

Going forward, we will accelerate the penetration of diverse work styles according to individuality and life stage of each individual, with the new targets of increasing the ratio of females in the regular position to 13% or more, increasing the ratio of female researchers in regular position to 18% or more, doubling the number of female managers, and encouraging male employees to take childcare leave.



\*1 Diversity of Opinion (fusion of diverse opinions): A state in which diverse opinions are expressed and fused in a free and open atmosphere  
\*2 Diversity of Talent (demonstration of diverse talents): A state in which individual strengths are recognized and demonstrated, and high performance is achieved by the organization as a whole

### [Nissan Chemical Corporation Action Plan] (Excerpt)

<b>Period of the plan</b>	Five years from April 1, 2021 to March 31, 2026
<b>Issue</b>	The penetration of diverse work styles according to individuality and life stage of each individual is insufficient.
<b>Target 1</b>	Increase the ratio of female among employees in the regular position to 13% or more
<b>Action 1</b>	Increase the ratio of female among new graduates in the regular position to 30% or more
<b>Target 2</b>	Double the number of female managers (above section chief level)
<b>Action 2</b>	Consideration of personnel system to enable early selection
<b>Target 3</b>	Encourage male employees to take childcare leave
<b>Action 3</b>	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
<b>Target 4</b>	Continue to maintain the ratio of taking annual leave (including managers) of 70% or more
<b>Action 4</b>	Thorough implementation of our own taking annual leave target (10 days per year) set through labor-management consultation

### Promotion of Diversity

[Web https://www.nissanchem.co.jp/eng/csr\\_info/communication/employee/respect.html](https://www.nissanchem.co.jp/eng/csr_info/communication/employee/respect.html)

## Securing and Developing Human Resources

We believe the essence for human resource development is that each employee will continue to educate themselves voluntarily in their efforts to develop themselves. Therefore, we have established various human resource development programs by employment tier, including self-start training, for our employees who aspire to learn new things and develop themselves. In addition, we have started a new human resources development program and recruitment measures since FY2019 based on the Ideal Human Resources Portfolio, a guideline for human resources development.

### Intrapreneurship Program (started in FY2019)

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 repeating information gathering from potential customers in Japan and overseas and hypothesis testing in a short cycle, they will promote the brushing up of promising themes and learn how to act as innovators.



### Self-start Training

This is a traditional training that has been passed down at Nissan Chemical for decades. For the purpose of laying a foundation for self-starting human resources who “think and do what they should do”, over the course of two one-year cycles, each participant will work on “creating original plans and executing them” with the support of an implementation leader and a manager.

A contest-style presentation is held by field in the first year, and by all participants with different specialties in the second year. The ideas proposed by young employees during this training are often adopted and used in subsequent work.



### Training Before Promotion (revised in FY2020)

In the training before promotion to C3 class (job rank 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”.

In the 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 come up with ideas for new businesses, products, and services through accessing the knowledge of the world, developing their ability to interpret information, and acquiring valuable information, while demonstrating leadership and promoting transformation. Going through the process of hypothesis verification will lead to commercialization of products and services for the Company.

### Overseas Language Study Program

In order to work in a diversified workplace, we believe that it is important to understand each other’s cultural backgrounds and ideas to understand each other, not only language. Therefore, we have introduced an overseas language study program with the aim of having employees learn by experiencing and following different cultures. From FY2019, this program has been further improved by extending the existing program length by one month and expanding the languages covered.

### Business Co-creation Internship

We offer an internship program in which students from a variety of majors, whether liberal arts or science, and our employees work together to envisage future projects, aiming to secure human resources with the mindset of co-creating values demanded by society, such as solving social issues, across the boundaries of fields and organizations.

In the course of experiencing the conception of business proposals with high social value through multiple sessions, including screening for social issues and exploring the strengths and values of each participant, our employees deepen their understanding about the skills and mindset we seek as a future-creating company together with participating students.

### Personnel Retention and Trainings

[Web https://www.nissanchem.co.jp/eng/csr\\_info/communication/employee/system.html](https://www.nissanchem.co.jp/eng/csr_info/communication/employee/system.html)

## Human Resources Strategies

### Creation of a Comfortable Workplace

With recognition of growing concern for labor shortage due to the low birthrate and aging population as well as diverse work styles, our group promotes initiatives that enable employees to work in a highly productive manner and achieve a good work-life balance.

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

We have introduced a flextime system, hourly leave system, improvement of annual leave rate (target: at least 80% of available annual leave time taken), and a system which allows expired paid leave to be used for nursing/caregiving. Since FY2022, the telecommuting system has been made a permanent system. Also, in 2018, 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.

### Promotion of Appropriate Work Hours

We are making various efforts to provide appropriate work hours. For example, we have introduced work management system for grasping and visualizing working hours and the number of days left for annual leave in a timely manner based on our own strict standards that exceed legal standards. We are also providing regular training for managers for managing working hours.

### Dialogue Activities with Union Members

Every year, we provide opportunities to have direct dialogues to actively exchange opinions between more than 30 members of the Nissan Chemical Labor Union and officers in charge of personnel. By gathering a wide variety of opinions, we aim to create a more comfortable work environment.

### Creation of a Comfortable Workplace

[Web](https://www.nissanchem.co.jp/eng/csr_info/communication/employee_dialogue.html) [https://www.nissanchem.co.jp/eng/csr\\_info/communication/employee\\_dialogue.html](https://www.nissanchem.co.jp/eng/csr_info/communication/employee_dialogue.html)

### Maintenance and Improvement of Employees' Health

We have established the Basic Health Policy based on the belief that employees' health is a "foundation that supports sound corporate growth" with the goal of maintaining and improving the health of employees.

### Basic Health Policy

Based on the Basic Health Policy announced in July 2018, we have set lifestyle-related diseases measures, mental health care, etc. as priority items, and are implementing various measures jointly with the Health Insurance Association. We also established the Health Promotion Office in August 2020 and introduced a health management system in February 2021.

### Basic Health Policy

Mental and physical health is a foundation that supports sound corporate growth from the viewpoint of the happiness of employees and their families, as well as the trust of the corporate and the smooth operation of the business. We and our employees will work together to promote initiatives aimed at maintaining and promoting health in a multifaceted manner and aim to be a dynamic company.

1. Employees' health is based on their own management and we will provide support.
2. We will implement effective and flexible measures through smooth internal and external cooperation.
3. We will ensure the proper use and management of personal information and comply with laws and regulations.

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

We have been recognized for the results of our health management initiatives under the "Certified Health and Productivity Management Organization Recognition Program (White 500)" for six consecutive years by the Ministry of Economy, Trade and Industry and Nippon Kenko Kaigi.



### 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. In FY2021, 86% of eligible employees took the course. For employees, we have introduced e-learning for Self-Care and counseling services available to employees and their families.



### Enlightenment on Health Maintenance

In FY2021, we held seminars for all employees to improve their health management skills under the themes of "lifestyle-related diseases" and "mental and physical health care", etc.

### Maintenance and Improvement of Employees' Health

[Web](https://www.nissanchem.co.jp/eng/csr_info/communication/employee/workplace.html) [https://www.nissanchem.co.jp/eng/csr\\_info/communication/employee/workplace.html](https://www.nissanchem.co.jp/eng/csr_info/communication/employee/workplace.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 quality performance
  - "Visualization of Quality Management and Quality Activities" that leads to enhancement of corporate value

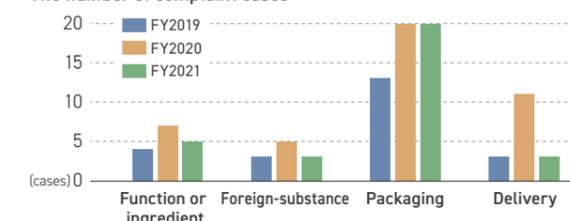
### System

We have established a quality assurance division at each plant that is independent of the manufacturing divisions, to inspect the quality of each product, and the quality assurance division at the head office, which oversees the quality assurance activities of the entire company, conducts quality audits to each plant and affiliated company. To promote quality assurance activities on a company-wide basis, the Environment, Safety, & 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

Since the number of complaints increased in FY2020, we conducted improvement activities focusing on changes in product manufacturing and product design, resulting in a decrease in the number of complaints in FY2021. The number of serious complaints remained almost unchanged at 1 in FY2019, 3 in FY2020, and 2 in FY2021. We aim to achieve zero cases in FY2022.

### The number of complaint cases



\* We have changed complaint counting rule from FY2021, from FY of occurrence to FY of determination, and from number of complaints to number of complaint cases (the same kind of complaints is counted as one case). Results for past years are recalculated on this basis.

### Activities

#### Prevention of Quality Fraud and Data Tampering

In FY2020, we established and began implementing the guidelines with the aim of prevention of fraud and tampering regarding quality control. In FY2021, the status of operation was confirmed through internal audit. In addition, since falsification of inspection data has become a major social issue in recent years, we confirmed the consistency of inspection results, inspection data, and the basis of the specification, and confirmed whether there were any fraudulent or inappropriate actions related to quality control.

No intentional fraud was found, and minor deficiencies and potential risks were guided for improvement.

### Fostering Quality Culture

Effective means of raising quality awareness and combating their conceit or decline in compliance include the dissemination of corporate policies and employee education. In 2021, we established the Quality Behavior Model aiming to enhance the quality of our employee behavior, and disseminated it as our top message. We will continue to develop internal education on quality compliance.

### Logistic 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.

Although a high percentage of our quality abnormalities are caused by the packaging process to transportation operations, human errors are not easily reduced by reviewing work methods and training of workers. We will analyze abnormal cases and share the improvement targets with contract logistic suppliers as well. In addition, we have established internal guidelines for the management of contract manufacturers. Based on this, we conduct quality audits and evaluate contract manufacturers to maintain appropriate management.

### 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 feedbacks are promptly communicated to the sales, manufacturing, and quality control divisions to enable response to customers and quality improvements. In addition, we are building an electronic system for comprehensive quality-related information, including complaints.

### Improvement of Products Quality

[Web](https://www.nissanchem.co.jp/eng/csr_info/communication/customer.html) [https://www.nissanchem.co.jp/eng/csr\\_info/communication/customer.html](https://www.nissanchem.co.jp/eng/csr_info/communication/customer.html)

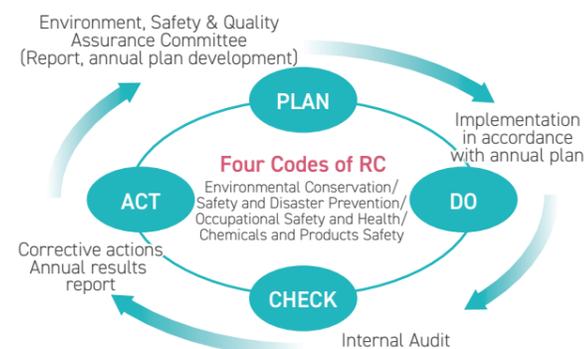
# Responsible Care

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.

## System

We have been engaged in RC activities since 1992, and established a new RC mid-term plan (2022-2027) this year. To achieve our RC mid-term plan, 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 & Quality Assurance 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 for checking RC activities at each plant, laboratory and affiliate. 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. Environment, Safety & Quality Assurance Department clarifies visible or potential problems related to EHS and promotes improvements in response after clarifying the problems, if any.

In FY2021, total of 6 RC audits were conducted for our plants, research laboratories and affiliates.

### Responsible Care Management

[https://www.nissanchem.co.jp/eng/csr\\_info/responsible\\_care/management.html](https://www.nissanchem.co.jp/eng/csr_info/responsible_care/management.html)



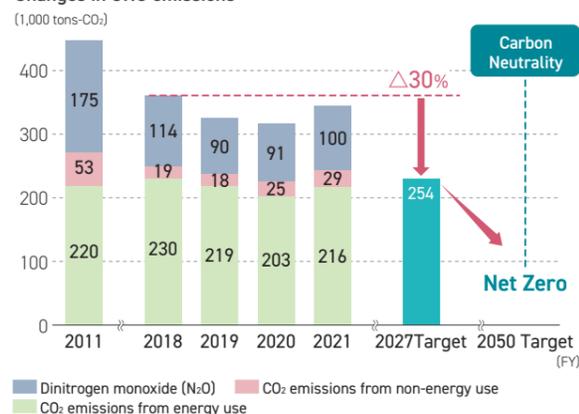
## Mitigation of Climate Change and Environmental Conservation

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

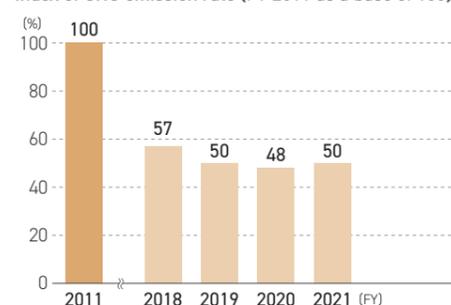
We actively work to protect the environment, including taking efforts to reduce greenhouse gas (GHG) emissions, and have been promoting initiatives to mitigate climate change which include energy savings, fuel conversion, and dinitrogen monoxide emissions reduction. For our GHG emissions reduction (Scope 1 and 2), in addition to the RC mid-term targets until FY2021 of “GHG emissions: 20% reduction compared to FY2011” and “GHG emission rate (emissions/sales): 40% improvement compared to FY2011”, we have set a FY2027 target of “GHG emissions: at least 30% reduction compared to FY2018” to achieve carbon neutrality in 2050.

In FY2021, we achieved the RC mid-term targets for both GHG emissions (reduced by 23% compared to FY2011) and the GHG emission rate (improved by 50% compared to FY2011) although GHG emissions increased from the FY2020 level due an increase in the volume of manufacture of ammonia-based products.

### Changes in GHG emissions



### Index of GHG emission rate (FY 2011 as a base of 100)



## Efforts to Reduce Industrial Waste

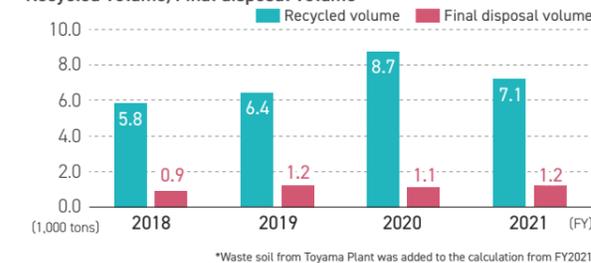
Through our responsible care activities, we further promotes the 3Rs (reduce, reuse, recycle) and strive to reduce industrial waste emissions, while at the same time thoroughly implement control measures to ensure that waste is disposed of properly. The volume of industrial waste generated in FY2021 slightly increased than in FY2020, with a decrease in the recycled volume and a slight increase in the final disposal volume. As a result, the recycling rate\* was 97.2%, a slight decrease from 97.3% in FY2020.

\*Recycling rate (%) =  $\frac{[\text{Recycled volume (ton)} + \text{Volume of valuable regenerative (ton)} + \text{Volume of reduction (ton)}]}{[\text{Volume of waste generation (ton)} + \text{Volume of valuable regenerative (ton)}]} \times 100$

### Volume of industrial waste generated



### Recycled volume/Final disposal volume



\*Waste soil from Toyama Plant was added to the calculation from FY2021

## 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 FY2021, a new biotope was completed at the Sodegaura Plant.



Sodegaura Plant Biotope

We also established the “Nissan Bio-Park Nishi-Hongo” in 2008 with the theme of returning to the lost nature, and the purpose of “creating spaces with biodiversity, mainly waterfront and community-based forests that are suitable to inhabit for plants and animals, to provide places where employees of the plant and local residents can relax”. The park operated by Toyama Plant won the Biotope Grand Award at the 14th Biotope Awards sponsored by the NPO Japan Biotope Association.

This time, we received high praise for our collaboration with the “support team” consisting of volunteers from the community and the retired of the plant, which led to the award.



Nature Experience Learning at Nissan Bio-Park Nishi-Hongo



Biotope Grand Prize Awards Ceremony

### Web

**Mitigation of Climate Change**  
[https://www.nissanchem.co.jp/eng/csr\\_info/responsible\\_care/environment/reduction.html](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](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](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](https://www.nissanchem.co.jp/eng/csr_info/responsible_care/conservation.html)

## Responsible Care

### 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 explosions or other accidents in FY2021, but a small fire broke out at the Toyama Plant. This was caused by a leakage of the heat medium used in the production of melamine from the shaft seal of the valve, which ignited the heat insulator in contact with the heat medium. Employees immediately put out the fire with fire extinguishers, and there was no human or property damage, and no impact on the environment or neighborhood. We are taking thorough measures to prevent such a small fire from happening again at all our 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.



Disaster drills (Toyama Plant)

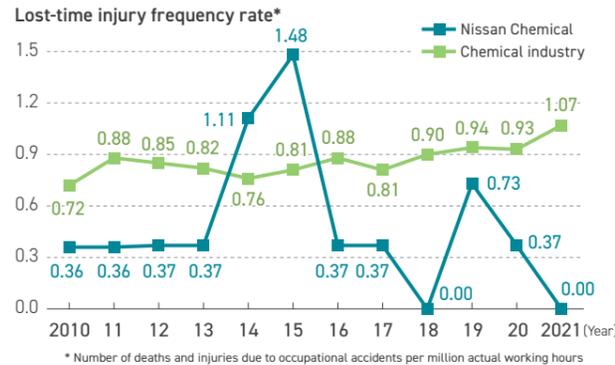
### Promotion of Occupational Safety and Health

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 2021, there was no accident requiring staff to take time off from work, but seven cases of accidents not requiring staff to take time off from work. We will continue aiming to achieve zero accident by promoting risk assessment, prior-work risk predictions, risk predictions training, HHK<sup>1</sup>, 5S<sup>2</sup>, and appropriate wearing of protective equipment and by raising awareness of safety through the safety meeting and the occupational safety newspapers.

<sup>1</sup> HHK stands for Hiyari-Hatto (near miss incident) and Kigakari (alarming). It means the discovery of near-miss incidents that are not linked directly to serious injuries or accidents but could have resulted in such injuries or accidents.

<sup>2</sup> 5S stands for Seiri, Seiton, Seisou, Seiketsu, Shitsuke. These words mean "Sort" "Set" "Shine" "Standardize" "Sustain" respectively



### Promotion of Safety and Disaster Prevention, and Occupational Safety and Health

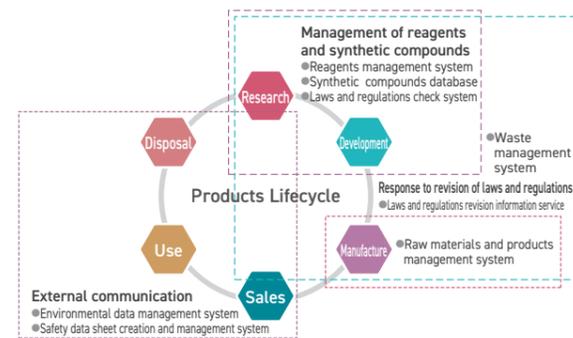
[Web](https://www.nissanchem.co.jp/eng/csr_info/responsible_care/safety.html) [https://www.nissanchem.co.jp/eng/csr\\_info/responsible\\_care/safety.html](https://www.nissanchem.co.jp/eng/csr_info/responsible_care/safety.html)

### Management of Chemical Substances and Products Safety

#### Risk Assessment in Products Lifecycle

We perform a risk assessment (prior assessment) of each step in handling chemical products, such as the 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, safety data obtained from 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. 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.



### Management of Chemical Substances

[Web](https://www.nissanchem.co.jp/eng/csr_info/responsible_care/chemical.html) [https://www.nissanchem.co.jp/eng/csr\\_info/responsible\\_care/chemical.html](https://www.nissanchem.co.jp/eng/csr_info/responsible_care/chemical.html)

## Information Disclosure in line with TCFD Recommendations

Nissan Chemical announced our support for recommendations of Task Force on Climate-related Financial Disclosures (TCFD) in August 2020. We will strive to increase our corporate value by not only continuing to promote our initiatives to address climate change such as measures for reducing GHG emissions but also improving our information disclosure step-by-step.



### Support for TCFD

We support the Paris Agreement, position "mitigation of climate change" as one of the materiality factors, we have set a mid-term target (Scope1, 2) of "reducing GHG emissions by at least 30% from FY2018 level by FY2027" aiming for achievement of carbon neutrality in 2050 and have implemented.

In addition, we announced our support for recommendations of Task Force on Climate-related Financial Disclosures (TCFD). By disclosing our climate change-related information to all stakeholders, including investors, and promoting dialogue, we will strive to further improve our climate change efforts and disclosure, and further contribute to the realization of sustainable society.

### Governance

Our group has established the Sustainability Promotion Committee, the Climate Change Committee, the Risk Management & Compliance Committee and the Environment, Safety & Quality Assurance Committee as sustainability promotion structure, and the Board of Directors supervises the initiatives by discussing and resolving the content of deliberation at each committee.

As we have identified "mitigation of climate change" as one of our materiality factors, we newly established the Climate Change Committee in July 2022 where issues focused on climate change are specifically discussed and examined.

We have also identified "supply of environmental-friendly products and services" as one of the materiality factors, and we are committed to developing products and other services that help achieve zero emissions and popularize bioplastics. Sales and investment plans for these products are submitted to the management meeting by the division in charge, and after approval, submitted to the Board of Directors.

### Sustainability Promotion Committee

In order to strategically tackle global social issues including climate change, the Sustainability Promotion Committee, chaired by the officer in charge of the Sustainability Promotion & IR Department (Director, Managing Executive Officer and CFO) and composed of managing executive officers responsible for divisions and departments, has been established as an organization that considers and deliberates important matters. This committee meets regularly twice a year to deliberate policies, targets, and plans, etc. related to sustainability including climate change. After approval by the management meeting, the following matters are submitted to the Board of Directors.

#### [Matters to be deliberated at the Board of Directors]

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

#### Climate Change Committee

In order to accurately grasp the risks and opportunities posed by the increasingly serious climate change problem, link them more strongly to management strategies, and strengthen the comprehensive measures against climate change, the Climate Change Committee has been established as an independent organization, chaired by the president (COO) and consisting of members from the Corporate Planning Department, business divisions, Planning and Development Division, Finance & Accounting Department, Purchasing Department, Production Technology Department, Environment, Safety & Quality Assurance Department and Sustainability Promotion & IR Department.

In addition to being held regularly once a year, this committee meets as needed to analyze risks and opportunities related to climate change, and to deliberate policies, targets, and plans, etc. After approval by the management meeting, the following matters are submitted to the Board of Directors.

#### [Matters to be deliberated at the Board of Directors]

Scenario analysis and countermeasures for identified risks and opportunities  
Long- and mid-term plans and annual plan focused on measures against climate change

#### Risk Management & Compliance Committee

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/Director, Managing Executive Officer) who is appointed by the Board of Directors, and is composed of the Risk & Compliance Managers of divisions and departments, plants and laboratories, and domestic consolidated subsidiaries appointed by the CRO (heads of divisions/departments and plants/laboratories, Presidents of domestic consolidated subsidiaries).

The Risk & Compliance Managers periodically conduct identification of risks, including climate change-related risks 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/department,

\*Paris Agreement/went into effect in 2016. The Paris Agreement aims to suppress the rise in average temperature well below 2°C (2°C target) as a long-term international goal, and to suppress the rise in average temperature up to 1.5°C as further efforts.

## Information Disclosure in line with TCFD Recommendations

plant/laboratory and domestic consolidated subsidiary.

At the committee, above risk management activities and activity plans of next fiscal year are deliberated. Contents of deliberation are validated and reviewed at the management meeting at least once a year. After approval by the management meeting, the following matters are submitted to the Board of Directors.

### [Matters to be deliberated at the Board of Directors]

Identification of group major risks and their countermeasures  
Mid-term plan and annual plan for risk and compliance

### ● Environment, Safety & Quality Assurance Committee

Responsible Care (RC) activities, which are voluntary activities, aim to ensure environment, health and safety throughout the entire processes from development of chemical products 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. The Environment, Safety & Quality Assurance Committee, which is

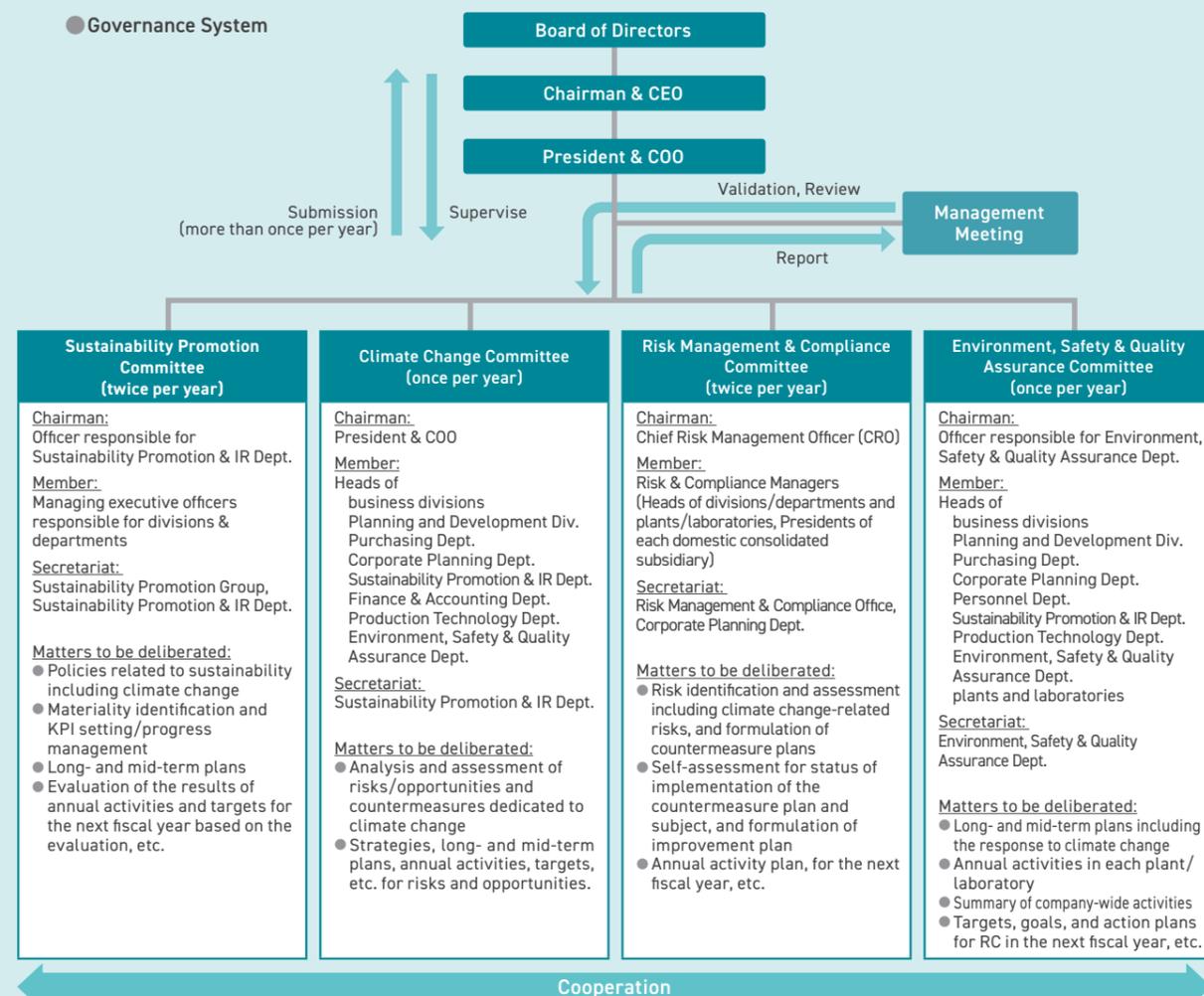
chaired by the officer responsible for the Environment, Safety & Quality Assurance Department (Director, Managing Executive Officer and CFO), has been established as the organization in charge of promoting these activities, and has held its meetings.

At this Committee, while sharing information with the Sustainability Promotion Committee, long- and mid-term plans including the response to climate change, annual activities in each plant/laboratory, summary of company-wide activities, and the targets, goals, and action plans for RC in the next fiscal year, etc. are deliberated.

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

### [Matters to be deliberated at the Board of Directors]

Policy planning related to RC  
Long- and mid-term plans and annual plan for RC



[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.

## Risk Management

In the framework of the Risk Compliance Committee, we clarify risks including climate-change related risk 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.

We deliberated the Group Major Risks at the Risk Management & Compliance Committee and approved them at the Board of Directors.

### ● Management Process of Group Major Risks

The department in charge and the risk owner are decided for each selected Group Major Risk, the Group Major Risks countermeasure plan is formulated mainly by the Risk & Compliance Manager of the department in charge, and after deliberation at the Risk Management & Compliance Committee, countermeasure plan is resolved at the Board of Directors. Implementation status of countermeasures are deliberated at the Risk Management & Compliance Committee, and the results of the deliberation are also reported to the Board of Directors.

Regarding typhoon and torrential rain, which are one of the Group Major Risks, we set the KPI of “formulating BCP where products account for 50% of ordinary income by FY2021” at each plant as a response to the risk of increasing equipment restoration costs and reducing production at major plants, and formulated BCP where products account for 76% of ordinary income as of the end of FY2021.

Identification of risks and assessment of the impact on the business and the probability are conducted on a regular basis to periodically review the Group Major Risks.

Please see the following web page for process for identifying Group Major Risks, risk map, Group Major risks, and countermeasures against risks.  
[https://www.nissanchem.co.jp/eng/csr\\_info/risk\\_management/policy.html](https://www.nissanchem.co.jp/eng/csr_info/risk_management/policy.html)

\*Scenario analysis is a method for anticipating the effects of global warming and climate change and changes in the business environment caused by long-term policy trends related to climate change, and for examining the impact that such changes may have on the company's business and management.

## Strategy

The TCFD recommendations require a scenario analysis\* to understand how the risks and opportunities caused by climate change give impact on companies' finances.

Referring both 2°C scenarios in which transition to decarbonized society realizes (mainly transition risk and opportunity) and 4°C scenarios in which climate change progresses (mainly physical risk and opportunity), we identified business risks and opportunities, examined their importance, and summarized impact on the Company and our strategies.

The scope of analysis is the entire business of the Company, and analysis period is up to 2030, which is the final year of our previous long-term business plan.

At the 26th UN Climate Change Conference of the Parties (COP26), it was agreed to pursue efforts to suppress the rise in average temperature within 1.5 °C. In order to understand the impact of policy trends and social changes to achieve the 1.5 °C target on our business, we plan to review the scenario analysis including the implementation of scenario analysis using the 1.5 °C scenario during FY2022.

### ● Referenced Scenarios

	2°C Scenario <sup>*1</sup>	4°C Scenario <sup>*2</sup>
<b>Transition Risk and Opportunity</b>	<ul style="list-style-type: none"> <li>● IEA-WEO<sup>*3</sup> Sustainable Development Scenario (SDSs)</li> <li>● IEA-ETP<sup>*4</sup> 2°C Scenario (2DS)</li> </ul>	<ul style="list-style-type: none"> <li>● IEA-WEO New Policies Scenario (NPS)</li> </ul>
<b>Physical Risk and Opportunity</b>	<ul style="list-style-type: none"> <li>● IPCC<sup>*5</sup> RCP2.6</li> <li>● MEXT<sup>*6</sup> d2PDF</li> </ul>	<ul style="list-style-type: none"> <li>● IPCC RCP8.5</li> <li>● MEXT d4PDF</li> </ul>

<sup>\*1</sup> Scenarios when necessary measures will be implemented to keep global average temperature rise below 2°C compared to pre-Industrial Revolution era  
<sup>\*2</sup> Scenarios in which the global average temperature will rise by 4°C at the end of the 21st century compared to pre-Industrial Revolution era  
<sup>\*3</sup> International Energy Agency “World Energy Outlook” (2019)  
<sup>\*4</sup> International Energy Agency “Energy Technology Perspectives” (2017)  
<sup>\*5</sup> Intergovernmental Panel on Climate Change  
<sup>\*6</sup> Ministry of Education, Culture, Sports, Science and Technology

### ● Process of Risks and Opportunities Identification



## Information Disclosure in line with TCFD Recommendations

### Scenario Analysis Results (climate change risks/opportunities)

For the introduction of carbon taxes, which is identified as an important risk in the 2°C scenario, we plan to introduce internal carbon pricing to further promote investment that takes into account the reduction of GHG emissions (decarbonization investment).

In addition, in response to market changes due to increasing demand for environmental considerations, we assume that we are able to expand business opportunities in the Environment & Energy field, which is one of the main business domains of our previous long-term business plan “Progress2030” launched in 2016 and new long-term business plan “Atelier2050” announced in 2022.

Moreover, our decarbonization investment and product characteristics have made us more carbon-efficient compared to whole chemical industry. We believe this will benefit from in-

creasing demand for initiatives to address climate change from investors and other stakeholders.

Meanwhile, we will respond to the risks of impacts on plant operations and supply chains due to increase in abnormal weather, which was identified in the 4°C scenario, by formulating and revising BCPs (Business Continuity Plan) for our main products and by multiple sourcing of several key raw materials, etc. In regards to market changes caused by rising temperature and abnormal weather, we see opportunities in such as agrochemicals and disinfectants for drinking water due to water shortages and infection diseases.

As a “future-creating company that grows through seeking to enrich people and nature”, we will further refine the core technologies that we have cultivated over the years and continue to work to provide new value that contributes to people’s lives.

All: All businesses Agri: Agricultural Chemicals business Chem: Chemicals business

Scenario	Factors	Social Change	Relevant Business	Impact on Business	Degree of Impact	Measures
2°C Scenario	● Strengthening regulations on GHG emissions	● Introduction of carbon pricing	All	● Increase in operating costs due to introduction of carbon pricing, such as carbon taxes (If the same conditions meet worldwide, maintaining competitiveness is possible.)	(Large)	● Fuel and feedstock conversion at plants ● Optimization of nitric acid production capacity
	● Changes in energy policy ● Changes in energy demand and supply	● Price change in fuel and feedstock ● Change in transportation costs	All	● Increase in costs due to higher fuel and feedstock prices ● Increase in transportation costs	(Moderate)	● Update to energy-saving equipment, etc.
	● Market changes due to increasing demand for environmental consideration	● Increased need for low-carbon products	R&D	● Increase in demands for products related to electric energy such as battery materials and photoelectric conversion materials due to changes in energy policies	(Moderate)	● Development of environmental-friendly products and services
	● Increased demand from investors for addressing climate change	● Expansion of ESG investment	All	● Deterioration of ESG evaluation and reputation due to increasing criticism of bulk use of fossil fuels ● Improvement of ESG evaluation and reputation through advanced initiatives and information disclosure	(Moderate)	● Appropriate information disclosure
4°C Scenario	● Increase in abnormal weather	● Increase in frequency and enhanced intensity of heavy rain/flooding ● Enhancement of intensity and frequency of typhoons ● Heavy snowfall	All	● Increase in risk of impacts on plant operations and supply chains due to escalation of natural disasters	(Moderate)	● Formulation of business continuity plan (BCP) for major products at each plant
	● Market changes caused by rising temperature and abnormal weather	● Decline in the available water (freshwater) resources	Chem	● Increase in sales of disinfectants due to increase in global demand for drinking water	(Moderate)	● Development of environmental-friendly products and services
		● Reduction of planted area	Agri	● Reduction of planted area due to increase in frequency and enhanced intensity of heavy rain/flooding ● Reduction of planted area due to difficulties in securing irrigation water	(Moderate)	
		● Increase in pests, weeds, and pathogens	Agri	● Increase in opportunity to develop new agrochemicals ● Influence on sales of existing agrochemicals due to resistance expression	(Moderate)	
● Increase in mass infection and diseases	R&D	● Increase in demand for related products and services due to growing medical needs for tropical infections and diseases	(Moderate)			

### Metrics and Targets

In our Responsible Care Mid-Term Plan (FY2016-2021), we set reduction targets for both absolute emissions and intensity. In addition, from the results of the scenario analysis, we recognize that the introduction of carbon taxes is the largest climate change-related risk. We think reducing the GHG emissions (Scope1 + 2) of Nissan Chemical Corporation, which accounts for about 95% of consolidated GHG emissions, is important for reducing this risk.

Therefore, in January 2021, we newly set Nissan Chemical Corporation’s long-term target of “reducing GHG emissions (Scope1 + 2) by 30% from FY2018 level by FY2030”, while we moved it forward three years “reducing GHG emissions (Scope1 + 2) by at least 30% from FY2018 level by FY2027” in the mid-term business plan “Vista2027” announced in FY2022. The degree of progress for this reduction target is reflected in the ESG-linked portion of officers’ performance-related remuneration.

Fuel conversion to natural gas at the Toyama Plant, reduction of dinitrogen monoxide (N<sub>2</sub>O) emissions generated from re-

actors by optimizing production capacity of nitric acid in FY2017, energy saving by improving the equipment capacities and renewal of aging facilities, etc., contributed to consistent GHG emissions reduction. Although, by these initiatives, in FY2020, we achieved all of our mid-term targets up to 2021 one year ahead of target year, in FY2021, GHG emissions and energy consumption increased resulting in the short of the FY2021 target of “Energy consumption rate per unit to sales” because of an increase in production volume of ammonia-based products due to the global economic recovery from the impact of the COVID-19.

The Company’s GHG emissions and energy consumption have been subject to third-party verification since FY2018. Going forward, we will continue to consider reducing GHG emissions and strive to reduce environmental burdens as well as disclose highly reliable information.

### Responsible Care Mid-term Plan (FY2016-2021) Mid-term Targets and Long-term Target

Category	Metrics	Scope	FY2021 Targets	FY2027 Target
Reduction of GHG emissions	GHG emissions (Scope1+2)	Absolute emissions	Reducing by 20% from FY2011 level	Reducing by at least 30% from FY2018 level
	GHG emission rate per unit to sales (Scope1+2)	Intensity	Improving by 40% from FY2011 level	—
Energy consumption	Energy consumption rate per unit to sales	Intensity	Improving by 30% from FY2011 level	—

### Climate Change-related Data

	Scope	Unit	2011	2018	2019	2020	2021	Target (Target year)
Scope1	Non-consolidated	t-CO <sub>2</sub> e	369610	245469	221264	216276	231713	—
Scope2	Non-consolidated	t-CO <sub>2</sub> e	79451	117926	105390	102182	113623	—
Scope1+2	Non-consolidated	t-CO <sub>2</sub> e	449061	363395	326654	318458	345336	359248 (2021) 254377 (2027)
GHG emission rate per unit to sales <sup>*1</sup> (Scope1+2)	Non-consolidated	t-CO <sub>2</sub> e/ million yen	4.06	2.33	2.04	1.96	2.03	2.44 (2021)
Scope3 <sup>*2</sup>	Non-consolidated	t-CO <sub>2</sub> e	—	703562	767799	763007	803461	—
Energy consumption rate <sup>*3</sup>	Non-consolidated	*4	100	73.8	70.8	67.9	72.6	70 (2021)
Scope1	Consolidated <sup>*5</sup>	t-CO <sub>2</sub> e	—	253785	228791	220243	238958	—
Scope2	Consolidated <sup>*5</sup>	t-CO <sub>2</sub> e	—	128647	116724	116516	124663	—
Scope1+2 <sup>*6</sup>	Consolidated <sup>*5</sup>	t-CO <sub>2</sub> e	—	382432	345514	336759	363621	—
Non-consolidated/consolidated (Scope1+2)		(%)	—	95.0	94.5	94.6	95.0	—

\*1 Amount of emissions (t-CO<sub>2</sub>e)/non-consolidated sales (million yen)

\*2 Data of each category: [https://www.nissanchem.co.jp/eng/csr/info/index/esg\\_data.html](https://www.nissanchem.co.jp/eng/csr/info/index/esg_data.html)

\*3 Energy consumption/non-consolidated sales

\*4 FY2011 as a base of 100

\*5 Nissan Chemical Corporation and consolidated subsidiaries with manufacturing facilities. (Nihon Hiryo Co., Ltd., Nissan Chemical America Corporation, NCK Co., Ltd.)

\*6 Due to rounding off figures, there are places where the sums of above scope1 and scope2 do not match the total.

# 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 Corpo-

rate 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.

## Number of Compliance Violations

Indicator	Scope of reporting	Unit	FY2018	FY2019	FY2020	FY2021
Consultation Hotline Reports	Consolidated*	Cases	3	2	2	1
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 Consultation Hotline to prevent compliance violation or resolve the problem 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 is 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 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 harassment.

### 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 “Act against Delay in Payment of Subcontract Proceeds, Etc. to Subcontractors”, insider trading regulations, and regulations on the “Combating Bribery of Foreign Public Officials”. We also conduct training with an emphasis on practicality, such as systematically holding in-house seminars themed on familiar legal matters, lectured by internal instructors.

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 P77 for information on training in FY2021

### 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.

## 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
- 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

### As a manufacturer

- Ensure the safety of products
  - Protect the environment
  - Implement safety and disaster prevention measures
- ### As a public corporation
- Disclose management information
  - Conduct appropriate accounting processing

### As a member of the workplace

- Comply with work regulations
- Respect human rights; prohibit discrimination
- Prohibit sexual harassment
- Protect privacy
- Ensure the health and safety of the workplace
- 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.



**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](https://www.nissanchem.co.jp/eng/csr_info/communication/employee/acp.html)

### Nissan Chemical Group Anti-Corruption Policy (Excerpt)

#### 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

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

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”

#### 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.

### Measures for Promoting Compliance (FY2021)

General Compliance	Director and management level compliance training, newly-appointed managers compliance training, new employee training
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; 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
Other	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

1. We place top priority on the safety of the lives of officers and employees of the Nissan Chemical Group.
2. We consider risk management as an important management issue, and engage in the activities from a company-wide perspective.
3. All officers and employees of the Group shall be sufficiently aware of risk management, 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.
5. We make efforts to respond promptly and accurately to the occurrence of loss risk and to 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/

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.

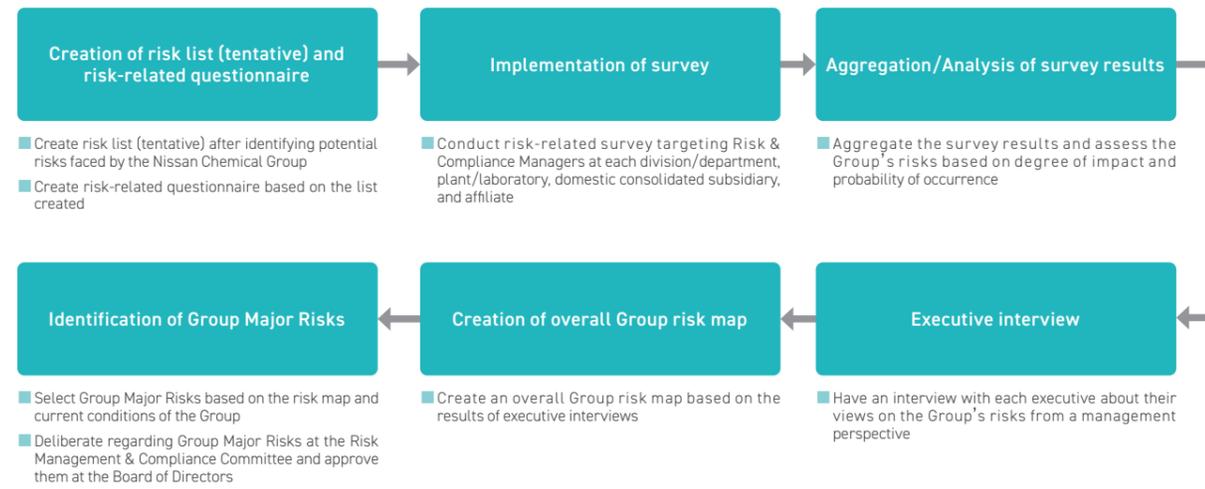
### Overall Risk Assessment Process

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.

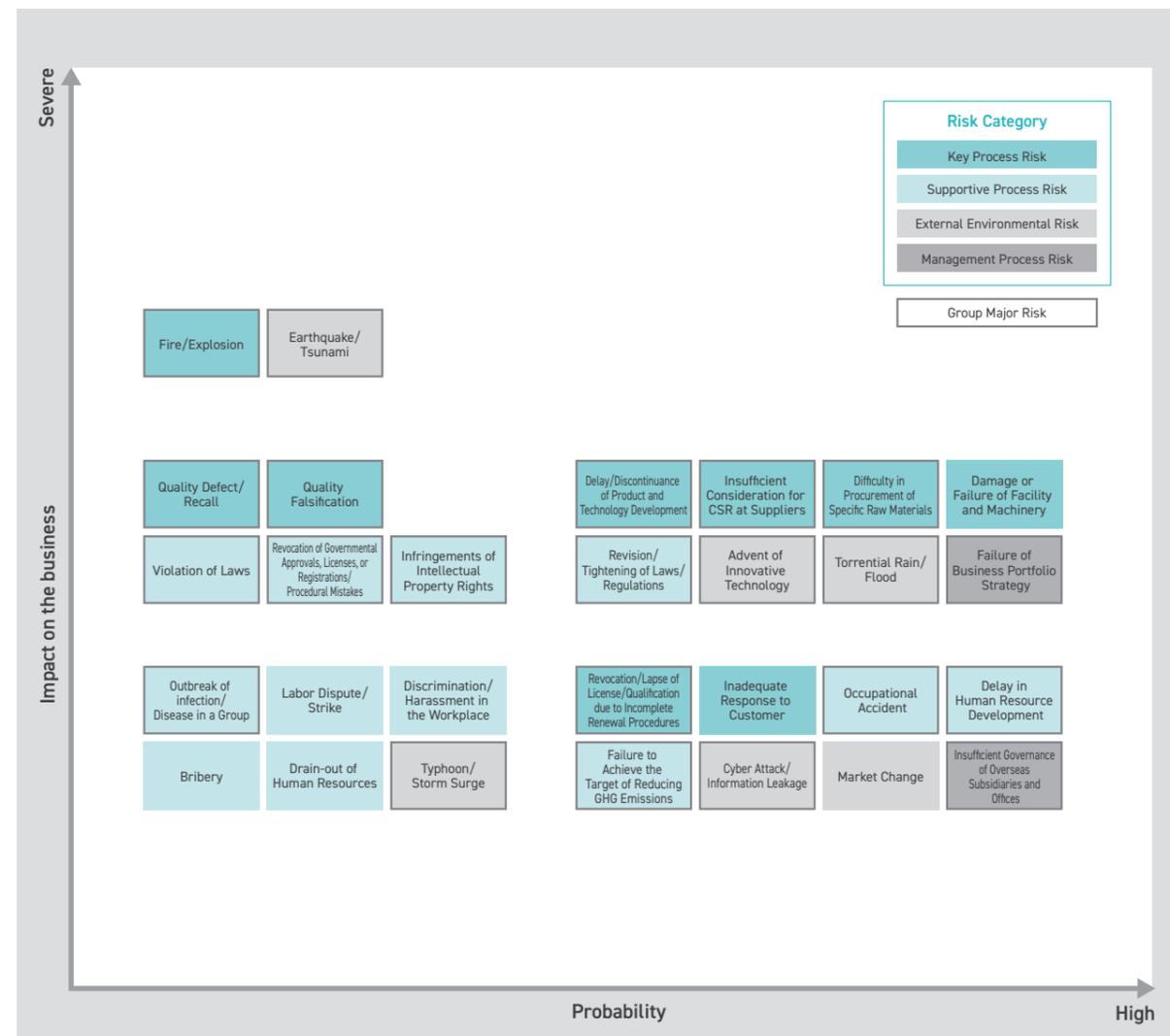


# Risk Management

## 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 in the mid-term business plan for new businesses and products, and making correction
Failure of Business Portfolio Strategy	Risk of decline in business performance due to the failure of the business portfolio strategy	Taking countermeasures to stabilize procurements based on the nature of the businesses
Difficulty in Procurement of Specific Raw Materials	Risk of being unable to supply the product to customer due to the discontinuance of specific raw materials	Establishing and operating a safety and disaster prevention management system
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	Preventing troubles/misconducts about quality through thorough governance
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	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
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	Establishing and promoting an occupational safety management system
Occupational Accident	Risk of being subjected to a damage claim due to serious accidental deaths and injuries involving employees	Optimizing the operation of managements of legal regulations and enhancing education to improve all employees' mind and knowledge
Violation of Laws Revision/Tightening of Laws/Regulations Revocation of Governmental Approvals, Licenses, or Registrations/Procedural Mistakes Licenses/Registrations 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	Reviewing and strengthening countermeasures to enable early recovery/business continuity
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	Considering and promoting countermeasures from the prospective of "prevention", "damage minimization" and "education"
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	Establishing rules and systems to strengthen governance of the corporate group
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	Making CSR evaluations of and feedbacks to suppliers and supporting their improvements
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	Establishing a company-wide organization, promoting initiatives and managing the progress
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	Enhancing programs to strengthen recruiting and education for realizing the ideal organizational state/human resource image
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	Continuously promoting countermeasures to prevent being infected and the spread of the infection
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	

# Respect for Human Rights

In April 2019, the Nissan Chemical Group formulated the Nissan Chemical Group Human Rights Policy with advice of outside experts and approved at the Board of Directors, 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. This policy covers all individuals and groups that may be affected through the business activities of our group.



## Nissan Chemical Group Human Rights Policy (Excerpt)

The Nissan Chemical Group supports international standards including 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 stakeholders including employees.

This Policy complements the Nissan Chemical Group's position with respect to compliance and respect for human rights, and shall apply to all officers and employees working for the Nissan Chemical Group.

1. Respect for Human Rights
2. No Infringement of Human Rights
3. Employment and Labor

Prohibition of forced labor and child labor, good labor-management relations, fair and equitable remuneration, and elimination of discrimination

### 4. 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 shall make efforts to remedy and 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 educating employees and raising their awareness about human rights policy, and promoting understanding for the purpose of practicing respect for human rights, we conducted group-type training for the Directors and managers in FY2020. In FY2021, we 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
- Elementary knowledge of business and human rights: Participation rate 79% (as of March 2022)

### 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 also exchanged opinions with stakeholders with the purpose of confirming consensus and differences in views on the results and incorporating the opinions of stakeholders. These opinions were reflected in the results of the evaluation, and we identified the risks which we need to prioritize for the Group.

In FY2021, we surveyed the status of efforts to address each risk through an in-house questionnaire. 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



### 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 style="list-style-type: none"> <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 style="list-style-type: none"> <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 safety and health/safety and disaster prevention</li> <li>● Raising awareness through the safety meeting, occupational safety newspapers and others</li> <li>● RC audits</li> </ul>
Community Health and Safety	Local Communities	Damage to local communities and health due to fires, explosions, chemical leaks and pesticide spraying	<ul style="list-style-type: none"> <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> </ul>
Product Safety	Customers	Sales of unsafe products, including misuse	<ul style="list-style-type: none"> <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 style="list-style-type: none"> <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 style="list-style-type: none"> <li>● Assessment by questionnaire* on Sustainability for supplier</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 style="list-style-type: none"> <li>● Assessment by questionnaire* on Sustainability for supplier</li> </ul>
Conflict Minerals	Local Communities	Procurement and use of raw materials containing conflict minerals	<ul style="list-style-type: none"> <li>● Responsible mineral procurement*</li> </ul>

\*Sustainability questionnaire and Responsible Mineral Procurement: [https://www.nissanchem.co.jp/eng/csr\\_info/communication/supply.html](https://www.nissanchem.co.jp/eng/csr_info/communication/supply.html)

## Financial Review

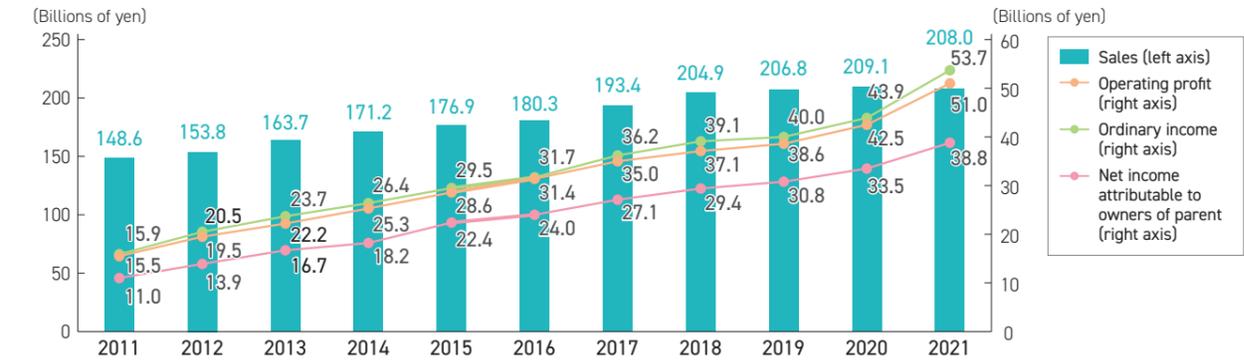
Future prospects remain uncertain due to the severe economic situation caused by the spread of COVID-19 infections. In our group, however, both operating profit and ordinary income reached record highs in FY2021. We will continue to make every effort to not only build our business and management foundation that meet the needs of the times but also create new values, responding flexibly to the rapid changes in the business environment.

### Long-term Financial Performance Trend

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Sales	148.6	153.8	163.7	171.2	176.9	180.3	193.4	204.9	206.8	209.1	208.0
Operating Profit	15.5	19.5	22.2	25.3	28.6	31.4	35.0	37.1	38.6	42.5	51.0
Ordinary Income	15.9	20.5	23.7	26.4	29.5	31.7	36.2	39.1	40.0	43.9	53.7
Net Income	11.0	13.9	16.7	18.2	22.4	24.0	27.1	29.4	30.8	33.5	38.8
EBITDA	25.9	29.1	30.8	33.8	38.3	40.3	45.5	48.0	49.2	53.0	61.2
Operating Margin	10.4%	12.7%	13.6%	14.8%	16.2%	17.4%	18.1%	18.1%	18.7%	20.3%	24.5%
ROE	9.5%	11.4%	12.7%	12.7%	14.6%	15.1%	16.1%	16.6%	16.9%	17.5%	19.2%
EPS (¥/share)	64.52	83.74	102.11	113.99	143.37	156.97	180.30	197.67	210.09	231.73	271.88
Dividend (¥/share)	24	26	30	36	44	52	68	82	90	104	122
Dividend Payout Ratio	37.2%	31.0%	29.4%	31.6%	30.7%	33.1%	37.7%	41.5%	42.8%	44.9%	44.9%
Share Repurchase	—	5.0	5.0	6.0	9.0	9.0	9.0	9.0	10.0	10.0	12.0
Total Assets	190.1	199.2	208.0	223.9	228.2	231.7	246.0	247.0	249.5	265.5	279.7
Net Assets	119.6	126.7	137.8	151.3	156.9	163.7	176.4	182.1	185.5	200.6	208.0
Cash	27.9	31.9	30.8	31.3	35.3	35.7	37.7	36.2	30.6	32.4	34.7
Liabilities with Interest	38.9	38.1	36.1	35.1	33.1	30.8	28.6	26.6	24.6	22.7	22.7
Equity Ratio	62.4%	63.0%	65.7%	66.9%	68.1%	69.9%	71.0%	73.0%	73.7%	74.9%	73.6%
Capex	8.3	7.9	8.8	9.8	10.2	14.3	13.7	9.9	15.7	15.8	11.0
Depreciation	10.5	9.5	8.5	8.5	9.7	8.9	10.5	10.9	10.5	10.4	10.2
R&D Expenses	13.6	13.7	14.2	15.0	15.8	16.1	17.2	17.8	17.2	16.5	16.0
R&D Expenses/Sales	9.2%	8.9%	8.7%	8.7%	8.9%	8.9%	8.9%	8.7%	8.3%	7.9%	7.7%

(FY2021: Including effects of changes in accounting policies)

### Key financial indicators (over time)



## Financial Review

### Financial Review of the Year Ended March 31, 2022

#### Overview

During the current fiscal year (April 1, 2021 to March 31, 2022), the domestic economy showed a temporary recovery trend in personal consumption. However, it failed to achieve a full-fledged recovery due to the spread of the COVID-19 and recurrence of state of emergency. Under these circumstances, sales of Basic Chemicals and Fine Chemicals increased in the Chemicals Segment. In the Performance Materials Segment, Display Materials, Semiconductor Materials and Inorganic Materials performed well. In the Agricultural Chemicals Segment, sales increased. In the Pharmaceuticals Segment, sales of Custom Chemicals (custom manufacturing and solution proposal business for pharmaceutical companies) increased, but sales of the Drug Discovery decreased.

As a result, operating and ordinary income achieved record highs for the eight consecutive years and net income attributable to owners of parent for the nine consecutive years, exceeding the earnings outlooks announced in February.

#### Operating Results

As a result, the Company's results for the current fiscal year were net sales 207,972 million yen (an increase of 1,149 million yen), operating income 50,959 million yen (an increase of 8,429 million yen) and ordinary income 53,690 million yen (an increase of 9,797 million yen), and net income attributable to owners of parent 38,776 million yen (an increase of 5,306 million yen). Operating and ordinary income achieved record highs for the eight consecutive year and net income attributable to owners of parent for the nine consecutive year, exceeding the earnings outlook announced in November.

ROE was 19.2% and we have achieved the Mid-Term Plan Stage II target (maintain above 16%) in the current fiscal year.

Dividend was 122 yen and dividend payout ratio became 44.9%. We have repurchased share of 12.0 billion yen and total payout ratio was 75.6%.

#### Financial Position

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

Total assets as of March 31, 2022 were 279,687 million yen (an increase of 14,178 million yen from the previous year). It is mainly due to the increase of notes and accounts receivable-trade, merchandise and finished goods, and long-term loans receivable.

Total liabilities as of March 31, 2022 were 71,678 million yen (an increase of 6,730 million yen). It is mainly due to the increase of notes and accounts payable-trade.

Net assets as of March 31, 2022 were 208,009 million yen (an increase of 7,447 million yen).

As a result of these factors, equity ratio was 73.6% (a decrease of 1.3% from March 31, 2021).

##### ● 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, 2022 was 41,949 million yen (39,939 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, 2022 was 12,395 million yen (12,854 million yen for the previous year).

Due to share repurchase, payment for dividends and of long-term loans payable, net cash used in financing activities for the consolidated fiscal year ended March 31, 2022 was 27,868 million yen (25,629 million yen for the previous year).

As a result of these factors, cash and cash equivalents for the consolidated fiscal year ended March 31, 2022 were 34,658 million yen (32,380 million yen for the previous year), reflecting exchange of 591 million yen. It increased by 2,277 million yen compared to the previous year.

### Overview by Segments (figures before reflecting organizational revisions in April 2022)

#### The Chemicals Segment

In Basic Chemicals, sales of melamine (adhesives agent for particle board), urea, AdBlue®\* (high-grade urea solution), and high purity sulfuric acid (agent used for cleaning semiconductors) increased. In Fine Chemicals, sales of TEPIC® (powder coating agent for paint, sealants, etc.) and cyanuric acid (raw material for sterilizing and disinfecting agents) of environmental chemicals also performed well.

As a result, sales of this segment were 37,648 million yen (an increase of 5,739 million yen) and operating income was 3,796 million yen (an increase of 2,313 million yen). Compared to the outlook, sales were above 0.3 billion yen and operating income was above 0.6 billion yen.

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

#### The Performance Materials Segment

In Display Materials, sales of SUNEVER® (LCD alignment coating) for notebook PCs and monitors performed well. In Semiconductor Materials, sales of anti-reflective coating for semiconductors (ARC®\*) and multilayer materials (OptiStack®\*) increased, reflecting favorable operation by customers. In Inorganic Materials, sales of SNOWTEX® for polishing electronic materials and hard coating, and Organo/Monomer sol (various kinds of coating materials, resin additive) were steady.

As a result, sales of this segment were 81,665 million yen (an increase of 10,016 million yen) and operating income was 27,719 million yen (an increase of 5,302 million yen). Compared to the outlook, sales were above 0.4 billion yen and operating income was above 0.4 billion yen.

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

#### The Agricultural Chemicals Segment

Sales of Fluralaner (active ingredients for veterinary pharmaceuticals) declined due to decreased shipments caused by customer inventories and other factors, however royalty income was strong. In Japanese domestic market, sales of ROUNDUP® (non-selective foliar application herbicide) were firm, but shipments of ALTAIR® (paddy rice herbicide) and GRACIA® (insecticide) declined. In the overseas market, sales of GRACIA® decreased, but sales of TARGA® (herbicide), SANMITE® (insecticide and acaricide) and QUINTEC® (fungicide) performed well. In addition, DITHANE® (fungicide), which was acquired in the third quarter of FY2020, contributed to sales both domestically and overseas.

As a result, sales of this segment were 65,819 million yen (an increase of 1,971 million yen) and operating income was 18,338 million yen (an increase of 135 million yen). Compared to the outlook, sales were below 0.7 billion yen and operating income was below 1.0 billion yen.

#### The Pharmaceuticals Segment

Sales of LIVALO®\* (anti-cholesterol drug) increased in Japan, but decreased overseas due to the impact of increased sales of generic drugs. In "Custom Chemicals", sales of active pharmaceutical ingredients (generic) increased.

As a result, sales of this segment were 6,630 million yen (a decrease of 22 million yen) and operating income was 947 million yen (an increase of 590 million yen). Compared to the outlook, sales were above 0.2 billion yen and operating income was above 0.3 billion yen.

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

#### Trading

Sales of this segment were 80,437 million yen (an increase of 10,616 million yen) and operating income was 2,903 million yen (an increase of 404 million yen). Compared to the outlook, sales were above 3.1 billion yen and operating income was above 0.4 billion yen.

#### Others

Sales of this segment were 23,595 million yen (a decrease of 168 million yen) and operating income was 692 million yen (a decrease of 139 million yen).

## Financial Review

### Consolidated Balance Sheets [1] (For FY2021 and FY2020)

Assets	(Millions of yen)		(Thousands of U.S. dollars)
	FY2021	FY2020	FY2021
<b>Current assets</b>			
Cash and deposits	34,658	32,380	283,130
Notes and accounts receivable - trade, and contract assets	79,979	—	653,370
Notes and accounts receivable - trade	—	73,937	—
Merchandise and finished goods	37,664	33,774	307,687
Work in process	15	23	123
Raw materials and supplies	14,496	12,853	118,422
Accounts receivable - other	2,824	2,534	23,070
Short-term loans receivable	1,541	1,223	12,589
Other	4,140	2,892	33,821
Allowance for doubtful accounts	(41)	(31)	(335)
<b>Total current assets</b>	<b>175,279</b>	<b>159,588</b>	<b>1,431,901</b>
<b>Non-current assets</b>			
<b>Property, plant and equipment</b>			
Buildings and structures	69,443	68,438	567,298
Accumulated depreciation and impairment loss	(45,158)	(43,601)	(368,908)
Buildings and structures, net	24,284	24,837	198,382
Machinery, equipment and vehicles	145,129	140,790	1,185,598
Accumulated depreciation and impairment loss	(132,567)	(128,053)	(1,082,975)
Machinery, equipment and vehicles, net	12,561	12,736	102,614
Tools, furniture and fixtures	41,345	39,775	337,758
Accumulated depreciation and impairment loss	(37,384)	(36,742)	(305,400)
Tools, furniture and fixtures, net	3,960	3,033	32,350
Land	8,809	8,996	71,963
Construction in progress	3,561	2,233	29,091
<b>Total property, plant and equipment</b>	<b>53,177</b>	<b>51,837</b>	<b>434,417</b>
<b>Intangible assets</b>			
Software	1,736	548	14,182
Other	10,044	11,581	82,052
<b>Total intangible assets</b>	<b>11,780</b>	<b>12,129</b>	<b>96,234</b>
<b>Investments and other assets</b>			
Investment securities	30,217	35,894	246,851
Long-term loans receivable	3,323	2	27,146
Deferred tax assets	918	205	7,499
Net defined benefit asset	1,844	2,478	15,064
Other	3,256	3,483	26,599
Allowance for doubtful accounts	(110)	(110)	(899)
<b>Total investments and other assets</b>	<b>39,450</b>	<b>41,953</b>	<b>322,278</b>
<b>Total non-current assets</b>	<b>104,408</b>	<b>105,921</b>	<b>852,937</b>
<b>Total assets</b>	<b>279,687</b>	<b>265,509</b>	<b>2,284,838</b>

### Consolidated Balance Sheets [2] (For FY2021 and FY2020)

Liabilities	(Millions of yen)		(Thousands of U.S. dollars)
	FY2021	FY2020	FY2021
<b>Current liabilities</b>			
Notes and accounts payable - trade	19,043	16,298	155,567
Short-term loans payable	20,981	20,937	171,399
Current portion of long-term loans payable	552	552	4,509
Income taxes payable	8,710	7,113	71,154
Provision for bonuses	2,285	2,250	18,667
Provision for directors' bonuses	—	7	—
Other	14,398	12,585	117,621
<b>Total current liabilities</b>	<b>65,971</b>	<b>59,744</b>	<b>538,935</b>
<b>Non-current liabilities</b>			
Long-term loans payable	1,182	1,184	9,656
Deferred tax liabilities	69	1,310	564
Provision for business structure improvement	698	171	5,702
Provision for loss on business of subsidiaries and affiliates	626	—	5,114
Provision for share awards for directors (and other officers)	200	91	1,634
Net defined benefit liability	290	249	2,369
Other	2,638	2,196	21,551
<b>Total non-current liabilities</b>	<b>5,706</b>	<b>5,202</b>	<b>46,614</b>
<b>Total liabilities</b>	<b>71,678</b>	<b>64,947</b>	<b>585,557</b>
<b>Net assets</b>			
<b>Shareholders' equity</b>			
Capital stock	18,942	18,942	154,742
Capital surplus	13,613	13,613	111,208
Retained earnings	172,393	161,708	1,408,324
Treasury shares	(8,261)	(7,340)	(67,486)
<b>Total shareholders' equity</b>	<b>196,688</b>	<b>186,923</b>	<b>1,606,797</b>
<b>Accumulated other comprehensive income</b>			
Valuation difference on available-for-sale securities	8,304	11,359	67,838
Foreign currency translation adjustment	898	81	7,336
Remeasurements of defined benefit plans	21	463	172
<b>Total accumulated other comprehensive income</b>	<b>9,223</b>	<b>11,904</b>	<b>75,345</b>
<b>Non-controlling interests</b>	<b>2,097</b>	<b>1,733</b>	<b>17,131</b>
<b>Total net assets</b>	<b>208,009</b>	<b>200,562</b>	<b>1,699,281</b>
<b>Total liabilities and net assets</b>	<b>279,687</b>	<b>265,509</b>	<b>2,284,838</b>

## Financial Review

### Consolidated Statements of Income (For FY2021 and FY2020)

Consolidated Statements of Income	(Millions of yen)		(Thousands of U.S. dollars)
	FY2021	FY2020	FY2021
Net sales	207,972	209,121	1,698,979
Cost of sales	106,883	121,376	873,156
Gross profit	101,089	87,745	825,823
Selling, general and administrative expenses	50,129	45,214	409,517
Operating income	50,959	42,530	416,298
Non-operating income			
Interest income	49	16	400
Dividend income	768	981	6,274
Equity in earnings of affiliates	950	1,123	7,761
Foreign exchange gains	1,134	—	—
Other	918	668	7,499
Total non-operating income	3,821	2,790	31,215
Non-operating expenses			
Interest expenses	73	69	596
Loss on disposal of non-current assets	682	696	5,571
Loss on sales of non-current assets	116	4	948
Plant stop losses	108	177	882
Foreign exchange losses	—	52	—
Other	109	426	890
Total non-operating expenses	1,090	1,427	8,905
Ordinary income	53,690	43,893	438,608
Extraordinary income			
Gain on sales of investment securities	3,366	1,588	27,498
Total extraordinary income	3,366	1,588	27,498
Extraordinary losses			
Loss on valuation of investment securities	477	—	3,897
Business structure improvement expenses	1,792	—	14,639
Loss on business of subsidiaries and affiliates	626	—	5,114
Total extraordinary losses	2,896	—	23,658
Income before income taxes and non-controlling interests	54,160	45,481	442,448
Income taxes - current	14,713	12,037	120,194
Income taxes - deferred	312	(50)	2,549
Total income taxes	15,026	11,986	122,751
Net income	39,134	33,495	319,696
Net income attributable to non-controlling interests	357	25	2,916
Net income attributable to owners of parent	38,776	33,470	316,772

Consolidated Statements of Comprehensive Income	(Millions of yen)		(Thousands of U.S. dollars)
	FY2021	FY2020	FY2021
Net income	39,134	33,495	319,696
Other comprehensive income			
Valuation difference on available-for-sale securities	(3,055)	3,575	(24,957)
Foreign currency translation adjustment	875	1,075	7,148
Remeasurements of defined benefit plans, net of tax	(442)	514	(3,611)
Share of other comprehensive income of entities accounted for using equity method	0	1	0
Total other comprehensive income	(2,622)	5,167	(21,420)
Comprehensive income	36,511	38,663	298,268
(Comprehensive income attributable to)			
Owners of parent	36,095	38,540	294,870
Non-controlling interests	416	122	3,398

### Consolidated Statements of Changes in Net Assets (For FY2021)

	(Millions of Yen)				
	Total shareholders' equity				
	Capital stock	Capital surplus	Retained earnings	Treasury shares	Total shareholders' equity
Balance at beginning of current period	¥18,942	¥13,613	¥161,708	(¥7,340)	¥186,923
Cumulative effects of changes in accounting policies			(1,548)		(1,548)
Restated balance	¥18,942	¥13,613	¥160,160	(¥7,340)	¥185,375
Changes of items during period					
Dividends of surplus			(15,468)		(15,468)
Net income attributable to owners of parent			38,776		38,776
Share repurchase				(12,003)	(12,003)
Disposal of treasury shares		0		8	8
Cancellation of treasury shares		(0)	(11,074)	11,074	—
Net changes of items other than shareholders' equity					
Total changes of items during period	—	—	12,233	(920)	11,313
Balance at end of current period	¥18,942	¥13,613	¥161,708	(¥8,261)	¥196,688

	(Millions of Yen)					
	Accumulated other comprehensive 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	¥11,359	¥81	¥463	¥11,904	¥1,733	¥200,562
Cumulative effects of changes in accounting policies						(1,548)
Restated balance	¥11,359	¥81	¥463	¥11,904	¥1,733	¥199,013
Changes of items during period						
Dividends of surplus						(15,468)
Net income attributable to owners of parent						38,776
Share repurchase						(12,003)
Disposal of treasury shares						8
Cancellation of treasury shares						—
Net changes of items other than shareholders' equity	(3,055)	816	(442)	(2,680)	363	(2,317)
Total changes of items during period	(3,055)	816	(442)	(2,680)	363	8,995
Balance at end of current period	¥8,304	¥898	¥21	¥9,223	¥2,097	¥208,009

## Financial Review

### Consolidated Statements of Changes in Net Assets (For FY2020)

(Millions of Yen)

	Total shareholders' equity				Total shareholders' equity
	Capital stock	Capital surplus	Retained earnings	Treasury shares	
Balance at beginning of current period	¥18,942	¥13,613	¥146,997	(¥2,470)	¥177,082
Changes of items during period					
Dividends of surplus			(13,629)		(13,629)
Net income attributable to owners of parent			33,470		33,470
Share repurchase				(10,002)	(10,002)
Disposal of treasury shares				1	1
Cancellation of treasury shares			(5,130)	5,130	—
Net changes of items other than shareholders' equity					
Total changes of items during period	—	—	14,710	(4,870)	9,840
Balance at end of current period	¥18,942	¥13,613	¥161,708	(¥7,340)	¥186,923

(Millions of Yen)

	Accumulated other comprehensive income					Total net assets
	Valuation difference on available-for-sale securities	Foreign currency translation adjustment	Remeasurements of defined benefit plans	Total accumulated other comprehensive income	Non-controlling interests	
Balance at beginning of current period	¥7,782	(¥896)	(¥51)	¥6,834	¥1,610	¥185,528
Changes of items during period						
Dividends of surplus						(13,629)
Net income attributable to owners of parent						33,470
Share repurchase						(10,002)
Disposal of treasury shares						1
Cancellation of treasury shares						—
Net changes of items other than shareholders' equity	3,577	978	514	5,070	123	5,193
Total changes of items during period	3,577	978	514	5,070	123	15,033
Balance at end of current period	¥11,359	¥81	¥463	¥11,904	¥1,733	¥200,562

### Consolidated Statements of Changes in Net Assets (For FY2021)

(Thousands of U.S. dollars)

	Total shareholders' equity				Total shareholders' equity
	Capital stock	Capital surplus	Retained earnings	Treasury shares	
Balance at beginning of current period	\$154,742	\$111,208	\$1,321,036	(\$59,962)	\$1,527,024
Cumulative effects of changes in accounting policies			(12,646)		(12,646)
Restated balance	\$154,742	\$111,208	\$1,308,390	(\$59,962)	\$1,514,378
Changes of items during period			0		0
Dividends of surplus			(126,362)		(126,362)
Net income attributable to owners of parent			316,772		316,772
Share repurchase				(98,056)	(98,056)
Disposal of treasury shares		0		65	65
Cancellation of treasury shares		(0)	(90,466)	90,466	—
Net changes of items other than shareholders' equity					
Total changes of items during period	—	—	99,935	(7,516)	92,419
Balance at end of current period	\$154,742	\$111,208	\$1,408,324	(\$67,486)	\$1,606,797

(Thousands of U.S. dollars)

	Accumulated other comprehensive income					Total net assets
	Valuation difference on available-for-sale securities	Foreign currency translation adjustment	Remeasurements of defined benefit plans	Total accumulated other comprehensive income	Non-controlling interests	
Balance at beginning of current period	\$92,795	\$662	\$3,782	\$97,247	\$14,157	\$1,638,445
Cumulative effects of changes in accounting policies						(12,646)
Restated balance	\$92,795	\$662	\$3,782	\$97,247	\$14,157	\$1,625,790
Changes of items during period						
Dividends of surplus						(126,362)
Net income attributable to owners of parent						316,772
Share repurchase						(98,056)
Disposal of treasury shares						65
Cancellation of treasury shares						—
Net changes of items other than shareholders' equity	(24,957)	6,666	(3,611)	(21,894)	2,965	(18,928)
Total changes of items during period	(24,957)	6,666	(3,611)	(21,894)	2,965	73,483
Balance at end of current period	\$67,838	\$7,336	\$172	\$75,345	\$17,131	\$1,699,281

## Financial Review

### Consolidated Statements of Changes in Net Assets (For FY2020)

	(Thousands of U.S. dollars)				
	Total shareholders' equity				
	Capital stock	Capital surplus	Retained earnings	Treasury shares	Total shareholders' equity
Balance at beginning of current period	\$171,080	\$122,950	\$1,327,646	(\$22,309)	\$1,599,368
Changes of items during period					
Dividends of surplus			(123,094)		(123,094)
Net income attributable to owners of parent			302,294		302,294
Share repurchase				(90,336)	(90,336)
Disposal of treasury shares				9	9
Cancellation of treasury shares			(46,333)	46,333	—
Net changes of items other than shareholders' equity					—
Total changes of items during period	—	—	132,858	(43,985)	88,873
Balance at end of current period	\$171,080	\$122,950	\$1,460,513	(\$66,293)	\$1,688,250

	(Thousands of U.S. dollars)					
	Accumulated other comprehensive 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	\$70,285	(\$8,092)	(\$461)	\$61,723	\$14,541	\$1,675,650
Changes of items during period						
Dividends of surplus					(123,094)	
Net income attributable to owners of parent					302,294	
Share repurchase					(90,336)	
Disposal of treasury shares					9	
Cancellation of treasury shares					—	
Net changes of items other than shareholders' equity	32,307	8,833	4,642	45,791	1,111	46,902
Total changes of items during period	32,307	8,833	4,642	45,791	1,111	135,775
Balance at end of current period	\$102,592	\$732	\$4,182	\$107,514	\$15,652	\$1,811,434

### Consolidated Statements of Cash Flows (For FY2021 and FY2020)

	(Millions of yen)		(Thousands of U.S. dollars)
	FY2021	FY2020	
<b>Cash flows from operating activities</b>			
Income before income taxes and non-controlling interests	54,160	45,481	442,448
Depreciation and amortization	10,119	10,346	82,665
Business structure improvement expenses	1,792	—	14,639
Loss on business of subsidiaries and affiliates	626	—	5,114
Loss on valuation of investment securities	477	—	3,897
Amortization of goodwill	103	78	841
Interest and dividend income	(817)	(997)	(6,674)
Loss (gain) on sales of investment securities	(3,366)	(1,588)	(27,498)
Interest expenses	73	69	596
Loss (gain) on disposal of non-current assets	682	696	5,571
Decrease (increase) in notes and accounts receivable - trade	(5,704)	(1,016)	(46,598)
Decrease (increase) in inventories	(6,230)	(2,398)	(50,895)
Increase (decrease) in notes and accounts payable - trade	2,523	(842)	20,611
Other	(1,163)	(671)	(9,501)
Subtotal	53,277	49,159	435,234
Interest and dividend income received	1,913	1,925	15,628
Interest expenses paid	(73)	(69)	(596)
Income taxes paid	(13,168)	(11,076)	(107,573)
Net cash provided by (used in) operating activities	41,949	39,939	342,693
<b>Cash flows from investing activities</b>			
Purchase of investment securities	(190)	(159)	(1,552)
Proceeds from sales of investment securities	4,248	3,063	34,703
Purchase of shares of subsidiaries	(22)	(1,209)	(180)
Purchase of property, plant and equipment	(11,253)	(8,254)	(91,929)
Payments for retirement of property, plant and equipment	(466)	(598)	(3,807)
Purchase of intangible assets	(1,133)	(688)	(9,256)
Payments for transfer of business	—	(5,384)	—
Payments of long-term loans receivable	(3,322)	—	(27,138)
Net decrease (increase) in short-term loans receivable	(262)	522	(2,140)
Purchase of long-term prepaid expenses	(188)	(222)	(1,536)
Other	196	77	1,601
Net cash provided by (used in) investing activities	(12,395)	(12,854)	(101,258)
<b>Cash flows from financing activities</b>			
Net increase (decrease) in short-term loans payable	(345)	(2,017)	(2,818)
Proceeds from long-term loans payable	550	660	4,493
Repayments of long-term loans payable	(552)	(640)	(4,509)
Cash dividends paid	(15,468)	(13,629)	(126,362)
Dividends paid to non-controlling interests	(48)	0	(392)
Share repurchase	(12,003)	(10,002)	(98,056)
Other	0	—	0
Net cash provided by (used in) financing activities	(27,868)	(25,629)	(227,661)
Effect of exchange rate change on cash and cash equivalents	591	284	4,828
Net increase (decrease) in cash and cash equivalents	2,277	1,741	18,601
Cash and cash equivalents at beginning of period	32,380	30,639	264,521
Cash and cash equivalents at end of period	34,658	32,380	283,130

(Note 1) The consolidated financial statements are a translation of the Japanese annual securities report's consolidated financial statements.

(Note 2) The consolidated financial statements are expressed in Japanese yen as of and for the year ended March 31, 2022 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 ¥122.41 to US \$1, which is the approximate closing exchange rate reported by the Tokyo Foreign Exchange Market on March 31, 2022. 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.



### Biological Research Laboratories

Located in Shiraoka City, Saitama Prefecture, Biological Research Laboratories serves as a research center for life sciences, including evaluation research on the usefulness and safety of agricultural chemicals, pharmaceuticals, and medical materials.



### Chemical Research Laboratories

Located in Funabashi City, Chiba Prefecture, Chemical Research Laboratories is Nissan Chemical's core R&D site, and is responsible for our corporate research. In addition to R&D of agricultural chemicals and pharmaceuticals that utilize the fine organic synthesis technology, Chemical Research Laboratories performs research on companywide processes, material analysis research, etc.



### Materials Research Laboratories

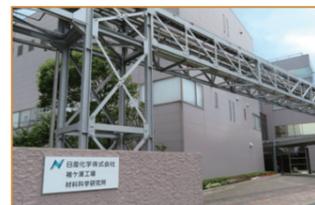
Materials Research Laboratories creates highly unique new materials, allowing us to respond quickly to increasingly sophisticated and diverse market needs. At the same time, the Laboratories focuses their efforts on researching next-generation materials in an effort to create new markets.



Toyama, Toyama



Funabashi, Chiba



Sodegaura, Chiba

## List of Offices, Plants and Laboratories

### Offices

#### Head Office

5-1, Nihonbashi 2-Chome, Chuo-ku, Tokyo 103-6119  
Tel: +81-3-4463-8111

#### Sendai Sales Office

BIZIA Sendai Ichibancho Building 2-7-12, Ichibancho, Aoba-ku, Sendai, Miyagi 980-0811  
Tel: +81-22-266-4311

#### Osaka Sales Office

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

#### Sodegaura Plant

11-1, Kitasode, Sodegaura, Chiba 299-0266  
Tel: +81-438-63-2341

#### Saitama Plant

235-1, Aza Nishidai, Oaza Jimbohara-machi, Kamisato-machi, Kodama-gun, Saitama 369-0305  
Tel: +81-495-34-2810

#### 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

#### 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

#### Toyama 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

## 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

#### Nihon Hiryo Co., Ltd.

559-3, Tozaki, Okanogo, Fujioka, Gumma 375-0011 (Inside Nihon Hiryo Shinmachi Plant)  
Tel: +81-274-42-1247

■ Manufacture and sales of fertilizers and agricultural materials

#### Clariant Catalysts (Japan) K.K.

2-28-8, Honkomagome, Bunkyo-ku, Tokyo 113-0021  
Tel: +81-3-5977-7300

■ Manufacture and sales of catalysts for petrochemical and petroleum products

#### NC Agro Hakodate Corporation

9-23, Kitahama-cho, Hakodate, Hokkaido 040-0078  
Tel: +81-138-41-1251

■ Manufacture of agrochemicals

#### 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

#### Sun Agro Co., Ltd.

1-10-5, Nihonbashihon-cho, Chuo-ku, Tokyo 103-0023  
Tel: +81-3-3510-3601

■ Manufacture and sales of fertilizers and agrochemicals

#### Environmental Technical Laboratories, Ltd.

2-11-17, Kohoku, Adachi-ku, Tokyo 123-0872  
Tel: +81-3-3898-6643

■ Consultation of environmental conservation and environmental analysis services

## Corporate Information

### Overseas Bases (As of March 31, 2022)



### Corporate Profile (As of March 31, 2022)

Corporate Name	Nissan Chemical Corporation
Head Office	5-1, Nihonbashi 2-Chome, Chuo-ku, Tokyo 103-6119, Japan TEL: +81-3-4463-8111
Founded	1887
Capital Stock	18,942 million yen
Number of Employees	Consolidated: 2,737
Stock Listing	First Section of the Tokyo Stock Exchange (Prime Market after April 4, 2022)
Transfer Agent	Sumitomo Mitsui Trust Bank, Limited 4-1 Marunouchi 1-chome, Chiyoda-ku, Tokyo 100-8233, Japan

### Share Information (As of March 31, 2022)

Total Number of Authorized Shares	360,000,000
Shares of Common Share Issued	143,000,000*
Shareholders	11,145

\*Includes 1,219,611 treasury shares

Major shareholders (Top ten companies)	Number of shares held (1,000 shares)	Investment (%)
The Master Trust Bank of Japan, Ltd. (Trust Account)	37,687	26.6
Custody Bank of Japan, Ltd. (Trust Account)	13,927	9.8
Custody Bank of Japan, Ltd. as Trustee for Mizuho Bank Retirement Benefit Trust Account Re-entrusted by Mizuho Trust and Banking Co., Ltd.	5,767	4.1
The Norinchukin Bank	4,800	3.4
Nissan Chemical Corporation Customer Shareholders Association	3,647	2.6
Custody Bank of Japan, Ltd. (Securities Investment Trust Account)	2,828	2.0
STATE STREET BANK WEST CLIENT-TREATY 505234	1,983	1.4
Meiji Yasuda Life Insurance Company	1,861	1.3
JP MORGAN CHASE BANK 385781	1,745	1.2
Nissan Chemical Corporation Employees Association	1,655	1.2

(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 (%)	53.7	2.8	9.2	23.2	10.3	0.8

#### Organization

Web <https://www.nissanchem.co.jp/eng/profile/soshiki.html>