

Integrated Report 2021



Nissan Chemical
CORPORATION

To Our Stakeholders



KINOSHITA Kojiro

Representative Director, Chairman & CEO

Our company was founded as Japan's first chemical fertilizer manufacturer to solve food issues which Japan faced in 1887 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 Pharmaceuticals on the basis of ESG (Environment, Social and Governance) and SDGs (Sustainable Development Goals) established by the United Nations.

The global spread of COVID-19 is greatly changing society and the economy. At the same time, various social issues, such as declining birthrate and growing proportion of elderly people, health issue, climate change, aggravated food issue and economic divides are on the increase and threatening the sustainability of society. We are facing a tough era that deliberation and proactive effort decide survival. Now is the time to integrate knowledge that our Group has cultivated and thoroughly pursue the strategies to achieve and realize the corporate vision “A corporate group that contributes to human survival and development”. As a “Future-Creating Enterprise that Responds to Social Needs with Unique, Innovative Technologies”, we will continue to aim for synergistic development with society.

Mission Statement (Our Values)

“Contribute to society with excellent technologies and products.”

“Promote prosperity and welfare through concerted efforts to constantly develop new areas.”

“Respect people who exhibit a sense of responsibility, originality and motivation.”

Corporate Philosophy (Corporate Purpose)

We contribute to society in harmony with the environment, based on our excellent technologies, products and services.

Corporate Vision

A corporate group that contributes to human survival and development.

Business Model

Future-Creating Enterprise that Responds to Social Needs with Unique, Innovative Technologies.

Basic CSR Policy

- (1) Conduct sensible business activities as a member of the international community in compliance with laws and regulations.
- (2) Enhance corporate value by providing safe and useful products and services.
- (3) Strive to achieve no-accidents & no-disasters and protect the global environment.
- (4) Disclose information appropriately with a focus on communication with stakeholders.
- (5) Create a cheerful and pleasant workplace by respecting the individuality and personalities, and promoting health of employees.
- (6) Conduct ourselves as good corporate citizens and decent members of society.

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 included the materiality, process of value creation, business strategies, and detailed financial information in addition to the business overview, E (Environment), S (Social), and G (Governance) information to make this integrated report easier to understand creating mid- to long-term value 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

FY2020 (April 2020 to March 2021)

* The occupational accidents data (P56) is from January to December 2020.

Issued

November 2021

(The previous edition was issued in November 2020, and the next edition is planned to be issued in November 2022)

Frequency of issuance

Annually

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”

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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.

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)

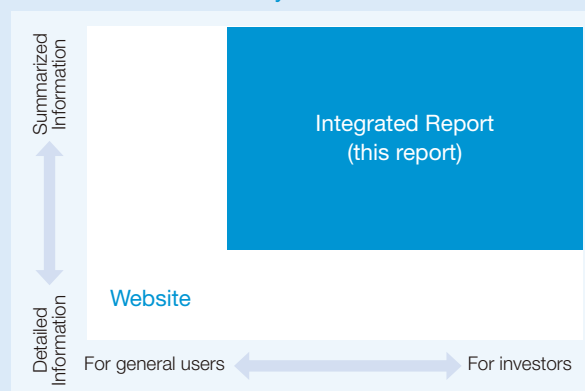
Entities accounted for using equity method:

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)

Information disclosure system




* For more detailed information, please visit our website.
<https://www.nissanchem.co.jp/eng/>

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Third-party Evaluation Nissan Chemical's initiatives are highly regarded by external analytics and research organizations.



Message from the President



YAGI Shinsuke

President & COO

Introduction

At first, I would like to share with you my thoughts regarding my new role as President of the Company.

I believe that I have two immediate responsibilities as President. The first is to ensure the completion of our “Vista2021” mid-term business plan, which is now in its final year. We are making steady progress in regard to achieving our numerical targets and will continue to implement various measures to achieve those targets without pause. The Company will also strive to achieve an ROE of 16% and total payout ratio of 75%. Both serve as management indicators of “Vista2021.”

The second is to formulate the new long-term business plan, which provides a broader perspective beyond the next mid-term business plan and well past 2030. The key to the growth of the Group is to create new growth engines by focusing management resources on research and development (R&D), to plan/search for new businesses, products, and technologies, to strengthen our core businesses, and to develop our human resources. We will realize innovation by solving customers’ problems in a way

that will make us irreplaceable and by searching for new future customers.

We are in unprecedented times, as global order is changing due to intense competition for hegemony among large nations, fears of social fragmentation and the spread of COVID-19 infections. In spite of this chaotic situation, these social changes will bring about an expansion of the role of chemicals and provide us with opportunities. We seize such opportunities in a timely manner and continue to take on the challenge of transforming ourselves to become a source of value creation for our stakeholders. While remaining firmly anchored in our current business domains, we will also consider forming alliances with other companies, acquisitions, etc. to incorporate and expand new business domains. In addition, all employees will share a sense of urgency to create the foundations of new businesses for future development. All employees will work together to create a vision for the future of the Company to be with stakeholders over the next 100 years.

Challenge, change, and move beyond. Toward becoming a future-creating enterprise that continues to take on the challenge of transformation

Business Environments and Understanding of Current Business Conditions

Adaptation to the changing times will determine our future growth.

In October 2020, the Japanese government declared that it will achieve carbon neutrality by 2050. In line with this, many companies are revising their business activity plans for the future, including accelerating efforts to reduce greenhouse gas (GHG) emissions.

It is expected that materials derived from fossil resources will be replaced by carbon-neutral materials, and energy-related materials will be replaced by decarbonized materials, such as biofuels, hydrogen, and ammonia. I believe that business environments will change rapidly with major shifts expected in the value chain which involves resources, manufacturing, storage, distribution, and consumption.

All along, we have actively worked to reduce GHG emissions. In FY2018, we aimed to reduce our GHG emissions by 20% by FY2021 (compared to FY2011). As a result of our effort, we were able to reduce emissions by 27% a year earlier in FY2020, making our efforts a success.

In addition, as a long-term target, we plan to reduce GHG emissions by 30% by FY2030 (compared to FY2018) and continue to work at achieving the

emissions targets set by the Japanese government.

With regard to contributing to GHG emission reduction through our products, we will aim to seize more business opportunities for the future by promoting R&D through the integration of internal and external knowledge. This will be accomplished through efforts such as participation in national projects, industry-academia collaboration, and the formation of alliances based on the technologies we possess.

In addition, advances in digitalization and peripheral technologies are accelerating due to improvements in the performance of supercomputers, the widespread use of fifth-generation mobile communication systems (5G), the development of artificial intelligence (AI), and penetration of the “new normal” lifestyle as a result of the spread of COVID-19 infections. We will make every effort to build a management foundation in order to respond to the rapid changes in business environments, including conventional development, manufacturing, and sales systems in which various data are used individually.

Looking Back at FY2020

As our entire society is shifting to the “new normal” lifestyle, making business environments more challenging, we were able to achieve record profits.

In FY2020, the Japanese economy experienced significant negative growth due to the spread of COVID-19 infections. In the second half of the fiscal year, there were signs of a partial recovery in exports. However consumer spending remained sluggish for a prolonged period, resulting in severe economic conditions.

Despite these conditions, we achieved sales of 209.1 billion yen (an increase of 2.3 billion yen year-on-year), operating income of 42.5 billion yen (an increase of 3.9 billion yen), ordinary income of 43.9 billion yen (an increase of 3.9 billion yen), net income of 33.5 billion yen (an increase of 2.7 billion yen), and EPS (earnings per share) of 232 yen (an increase of 22 yen) for FY2020, with operating income and ordinary income reaching record highs for the seven consecutive years and net income reaching a record high for the eight consecutive years.

In FY2020, performance varied greatly depending on the business and industry. I believe that the Group

fared well overall due to its balanced business portfolio. I also believe that our most important task is to build an even stronger business portfolio in the future without relaxing our efforts to do so.

Looking back at our business performance by segment, Chemicals Division experienced diminished performance in the first half of the fiscal year compared to the previous year due to the spread of COVID-19 infections with Basic Chemicals and Fine Chemicals following suit. In particular, the decline in demand from the automobile and housing industries, closures of school swimming pools and bathing facilities as well as other factors had a significant impact on business performance. In the second half of the fiscal year, profits eventually increased due to a recovery in automobile and semiconductor-related demand.

As for Performance Materials Division, sales of display materials greatly increased due to increase in demand for our photo-alignment agent for IPS liquid crystal (IPS) with the proliferation of high-resolution displays not only for smartphones but also tablets, notebook PCs and in-vehicle devices. As for semiconductor materials, the market in general was strong due to increased demand for PCs and servers in line with the promotion of remote work, leading to a significant increase in sales. Sales of inorganic materials also increased for polishing agents due to the strong semiconductor market.

In the Agricultural Chemicals Division, sales of DITHANE[®], a fungicide that the Company acquired from the US based Corteva Inc. in December 2020, increased. In addition, new products such as Cygnus[®] and Tenku, the second generation of one-shot herbicides based on the paddy rice herbicide ALTAIR[®], were launched, resulting in increase in sales. However, sales of the veterinary pharmaceutical Fluralaner decreased due to inventory adjustments by customers. Profits in the Agricultural Chemicals Division decreased due to higher fixed costs of the fungicides Quintec[®] and DITHANE[®], which were acquired in the previous fiscal year.

In the Pharmaceuticals Division, profits decreased due to a decrease in exports as a result of the expiration of the market exclusivity period for an active ingredient used in LIVALO[®], an anti-cholesterol drug, in Europe.



Long- and Mid-term Business Plans

We will formulate the next mid-term business plan and new long-term business plan looking beyond the “Progress2030” long-term business plan.

The current mid-term business plan “Vista2021” Stage II is progressing smoothly, and we will continue to work toward achieving its goals in FY2021, the final year of the plan.

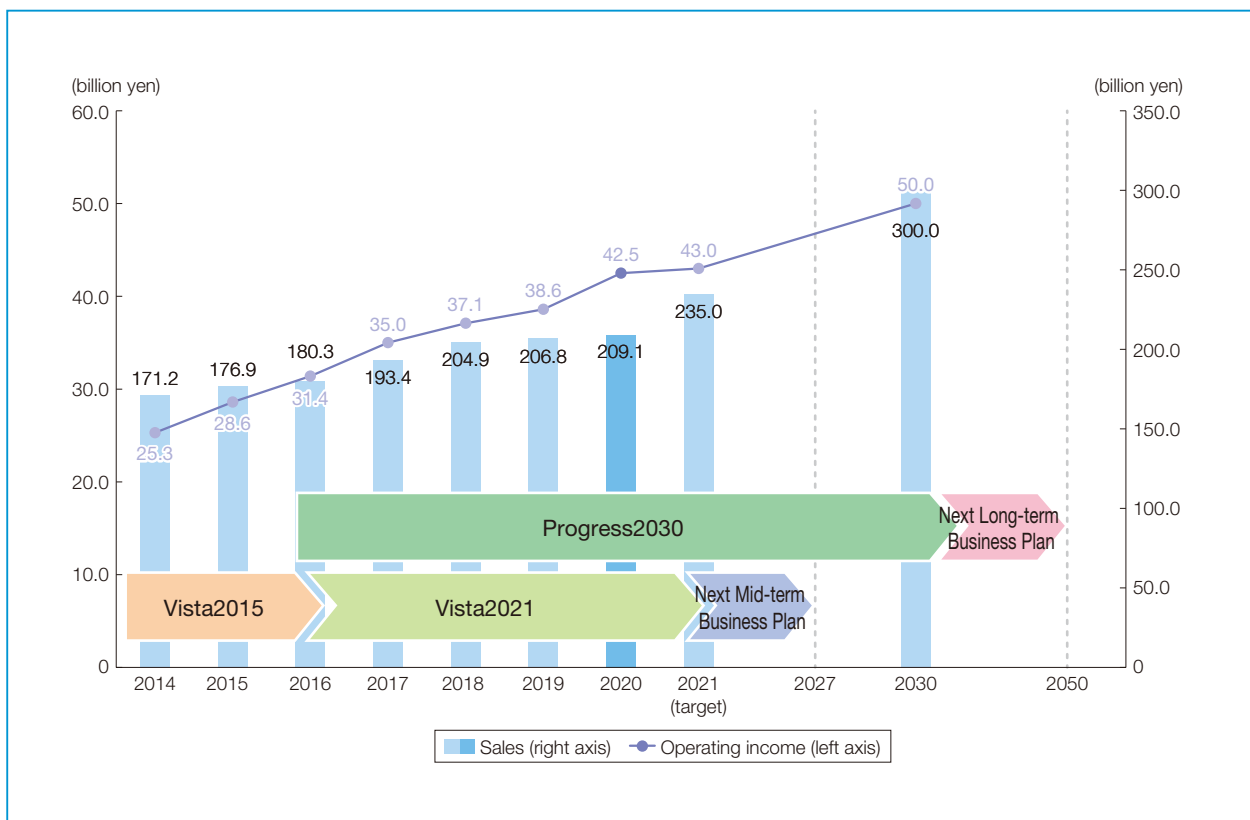
In contrast, five years have passed since the formulation of the “Progress2030” long-term business plan and since the environment has changed significantly, the assumptions made at the time of its formulation have diverged from the plan. In order to accurately respond to the changes, we must calmly analyze the present and future, and reconsider our strategies. Over the course of this year, we will look beyond 2030 to formulate a new long-term business plan for 2050.

From here on, we will thoroughly pursue measures to enhance corporate value while creating growth

strategies and responding to the demands of society, with taking into consideration rapidly changing future.

For this, we launched the “Business Planning Project” as a cross-divisional project, and are now in the process of discussing the formulation of the next business plan in earnest with myself and the Vice President serving as project leaders.

In addition, we are formulating “2050 Vision,” which consists of young employees as key members. By exploring the possibilities of new business areas based on our technologies without constrained by thinking based on past experience, and by seeking solutions to various social issues, we will aim to increase our corporate value to our stakeholders and contribute to society.



Toward Becoming a Future-Creating Enterprise

Aiming to build a business portfolio that is resilient to changes in the business environment, we will strengthen our R&D capabilities and promote the creation of the next growth engine.

We will continue to focus on R&D as a source of competitiveness. To this end, we will continue to invest in R&D having maintained a high sales-to-R&D expenses ratio of 7.9% in FY2020. In order to further improve the quality of research themes and realize efficient R&D, we will promote digital transformation (DX) in addition to our existing system, and strengthen our infrastructure by utilizing AI for R&D themes, promoting automation, utilizing reverse synthesis analysis software, and training digital human resources. In July 2020, we established the Digital Promotion Office, which is working to speed up the DX of the

entire company.

In addition, we are working to build a more robust business portfolio. In particular, due to the spread of COVID-19 infections, we have reaffirmed building a business portfolio that is not easily affected by business environmental changes is an important management issue.

Aiming to build a business portfolio that is resilient to changes in the business environment, we will strengthen our R&D capabilities and promote the creation of the next growth engine.

We will strive to create an organization where diverse human resources can take on challenges toward our goals.

In 2050, the year in which we will attempt to realize the goals of the new long-term business plan, the core of the workforce will be from “Generation Z”, which follows the millennial generation. We believe that human resources with more diverse values than ever before will work together in the Company. For developing human resources in the Company, it is also important to foster an environment where such diverse opinions and talents can be displayed to the fullest.

In April 2021, we released our Diversity Statement. Although we have worked on diversity promotion so far, the Diversity Statement allows us to clearly state where we stand regarding the matter. I would like for us to create an environment where diverse opinions can be expressed in a free and open atmosphere, and where individual strengths can be utilized to achieve high performance as an organization or to become a driving force for innovation.

We have also begun to reform our personnel system. Our goal is to provide opportunities using the personnel system for employees who are motivated and willing to take on new challenges by focusing on their roles, not on what they can do but on what they will accomplish. We will move away from the so-called “mere ability and performance” principle to develop human resources and create an organization that can utilize human

resources who can voluntarily set and solve problems.

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.

We will contribute to the sustainable development of society through our business activities by deepening our commitment to ESG and SDGs.

One of the long-term issues is the active promotion of CSR management, which requires us to contribute to solving social issues based on ESG (Environmental, Social, and Governance) and SDGs (Sustainable Development Goals) established by the United Nations. In order to realize our corporate vision for 2050, it is extremely important to clearly define the key issues to be addressed.

In our next mid-term business plan looking ahead to 2050, we will formulate measures to respond to social demands, including ESG and SDGs, and contribute to the sustainable development of society through our business activities. In addition, we will set KPIs (key performance indicators) in an effort to gain stakeholders' understanding of the Group's business activities.

Closing

There is still no end in sight for the spread of COVID-19 infections. In the current fiscal year, we will continue to face an uncertain business environment in conducting business activities due to factors including the deepening conflict between the US and China.

In this environment, we believe that the Group will be able to establish an even stronger business foundation by properly grasping changes and steadily implementing measures to address various issues in any phase, based on our corporate philosophy of "We contribute to society in harmony with the environment, based on our excellent technologies, products and services."

In addition, we will make a concerted effort to become a corporate group that is trusted by all our stakeholders by improving the soundness and transparency of our management, ensuring thorough compliance, giving greater consideration to the environment, and promoting social contribution activities more vigorously. I hope we can rely on your understanding and support in the future.



Message from the CFO



We will actively return profits to our shareholders while maintaining an ROE of 16% or increasing it.

MIYAZAKI Junichi

Director, Senior Executive Vice President, CFO

About Our Financial and Capital Strategies

We place importance on ROE as a management indicator and set numerical targets by breaking it down.

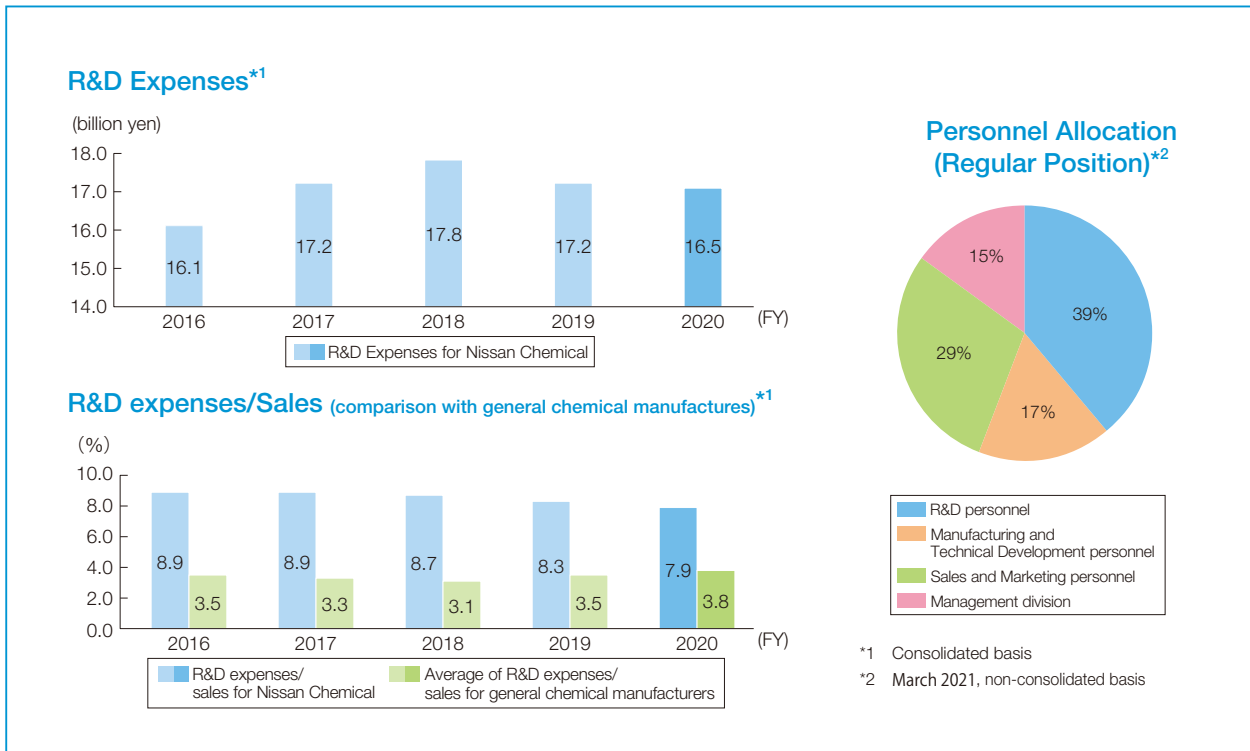
We place importance on return on equity (ROE) as the basis of our financial strategy. In order to realize our corporate philosophy “We contribute to society in harmony with the environment, based on our excellent technologies, products and services”, we have set ROE as our most important target value as a management indicator that is consistent with our business concept of producing high value-added products with limited resources, shareholders' equity, to make profits.

We have maintained this policy since the mid-2000s, and although we aimed for an ROE of 16% or more in the “Vista2021” mid-term business plan (2019-2021), in FY2020, we achieved an ROE of 17.5%. Since recording an ROE of 9.5% in FY2011, it has been steadily increasing for nine consecutive years and has been maintained at a high level, more than double the 8% that is generally considered to be a “passing score.”

In formulating the next mid-term business plan starting in FY2022, we will continue to set ROE as the

most important management indicator and set other targets based on it. We also intend to look at matters such as finding the balance between paying dividends and share repurchase while listening to the opinions of investors.

The financial impact caused by the global spread of COVID-19 infections, which began in the latter half of FY2019, is only minor at this point. Although there were some negative aspects that interfered with sales activities, semiconductor-related demand grew in line with the spread of telecommuting and remote meetings and the increase in opportunities to view videos on computers and tablets. As a result, our company's business performance was also favorable, and we were able to return profits to our shareholders and others as planned without any major changes in our financial and capital policies while investments in large-scale acquisitions in our agricultural chemicals business also progressed smoothly.



About Our Investment Plan

We secure a financial level that allows us to give top priority to R&D investment.

We aim to change society for the better by constantly creating innovative technologies and reflecting those technologies in our products. For this, we are actively investing in research & development (R&D). While the average of sales-to-R&D expenses ratio (R&D expenses/sales) in the chemical industry is 3% to 4%, our sales-to-R&D expenses ratio for FY2020 was 7.9% (annual investment of about 16.5 billion yen). It has maintained a high level (approximately 8% to 9%) for the past 10 years. The majority of the breakdown is investment in Performance Materials and Agricultural Chemicals.

In terms of human resources, about 40% of employees of regular position are allocated as R&D personnel (non-consolidated basis). In this way, we are at a level where we can fully implement various fiscal policies while giving top priority to R&D investment.

Our operating margin in FY2020 was 20.3%. It has been maintained levels of 10% or more for 18 consecutive years since FY2003. This is an exceptionally high level of performance that has been maintained over a long period of time in the chemical industry, where performance is easily affected by changes in the business environment.

In regards to new activities, we began full-scale investment, approximately 300 million yen, into the digital transformation (DX) of our operations in FY2020. We are starting with our plants as the first targets, and expect to invest about 400 million yen in FY2021. In the next mid-term business plan starting in the next fiscal year, DX is expected to be one of the major pillars, and will be expanded to entire company in the future.

Also, in the agricultural chemicals business, we have started construction of a multi-plant within the Onoda Plant. We are planning to invest a total of approximately 3 billion yen to address the bottlenecks and lost sales opportunities caused by the inability to keep up with the changeover of production lines to manufacture a variety of products and to prepare for the launch of new products planned in the pipeline of agrochemical. In addition, we are planning to invest in a manufacturing plant in line with the progress of a joint venture project in India.

Furthermore, we will maintain a high level of investment in R&D, at around 9% of net sales, to generate growth engines that will lead to new businesses in the future.

Capital Efficiency and Shareholder Returns

We have achieved stable shareholder returns over the long term.

We have placed great importance on returning profits to our shareholders. The FY2020 dividend was 104 yen per share and has continually increased over a 10 year period. Although the dividend payout ratio (dividend/net income per share) was around 30% until FY2015, it has been gradually increased, reaching 44.9% in FY2020.

In regard to capital efficiency, as I have already mentioned, ROE is given importance. Therefore, the amount of shareholders' equity is controlled based on ROE. In particular, we have been aggressively pursuing share repurchase to improve our ROE. Although the amount reached 10 billion yen in FY2020 just as in FY2019, the repurchased shares were basically canceled in the same year. This makes it possible to actively return profits to our shareholders, including dividends and share repurchase.

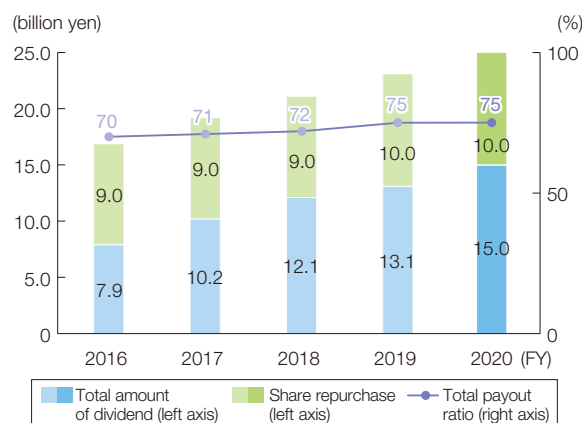
On the other hand, "Vista2021" sets the target for the total payout ratio ((total dividend + share repurchase)/net income) at 75% (45% for dividends and 30% for share repurchase) for FY2020 and FY2021. Our total shareholder payout ratio has been over 70% since FY2015. It was 74.6% in FY2020, which was close to the target and quite high compared to the average of about 45% for Japanese companies.

Furthermore, the equity ratio was 74.9% in FY2020, and since our financial stability is sufficiently secure, I believe that it is not necessary to accumulate a larger amount of capital. Both cash and deposits are at a

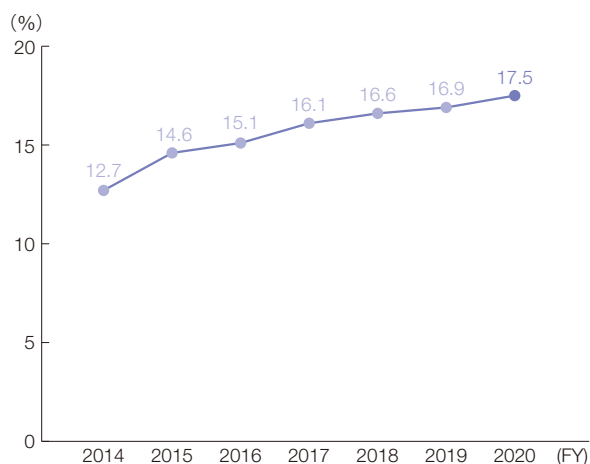
sufficient level, and we are in a very favorable state in terms of cash flow. We plan to continue to utilize this cash for investment and shareholder returns as needed.

We will continue to adhere to our policy of placing the highest priority on shareholder returns and making commitments to our investors regarding our promises on various management indicators such as ROE and total payout ratio.

Total amount of dividend/Share repurchase/ Total payout ratio

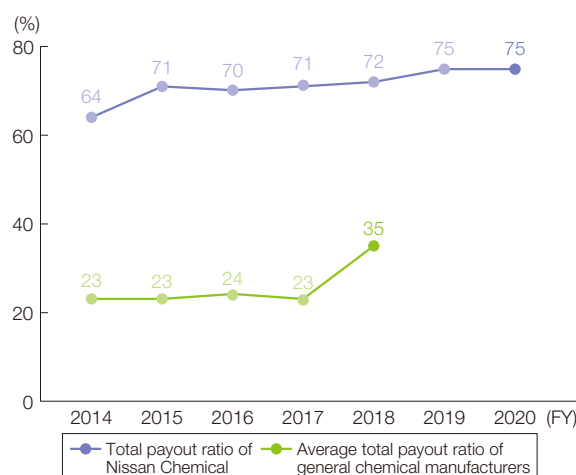


ROE



Total payout ratio

(comparison with general chemical manufactures)





Dialogues with Investors

Increasing ESG related dialogues allows us to listen to opinions from various perspectives.

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

Due to the need for COVID-19 infection control measures, we conducted all investment information sessions for individual investors in FY2020 by switching to online-based investment information sessions using our website. As a result, about 200 people (per session), almost twice as many as at the previous in person sessions, accessed the website, and we were able to receive a variety of questions and opinions from more diverse perspectives than ever before, partly due to the increased participation of relatively young investors.

Something special about FY2020 was the increase in ESG related dialogues held. In particular, various parties had many questions for us about greenhouse gas (GHG). Originally, our GHG emissions were

approximately 350,000 tons, which is significantly lower than around the 5 million tons emitted by major integrated chemical companies. We will continue our efforts to achieve our target of reducing GHG emissions by 30% by FY2030 (compared to FY2018).

However, since it is difficult to achieve a return on investment when reducing GHG emissions, we will introduce the Internal Carbon Pricing (ICP) system and will use it as a guideline for investment decision-making while listening to the opinions of our stakeholders as we strive to help realize a low-carbon society.

In addition, we have received many questions regarding the appointment of female directors and executives. We will continue our efforts to promote the advancement of women, which includes the appointment of one female director in June 2021.

We will continue to provide more opportunities for dialogue with our stakeholders and strive to further enhance dissemination of information.

Dialogue with institutional investors	Dialogue with individual investors	Dialogue with analysts	ESG related dialogues
262	2	51	4

Long- and Mid-term Business Plans

“Progress2030” Long-term Business Plan

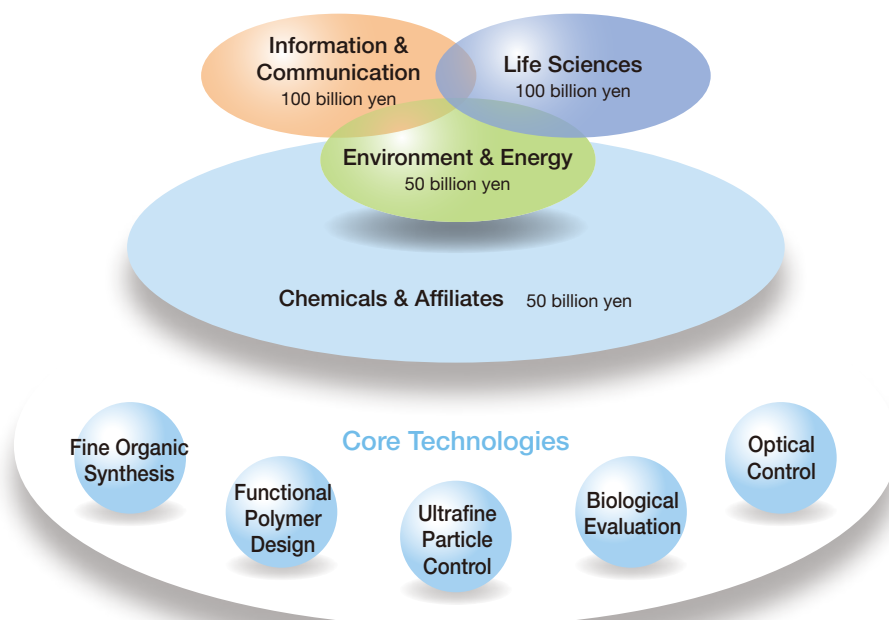
In April 2016, we initiated the “Progress2030” long-term business plan, which focuses on our business efforts to 2030, and the “Vista2021” six-year mid-term business plan.

During the establishment of “Progress2030”, we held many discussions addressing where we must head as a company, what we can do and contribute to as a company with a global perspective on social and economic changes leading up to 2030. The plan aims to make Nissan Chemical “A corporate group that creates better future for people and the environment by helping to solve social issues” taking into account social issues such as ESG (Environment, Social and Governance) and SDGs (Sustainable Development Goals). Based on this, we have defined our business model as “A Future-Creating Enterprise that Responds to Social Needs with Unique, Innovative Technologies”, and have provided two

definitions for our corporate vision in 2030: “A corporate group which provides new values for helping to enrich people’s lives by integrating internal and external knowledge with facing globally-changing society” and “A group of first-class pioneers who blaze a way to the future with enthusiasm by trusts they have built and skills they have cultivated”.

For 2030, we set numerical targets of 300 billion yen in sales and 50 billion yen in operating income. Based on our five core technologies we have cultivated, “Fine Organic Synthesis”, “Functional Polymer Design”, “Ultrafine Particle Control”, “Biological Evaluation”, and “Optical Control”, we will contribute to solving global issues in the four fields of “Information & Communication”, “Life Sciences”, “Environment & Energy”, and “Chemicals & Affiliates”, and will strive to improve company value along with the development of society.

Sales Target in 2030 and Our Core Technologies



“Vista2021 Stage II (2019 to 2021)” Mid-term Business Plan

“Vista2021” is a six-year mid-term business plan that shows the “ideal state” of the company in 2021 based on backcasting (setting current measures by working backward from a future state) as a transit point to 2030.

Stage I, the three-year period which comprised the first half of “Vista2021”, moved forward favorably. However, we have identified three issues that need to be addressed in order to ensure future growth: 1. Inclination toward certain products that drive profits, 2. Delays in creation of new products, and 3. Insufficient preparation for risks that will hamper growth.

For this reason, in formulating Stage II, the second half of “Vista2021,” we drafted the following three ideal situation at 2021: “Performance Materials and Agricultural Chemicals are driving business results while the next growth engines are being created”,

“Organizations that enjoy challenges have been realized and diverse human resources demonstrate their abilities to achieve goals”, and “We contribute to the sustainable development of society through our business activities”. In addition, based on the challenges we faced in Stage I, we have set three basic strategies to achieve these goals: “Increase profitability of products that are the sources of growth”, “Strengthen the ability to create new products”, and “Improve ability to adapt to social/market changes”.

As for FY2021 numerical targets, which is the final year of Stage II, we have set a sales target of 235 billion yen, operating income target of 43 billion yen, ordinary income target of 44 billion yen, net income target of 33 billion yen, and an operating margin target of 18.3%. We are stepping up our efforts by utilizing the capabilities of the entire group.

Ideal Situation at 2021

- “Performance Materials” and “Agricultural Chemicals” are driving business results while the next growth engines are being created
- Organizations that enjoy challenges have been realized and diverse human resources demonstrate their abilities to achieve goals
- We contribute to the sustainable development of society through our business activities

Basic Strategies

- Increase profitability of products that are the sources of growth
- Strengthen the ability to create new products
- Improve ability to adapt to social/market changes

Management Indicators

	FY2019	FY2020	FY2021 (target)	FY2030 (target)
Sales	206.8 billion yen	209.1 billion yen	235 billion yen	300 billion yen
Operating income	38.6 billion yen	42.5 billion yen	43 billion yen	50 billion yen
Ordinary income	40 billion yen	43.9 billion yen	44 billion yen	—
Net income	30.8 billion yen	33.5 billion yen	33 billion yen	—
Operating margin	18.7%	20.3%	18.3%	—
ROE	16.9%	17.5%	16% or higher	—
Dividend payout ratio	42.8%	44.9%	45% maintained	—
Total payout ratio	75%	75%	75% maintained	—

Feature

Contributing to Maintaining the Food Supply by Correctly Evaluating Safety Toxicology & Environmental Science Department

Safety evaluations are indispensable during the development of agrochemicals. We asked Dr. FURUKAWA, General Manager of Toxicology & Environmental Science Department, about the process of commercialization of agrochemicals through strict inspections and the role that agrochemicals play in solving the social issue of stable food supply.



FURUKAWA Satoshi, PhD, DVM

Associate Executive Officer and Deputy Head of Biological Research Laboratories, and General Manager of Toxicology & Environmental Science Department

—Please tell us about the process behind how agrochemicals are released to the market.

Generally speaking, it takes about 11 years from the start of agrochemical development to the launch of the product with the development cost for a product being around 50 billion yen.

After product screening, it takes three years for initial development to evaluate whether selected substance has any toxicologic problems in releasing to the market, and takes another eight years until the product is launched, through a full-scale development decision, tests for registration application, and various examinations (see Figure A).

The development process for agrochemicals is similar to that for pharmaceuticals. In the case of pharmaceuticals, however, safety for the patients are considered important. Whereas, in the case of agrochemicals, we must ensure the safety of three parties, the farmers who use agrochemicals, the consumers who eat crops, and the aquatic organisms and safety tests are mandatory.

For the safety inspection of applications, the Food Safety Commission of Japan evaluates the risks based on the safety test data we submit, the Ministry of Agriculture, Forestry and Fisheries sets standards on the use of pesticides for farmers, the Ministry of Health, Labour and Welfare sets maximum residue limits for agrochemicals for consumers, and the Ministry of the Environment sets standards to withhold registration for aquatic organisms (see Figure B). Once these standards are met, crops to which the agrochemical was applied will be allowed to be sold on the market.

—Please tell us about the role of the Toxicology & Environmental Science Department.

The Toxicology & Environmental Science Department consists of the Toxicology Group, which evaluates toxicity of chemical substances, and the Environmental Science Group, which evaluates the environmental dynamics of agrochemicals. The Toxicology Group investigates the toxic impact of agrochemicals with *in vivo* and *in vitro* studies. The Environmental Science Group investigates the quantity of residual

Development Period, Development Cost, and Probability of Success of Agrochemicals

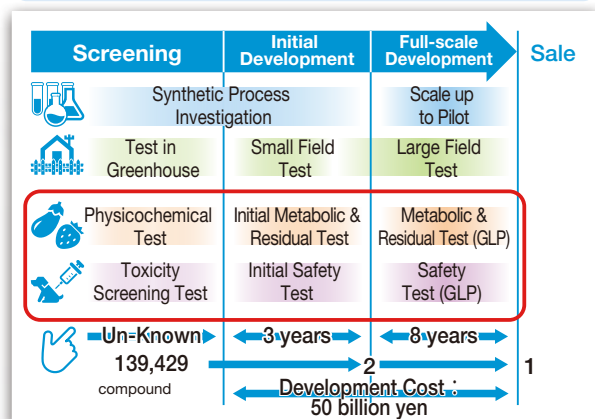


Figure. A

Review of Agrochemical Safety

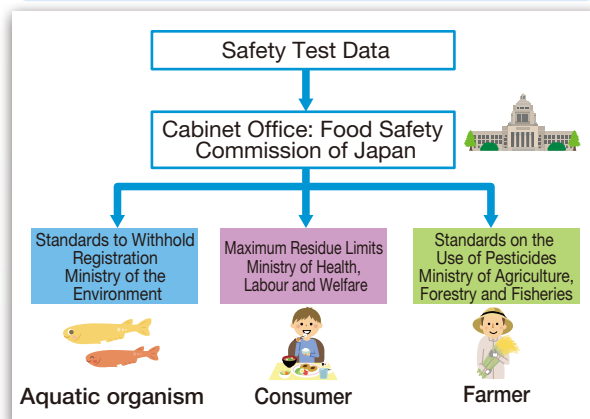


Figure B

agrochemicals in crops and in the soil and water, and how they are metabolized (broken down).

The safety of an agrochemical cannot be evaluated simply by its toxicity. It is difficult to say which is safer: a highly toxic agrochemical but hardly residual in crops, or a less toxic agrochemical but remains in large amount. In other words, it is necessary to make a comprehensive risk assessment based on the strength of the toxicity (hazard assessment) and the amount of residual agrochemical (exposure assessment). Therefore, for our company, the Toxicology & Environmental Science Department conducts risk assessments with the Toxicology Group in charge of hazard assessments and the Environmental Science Group is in charge of exposure assessments.

Since safety test is common to both pharmaceuticals and chemicals, the Toxicology Group conducts safety evaluations for the entire corporate research. The Environmental Science Group specializes in agrochemicals development and is inspected by the Ministry of Agriculture, Forestry and Fisheries once every three years as a GLP-compliant facility that can submit materials for agrochemicals applications.

—You conduct safety evaluations in-house. What is the advantage of having a specialized in-house section performing safety evaluations rather than outsourcing?

We conduct all the initial safety tests and some of the tests for registration applications in-house.

There are three advantages in doing so. First, we can confirm and understand the nature of the toxicity with our own eyes, and determine accurately whether it is safe or not though it's hard to get the image of expressed toxicity since the test results are received in paper simply in the case of using outsource.

The second is the ability to conduct tests flexibly. In the case of outsourced testing, testing is conducted according to the convenience of the client, whereas in-house testing allows us to prioritize the magnitude of the issue and respond quickly. In addition, we can conduct additional test if necessary.

Third, we can accumulate experience and know-how within the Company by conducting the tests that require skill. This also leads to the development of human resources as experts.

—What are the future plans of the Toxicology & Environmental Science Department?

This is partly my personal wish, but I would like to spread a greater understanding of the safety of agrochemicals. I sometimes see theories that emphasize the risks of agrochemicals, but most of them are overlook the risk assessment. If agrochemicals are used to increase the yield per unit area in areas where food shortages are serious, many lives can be saved. We hope to correctly inform the world about the role and safety of agrochemicals.

As for the Toxicology & Environmental Science Department, we will focus on human resource development so that each of our researchers can form an intellectual group with a high level of expertise with the goal of becoming a research department that possesses the ability to make rapid, accurate, and highly precise decisions related to product development. We will continue to contribute to the R&D of all Nissan Chemical businesses by conducting safety evaluations of chemical substances from the perspective of regulatory science, and by managing the organization with a sense of unity in cooperation with each business division.

Two Groups Work in Tandem to Ensure the Safety of Agrochemicals

In order to ensure the safety of newly developed agrochemicals, the Toxicology & Environmental Science Department conducts a variety of tests using the latest equipment and advanced technologies. We interviewed the leaders of the Toxicology Group and the Environmental Science Group to find out about their work and the challenges they face.

—First of all, please tell us about your work and backgrounds.

Takeuchi The main job of the Toxicology Group is to determine types of toxicity that agrochemicals cause to farmers, consumers who eat the crops, and aquatic organisms, and intakes at which they occur. The group consists of three teams: A general toxicity team that evaluates various types of toxicity by *in vivo* experiments, a mutagenicity team that evaluates genetic damage, and an aquatic toxicity team that evaluates toxicity to aquatic organisms.

Kusakari Our job in the Environmental Science Group is to investigate the degradability of agrochemicals in plants, animals, soil and water, their residue level in crops, and their persistence in the environment such as soil and water. Agrochemicals sprayed on crops decompose over time, but sometimes a small amount remains on them. In addition to confirming the degree of agrochemical remaining, the Environmental Science Group also conducts research on the degradability of agrochemicals on crops and evaluates the residue of agrochemicals themselves and their degradation products.

Takeuchi After joining the Company, I worked in the Pharmaceutical Research Department and was in charge of research on drug metabolism and disposition that occur in the body when people take medicine. At that time, I had opportunities to be involved in safety evaluation, which is similar to what I am doing now. I thought I could make use of the skills and various

knowledge I had accumulated, so I agreed to be transferred to the Toxicology & Environmental Science Department and am working in my current position. In passing, Mr. Kusakari was actually my junior at university.

Kusakari That's right. We were students in the pharmaceutical department of the same university. When I was a student, I was engaged in research to determine the structure of new antibacterial compounds contained in extracts of bacteria. When I was looking for a job, Mr. Takeuchi, one of my seniors, told me that the work of investigating degradability of agrochemicals in plants and animals was similar to my university research. I thought I could make use of my structural analysis skills cultivated in university and I was attracted to the work, so I joined Nissan Chemical.

—What are some of the difficulties you face in conducting safety evaluations?

Takeuchi The Toxicology Group must strictly determine whether the products we are developing are really safe, so I feel that this job is very responsible. Our job would be easy if we can decide to discontinue development immediately if even the slightest toxicity is found in a safety test. However, that would not allow us to develop anything, would it? One of the hardest parts of this job is that we have to determine from scientific data whether or not the toxicity found in the safety test poses a risk to humans or aquatic organisms. To avoid making biased decisions, we review the test results with the entire group and have in-depth discussions before deciding whether the found toxicity poses a risk.

Kusakari The Environmental Science Group analyzes and evaluates the amount of residual agrochemicals in crops. It is easy to say "Analyze the amount of residual agrochemicals" in words, but the residue level of agrochemicals is extremely low. For example, 1 liter of a soft drink contains about 100 grams of sugar is here. We can express it as a concentration of 100 grams per liter. The residue level of agrochemicals in crops is 0.01mg/L, which is about the same concentration as one drop of this soft drink in a bath. In order to accurately determine the amount of this extremely small amount of residual agrochemical, we have to use a variety of technologies to purify and concentrate



TAKEUCHI Kazuya, PhD.

Toxicology Group,
Toxicology & Environmental
Science Department



samples for analysis, and derive reliable data. I feel a lot of pressure since there is much involved.

Takeuchi One of the hardest things about this job is we have to stop a project if we determine that the found toxicity poses a safety risk. This is a very discouraging decision for those in charge of development, who believe in the potential of a new agrochemical. That's why we need to communicate with the people in charge of development and provide them with explanations so that they will understand the situation.

Kusakari I understand your feeling very well. Since we make decisions based on the residue level, we have to consider the overall safety of the agrochemical and decide whether or not to develop it, even if the toxicity of the agrochemical itself is not so strong, if the residue level in crops or the environment is high. There are times when we have to make painful decisions, but that is the most important thing we can do to ensure the safety of agrochemicals.

— Please tell us about your job satisfaction and dreams for the future.

Takeuchi In the Toxicology Group, we are able to work not only with staff involved with agrochemicals but also with those from various business units within the Company, such as pharmaceuticals, performance materials, chemicals, and cosmetics and so on. So, I can come into contact with various ideas and have the opportunity to learn new things. It's rewarding for me.

Kusakari In order to correctly judge the safety of agrochemicals, I will make full use of analytical techniques to clarify the amount of residual agrochemicals that can never be seen with the naked eye. It's rewarding for me.

Takeuchi The Toxicology Group will continue to actively introduce new technologies and strive to improve the level of skills to elucidate the mechanism of toxicity. The world is moving in the direction of reducing the use of chemical agrochemicals, and there is a possibility of a shift to more environmental-friendly agrochemicals, such as biological agrochemicals and RNA-based agrochemicals. In anticipation of such future trends, I would like to take on the challenge of establishing safety evaluations that are suitable for new types of agrochemicals.

Kusakari The Environmental Science Group is working on the introduction of a method to evaluate the concentration of agrochemicals not only in crops and soil, but also in water bodies such as ponds and rivers, and in groundwater. In addition, the technology for simulating the concentration of agrochemicals in the environment is evolving day by day, and I would like to contribute to the development of safer agrochemicals by using these technologies to clarify the previously unknown dynamics of agrochemicals in the environment.



The History of Nissan Chemical

1887-

Founded under the founding spirit "to dedicate ourselves to prosperity of the nation by agricultural fertility" aiming to solve food issues.

(million yen)

250,000

200,000

150,000

100,000

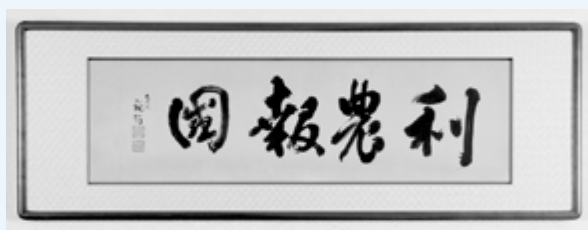
50,000

0

Dr. TAKAMINE Jokichi is referred to as the "Father of Biotechnology." Tokyo Jinzo Hiryo, Nissan Chemical's predecessor organization, was started in 1885 when the young TAKAMINE Jokichi 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," the following year with the idea of the commercialization of fertilizer. SHIBUSAWA Eiichi, who was from a wealthy farming family, deeply agreed with Takamine's proposal, and as a result established Japan's first chemical fertilizer company in 1887 becoming chairman (president) himself. With the Company policy "to dedicate ourselves to prosperity of the nation by agricultural fertility," Japan's food production skyrocketed due to the enthusiasm and effort of the pioneers who led the Company in its early days.



1891 Jinzo Hiryo advertisement from an agricultural magazine



Calligraphy by MASUDA Takashi (first president of Mitsui & Co., Ltd) who served as an executive for Jinzo Hiryo, a position that his eldest son Taro would also hold.

■ Sales (left axis) ● Operating margin (right axis)

1886 1896 1906 1916 1926 1936 1946

1923-

Merging of three companies for business diversification

In the first half of the twentieth century, amid a variety of M&A activities by domestic corporates, we came to turning points with the three-company joint in 1923 and with the participation to Nissan zaibatsu in 1937.

The three-company joint was a merger of Kanto Soda, Nippon Kagaku Hiryo (renamed from Nippon Seimi Seizo) and Dainippon Jinzo Hiryo (surviving company).

The Company had been promoting business diversification and entered under the umbrella of Nissan zaibatsu in 1937, which was the 50th anniversary of its foundation, renamed Nissan Chemical Industries.

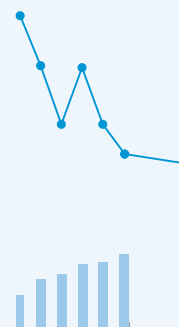
After World War II, under the separation directive based on the Corporate Reconstruction and Improvement Law, the fat and oil section was separated into Nippon Oil and Fats (current NOF) in 1949 and Nissan Chemical Industries newly started.



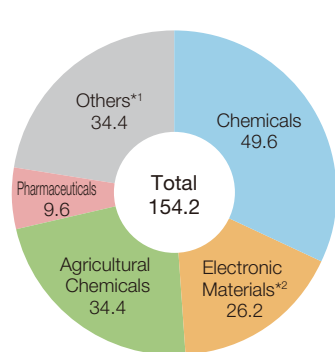
SHIBUSAWA Eiichi (second from left) visiting Oji Plant just after the completion of the three-company joint. Seen on the left is TANAKA Eihachiro who served as company president from 1923 to 1941.



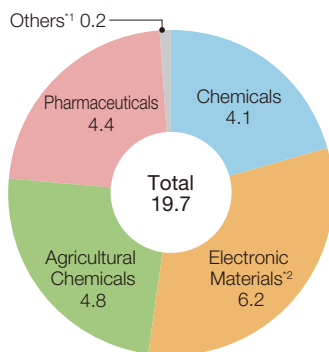
The land in Ojima 1-chome, Koto-ku, Tokyo, now known as Kamayabori, had been selected for its convenience in transporting raw materials and products. In 1888, the production of superphosphate (fertilizer) started.



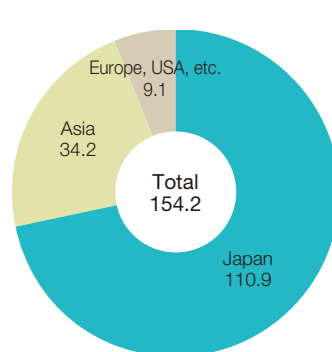
FY2010



Sales according to segment (billion yen)



Operating income according to segment (billion yen)



Sales according to region (billion yen)

*1 Others: trading, others, and adjustment

*2 Electronic Materials: Predecessor of the Performance Materials segment, which consists display materials and semiconductor materials. Inorganic colloids belonged to the Chemicals segment in FY2010.

- The graph below shows changes in sales and operating margins for the Nissan Chemical on a non-consolidated basis from 1950 to 1976 and for the Nissan Chemical Group on a consolidated basis from 1977 to 2020.
- The figures for November and the following May or October and the following April are totaled so that the figures for the year are close to the March results.

1965- Acquisition of new technological ideas through entry into the petrochemical business

In the 1950s, as domestic imports of petrochemical products expanded and the momentum for domestic production increased, we established Nissan Petrochemicals in 1965 and entered the petrochemical business, starting with the production of higher alcohol. However, the petrochemical industry experienced a structural slump due to the impact of the two oil crises of the 1970s. 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 entry into the petrochemical business resulted in a large deficit, the development of 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)



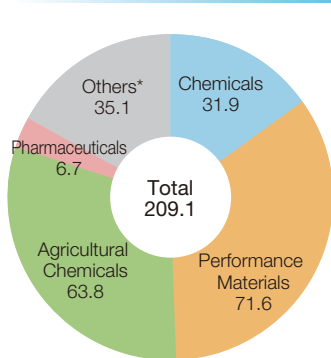
Toyama Plant

1989- Becoming a future-creating enterprise that responds to social needs

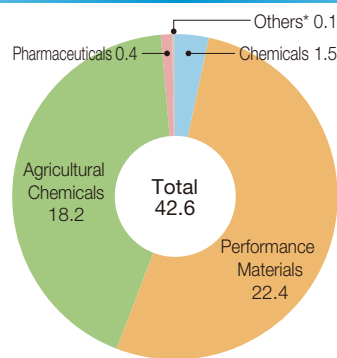
In 1989, we launched our Five-Year mid-term business plan oriented with two pillars: high-tech fields such as agrochemicals and pharmaceuticals, and traditional technology fields such as functional products and chemicals. The results of continued R&D investment in this difficult situation emerged. By the early 1990s, we released a large number of agrochemicals on the market, and in the late 1990s, while our liquid crystal alignment material grew significantly, we entered the semiconductor field. In the 2000s, sales of Pitavastatin calcium, 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. Since then, new agrochemicals have been launched and in 2013, we began the shipment of fluralaner, an active ingredient for veterinary pharmaceutical, which is one of the main products at present. In 2018, the Company had already been transcending the framework of industry in the development of its business and will accelerate this effort toward the future. In order to clarify this stance, we changed our name to Nissan Chemical Corporation.



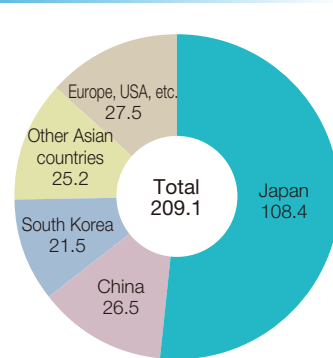
FY2020



Sales according to segment (billion yen)







Operating income according to segment (billion yen)



Sales according to region (billion yen)

* Others: trading, others, and adjustment

Main Products

	Before 2000	After 2000		
Chemicals	<p>1964 Melamine This is widely used as an adhesive agent for plywood, laminated sheets, molded products, resin finish for fabric and paper, and paint. It is highly aesthetic and offers a substantial level of quality. As a pioneer of its own high-pressure process, Nissan Chemical supplies products both domestically and internationally.</p>	<p>1965 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.</p>	<p>1978 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.</p>	
	<p>1951 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.</p>	<p>1989 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.</p>	<p>1998 ARC®*1 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.</p>	
Performance Materials	<p>1989 SIRIUS® To meet the needs of farmers, we develop and sell a large number of one-shot herbicides for paddy rice. The main component of these herbicides is SIRIUS®, our proprietary active ingredient.</p>	<p>1991 SANMITE® This insecticide / acaricide is effective against spider mites and rust mites in fruit trees, as well as spider mites and whiteflies in vegetables. We also market this product in about 30 overseas countries.</p>	<p>1994 PERMIT® We market PERMIT®, our proprietary active ingredient which is particularly effective against cyperaceous weeds, in Japan under the trade names of HICUT®, which is a herbicide for paddy rice in the mid to late term that is highly effective against the pesky weed Eleocharis kuroguwai, and INPOOL® for lawns.</p>	
	<p>1989 SIRIUS® To meet the needs of farmers, we develop and sell a large number of one-shot herbicides for paddy rice. The main component of these herbicides is SIRIUS®, our proprietary active ingredient.</p>	<p>1991 SANMITE® This insecticide / acaricide is effective against spider mites and rust mites in fruit trees, as well as spider mites and whiteflies in vegetables. We also market this product in about 30 overseas countries.</p>	<p>1994 PERMIT® We market PERMIT®, our proprietary active ingredient which is particularly effective against cyperaceous weeds, in Japan under the trade names of HICUT®, which is a herbicide for paddy rice in the mid to late term that is highly effective against the pesky weed Eleocharis kuroguwai, and INPOOL® for lawns.</p>	<p>2002 ROUNDUP® We acquired business rights in Japan for ROUNDUP®, an 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.</p>
Agricultural Chemicals		<p>1991 SANMITE® This insecticide / acaricide is effective against spider mites and rust mites in fruit trees, as well as spider mites and whiteflies in vegetables. We also market this product in about 30 overseas countries.</p>	<p>1994 PERMIT® We market PERMIT®, our proprietary active ingredient which is particularly effective against cyperaceous weeds, in Japan under the trade names of HICUT®, which is a herbicide for paddy rice in the mid to late term that is highly effective against the pesky weed Eleocharis kuroguwai, and INPOOL® for lawns.</p>	
Pharmaceuticals		<p>1994 LANDEL® LANDEL® is a calcium antagonist which has shown to have a positive effect on hypertension and angina pectoris.</p>		

For product information, please refer to Business Overview (P35 to 48).

Future

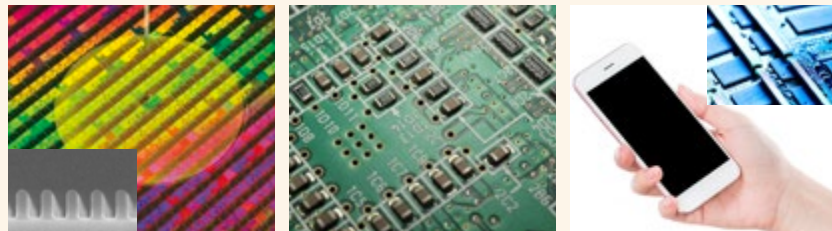
2005 AdBlue®*2

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.



New grades of TEPIC®

Venus® Oilclean



EUV under layer

Oilfield materials (inorganic)

CMOS image sensor materials

NPAR®, a liquid-repellent bank layer material

ELsource®, a soluble hole injection material

2008 LEIMAY®

LEIMAY® is a fungicide that works in a specific way on diseases caused by oomycetes and myxomycetes used as an atomizing agent for potatoes, grapes, and vegetables.

2013 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 sulfonyleurea-based herbicides. We market this product in Japan, South Korea, and China.



2013 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 a veterinary pharmaceutical substance. Fluralaner has remarkable characteristics: it 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.

2018 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.



Quintec® (fungicide)

DITHANE® (fungicide)
(active ingredient: Mancozeb)

2003 LIVALO®

This is a statin agent that greatly reduces LDL cholesterol and causes fewer drug-interactions, offering the advantage of safety.



Eldecalcitol (generic drug)

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

*2 AdBlue® is a registered trademark of the Verband der Automobilindustrie.

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

Process of Value Creation

Social Issues and Social Changes

- Environmental ● Social ● Economic
- Advanced climate change ● Global crisis ● Exacerbation of the food issues
- Increase of requests for consideration of health and safety in the work environment
- Advent of a smart society ● Changes in lifestyle ● Labor shortage ● Worsening health issues
- Intensification of inter-corporate competitions ● Diversification of risk factors
- Increase of requests for CSR considerations in the supply chain
- Increase of interest in corporate governance reform ● Increase of requests for information disclosure

Stakeholders

Customers Shareholders and Investors Employees Suppliers Local Society

Global Environment



Nissan Chemical Group is developing its business activities in four business domains based on the five core technologies those have been cultivated over the years.

We aim to achieve sustainable growth together with society by making effort at the materiality identified by recognizing various social issues and social changes.

Business Domains/Outputs [P35-48]

Information & Communication

- Display Materials
- Semiconductor Materials
- Optical Interconnect Materials
- Sensor Materials

Life Sciences

- Agrochemicals
- Pharmaceuticals
- Veterinary Pharmaceuticals
- Biomedical Materials

Environment & Energy

- Oilfield Materials
- Secondary Battery Materials

Chemicals & Affiliates

- Basic Chemicals
- Fine Chemicals

Outcomes [P33-P34]

Resolution of Social Issues



Improvement of Company Value



Corporate Vision in 2030 [P15-P16]

“A corporate group which provides new values for helping to enrich people’s lives by integrating internal and external knowledge with facing globally-changing society”

“A group of first-class pioneers who blaze a way to the future with enthusiasm by trusts they have built and skills they have cultivated”

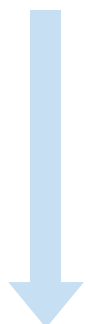
Materiality

Our group has identified the materiality needed to realize the corporate vision in 2030 as “A corporate group which provides new values for helping to enrich people’s lives by integrating internal and external

knowledge with facing globally-changing society”, and “A group of first-class pioneers who blaze a way to the future with enthusiasm by trusts they have built and skills they have cultivated”.

Materiality Identification Process

Gain Understanding About Social Issues and Social Changes



Social Issues and Social Changes

● Environmental ● Social ● Economic

- Advanced climate change
- Global crisis
- Exacerbation of the food issues
- Increase of requests for consideration of health and safety in the work environment
- Advent of a smart society
- Changes in lifestyle
- Labor shortage
- Worsening health issues
- Intensification of inter-corporate competitions
- Diversification of risk factors
- Increase of requests for CSR considerations in the supply chain
- Increase of interest in corporate governance reform
- Increase of requests for information disclosure

Based on our group’s long- and mid-term business plans, we clarified more than 500 keywords for social issues and social changes, referring to SDGs and ESG-related metrics and guidelines.

Keyword Collection



Keywords related to social issues and social changes were classified by theme and collected to form 29 materiality factors.

Management of Impact on Our Group



In regards to the 29 materiality factors, we considered and analyzed the social issues and social changes that are expected from now to 2030 and then made arrangements to manage the impact on the Group.

Importance Evaluation



We conducted an evaluation regarding the importance of materiality factors from two perspectives, that of our company and that of our stakeholders, based on the Group impact.

Opinion Exchange with Experts



We exchanged opinions about materiality factors with experts that possess a high degree of knowledge in various fields and also took the opinions of stakeholders into account.

Opinions from experts are found on our website. ▶ https://www.nissanchem.co.jp/eng/csr_info/management/materiality.html

Materiality Matrix Formulation



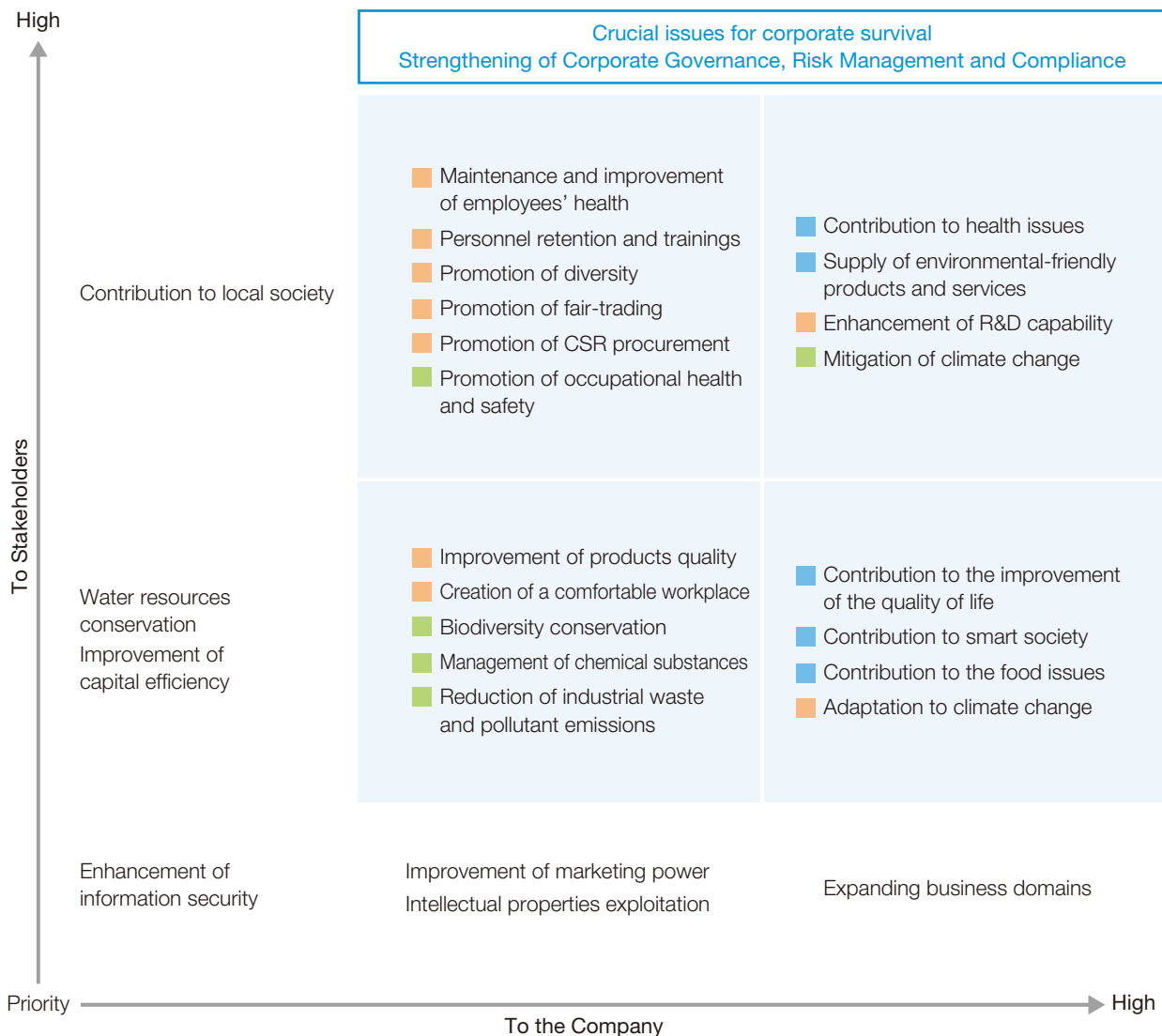
After numerous in-house discussions, we formulated a materiality matrix based on the opinions of stakeholders.

Materiality Identification (through resolution at the Board of Directors meeting)

Total of 19 materiality factors were identified after discussions held at the CSR Committee based on the materiality matrix. The results of the meeting were then resolved at the Board of Directors meeting.








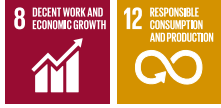


Materiality Matrix

<p>■ Provision of new value for helping to enrich people's lives</p>	<p>We aim to provide new value for helping to enrich people's lives through four businesses based on five core technologies.</p>
<p>■ Strengthening of Nissan Group's business base</p>	<p>We aim to strengthen our business base to improve our ability to respond to increasingly diverse and sophisticated marketing needs.</p>
<p>■ Continuous improvement of responsible care activities</p>	<p>We aim to enhance the maintenance of environment, health, and safety through the operation of the Nissan Chemical Responsible Care Management System.</p>




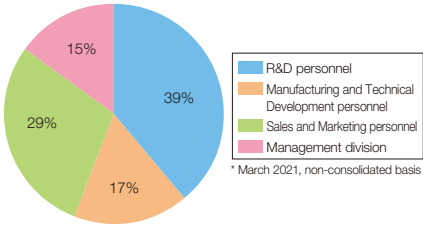
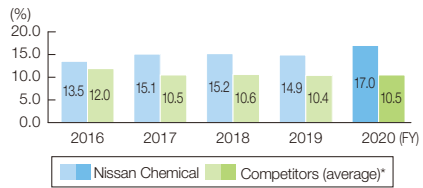
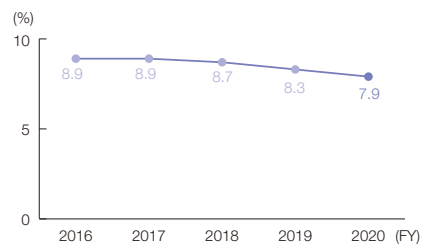
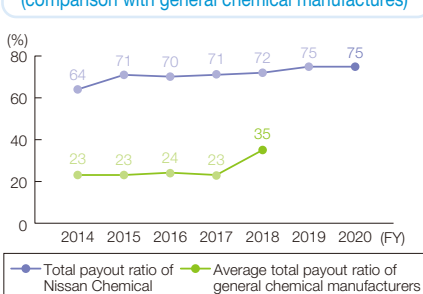


Materiality and KPI

Materiality	Factor	Our Initiative
<p>Provision of new value for helping to enrich people's lives</p> 	Contribution to health issues	Creation of pharmaceuticals that meet medical needs and biomedical materials that contribute to advanced medical care
	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
	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
	Contribution to smart society	Development of sensor materials required for IoT and wiring materials that contribute to higher capacities and speeds of data communications
	Contribution to the food issues	Supply of agrochemicals to increase crop yields and conserve agricultural labor, and the expansion of veterinary pharmaceuticals to livestock
<p>Strengthening of Nissan Group's business base</p> 	Enhancement of R&D capability	Deepening core technologies, promotion of open innovation, and introduction of new technologies such as AI
	Improvement of products quality	Continuous improvement of management systems and operations based on quality policy
	Maintenance and improvement of employees' health	Review of health promotion measures by the health promotion committee and mental health checkups
	Creation of a comfortable workplace	Promotion of work-life balance, measures against harassment, and support for childcare and family care
	Personnel retention and trainings	Provision of educations and capability trainings, and introduction of overseas study program
	Promotion of diversity	Promotion of active participation of women, hiring foreign students and people with disabilities
	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
	Promotion of CSR procurement	Conduct of assessment and audits of suppliers on CSR
Adaptation to climate change	Formulation of BCPs to prepare for the plants' inability to operate due to natural disasters	
<p>Continuous improvement of responsible care activities</p> 	Mitigation of climate change	Energy saving through equipment improvement and fuel conversion that leads to GHG emissions reduction
	Promotion of occupational health and safety	Establishment of an occupational safety management system and execution of capital investment in safety
	Biodiversity conservation	Operation of Bio-Park and support for the NPO "Kurohama-numa Shuhen no Shizen wo Taisetsu ni Suru Kai"
	Management of chemical substances	Minimization of negative impacts on human health and the environment throughout the life cycle of chemical products
	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

FY2021 Target	FY2020 Result	Relation with SDGs
License out candidates of drug agents	Started investigator-initiated clinical trial of anti-arrhythmic agent Established basic technology for nucleic acid drug discovery	
Launch of new medical materials	Keio University acquired approval for a clinical study of severe heart failure using cell clumps formed in prevelex®-coated containers	
Launch of new environmental-friendly products	Organic thin film solar battery materials: Promoted overseas development Secondary battery materials: Focused on the development of next-generation battery materials ORGABEADS®: Promoted development as a substitute for micro plastic beads	
Number of people positively impacted by the sales of disinfectants for drinking water: 2.5 million per year	1.1 million per year	
Expanded adoption of sensors and semiconductor packaging materials/Adoption and launch of materials for optical communications	Lens materials for CMOS: Sales continued to strongly increase Semiconductor packaging materials: Continued creating a lineup of new materials offered along with our existing materials Optical interconnect materials: Final evaluation underway for adoption	
Achieving 10% higher sales of agrochemicals than in FY2018	9.8% higher than FY2018	
Reaching 1,350 patent applications in three years by FY2021	Cumulative number of patent applications since FY2019: 841 (FY2020: 415 patent applications)	
Achieving 80% outsourcer audit rate in three years by FY2021	49%	
Consecutively acquiring White 500 certification	Acquired White 500 certification for five consecutive years from FY2016	
Achieving ratio of taking annual leave of 80% or higher	71.0%	
Achieving 10% more job training time per employee than in FY2017	11 hours of training: All online, training enhanced through content revisions (11 hours in FY2017)	
Achieving proportion of females among employees in the regular position of 10%	10.2%	
Holding consultation meetings with Legal Office throughout the Group by FY2021	62%	
Achieving CSR questionnaire survey coverage of 90% (in terms of monetary amount)	84.3%	
Formulating BCP where products account for 50% of ordinary income	Formulated BCP where products account for 76% of ordinary income	
GHG emissions: Reducing by 20% from FY2013 level Energy consumption rate: Improving by 20% from FY2013 level	GHG emissions: Reduced by 31% from FY2013 level Energy consumption rate: Improved by 24% from FY2013 level	
Achieving zero accident requiring staff time off from work	One accident occurred requiring staff time off from work	
Achieving 100% initiative for prefectures in which our Head Office, plants, and laboratories are located	83%	
Creating safety summaries of chemical substances of products that account for 90% of our total production	87%	
99.5% or more recycling rate Achieving 75% reduction of exhaust gas (SOx + NOx) emissions compared to FY2013	Recycling rate: 97.3% Exhaust gas (SOx+NOx) emissions: Reduced by 66% from FY2013 level	

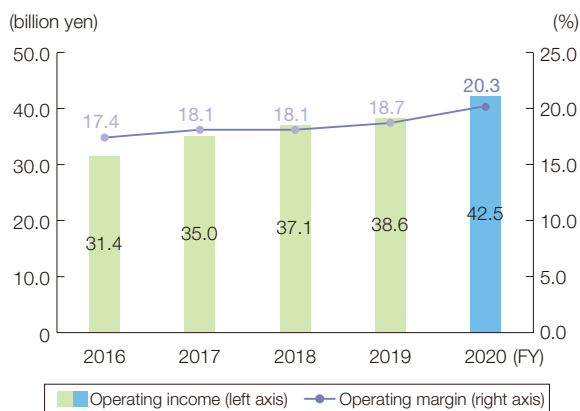
Management Resources

Management Resources	 Human Capital	 Intellectual Capital	 Financial Capital
Relationship to Value Creation	<ul style="list-style-type: none"> The company's growth as a "Future-Creating Enterprise" 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 women. 	<ul style="list-style-type: none"> Research and development is the driving force behind the creation of new technologies and products. We will continue to take on the challenge of creating completely new technologies and products based on our five core technologies: Fine Organic Synthesis, Functional Polymer Design, Ultrafine Particle Control, Biological Evaluation, and Optical Control. 	<ul style="list-style-type: none"> 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.
Characteristics	<ul style="list-style-type: none"> 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. A deviation value of 60 or higher is considered to be a highly engagement level employee, and the results are higher than the average for companies surveyed by an external specialist company. <div> <p>Personnel Allocation (Regular Position)</p>  </div> <div> <p>Ratio of High Engagement Level Employee</p>  </div>	<ul style="list-style-type: none"> Our sales-to-R&D expenses ratio has always been one of the highest among all chemical manufacturers. The results of our R&D activities are reflected in our operating margin. By focusing on high value-added businesses, we have maintained an operating margin of 10% or higher for 18 consecutive years. This high profit margin has led to the next phase of R&D. <div> <p>Sales-to-R&D expenses ratio</p>  </div> <p>We consider R&D is the source of growth, and have intensively invested our management resources in R&D.</p>	<ul style="list-style-type: none"> 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. <div> <p>Total payout ratio (comparison with general chemical manufactures)</p>  </div>
Related Information	<p>Strengthening of Nissan Group's Business Base (P53-P54) Personnel Retention and Trainings https://www.nissanchem.co.jp/eng/csr_info/communication/employee/system.html</p> <p>Promotion of Diversity https://www.nissanchem.co.jp/eng/csr_info/communication/employee/respect.html</p> <p>Maintenance and Improvement of Employees' Health https://www.nissanchem.co.jp/eng/csr_info/communication/employee/workplace.html</p> <p>Creation of a Comfortable Workplace https://www.nissanchem.co.jp/eng/csr_info/communication/employee/dialogue.html</p>	<p>Research and Development (P49-P52)</p>	<p>Message from the CFO (P11-P14) Financial Review (P75-P86)</p>

 Manufacturing Capital	 Social Capital	 Natural Capital												
<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> The relationships of trust that we have cultivated over a long period of time with a variety of stakeholders, including local communities and NPO/NGOs, form the basis for supporting our business activities. 	<ul style="list-style-type: none"> 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). Based on the Responsible Care Mid-Term Plan which extends to FY2021 and the long-term target of reducing GHG emissions by 30% from the FY2018 level by FY2030, we are striving to reduce our environmental impact through responsible care activities that consider the environment, health, and safety. 												
<ul style="list-style-type: none"> 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. 	<ul style="list-style-type: none"> With 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. <div style="display: flex; justify-content: space-around;"> <div>  <p>Summer Riko-Challe (Science and Technology Challenge)</p> </div> <div>  <p>Onoda Plant Cherry Blossom Festival</p> </div> </div> <div style="display: flex; justify-content: space-around;"> <div>  <p>Nissan Bio-Park Nishi-hongo Tour</p> </div> <div>  <p>Fujimae-Higata Clean-up Activities</p> </div> </div> <p>* Due to the spread of COVID-19 infections, Summer Riko-Challe, Cherry Blossom Festival, and Nissan Bio-Park Nishi-hongo Tour were not held in FY2020.</p>	<ul style="list-style-type: none"> 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. <div style="border: 1px solid #0070C0; border-radius: 10px; padding: 5px; text-align: center;"> Carbon Efficiency (GHG emission rate) </div> <p>(ton/million yen)</p>  <table border="1" style="margin-top: 10px; width: 100%; border-collapse: collapse;"> <thead> <tr> <th>Year</th> <th>Nissan Chemical</th> <th>General Chemical Manufacturers (average)</th> </tr> </thead> <tbody> <tr> <td>2017</td> <td>2.58</td> <td>6.46</td> </tr> <tr> <td>2018</td> <td>2.33</td> <td>6.18</td> </tr> <tr> <td>2019</td> <td>2.04</td> <td>7.06</td> </tr> </tbody> </table> <div style="text-align: center; margin-top: 20px;">  <p>Miza Power Station</p> </div>	Year	Nissan Chemical	General Chemical Manufacturers (average)	2017	2.58	6.46	2018	2.33	6.18	2019	2.04	7.06
Year	Nissan Chemical	General Chemical Manufacturers (average)												
2017	2.58	6.46												
2018	2.33	6.18												
2019	2.04	7.06												
<p>Corporate Information (P87-P90)</p>	<p>Contribution to Communities and Society https://www.nissanchem.co.jp/eng/csr_info/communication/community.html</p> <p>Biodiversity Conservation https://www.nissanchem.co.jp/eng/csr_info/responsible_care/conservation.html</p>	<p>Continuous Improvement of Responsible Care Activities (P55-P56) Responsible Care Management https://www.nissanchem.co.jp/eng/csr_info/responsible_care/management.html</p> <p>Mitigation of Climate Change https://www.nissanchem.co.jp/eng/csr_info/responsible_care/environment/reduction.html</p> <p>Reduction of Industrial Waste and Pollutant Emissions https://www.nissanchem.co.jp/eng/csr_info/responsible_care/environment/management.html</p> <p>Management of Chemical Substances https://www.nissanchem.co.jp/eng/csr_info/responsible_care/chemical.html</p> <p>Water Resources Conservation https://www.nissanchem.co.jp/eng/csr_info/responsible_care/environment/effective.html</p> <p>Biodiversity Conservation https://www.nissanchem.co.jp/eng/csr_info/responsible_care/conservation.html</p>												

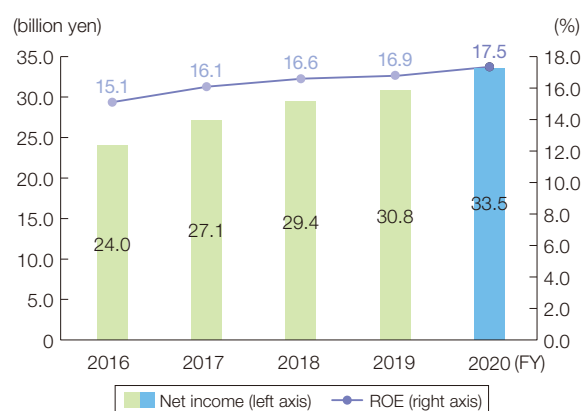
Financial and Non-Financial Highlights

Operating income/Operating margin



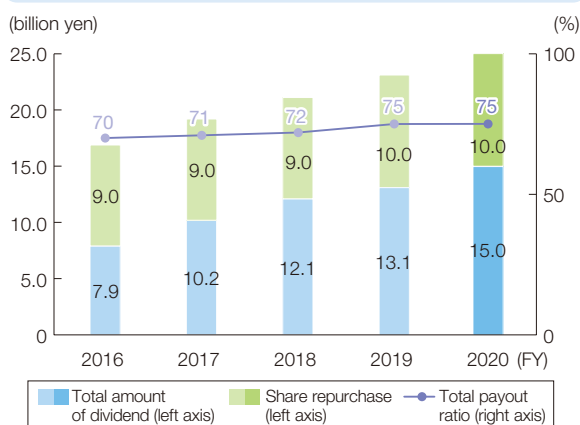
Operating income reached record highs for seven consecutive years. Our operating margin has maintained levels of 10% or more for 18 consecutive years since FY2003.

Net income attributable to owners of parent/ROE



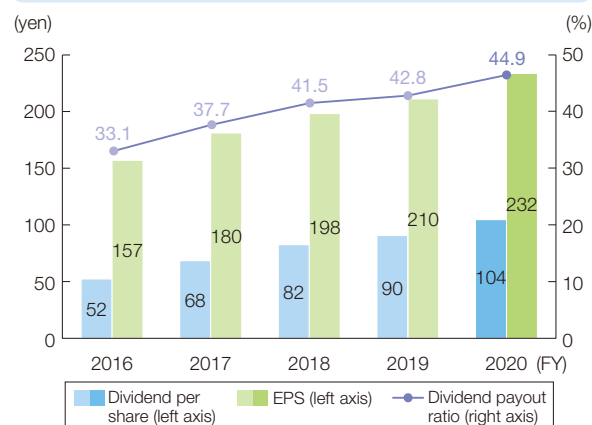
Net income reached record highs for eight consecutive years. ROE exceeded the level achieved in the previous year and exceeded the earning outlook of 16.6% announced in November 2020. ROE target during the Mid-term Business Plan (FY2019-FY2021) is 16% or higher.

Total amount of dividend/Share repurchase/Total payout ratio



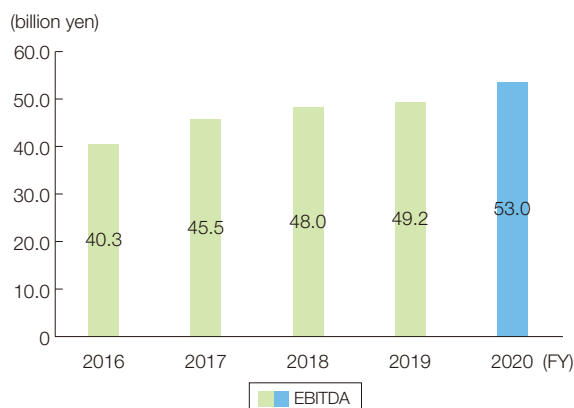
Total payout ratio target during the Mid-term Business Plan (FY2019-FY2021) is 72.5% for FY2019 and 75% for FY2020 and beyond.

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

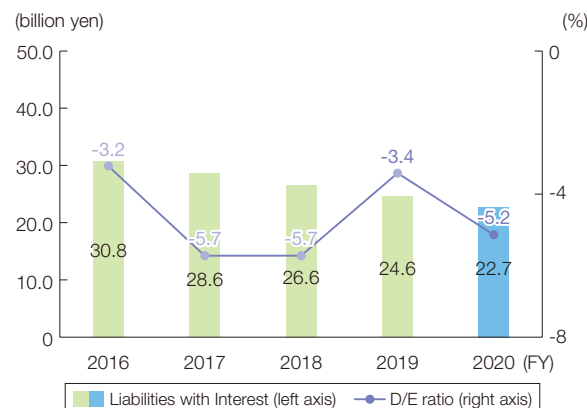


Dividends have increased for nine consecutive years from FY2012 to FY2020. The dividend payout ratio target during the Mid-term Business Plan (FY2019-FY2021) is 42.5% for FY2019 and 45% for FY2020 and beyond.

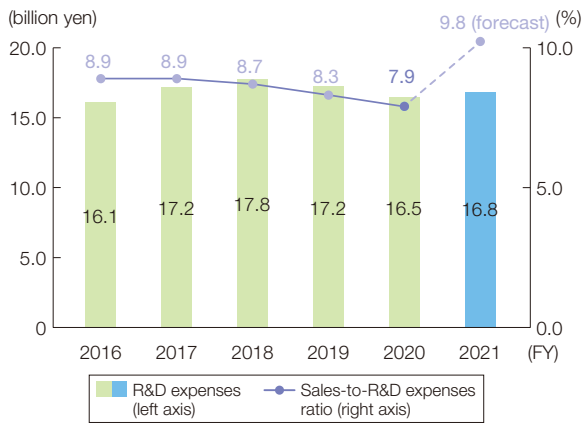
EBITDA



Liabilities with interest/ D/E ratio

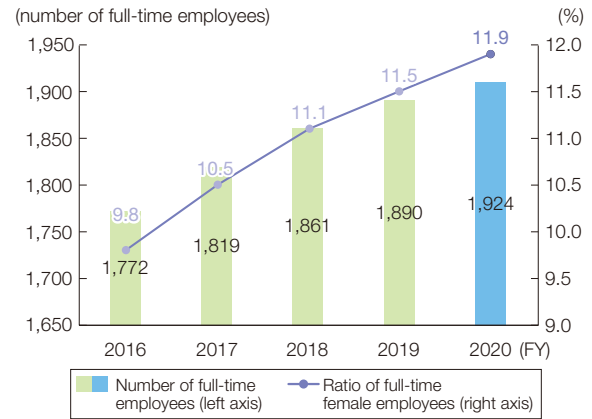


R&D expenses/Sales-to-R&D expenses ratio

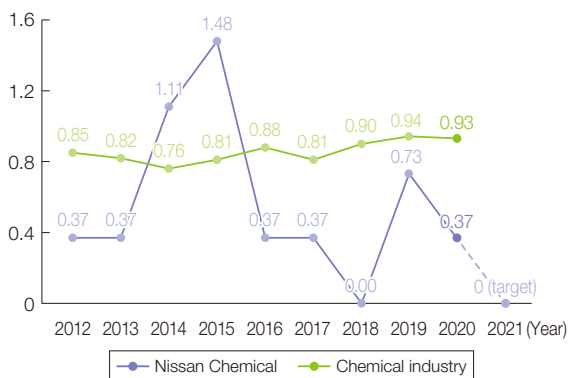


Placing importance on R&D, we have maintained a high sales-to-R&D expenses ratio of 8-9%.

Number of full-time employees/ Ratio of females among full-time employees

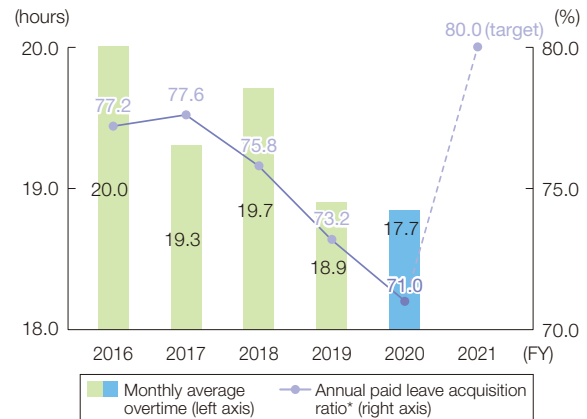


Lost-time injury frequency rate*



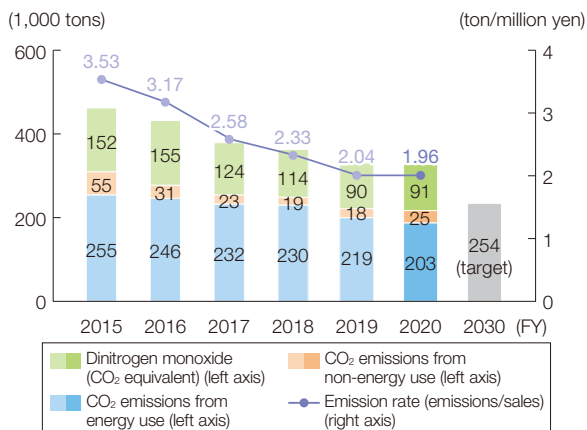
* Number of deaths and injuries due to occupational accidents per million actual working hours

Monthly average overtime/Annual paid leave acquisition ratio

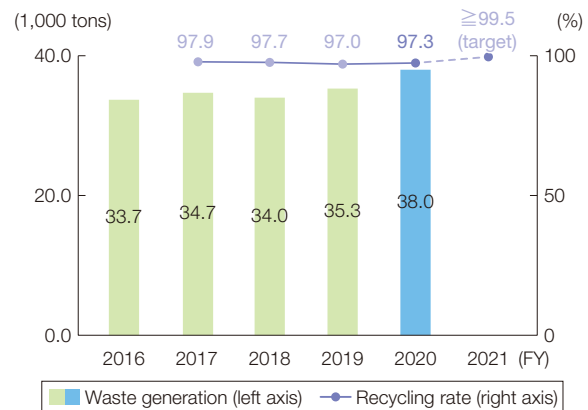


* Figures from FY2019 also include annual paid leave acquisition by managers

GHG emissions/GHG emission rate (emissions/sales)



Waste generation/Recycling rate



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.

MATSUOKA Takeshi
Executive Officer
Head of Chemicals
Division



Social Issues and Needs

With the advent of a smart society and worsening of global environmental issues, new needs have been created in various fields. In addition to general industrial use, we currently provide customers with products and technologies that contribute to solving social issues. Efforts include providing high purity chemicals for electronic component manufacturing applications, a high-grade urea solution for removing air pollutants, and use of proprietary cyanuric acid derivatives for improving water quality.

Business Vision

Our Chemicals business started with the manufacture of sulfuric acid and ammonia, which are basic raw materials for fertilizer. We contribute to the realization of a prosperous, safe, and continuously developing society by supplying materials used in a wide range of fields, from basic chemicals to high purity chemicals and cyanuric acid based high-performance products.

Business Overview

Basic Chemicals

We sell melamine, sulfuric acid, nitric acid, ammonia and other industrial chemicals to a wide range 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

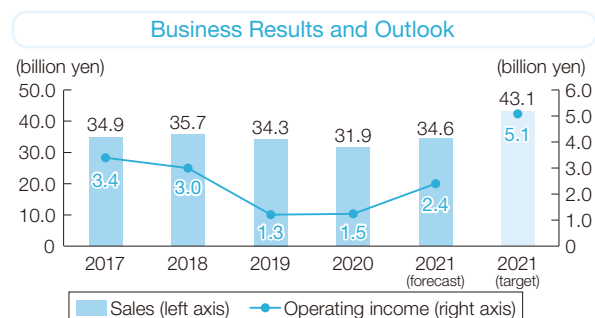
to be the cause of air pollution, into nitrogen and water, thereby reducing environmental impact.

* AdBlue[®] is a registered trademark of the Verband der Automobilindustrie.

Fine Chemicals

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

We position TEPIC[®] and melamine cyanurate, high performance chemicals derived from cyanuric acid, 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 research and development of our own cyanuric acid derivatives.



Stage II Business Strategies

Opportunities and Risks	Strengths
<ul style="list-style-type: none"> ● Strong global demand for cyanuric acid ● Increasing social demand for water sanitation ● Increasing demand for products for information & communication field ● Increase of issues at plants due to aging facilities 	<ul style="list-style-type: none"> ● 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

- Promote sales of cyanuric acid, melamine cyanurate, TEPIC[®], HI-LITE[®], AdBlue[®], and high-purity sulfuric acid
- Enhance maintenance technology through the adoption of digital technology



Progress of Main Measures

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.

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 FY2020, sales decreased in the first half of the fiscal year due to the spread of COVID-19 infections but recovered in the second half of the fiscal year with sales performance almost the same as the previous fiscal year. 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, such as the prevention of the spread of COVID-19 infections, 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 FY2020 due to a favorable level of demand by the semiconductor business. We will continue to maintain high quality and high availability.

Efforts Started After Stage II Initiation

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.

We are focusing on the development and deployment of new products, mainly cyanuric acid derivatives, as a source of sustainable business growth. 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.



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

Provision of Products for Helping to Enrich People's Lives

High-grade Urea Solution (AdBlue[®])*

AdBlue[®] is used in Selective Catalytic Reduction (SCR) which is a system for purifying nitrogen oxide contained in exhaust gas from diesel engines. When sprayed into exhaust gas, AdBlue[®] converts nitrogen oxide into harmless nitrogen and water, which helps to reduce environmental impact. Urea, the main component of AdBlue[®], is a substance which is so safe that it is used in cosmetic products as a moisturizing agent, pharmaceuticals, fertilizers, and so forth.

* AdBlue[®] is a registered trademark of the Verband der Automobilindustrie.



AdBlue[®]

Venus[®] Oilclean

Venus[®] Oilclean is a microorganism formulation that decomposes oils and fats in wastewater from food factories and other facilities. Compared to the pressurized floating facility, which is a typical oils and fats in wastewater treatment system, the facility using Venus[®] Oilclean significantly reduces odors and workload as well as waste with simple equipment. Some major food factories have reduced the amount of waste derived from oils and fats to almost zero by introducing this product.

Performance Materials

We will contribute to the realization of a smart society by promoting profitability of display, semiconductor, and inorganic materials, the three pillars of this business, and further expanding business size through new product development.

ISHIKAWA Motoaki
 Managing Executive Officer
 Head of Performance
 Materials Division



Social Issues and Needs

With the expansion of IoT and 5G as well as the evolution of AI and autonomous driving technology, our current society is transforming into a smart society where diverse systems interact to provide advanced services to everyone. The semiconductors, sensors, and displays that bring these technologies to life are also required to evolve. It is also expected to provide products that help protect the global environment and solve energy issues.

Business Vision

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

Business Overview

Display Materials

SUNEVER[®], a coating material to align liquid crystal molecules in a certain direction, serves as our primary display material. This product 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, we started the sale of Rayalign[®], a photo-alignment material for IPS liquid crystal, in 2014. This product is currently used in many smartphones that offer high screen resolutions. It is expected that product demand for Rayalign[®] will further increase in the future as tablet and monitor resolutions increase.

Semiconductor Materials

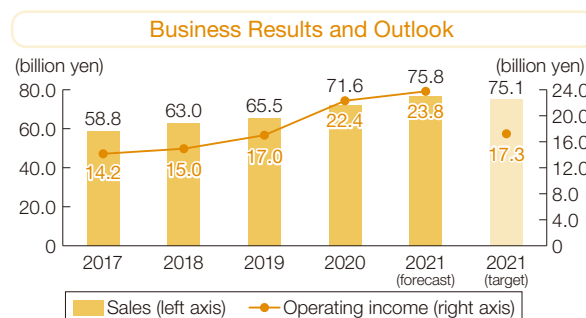
We started the manufacture and sale of ARC^{®1} in 1998 based on a licensing agreement with US company, Brewer Science, Inc. ARC[®] is a coating material designed to prevent issues such as irregular reflection and interference of light, and coating failure during micro-fabrication of the photoresist through lithography process. We launched OptiStack^{®2} (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. We are aiming to further expand product applications, including use as an agent to increase oil and gas extraction efficiency.



Stage II Business Strategies

Opportunities and Risks	Strengths
<ul style="list-style-type: none"> ● Increasing demand due to the development of the information & communication field ● Change in demand for shale oil due to fluctuations in crude oil prices ● Advent of innovative technology ● Intensification of inter-corporate competitions 	<ul style="list-style-type: none"> ● 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
<ul style="list-style-type: none"> ● Develop and launch new products ● Improve existing products and expand their application ● Strengthen evaluation technology ● Improve and maintain facilities



Progress of Main Measures

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 liquid crystal IPS. 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 FY2020, we were able to partially expand our customer share for sales of alignment material for VA liquid crystal.

2. Agents to Increase Oil and Gas Extraction Efficiency

Crude oil development is concentrated in specific areas with excellent oil and gas wells and the production in those areas is increasing. However, it is said that extraction efficiency has reduced due to the phenomenon that oil recovery amounts have generally decreased due to crowded conditions in areas where oil wells are in close proximity. Based on this issue, we aim to improve extraction efficiency by developing applications for use of our inorganic materials. In FY2020, sales declined due to the spread of COVID-19 infections and the drop in crude oil prices, especially during the first half of the fiscal year. Sales remained at the same level as the previous fiscal year and lower than planned. Under these circumstances, we will actively conduct field tests and strive to increase sales in order to focus on developing new applications for existing wells that are not easily affected by crude oil prices, including those outside the United States.



Shale oil drilling site

Efforts Started After Stage II Initiation

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 are developing proprietary materials, including hard coat materials for surface protection, materials that enhance light extraction efficiency, anti-reflective coating alignment materials, and release layer materials, which contribute to improving the characteristics of smartphones. In addition, our company is also accelerating market development for ELsource[®], a soluble hole injection material, NPAR[®], a liquid-repellent bank layer material, and other materials which can contribute to reducing the cost of large TVs, production efficiency, and characteristics enhancement. We are also developing materials for next-generation self-luminous displays which will be the future display technology following OLEDs.



Foldable display

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. However, we are coming close to physical theoretical limits for shrinkage of interconnect and integration, so it is expected that issues will be overcome through further evolution of semiconductor packaging technology. In addition to circuit miniaturization, we have focused early on technology for 3D packaging with thinned semiconductor wafers. In 2013, we acquired all shares of German company, Thin Materials AG and incorporated their advanced processes and material development technology necessary for semiconductor packaging, making them our own technologies. We are also actively working on other next-generation semiconductor packaging technologies and development of markets related to sensors.



Image of integrated circuits board with 3D package

Provision of Products for Helping to Enrich People's Lives

SNOWTEX[®], Aluminasol, Organosilicasol, and NanoUse[®]

Our inorganic materials on base of our ultrafine particle control technology can be used for a wide range of applications since it can be dispersed in various types of solvents. By using them for transformers and motors, it is possible to improve insulation performance and reduce energy loss. They also function as a catalyst binder and base material reinforcing material in the process of removing exhaust gas from factories and automobiles. By making the equipment more energy efficient and longer-life, these materials contribute to reducing environmental impact.



Image of exhaust gas removal

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.

HONDA Takashi
 Director, Senior Managing
 Executive Officer
 Head of Agricultural
 Chemicals Division



Social Issues and Needs

In addition to the conventional agricultural issue of efficiently preventing damage caused by pests and weeds during crop production, there is an increasing consumer needs to reduce pesticide residues on crops and reduce environmental impact.

We also recognize the importance of increasing agricultural sustainability by small family-owned farmers, especially in Japan.

As a company that provides agrochemicals, we are making various efforts to solve social issues.

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.

Business Vision

In Stage II of Vista 2021, we aim for our entry into new agriculture related fields while focusing on our current business of providing distinctive chemically synthesized agrochemicals to farmers. For smart agriculture, which is expected to contribute to the maintenance and development of domestic agriculture, we started to provide a service since previous fiscal year to diagnose pests and weeds using a smartphone application and provide information on effective pesticides to farmers. Also, we are developing and examining so-called biopesticides that do not leave a residue on crops.

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.

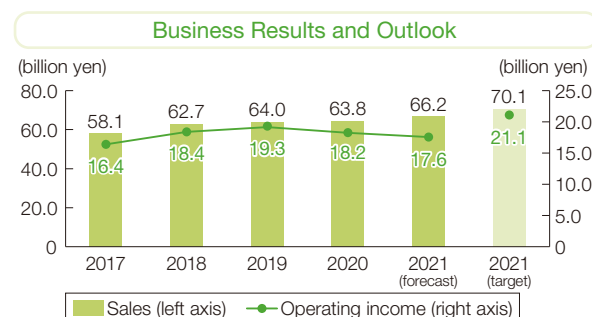
Since launched in Europe and the United States under the brand name BRAVECTO®* in 2014, veterinary pharmaceuticals containing Fluralaner as an active ingredient are now used in more than 100 countries and are leading the growth of Agricultural Chemicals Division.

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

Business Overview

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.



Stage II Business Strategies

Opportunities and Risks

- Continuous expansion of the overseas agrochemicals market
- Labor shortage due to the population decline in Japan
- Intensification of inter-corporate competitions
- Supply shortages of active ingredients
- Growth of the companion animal market

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

- Rapidly popularize and promote sale of GRACIA® and take over sales of Quintec® and DITHANE® in various countries
- Strengthen initiatives aimed at large-scale farmers, corporations, and general consumers
- Steadily develop new agrochemicals and create pipeline



Progress of Main Measures

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. We also expect to release GRACIA® in India in 2021 as it has already become a major product.



GRACIA®

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 plan to launch the sale of the long awaited boom sprayer nozzle in FY2021.



ROUND NOZZLE®
ULV5



ROUNDUP®
MAXLOAD
(200L)

3. Fluralaner

Veterinary pharmaceuticals for companion animals and livestock containing Fluralaner as an active ingredient are available in more than 100 countries. In 2020, a spot-on product for dogs and a spot-on compound designed for external and internal parasites found on cats were approved for marketing in Japan and were launched there in January 2021. Along with the declining birthrate and growing proportion of elderly people, 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.



BRAVECTO® tablets for cats

Efforts Started After Stage II Initiation

In order to enhance our overseas product portfolio, we have acquired Quintec® (active ingredient: quinoxifen) from Corteva Inc. This product is a fungicide that is effective in prevention of powdery mildew and is currently used mainly in vineyards in the US.

In addition, as in-house developed products, following the development of a fungicide (development code NC-241) and 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). Moreover, we have established a joint venture (Nissan Bharat Rasayan PVT. LTD.) in India for the purpose of manufacturing the active ingredients in agrochemicals. From Stage II, 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 a robust active production and supply system that is cost-competitive.



Provision of Products for Helping to Enrich People's Lives

Exzolt®*1

As for products that use Fluralaner, our original active ingredient for veterinary pharmaceuticals, in addition to BRAVECTO®, which is designed for external parasites found on companion animals, Exzolt®, a veterinary pharmaceutical effective on chicken mites, was approved for marketing in Europe in 2017. The product was later approved for marketing in Japan in April 2021. This is a revolutionary product that can be administered in water supply systems for chickens, unlike the conventional method of exterminating chicken mites which has been inefficient and inadequate. Chicken mites not only reduce the spawning efficiency of chickens but are also problematic to poultry farmers since they are also parasitic on them. Exzolt® is able to very effectively eliminate these mites. In Europe, it is recognized as an effective drug from the aspect of animal welfare² and is thought to be useful in relieving insomnia, reducing stress, and increasing egg-laying rates in chickens.



*1 Exzolt® is a registered trademark of Intervet International B.V. and Intervet Inc., a subsidiary of Merck & Co., Inc.

*2 On January 28, 2021, MSD Animal Health announced an update to the Summary of Product Characteristics (SPC) for Exzolt® from the European Medicines Agency's Committee for Medicinal Products for Veterinary Use.

Pharmaceuticals

By focusing on drug discovery and manufacture of active pharmaceutical ingredients, we are striving to develop better pharmaceuticals through a unique business model that does not have a sales department, licensing products which we have developed to pharmaceutical companies.

ISHIWATA Norihisa
 Head of Pharmaceuticals
 Division



Social Issues and Needs

In Japan, a country with the declining birthrate and growing proportion of elderly people, medical services and pharmaceuticals are becoming more important than ever. Lifestyle-related diseases are increasing due to changes in lifestyles. So awareness for increasing expectancies for healthy life is growing. As a solution, safer and more effective medicines, such as personalized medicine and preventive medicine, are desired.

Business Vision

We entered the pharmaceutical business in 1982 and launched EPATEC[®], an external preparation with ketoprofen as its main ingredient, as our first pharmaceutical product. Since mastering the pharmaceutical business from manufacturing to sale, we have continued challenges in the R&D of innovative new drugs by making full use of our strategically developed chemical compound library, our cutting-edge evaluation functions, and our fine organic synthesis technologies.

Business Overview

In-house Drug Discovery

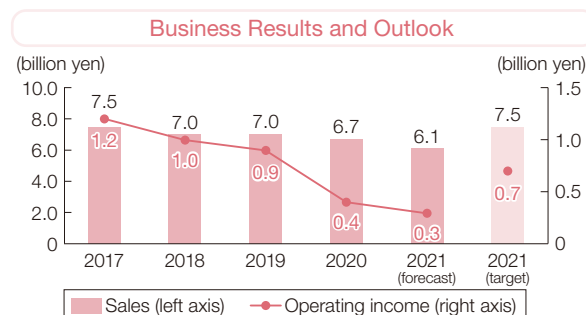
The development of the anti-hypertension agent efonidipine hydrochloride marked our start in the drug discovery business. At the time of its development, drug development by major Japanese pharmaceutical companies was focused on antibiotics. We focused on drugs for hypertension and hyperlipidemia, paving the way for success. It was launched in 1994 in Japan, which is distributed by Zeria Pharmaceutical and Shionogi as LANDEL[®] in Japan and by Green Cross as FINTE[®] in South Korea.

In 2003, LIVALO[®], anti-cholesterol drug with pitavastatin calcium we developed as another one of our focus point, was launched by Kowa Pharmaceutical (current Kowa Company). Currently LIVALO[®] is sold in

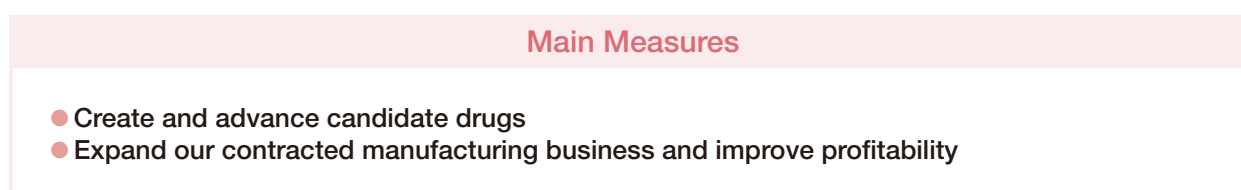
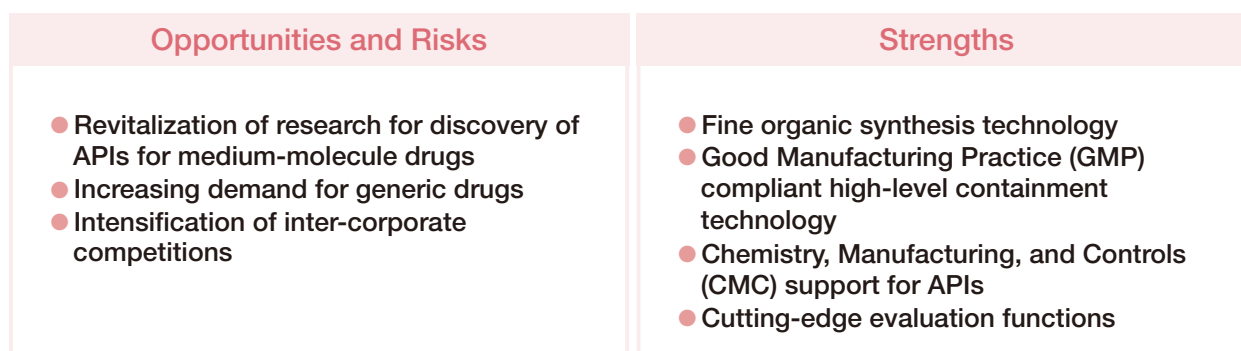
28 countries around the world. After its substance patent for Japan expired in August 2013, due to the decline in market share by generic drugs and the impact of drug price revisions, the domestic conditions continue to be harsh. The creation of new drugs is an urgent issue for us.

Finetech[®]

We are developing a contracting solution proposal business that provides total support to customers in line with their needs for their development of active pharmaceutical ingredients (API). We engage in the contracted development of manufacturing process in the stages from pre-clinical to commercial production, as well as manufacture of API and intermediates in compliance with Good Manufacturing Practice (GMP). Furthermore, we provide related services including quality designs, stability testing, impurity and metabolite sample synthesis, and creation of materials regarding drug master file application (CMC: Chemistry, Manufacturing, and Controls compliant). Recently, we are expanding supply business of APIs of generic drugs that responds to the need for highly active drug substances that require fine organic synthesis and containment. In addition to our wide variety of asymmetric synthesis technologies, oxidation reaction technology using organic molecular catalysts, and prostaglandin derivative synthesis through a proprietary two-component coupling method, we also have an abundant amount of experience manufacturing in-house drugs and agrochemicals, and our strengths include multi-step synthesis and heterocyclic compound synthesis.



Stage II Business Strategies



Progress of Main Measures

1. Strengthening Initiatives for Creating Nucleic Acid Technology and Nucleic Acid Drug Discovery

Nucleic acid drugs are attracting attention in their main roles as next-generation pharmaceuticals. In 2018, we began joint research with Luxna Biotech for nucleic acid drug discovery, investing in the company in February 2020. In June 2020, we were licensed a novel modified nucleic acid, 2'-MCE, from Tokyo Institute of Technology and are using it for our own nucleic acid sequence designs.

2. Approaches to Drug Discovery Using Computational Science

With recent advances in supercomputers, the speed of computational processing has become much faster. Therefore, it is becoming possible to design small molecule drug candidates for target molecules with high precision. In July 2019, we started joint research with Veritas In Silico on new small molecule drug discovery targeting RNA.

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. We have developed a novel liquid phase peptide synthesis technology (SYNCSOL™) that enables dramatic cost reduction.

4. Continuous Launch of Highly Bioactive Generic Drugs

The demand for eldecacitol, 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 maxacacitol, a highly active vitamin D3 drug, in FY2020 we started the sale of eldecacitol, which requires high-quality control because of the susceptibility to decomposition and impurities caused by oxygen, moisture, and heat in the air. We will continue to develop a stable supply system and nurture it as a source of growth.

Efforts Started After Stage II Initiation

In addition to developing a therapeutic agent for thrombocytopenia (NIP-022) and an anti-arrhythmic agent (NTC-801), we aim to license out at least two chemical compounds in Stage II among several drug candidate agents which are at the late stage of drug discovery. Also, drug discovery researches in early stages are focused on neurological diseases. To raise the probability of success, we will also concentrate research resources to collaborative drug discovery research with Shionogi and other pharmaceutical companies, and nucleic acid drug discovery research with Luxna Biotech.

Pitavastatin calcium, the API of LIVALO[®], will serve as an important source for profits during Stage II as usual. As pressure to control prices increases, we aim to maximize value with stable production results and high-quality APIs.

It will take time to acquire results in in-house drug discovery business. Until then, our Finetech business will support our pharmaceutical business. In addition to our business of maxacalcitol, which contributed to Stage I profits, we are getting our business up to speed with the launch of the eldecalcitol as a new generic drug in FY2020. Furthermore, we will start a contracted peptide manufacture in collaboration with PeptiStar, a company in which we have invested, using our overwhelming technological advantages, including liquid phase synthesis. During the final year of Stage II, we will proceed with a full-scale plan to transform Finetech[®] into a highly profitable business.

Our pharmaceutical business will continue to boldly challenge in-house drug discovery while supporting the backbone by our highly profitable Finetech business.

Provision of Products and Services for Helping to Enrich People's Lives

APIs Manufacturing (In-house drug discovery business and Finetech[®])

We manufacture APIs at the Onoda Plant, which is located in Sanyo-Onoda City, Yamaguchi Prefecture. In addition to being GMP compliant, it is regularly inspected by domestic and foreign regulators and customers where we supply APIs, and its level of quality is highly evaluated.



Liquid Phase Peptide Synthesis Technology Platform (SYNCSOLTM)

At Chemical Research Laboratories located in Funabashi City, Chiba Prefecture, we are moving forward with preparations for our contracted peptide manufacturing business in which we utilize our proprietary liquid phase method technology. Due to their nature, biological activity of peptides is demonstrated at microscopic levels. Therefore, we are conducting research and development in a special experimental environment in which peptides are physically contained.

Nucleic Acid Drug Technology Platform

We are preparing to provide a technology platform based on basic drug discovery research using a unique nucleic acid chemical structure developed by Nissan Chemical and nucleic acid chemical element technology developed by Luxna Biotech. Furthermore, we are also engaged in research and development of highly safe and more effective nucleic acid drugs.



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.

SUZUKI Hitoshi
Director, Managing
Executive Officer
Head of Planning and
Development Division



Social Issues and Needs

Economic development and technological innovation have enriched people's lives and made them more convenient materially. However, there are various challenges for a sustainable society, such as the declining birthrate, growing proportion of elderly people, and progressing climate change issues. We are making various efforts to create new businesses in order to contribute to a society which boasts health and longevity, an advanced information society, and an environmentally sustainable society.

Business Vision

As a future-creating enterprise, we aim to realize a sustainable society by taking on the challenge of exploring the limitless possibilities of chemistry and creating high value-added products in response to customer "trust."

Business Overview

Life Sciences Materials

We are developing life sciences related materials in anticipation of entering the cosmetics market and the expansion of the regenerative medicine market.

In the cosmetics field, NANOFIBER GEL[®] was adopted in skin care products of cosmetics manufacturers in 2020 and 2021 consecutively. We have also developed ORGABEADS[®], which reproduces a beautiful, transparent skin tone, and are introducing it to customers.

In the field of regenerative medicine, in addition to FCeM[®]FP and FCeM[®]Cellhesion[®], which are cell culture substrates, we are promoting the development of prevelex[®], a product that controls protein and cell adhesion. In the development of the FCeM[®] series, we are developing researching mass production methods for making them mainstream of cell culture substrates for mass production of undifferentiated iPSC cells. Furthermore, in the field of mesenchymal stem cell manufacturing, we are developing Cellhesion[®] as a scaffold to manufacture inexpensively undifferentiated cells with high migration performance and enable autologous and allogeneic transplantation. We are also developing the prevelex[®] series of biomaterial adhesion inhibitors for use in

the fields of regenerative medicine, genetic medicine, and antibody drugs in the pharmaceutical field, where modalities are becoming increasingly diverse.

Information & Communication Materials

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 μ LED-related materials attracting attention as next-generation displays with high brightness and high reliability, wafer-level package-related materials and power semiconductor-related materials that are next-generation semiconductor technologies which break down the barriers associated with miniaturization, and optical interconnect materials that support high-speed, large-capacity data communications.

Environmental-Friendly Materials

We are committed to the development of products that contribute to zero emission initiatives and lead to the popularization of bioplastics.

For lithium-ion batteries (LIB) which serve as key components of electric vehicles, we have developed FairCurrent[®], an undercoat material designed for quick charging and extending life of batteries, and are aiming for its early commercialization. We are proceeding with the development of ECOPROMOTE[®], a resin additive for increasing the crystallization rate in the molding process and improving the molding cycle and heat resistance in order to solve issues related to polylactic acid (PLA), which is expected to be widely used as a bioplastic.

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 in each field and accelerating commercialization by making licensing agreements with start-up companies, investing in them, and through mergers and acquisitions.

We are also working to strengthen our R&D capabilities by encouraging the training of researchers and the proper allocation of resources and by creating systems for the timely decision-making and creation of themes by the Theme Council.

Stage II Business Strategies

Opportunities and Risks

- Expansion of the regenerative medicine market
- Growth of the beauty & health 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

- Ability to promote collaborative-based product creation with customers
- Thin film coating based interface control technology
- Fusion of functional material design and biological evaluation



Main Measures

- Acceleration of development by allocating resources to important themes
- Improvement of contact with customers and strengthening of solution proposals
- Achievement of standardization of our materials through participation in national projects



Progress of Main Measures

1. NANOFIBER GEL[®]

In addition to promoting the penetration of active ingredients such as vitamins A and C derivatives, NANOFIBER GEL[®] 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. In April 2021, the product was also adopted for use in SUGI Pharmacy's private brand Prieclat Cream W. In the future, we will promote development by expanding the number of different types of items to use it in.

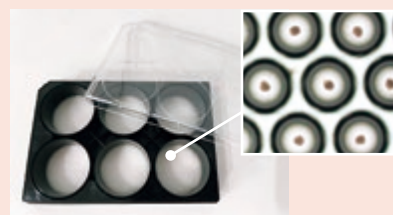


2. FCeM[®]Cellhesion[®]

It has been newly discovered that mesenchymal stem cells derived from elderly persons can also be cultured, and studies on autologous transplantation for these cells for the elderly have begun.

3. prevelex[®]

In recognition of its high safety and coating performance in applying to microstructures, culture vessels coated with prevelex[®] CC1 will be used in clinical research for iPS cell-derived cardiomyocyte spheroid transplantation.



Spheroid cells generated using Elplasia[™] coated with prevelex[®] CC1: DU145 (human prostate cancer cell line)

4. FairCurrent[®]

In tandem with providing samples for use in lithium-ion batteries (LIB) for electric vehicles, we are also considering application of the product in next-generation batteries.

Provision of Products for Helping to Enrich People's Lives

prevelex[®] CC1

Professor Keiichi Fukuda and his colleagues from the Department of Regenerative Medicine and Advanced Cardiac Therapeutics, Graduate School of Medicine, Keio University will begin clinical research in 2021 using allogeneic iPS cell-derived cardiomyocyte spheroids created in culture vessels coated with prevelex[®] CC1, one

of the products in the prevelex[®] lineup for preventing cell adhesion. Currently, cardiovascular disease is the second leading cause of death after cancer, and many people die every year from acute myocardial infarction and heart failure. We expect that prevelex[®] will contribute to the realization of regenerative medicine for patients with severe heart failure.

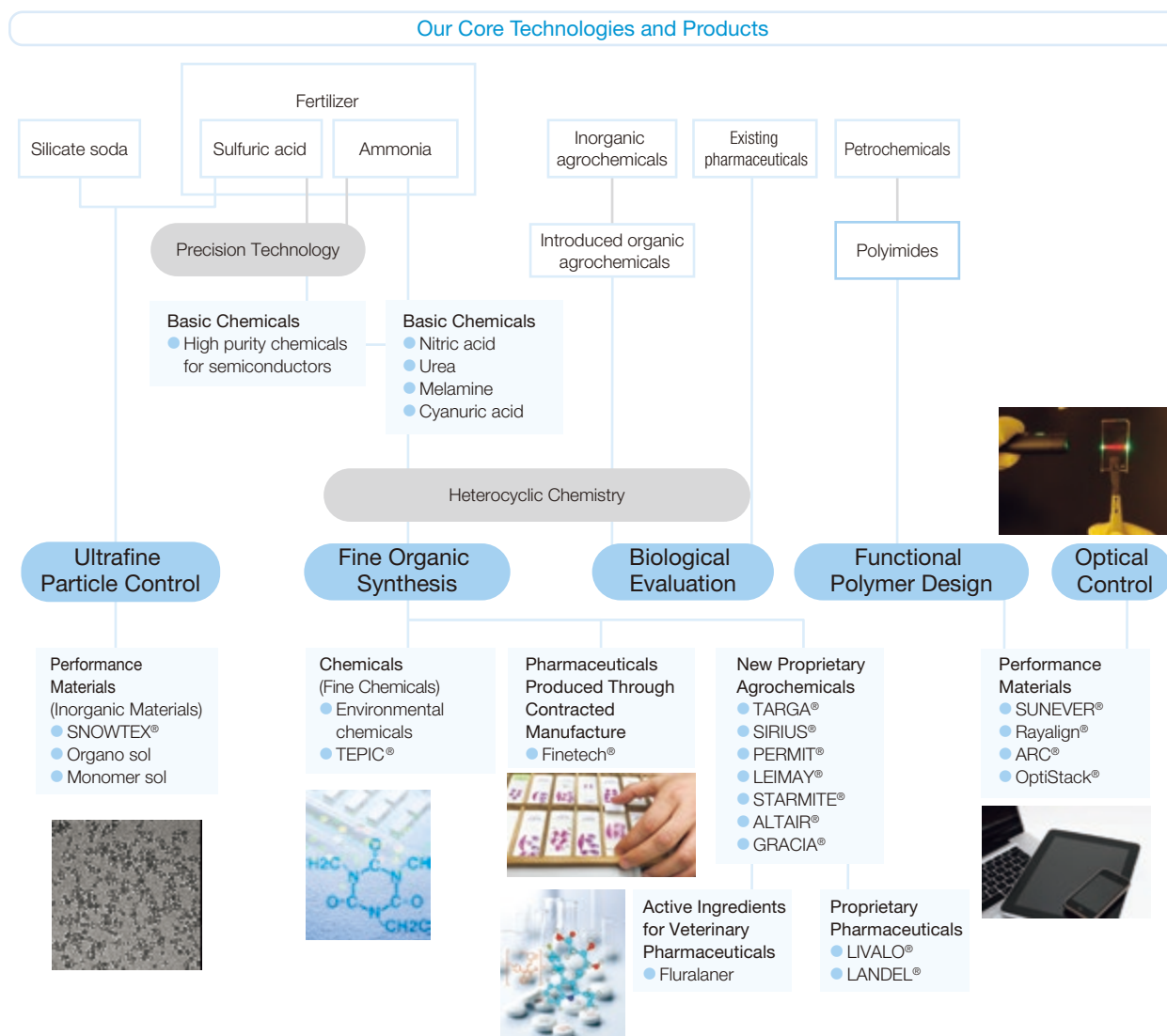
Research and Development

With “Fine Organic Synthesis”, “Functional Polymer Design”, “Ultrafine Particle Control”, “Biological Evaluation”, and “Optical Control” serving as our core technologies, we aim to become “A Future-Creating Enterprise that Responds to Social Needs with Unique, Innovative Technologies” committed to continue creating new technologies and products.

Our Core Technologies

Originally started as a fertilizer company, 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.

In addition to further refining these technologies, we are working to develop new products and technologies and create new businesses by fusing these technologies while working closely with each other between research laboratories and related departments. We are also promoting the introduction of new technologies through joint research with universities and other companies.



Chemical Research Laboratories

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.

- Analysis Research Department
- Synthesis Research Department
- Agricultural Chemicals Research Department
- Pharmaceutical Research Department



Funabashi, Chiba

Biological Research Laboratories

Biological Research Laboratories serves as a place for life science research, such as evaluation research related to the usefulness and safety of agricultural chemicals, pharmaceuticals and medical materials.

- Agricultural Chemicals Research & Development Department
- Toxicology & Environmental Science Department
- Medicinal Research Department



Shiraoka, Saitama

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.

- Display Materials Research Department
- Semiconductor Materials Research Department
- Inorganic Materials Research Department
- Advanced Materials Research Department
- Frontier Materials Research Department



Funabashi, Chiba



Toyama, Toyama

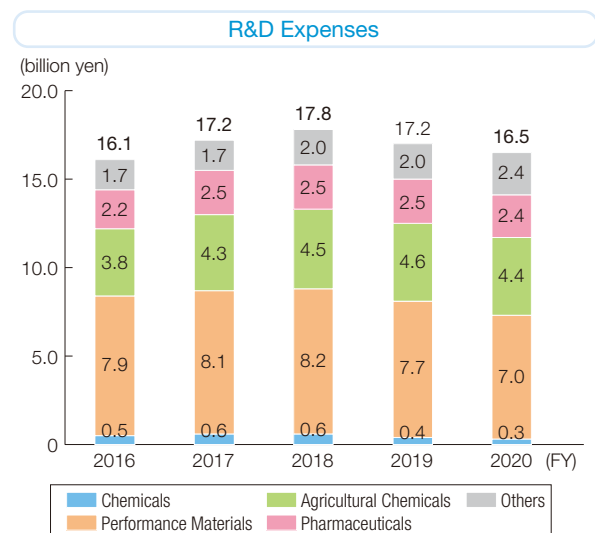


Sodegaura, Chiba

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 84.8 billion yen. The R&D expenses in Performance Materials and Life Sciences (Agricultural Chemicals and Pharmaceuticals) account for more than 40% each. In addition, about 40% of employees of regular position are allocated as R&D personnel.



Voices of Researchers

Supporting manufacturing using analysis technology



MATSUO Mina

Analysis Research
Department
Chemical Research
Laboratories

Our job in the Analysis Research Department is to support the development of materials through analysis work in collaboration with other departments. We are working on the introduction and construction of new technologies in addition to basic analysis technologies in order to respond to the evaluation of various materials that are evolving day by day. In research and development, relationships with people are very important. By accurately grasping the needs of the development side, we can provide high-quality analysis results. Also, deep involvement can lead to the development of new analysis technologies. Relationships with people in other departments are one of the most rewarding aspects of my job.

The surface analysis team, to which I belong, uses analysis techniques specific to the surface and interface of materials to elucidate the mechanisms of function expression and trouble factors. Electron microscopes allow us to observe the structure of an object that is invisible to the naked eye by magnifying it several hundred to several million times down to the atomic level. In this sense, analysis technology makes the invisible visible. New materials are created based on what we are able to see. Those materials will be used to create a variety of products that will reach many people, including myself, and contribute to people's lives. I am proud of my job which supports such manufacturing through the use of analysis technology.



Creating next-generation materials

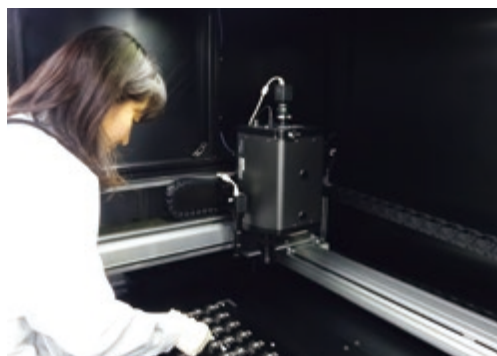


KUNIMI Naho

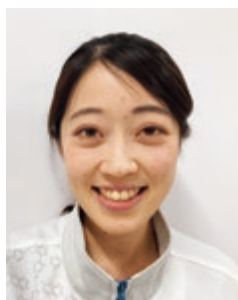
Advanced Materials
Research Department
Materials Research
Laboratories

The hole injection layer (HIL) that we are developing is a necessary component to improve the performance of OLED displays and is required by display manufacturers to have many characteristics. In order to always meet these demands, we are constantly developing HIL materials to improve performance. In addition, I always keep in mind the need to develop materials with a sense of speed, not only by completing assigned tasks, but also by identifying issues that may arise in the future, finding solutions, and outputting new materials. Under these conditions, I feel much rewarded as a developer when the materials that I was involved in developing are highly regarded by customers.

I was involved in the work mentioned above in the milestone year after my maternity leave. Although it has only been a short time since I have been involved in this work, our goal is to work together to create standard materials that will make people say "This Nissan Chemical's materials are excellent" in the future.



Advancing regenerative medicine to benefit people

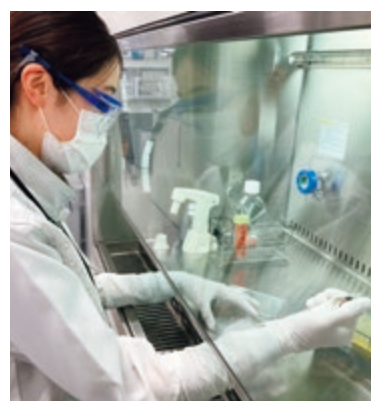


HIROI Miya

Frontier Materials
Research Department
Materials Research
Laboratories

Our mission in the Frontier Materials Research Department is to provide unique value through our coating materials by identifying the challenges of the industry, targeting next-generation medicines such as regenerative medicine. In the future, we hope to save the lives of people with serious illnesses and contribute to the improvement of their quality of life. Although I have a chemistry background, developing materials requires not only knowledge of chemistry but also knowledge of biology, including cell culture, and consideration for the safety of the human body. In particular, I am working on my research every day with a sense of responsibility and urgency that I must not forget since my work is related to human life.

The market for regenerative medicine has not yet matured. This is why we need to catch potential needs through conversations, which will provide us with hints to identify needs, with people at universities and companies engaged in cutting-edge research and use that information for materials and experiments. Then, we discuss the results with others. I find such a cycle interesting and rewarding. Our goal for the future is to save many lives through next-generation medicine using our materials. To achieve this goal, I will continue to search for new issues and apply what I learn about them to the development of new materials.



Co-creating new value through open innovation



ISHIBASHI Ken

Semiconductor Materials
Research Department
Materials Research
Laboratories
(Currently at Imec)

Imec (Interuniversity Microelectronics Centre), where I am currently stationed, is a leading research institute in the field of semiconductors which owns many types of research equipment, including cutting-edge lithography equipment used in semiconductor device manufacturing. In addition, Imec accepts a wide range of researchers from semiconductor-related companies and universities of various countries to conduct joint research.

Resident researchers have two primary missions, which I will address. The first is to utilize the research equipment at Imec and evaluate materials in conditions similar to those of customers. Since it is very challenging to detect minute differences in characteristics when evaluating materials used in cutting-edge fields, I feel that there is great value in fully utilizing Imec's research equipment to construct methods for evaluating differences in characteristics with greater accuracy than possible with existing methods.

The second mission is the continued development of semiconductor-related materials that will be required by next-generation products through joint research with Imec and other companies (material and equipment manufacturers). By collaborating with Imec and other companies, we can increase our knowledge of semiconductor processes and materials evaluation. I also find it interesting to be able to apply the knowledge I gain through collaborative activities to material development at our company.



Strengthening of Nissan Group's Business Base

We are working to secure and develop diverse human resources in order to improve our R&D capabilities and product quality. We also aim to strengthen our business foundation by creating a workplace where a wide range of employees can be active and work comfortably, and to enhance our ability to respond to the various demands of societies.

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 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 with the goal of developing the abilities of entrepreneurs and fostering them. With the support of active entrepreneurs, participants practice behavioral skills in mixed team selected from multiple departments and acquire the ability as innovators through trial and error.



Intrapreneurship program

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.

Self-start Training

For the purpose of laying a foundation for self-starting human resources who “think and do what they should do,” technical employees focus on training which involves “creating original plans and executing them” for a period of two years after entering the company and office employees focusing on the same for three years after entering the company. The ideas proposed by young employees during this training are often adopted and used in subsequent work.



Self-start training

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. In FY2019, we extended the existing program length by one month to improve it further.

Personnel Retention and Trainings
https://www.nissanchem.co.jp/eng/csr_info/communication/employee/system.html

Creation of a Comfortable Workplace

With recognition of growing concern for labor shortage due to the declining birthrate and growing proportion of elderly people as well as diverse working 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 systems and made improvements for promoting a good work-life balance. These include the introduction of a flextime system, hourly leave system, improvement of annual leave rate (at least 70% of available annual leave time taken), and introduction of a system which allows expired paid leave to be used for nursing/caregiving. 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.

Creation of a Comfortable Workplace
https://www.nissanchem.co.jp/eng/csr_info/communication/employee/dialogue.html

Promotion of Diversity

We established our Diversity Statement and Diversity Vision in April 2021.

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.

Support for the Development of the Next Generation and Promoting Active Participation of Women in the Workplace

In order for individuality and talents of each individual to be fully demonstrated toward the achievement of the Diversity Vision, we believe that a corporate culture that respects and accepts all kinds of diversity and the realization of work-life balance are indispensable.

With regard to the promotion of women, by setting

the target of 30% or more for the ratio of females among new graduates in the regular position and by working to expand the job categories in each department within the company, the ratio of females in the regular position increased to 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, doubling the number of female managers, and encouraging male employees to take childcare leave.

Promotion of Employment of People with Disabilities

We opened a company-owned farm in Chiba Prefecture that enables people with disabilities to play an active role. In the future, we will contribute to local communities by supporting economic independence of them and donating harvests to welfare facilities.

Maintenance and Improvement of Employees' Health

Basic Health Policy

We unveiled our Basic Health Policy in July 2018.

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.

The policy's three main areas of focus are lifestyle-related diseases measures, mental health care, and quitting smoking. Working together with the Health Insurance Association, we are implementing measures for each. We also established the Health Promotion Office in August 2020 and introduced a health management system in February 2021.

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 five consecutive years by the Ministry of Economy, Trade and Industry and Nippon Kenko Kaigi.

Maintenance and Improvement of Employees' Health
https://www.nissanchem.co.jp/eng/csr_info/communication/employee/workplace.html

Continuous Improvement of Responsible Care Activities

We are putting effort into Responsible Care (RC) activities designed to secure environment, health, and safety (EHS) performance on voluntary basis throughout the entire process, from the development of chemical substances to manufacture, distribution, use, final consumption and disposal/recycling, and provide communication with society through the announcement of their results.

RC Management

System

To achieve our RC mid-term plan (2016-2021), we have established RC management system based on ISO14001*, and we carry out targets management and continuous improvements based on PDCA (Plan, Do, Check, Act).

* 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 EHS at each location. 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 FY2020, total of 22 RC audits were conducted for our plants, research laboratories and affiliates.

RC Management
https://www.nissanchem.co.jp/eng/csr_info/responsible_care/management.html

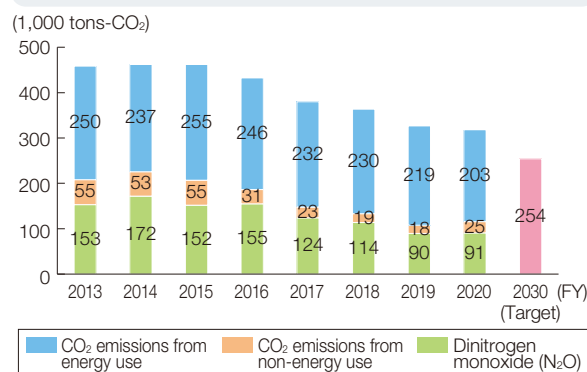


Mitigation of Climate Change and Environmental Conservation

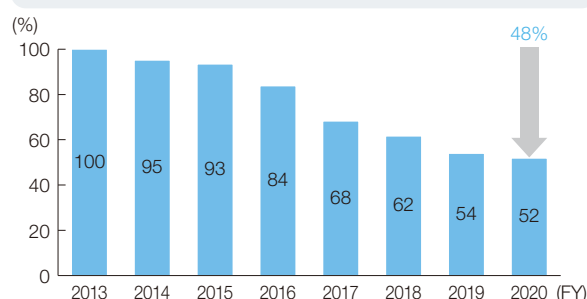
Efforts for Reducing Greenhouse Gas (GHG) Emissions

Our Group actively works to protect the environment, including taking efforts to reduce GHG emissions, and contributes to realization of a decarbonized society through the provision of environmental-friendly products and services. Based on our long-term target of reducing GHG emissions by 30% from FY2018 level by FY2030, we will continue our efforts to mitigate climate change which include energy savings, fuel conversion, and dinitrogen monoxide reduction. The GHG emission rate calculated as a ratio of emissions and sales (emissions/sales) was 52% of the FY2013 level.

GHG emissions



Index of the GHG emission rate (FY2013 as a base of 100)



Mitigation of Climate Change
https://www.nissanchem.co.jp/eng/csr_info/responsible_care/environment/reduction.html
 Reduction of Industrial Waste and Pollutant Emissions
https://www.nissanchem.co.jp/eng/csr_info/responsible_care/environment/management.html
 Water Resources Conservation
https://www.nissanchem.co.jp/eng/csr_info/responsible_care/environment/effective.html
 Biodiversity Conservation
https://www.nissanchem.co.jp/eng/csr_info/responsible_care/conservation.html

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. In FY2020, a fire broke out at the Toyama Plant and a leakage accident occurred at the Nagoya Plant. A fire occurred at the warehouse of the Toyama Plant due to a non-standardized chlorine detergent that was to be disposed of which led to a temporary release of chlorine-based gas. Although no chlorine-based gas was detected outside the plant premises, elementary and junior high schools near the plant experienced delays in the day. We deeply apologize for the inconvenience caused by the accident. At the Nagoya Plant, a leak of fuming sulfuric acid, thought to be caused by wear and corrosion of pipes, occurred and sulfur trioxide gas was generated. Gas detectors indicated that there was no impact on the surrounding area outside the plant premises and nothing serious occurred. We are taking thorough measures to prevent such fires and leaks from happening again at all our sites. 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.



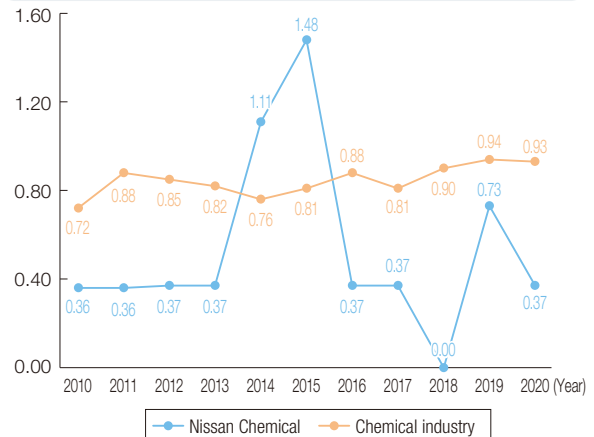
Disaster drills (Toyama Plant)

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 location. 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 2020, there was one accident requiring staff to take time off from work and seven cases of accidents not requiring staff to take time off from work. There was a reduction in the number of accidents requiring staff to take time off from work compared to the previous year. We will continue aiming to achieve zero accident by

Lost-time injury frequency rate*



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

promoting risk assessment, prior-work risk predictions, risk predictions training, HHK¹, 5S², and appropriate wearing of protective equipment and by raising awareness of safety through the safety meeting and the occupational safety newspapers.

¹ 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.

² 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
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 and sales. The assessment of risks to human health and the environment is based on data obtained by the Biological Research Laboratories, either on its own or by outsourcing, raw material SDS (safety data sheets), safety test data obtained from literature and external databases, physicochemical properties, and work environment conditions. These results are reported to all the relevant people in the Company. The results are also made known to people in the value chain by means such as technology transfer documents.

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
https://www.nissanchem.co.jp/eng/csr_info/responsible_care/chemical.html

Corporate Governance

Newly-appointed Officers

* Officers appointed during the 151st General Meeting of Shareholders held on June 25, 2021.



① 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.



② 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.



③ MIYAZAKI Junichi (Director, Senior Executive Vice President)

1974 Joined the Industrial Bank of Japan, Limited (current Mizuho Bank, Ltd.)
 2000 General Manager of International Department of The Industrial Bank of Japan, Limited (current Mizuho Bank, Ltd.)
 2003 Corporate Auditor of Mizuho Corporate Bank, Ltd. (current Mizuho Bank, Ltd.)
 2005 Managing Executive Officer of Kowa Real Estate Co., Ltd. (current Nippon Steel Kowa Real Estate Co., Ltd.)
 Managing Director of Kowa Real Estate Co., Ltd. (current Nippon Steel Kowa Real Estate Co., Ltd.)
 2006 Joined the Company, Advisor
 Director
 2007 Director, Head of Corporate Administration Department
 2008 Managing Director, Head of Corporate Administration Department
 2011 Senior Managing Director, Head of Finance & Accounting Department
 2013 Director, Senior Executive Vice President (to the present)

Reason for appointment

Mr. MIYAZAKI has striven to improve the financial structure of the Company and contributed to the Company Group's growth from a variety of perspectives as the person in charge of Corporate Strategy & Coordination since his assumption of office as director in June 2006, utilizing his wide-ranging knowledge cultivated through his experience in financial institutions. Considering his wide-ranging experience, overseas experience, achievements, and insights, the Company judges that Mr. MIYAZAKI is qualified to be a director that performs decision-making on business operations and oversees the execution of duties by directors.



④ **HONDA Takashi** (Director, Senior Managing Executive Officer)

- 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
- 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 (to the present)

Reason for appointment

Mr. HONDA has been engaged in the agricultural chemicals business focused on development of agricultural chemicals and licensing for many years. As the General Manager of the Planning & Development Department since June 2012, and as Head of the Agricultural Chemicals Division since April 2017, he has been managing the agricultural chemicals business. 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.



⑤ **SUZUKI Hitoshi** (Director, Managing Executive Officer)

- 1985 Joined the Company
- 2007 General Manager of Semiconductor Materials Department, Electronic Materials Division
- 2010 General Manager of Semiconductor Materials Research Department, Electronic Materials Research Laboratories
- 2012 General Manager of Semiconductor Materials Department, Performance Materials Division
- 2013 Deputy Head of Performance Materials Division
Director, Deputy Head of Performance Materials Division
- 2014 Executive Officer, Deputy Head of Performance Materials Division
- 2016 Executive Officer, Head of Materials Research Laboratories
- 2018 Managing Executive Officer, Head of Performance Materials Division
Director, Managing Executive Officer, Head of Performance Materials Division
- 2020 Director, Managing Executive Officer, Head of Planning and Development Division (to the present)

Reason for appointment

Mr. SUZUKI has been engaged in research of electronic materials centering on semiconductor materials for many years. He served as the Head of the Materials Research Laboratories and Head of the Performance Materials Division, and he has undertaken tasks related to the creation of new materials and businesses, which is the driving force for the Company Group's growth as Head of Planning and Development Division since April 2020. Therefore, the Company judges that Mr. SUZUKI is qualified to be a director that performs decision-making on business operations and oversees the execution of duties by directors.



⑥ **YOSHIDA Hironori** (Director, Managing Executive Officer) New

- 1985 Joined the Company
- 2011 Deputy Head of Finance & Accounting Department
- 2013 Head of Finance & Accounting Department
- 2015 Executive Officer, Head of Finance & Accounting Department
- 2019 Executive Officer, Head of Personnel Department
- 2020 Managing Executive Officer, Head of Personnel Department
- 2021 Managing Executive Officer, Head of Corporate Planning Department
Director, Managing Executive Officer, Head of Corporate Planning Department (to the present)

Reason for appointment

Mr. YOSHIDA has extensive expertise in the Company's operations based on many years of experience in the Corporate Strategy & Coordination. After serving as Head of Finance & Accounting Department and Head of Personnel Department, he has been focusing on understanding the status of the business operations of the entire Company and achieving the goals of the Company Group as a whole as Head of Corporate Planning Department since April 2021. The Company judges that Mr. YOSHIDA is qualified to be a director that performs decision-making on business operations and oversees the execution of duties by directors.

**⑦ OHE Tadashi (Director)****Outside**

- 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

We believe that Mr. OHE has reflected his extensive experience, including his experience of outside director at several companies and expertise as attorney-at-law in our corporate management with objective and neutral standing-point, and will continue to fulfill the duties appropriately. In addition, the Company intends for him to contribute 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.

**⑧ OBAYASHI Hidehito (Director)****Outside**

- 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

After having served as director of Hitachi High-Tech Corporation, Mr. OBAYASHI serves as Honorary Consultant for the same company. As an executive of a corporate group that develops a variety of businesses globally, we believe that his extensive experience and broad insight can be reflected in our corporate management from an external perspective from an objective and neutral standing-point. In addition, the Company intends for him to contribute 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.

**⑨ KATAOKA Kazunori (Director)****Outside**

- 1979 Assistant Professor 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

Mr. KATAOKA has been engaged in research involving the application of nanotechnologies in the fields of biomedical and biomaterial engineering for many years and is currently serving as the Director General of Innovation Center of NanoMedicine, Kawasaki Institute of Industrial Promotion. We believe that his expertise as doctor of engineering, abundant experience, and wide-ranging knowledge can be reflected in our corporate management from an external perspective from an objective and neutral standing-point. In addition, the Company intends for him to contribute 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.

**⑩ NAKAGAWA Miyuki (Director)****New Outside**

- 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)

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. We believe that her legal expertise, abundant experience, and wide-ranging knowledge can be reflected in our corporate management from an objective and neutral standing-point. In addition, the Company intends for her to contribute 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.



⑪ **SUZUKI Norihiro** (Audit & Supervisory Board Member) **Outside**

- 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 standing-point, and will continue to fulfill the duties appropriately.



⑫ **TAKEMOTO Shuichi** (Audit & Supervisory Board Member) **Outside**

- 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. 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 standing-point, and will continue to fulfill the duties appropriately.



⑬ **ONITSUKA Hiroshi** (Audit & Supervisory Board Member)

- 1981 Joined the Company
- 2001 General Manager of Toxicology & Environmental Science Department, Biological Research Laboratories
- 2007 General Manager of Analysis Research Department, Chemical Research Laboratories
- 2011 Head of Biological Research Laboratories
- 2013 Director, Head of Biological Research Laboratories
- 2014 Director, Executive Officer, Head of Research Planning Department Executive Officer, Head of Research Planning Department
- 2016 Executive Officer, Head of Chemical Research Laboratories
- 2019 Audit & Supervisory Board Member (to the present)

Reason for appointment

Mr. ONITSUKA has been engaged in research centering on agricultural chemicals for many years. From June 2011, he served as Head of Biological Research Laboratories and Head of Chemical Research Laboratories from April 2016. In those roles, he contributed to the continued growth of the Nissan Chemical Group, particularly in Life Sciences. Considering his wide-ranging experience and professional-level insights, the Company judges that Mr. ONITSUKA is qualified to be an Audit & Supervisory Board member that oversees the proper execution of duties by directors.



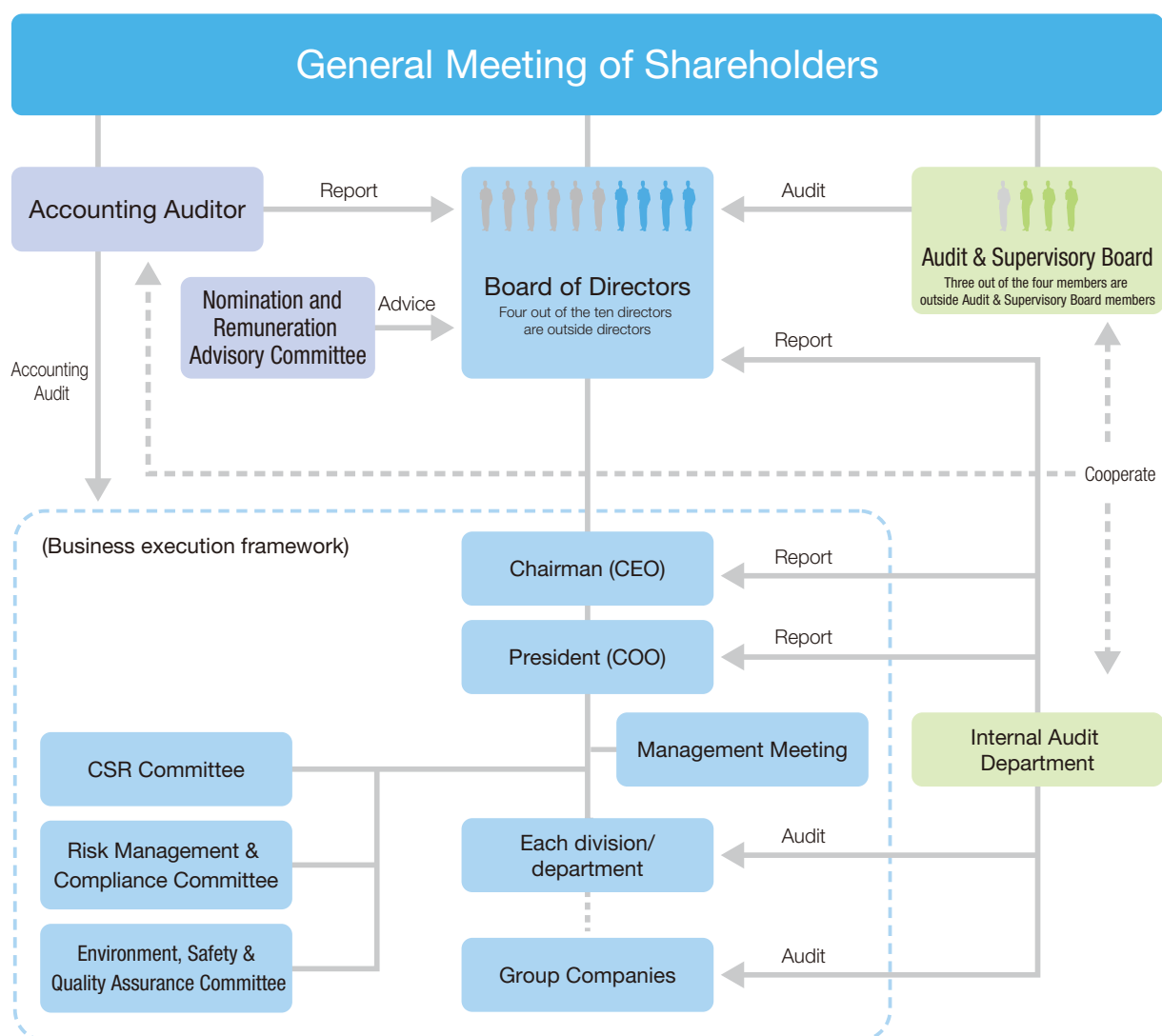
⑭ **KATAYAMA Noriyuki** (Audit & Supervisory Board Member) **Outside**

- 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 HEWA REAL ESTATE REIT, Inc. (to the present)
- 2018 Outside Director of Nippon Denka, Ltd. (to the present)
- 2019 Outside Corporate Auditor of Livesense Inc. (to the present)
- 2021 Outside Statutory Auditor of Aida Engineering, Ltd. (to the present)

Reason for appointment

Mr. KATAYAMA has an extensive experience including the experience of outside director/auditor at several companies and expertise as attorney-at-law. We believe that he has reflected his knowledge in our corporate audit and will continue to fulfill the duties appropriately.

Corporate Governance System



* Numbers pertain to officers appointed during the 151st General Meeting of Shareholders held on June 25, 2021.

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 meetings 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 meetings, etc. are reported to the Board of Directors to enhance the supervising function of the Board of Directors meeting. We further 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 meetings 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 under the Board of Directors a Nomination and Remuneration Advisory Committee mostly consisting of independent outside 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 four times in FY2020. 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 meetings 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 meetings and other meetings, help conduct audits, and collect information.

Governance Structure*

Indicator	Scope of reporting	Unit	FY2017	FY2018	FY2019	FY2020
Directors	Inside directors	People	7	6	6	6
	Outside directors (Independent)	People	2 (2)	2 (2)	3 (3)	3 (3)
	Total	People	9	8	9	9
Ratio of independent outside directors (Actual)		%	22	25	33	33
Ratio of independent outside directors (Target)		%	–	33	33	33
Ratio of female directors		%	0	0	0	0
Number of executive directors		People	7	6	6	6
Average terms of positions held		Years	5.1	6.5	6.7	5.2
Board of Directors meetings		Times	12	12	12	11
Attendance of directors at Board of Directors meetings		%	99.1	100	99.0	96.0
Attendance of Audit & Supervisory Board members at Board of Directors meetings		%	100	97.9	100	100

* Data is as of after the General Meeting of Shareholders held in June of each year.

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.

Nominate Policy

	Policy
Directors	<p>We operate business activities globally in diverse fields, including chemicals, performance materials, agricultural chemicals, and pharmaceuticals. In nominating candidates for our directors, we consider the balance between knowledge, experience, capabilities, and other elements of the overall board of directors and its diversity to ensure that our directors can make decisions regarding the business activities in diverse fields, and supervise the execution of operations in an appropriate and flexible manner. The candidates to be nominated shall also be physically and mentally healthy, have excellent personalities and aspirations, and have a high level of insight and ethics.</p> <p><Inside Directors> Human resources who have expertise, knowledge and other capacities in each business field such as corporate planning, personnel, finance & accounting, research and development, production technology, environment, safety & quality assurance and others.</p> <p><Outside Directors> Human resources 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	Human resources 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 standing-point, in addition to auditing the execution of operations.

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 remuneration of 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 and performance-linked stock compensation, of which monetary remuneration is divided into base remuneration and performance remuneration that is determined taking into account the fluctuation of employee bonuses, etc. Outside directors are not eligible for performance-linked stock compensation and their monetary remuneration consists only of base remuneration for perspective of their roles and independence.

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 meeting 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-linked Stock Compensation Plan

The Company grants its directors points based on its net income attributable to owners of the parent (year-on-year rate of change and average rate of change over the last three years), EBITDA (year-on-year rate of change), ROE (actual results 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 P43 "Compensation, etc. for Officers" of the 151st Securities Report.)

Performance Evaluation Coefficient

$$\begin{aligned}
 & (\text{Short-term net income attributable to owners of the parent coefficient} \times 10\%) \\
 & + (\text{Mid-to-long term net income attributable to owners of the parent coefficient} \times 20\%) \\
 & + (\text{EBITDA coefficient} \times 30\%) + (\text{ROE coefficient} \times 30\%) \\
 & + (\text{the Company stock price and TOPIX year-on-year volatility comparison coefficient} \times 10\%)
 \end{aligned}$$

If a director subject to performance-linked remuneration is dismissed through the General Meeting of Shareholders or Board of Directors meeting 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 FY2019 was conducted in the form of a self-evaluation by the Company's Board of Directors, and the third-party evaluation was carried out in FY2020.

Evaluation Procedure

The Board of Directors conducts the evaluation in the form of a self-evaluation. 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 third-party evaluation conducted in FY2020, based on the results of the questionnaire responses, an opinion-exchange meeting was held in April 2021 (with all independent Officers (3 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 meeting held in May 2021.

Issues Identified in the Effectiveness Evaluation for FY2019

- 1) Enriching information sharing with the Board of Directors on deliberations at the Nomination and Remuneration Advisory Committee to enhance the Board of Directors' oversight function with regard to the remuneration for and appointment of the senior management and their succession plans.
- 2) Deepening discussions among all directors in the

Board of Directors with regard to diversity of members of the Board of Directors (particularly viewpoint of gender).

- 3) Ensuring the effectiveness of the decision-making process by further devising ways to boost quality, quantity, and clarity of information (matters to be discussed at the Board of Directors) to be shared with the directors (particularly outside directors) and Audit & Supervisory Board members.

Effectiveness Evaluation Result for FY2020

As a result of the Effectiveness Evaluation for FY2020, 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 FY2019.

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 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. During setting the agenda, the Corporate Planning Department actively plays its role as the secretariat for the Board of Directors.
- 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.

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.

Messages from Outside Officers



OHE Tadashi
Outside Director

Foundation of corporate governance

We think of corporate governance as a mechanism that ensures sound, efficient management to provide stakeholders with sustainable, mid- to long-term profits. As a chemical company dealing with chemicals, performance materials, agricultural chemicals, pharmaceuticals, etc., we are always at risk of accidents occurring at our plants and laboratories. Once a major accident occurs, it could shake the very foundations of our business. In order to prevent such accidents from occurring, there are laws and regulations established in detail covering technical aspects. For the Company, it is of course important to comply with the laws and regulations on a daily basis. This is one of the important foundations for sound and efficient management, especially in the case of chemical companies.

We are fortunate that we have been able to continue to grow through solid business performance. The management of our company is fully aware of the importance of legal compliance, which underpins the Company's growth and provides directions for relevant departments. As a member of the outside directors, I will continue to pay attention to this issue for the benefit of our stakeholders.



OBAYASHI Hidehito
Outside Director

Speedy management with thorough adherence to manufacturing ethics

In FY2020, management and all our employees struggled to cope with the completely new situation that arose daily during the spread of COVID-19 infections. Despite these circumstances, one of the reasons why we were able to finish the year with record profits was the promotion of digital transformation (DX) of management. It is a great achievement which shows the measures we have been working on since FY2019 were quickly accelerated and implemented during the spread of COVID-19 infections.

As a chemical company, we recognize that there is room for improvement in terms of fulfilling our social responsibilities. There has been no end to the number of accidents caused by faulty equipment and loose sense of manufacturing ethics among employees at our plants. Although their brains are functioning well, it seems that their attention is not paid to their peripheral nerves. In my experience, once a major accident occurs, it will not only have a direct impact on the neighboring society and customers, but in the worst case, it will lead to a crisis of corporate survival. Based on a clear understanding of this, drastic and continuous reforms are needed to ensure thorough education and basic operations. From the standpoint of speedy management, we need to further raise the level of awareness from research to manufacturing, and sales. In addition to financial management, I would like to see us continue to move forward together with our stakeholders in the midst of a turbulent society by accelerating and reducing basic daily activity time. From time to time, I would like to contribute to such efforts.



KATAOKA Kazunori
Outside Director

Technology and management capable of foreseeing the future

The header section of the Company's website contains the words "Where it all begins". I am aware that, as an outside director, I am expected to provide opinions and advice on technical issues and the way of mid- to long-term research and development to create innovative "first-of-a-kind" products from the viewpoint of ESG and SDGs while utilizing my own background and experience. After being appointed to my position, I received detailed explanations regarding business units and took part in relevant in-depth discussions at R&D meetings. From this, I have come to realize the strength of the system that mutually and organically links the four business divisions (Chemicals, Performance Materials, Agricultural Chemicals, and Pharmaceuticals), as well as the Planning and Development Division, which is developing new business areas with an eye on the future of society.

Meanwhile, the globalization of products and technologies is rapidly progressing, along with the expansion of the horizontal division of labor. As a result, the flow of open innovation from an international perspective will continue unabated. I feel that it will become more and more important to build a flexible and diverse structure that can accurately accept new trends while utilizing the strengths of our existing internal structure. In addition to those efforts, I would like to continue to offer my opinions and advice on how to achieve sustainable growth and enhance corporate value.



KATAYAMA Noriyuki
Outside Audit & Supervisory
Board Member

An outside officer's eye for governance

It has been seven years since I first became an outside Audit & Supervisory Board member, and during this time, there have been some changes in the rules of corporate governance. The stock exchanges have required the establishment of outside directors and independent directors, and we already have several outside directors. In addition, the revised Companies Act, which came into effect this year, requires establishment of outside directors within a certain range. This is proof that the eyes of outside directors are expected to be utilized in governance.

Whether or not the eyes of outside directors can be utilized depends largely on the corporate culture and climate. In particular, I believe that the key is the openness of communication between internal and external parties. Smooth "internal" communication will ensure opportunities for "awareness" and will lead to a sufficient grasp of the risks inherent in each department and the status of compliance, as well as appropriate responses to these risks and compliance. On the other hand, "external" communication, mainly through IR activities, will lead to investors and stakeholders fully evaluating our governance system. I expect the Company to build a system that considers the importance of communication.

Compliance

Since our Group regards compliance with laws and social norms as a condition for the survival and development of the company, our Basic CSR Policy 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, formulated compliance rules, and established a compliance basic policy.

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 meeting, 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 meeting after discussion at the committee.

The Risk Management & Compliance Office under the Corporate Planning Department has been established as a specialized organization to promote continuous improvement in all of our Group’s compliance activities. In addition to providing education and guidance on risk management and compliance, the Risk Management & Compliance Office receives reports on the status of compliance with laws and regulations and the status of education and training 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 the Consultation Hotline to serve as an internal reporting system to prevent compliance violation or resolve the problem early on.

Number of Compliance Violations

Indicator	Scope of reporting	Unit	2017	2018	2019	2020
Consultation Hotline Reports	Consolidated*	Cases	0	3	2	2
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

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, he or she shall address the problem in normal operation in principle, through measures that include reporting the matter to their superior. However, if he or she 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.

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.

Anti-corruption Initiatives

Nissan Chemical formulated anti-corruption policy in 2019 and promote initiatives for all stakeholders including our employees.

Anti-Corruption Policy
https://www.nissanchem.co.jp/eng/csr_info/communication/employee/acp.html

Measures for Promoting Compliance (FY2020)

General Compliance	Director and management level 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, contract related training, and promotion of concluding memorandum on elimination of antisocial forces

Risk Management

We are promoting risk management in accordance with the following action guidelines, with the aim of 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.

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 meeting, 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.

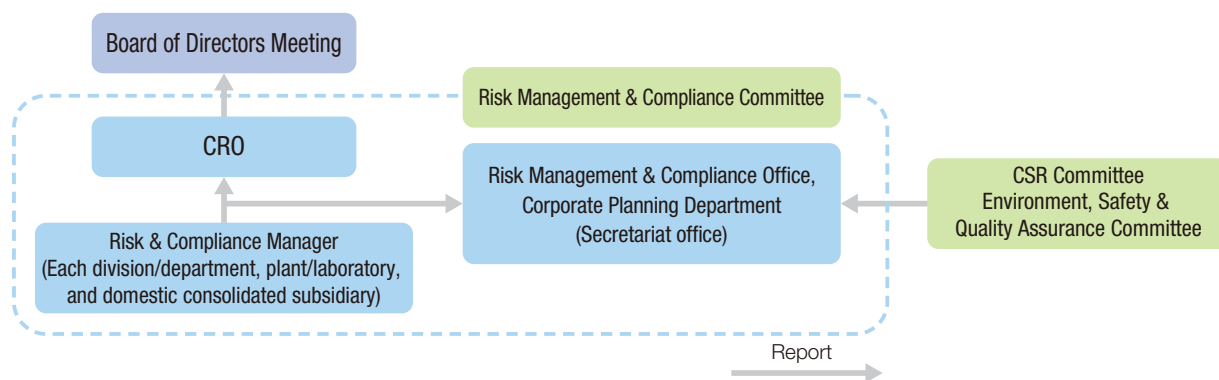
The important matters related to risk management and countermeasure plans, etc. are approved at the Board of Directors meeting after discussion at the committee.

Process for Identifying Group Major Risks

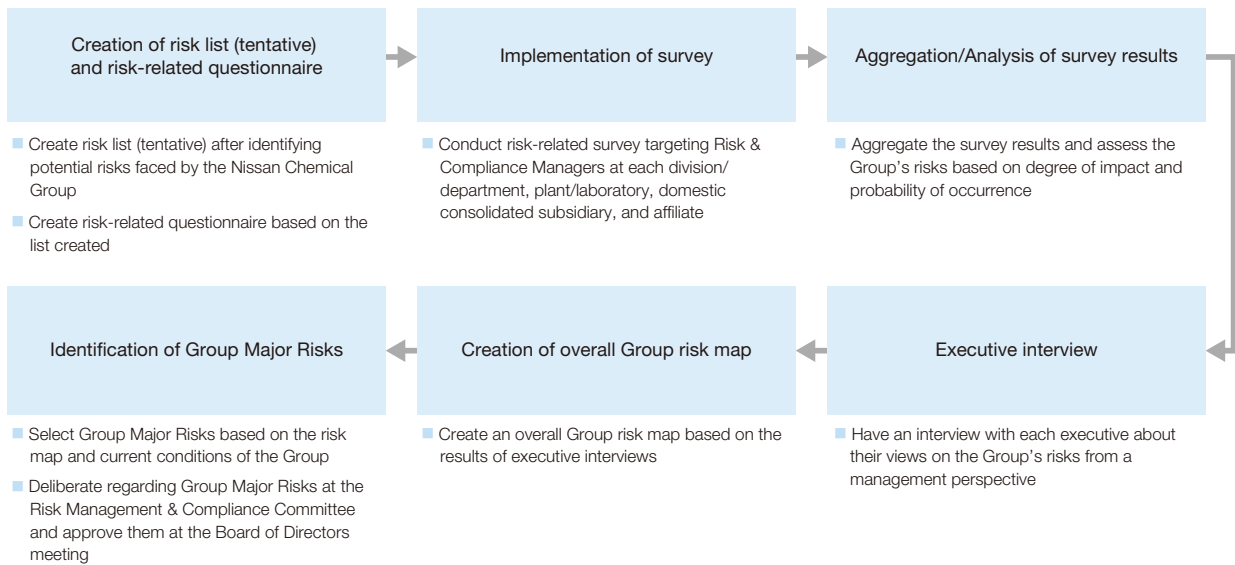
We clarified risks taking into account the business characteristics of each division and the surrounding businesses, including global political, economic and social conditions. Subsequently, risk assessment was conducted from the viewpoint of probability and impact on the business. By following the assessment,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

System

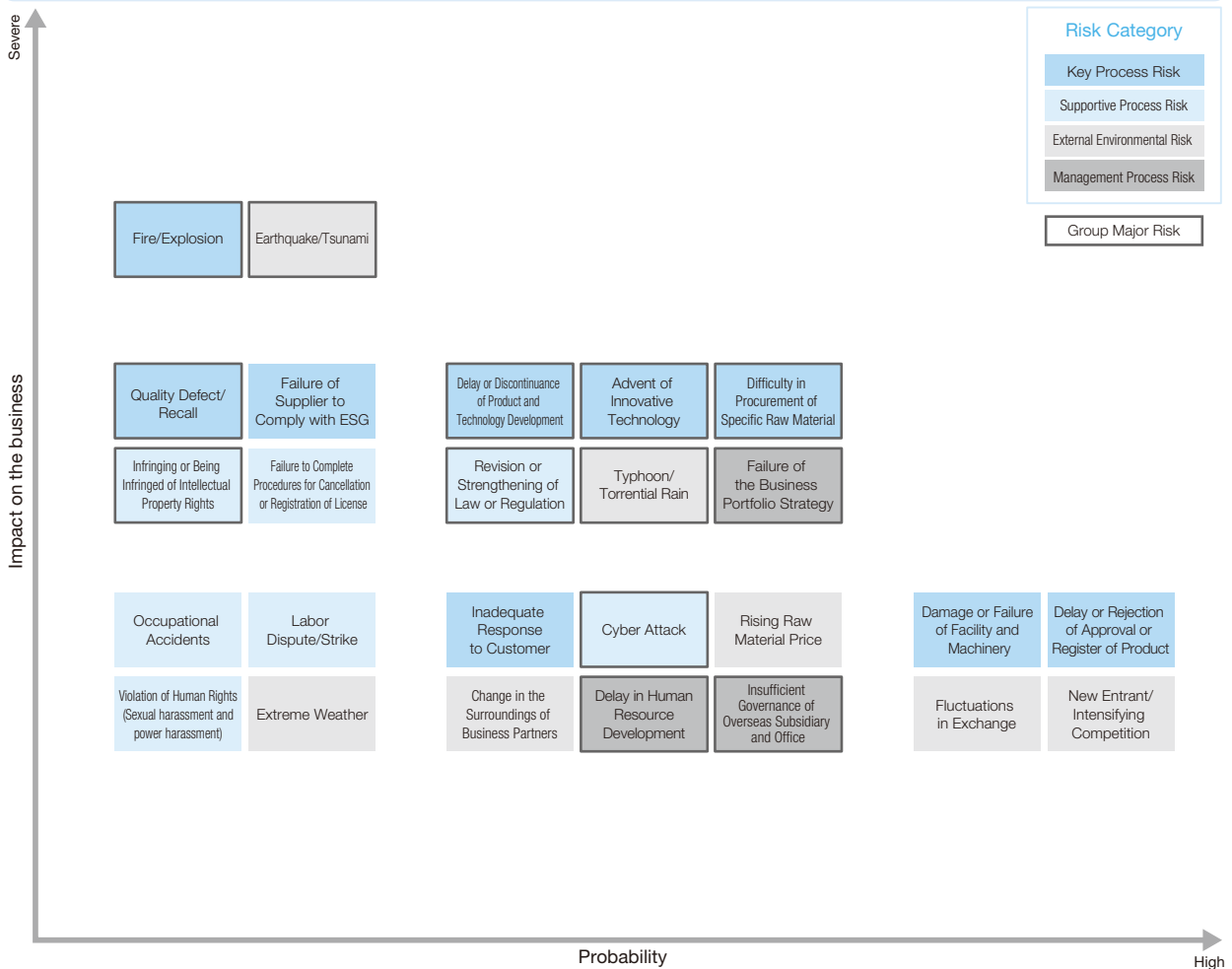
The Risk Management & Compliance Office under the Corporate Planning Department has been established as a specialized organization to promote continuous improvement in all of our risk management activities.



Risk Assessment Implementation (risk identification and evaluation) Overview



Group Major Risks and Countermeasures Overview



Group Major Risks and Countermeasures Overview

Group Major Risk	Summary of Risk	Countermeasures against Risk
Delay or Discontinuance of Product and Technology Development	Risk of the failure of payback of invested capital to R&D due to being unable to launch the product under development	Manage go/stop about research targets based on periodic evaluation
Advent of Innovative Technology	Risk of the losing competitive power due to advent of innovative technology with low cost	Set research targets based on the latest technology information
Failure of the Business Portfolio Strategy	Risk of decline in business performance due to the failure of the business portfolio strategy	Minimize risk by improving risk assumptions when formulating strategies
Difficulty in Procurement of Specific Raw Material	Risk of being unable to supply the product to customer due to the discontinuance of specific raw material	Confirm procurement situation, discover issues and implement countermeasure for stable procurement
Revision or Strengthening of Law or Regulation	Risk of unwilling discontinuance of sales of product, or unwilling change in business or capital investment plan due to revision/strengthening of law or regulation	Enumerate related laws and regulations and establish an infrastructure for obtaining law revision information
Typhoon/Torrential Rain	Risk of increasing expenses to plant restoration and decreasing production volume due to direct onslaught on main plant by large-scale typhoon	Revise/improve the countermeasures that make early recovery and business continuity possible
Earthquake/Tsunami	Risk of suspension of business activities and the death or injury of many employees due to catastrophic earthquake occurring at the location of business site	
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	Revise "No Fires, Explosions, or Chemical spills" measure
Quality Defect/Recall	Risk of reimbursement for large expenses by customer and discontinuance of transactions when a product liability related accident occurs involving a product containing materials provided by our company	Continue to implement "no recalls and no falsification cases" measure
Infringing or Being Infringed 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	Create an IP verification process to reduce the risk of infringing of other company's patent
Cyber Attack	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	Examine and implement countermeasures from the perspectives of prevention, damage minimization, and education
Delay in Human Resource Development	Risk of personnel shortage which occurs in each division due to delay in the human resource development	Establish an ideal model of manager as well as a training system
Insufficient Governance of Overseas Subsidiary and Office	Risk of losing credibility due to detection of fraud at overseas subsidiary and office caused by inadequate control	Formulate Group policy on company regulations and share Group philosophy and policies

Group Major Risks and Countermeasures Overview ▶ https://www.nissanchem.co.jp/eng/csr_info/risk_management/policy.html

Adaptation to Climate Change Risk

As climate change becomes more serious, investors and other stakeholders are becoming more interested in the impact of climate change on business activities. Following the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) established by the Financial Stability Board, we conducted scenario analysis based on 2°C and 4°C scenarios.

Scenario Analysis Results (climate change risks/opportunities)

As a result of scenario analysis, we identified the introduction of carbon pricing as a significant risk in the 2°C scenario. So we plan to introduce internal carbon pricing to further promote investment that takes into account the reduction of greenhouse gas emissions (low-carbon investment). In addition, in response to market change due to increasing demand for environmental consideration, we assume that we are

able to expand business opportunities in the Environment & Energy field, which is one of the main business domains of the long-term business plan Progress2030 launched in 2016. We believe more benefit from increasing demand for initiatives to address climate change from investors and other stakeholders because our low-carbon investment and product characteristics have made us more carbon-efficient compared to whole chemical industry.

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 BCP (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.

Scenario Analysis Results (climate change risks/opportunities)

Scenario	Factors	Social Change	Relevant Division*		Impact on Business	Degree of Impact
2°C Scenario	● Strengthening regulations on GHG emissions	● Introduction of carbon pricing	All	Risk	● 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)
	● Changes in energy policy ● Changes in energy demand and supply	● Price change in fuel and feedstock ● Change in transportation costs	All	Risk	● Increase in costs due to higher fuel and feedstock prices ● Increase in transportation costs	(Moderate)
	● Market changes due to increasing demand for environmental consideration	● Increased need for low-carbon products	Planning	Opportunity	● Increase in demands for products related to electric energy such as battery materials and photoelectric conversion materials due to changes in energy policies	(Moderate)
	● Increased demand from investors for addressing climate change	● Expansion of ESG investment	All	Risk Opportunity	● 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)
4°C Scenario	● Increase in abnormal weather	● Increase in frequency and enhanced intensity of heavy rain/flooding	All	Risk	● Increase in risk of impacts on plant operations and supply chains due to escalation of natural disasters	(Moderate)
		● Enhancement of intensity and frequency of typhoons				(Moderate)
		● Heavy snowfall				(Moderate)
	● Market changes caused by rising temperature and abnormal weather	● Decline in the available water (freshwater) resources	Chem	Opportunity	● Increase in sales of disinfectants due to increase in global demand for drinking water	(Moderate)
		● Reduction of planted area	Agri	Risk	● 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		Opportunity	● Increase in opportunity to develop new agrochemicals ● Influence on sales of existing agrochemicals due to resistance expression	(Moderate)
		● Increase in mass infection and diseases	Planning	Opportunity	● Increase in demand for related products and services due to growing medical needs for tropical infections and diseases	(Moderate)

* All: All divisions (Chemicals, Performance Materials, Agricultural Chemicals, Pharmaceuticals, and Planning and Development Division)
 Planning: Planning and Development Division Chem: Chemicals Division Agri: Agricultural Chemicals Division

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 meeting, 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.



Human Rights Due Diligence Initiatives

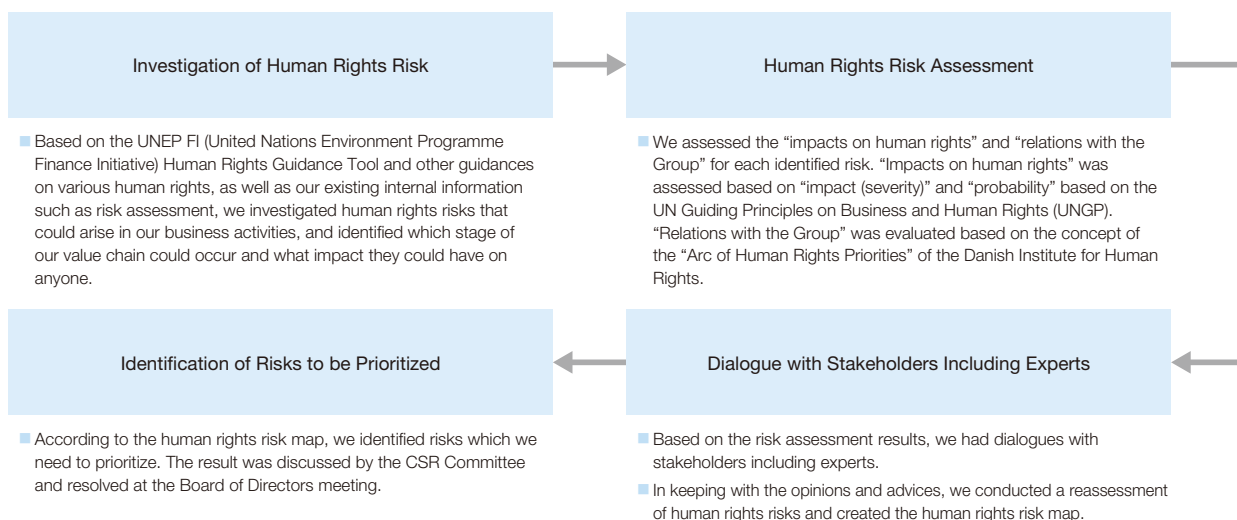
Our group is working to establish a system of human rights due diligence to identify and mitigate negative impacts on human rights. In FY2020, with the cooperation of outside experts, we identified and assessed risks that could have a negative impact on human rights through our business activities in 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.

Nissan Chemical Group Human Rights Policy (Excerpt)

- 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.

Human Rights Due Diligence Process



Dialogues with Stakeholders

Stakeholders and experts	Comments (excerpt)
Ms. SATO Akiko • Attorney at Kotonoha Comprehensive Law Office • Deputy Secretary-General of Human Rights Now, a certified NPO • Japanese Program Coordinator, Business & Human Rights Resource Centre, an international human rights NGO • Coordinator at Rights Committee of the International Human Rights Committee and Civil Society Platform for Japan's Nation Action Plan on Business and Human Rights of the Japan Federation of Bar Associations • Steering Committee Member, Business and Human Rights Lawyers Network	<ul style="list-style-type: none"> • In Japan, being required to work for long hours could be regarded as forced labor at the international level. I believe that the importance of this as a human rights risk should be raised. • In the midst of the spread of COVID-19 infections, measures to prevent infectious diseases in the workplace are becoming more important. The WHO and other organizations are also paying attention to health risks in new situations, such as increased mental health issues associated with remote work and work styles different from conventional ones. • I believe that it is important to include "the right of stakeholders to have access to remedy" in the human rights risk agenda. It will also be important when considering responses to identified or potential human rights risks.
Mr. SEKI Masao • Senior Advisor, CSR Office, Sampo Japan Insurance Inc. • Specially Appointed Professor, School of Business Administration, Meiji University • Chairman, Keidanren Task Force on Charter of Corporate Behavior • Chairman, Keidanren Task Force on Business and Human Rights • Chairman, Planning Department, Council for Better Corporate Citizenship	<ul style="list-style-type: none"> • With regard to human rights, it is actually necessary to prioritize and tackle each issue individually. At first, however, I would like companies to always be aware of the importance of an overall understanding of international codes of conduct, such as the International Bill of Human Rights, and an understanding of what is expected of them. • With regard to human rights risks at the newly established manufacturing base in India, it is necessary to look at human rights risks in each region within India. It is also advisable to collect information on human rights issues in each country by utilizing various means, such as international lawyers, international NGOs, and human rights organizations. • Human rights due diligence is necessary to prevent risks from occurring in the first place, but I would also like to see more efforts made not only to prevent human rights violations but also to create a positive impact to realize human rights, in line with the SDGs principle of leaving no one behind.
Nissan Chemical Labor Union	<ul style="list-style-type: none"> • The health and safety of the Group's employees are something that we have been working on for some time which are of high importance. I would like to see further investment of management resources (people, money, and things) in order to spread these initiatives throughout the Group. • In order to deal with long working hours that have become the norm in Japan, I would like the Company to set specific goals (such as examining and visualizing work duties) and systematically work on them. I believe that various studies will be necessary in the future in terms of the impact on health due to many years' work and from the perspective of decent work, especially in three-shift workplaces. • I believe that the level of vitality in the workplace is linked to business performance. Continuing efforts to create a comfortable working environment and a rewarding organization are important for reducing human rights risks. Through such activities, each employee should deepen his or her understanding of harassment and compliance in general, which will lead to the strengthening of the prevention system of them. To achieve this, it is necessary to involve not only the Corporate Planning Department and Personnel Department but also more departments to commit the entire group to addressing risks. I look forward to the proactive efforts aimed at employee training and other activities in the future.

(Affiliations and positions of experts are current as of the time of the opinion exchange (in the order of the Japanese syllabary))

Risks to be Prioritized

Based on the risk assessment and exchange of opinions with experts and stakeholders, we have identified eight issues as the Group's risks to be prioritized. In the future, we will investigate the current status of the priority risks and take corrective measures if necessary. In addition, we plan to continuously review our human rights risk assessment and priority risks.

Risks to be prioritized	Group could be affected	Major human rights risks
Access to Remedy	All Stakeholders	Lack of appropriate action when human rights violations occur
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
Community Health and Safety	Local Communities	Damage to local communities and health due to fires, explosions, chemical leaks and pesticide spraying
Product Safety	Customers	Sales of unsafe products, including misuse
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
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
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
Conflict Minerals	Local Communities	Procurement and use of raw materials containing conflict minerals

Financial Review

Long Term Financial Performance Trend (From FY2010 to FY2020)

	2010	2011	2012	2013	2014
Sales	154.2	148.6	153.8	163.7	171.2
Operating Profit	19.8	15.5	19.5	22.2	25.3
Ordinary Income	19.4	15.9	20.5	23.7	26.4
Net Income	13.0	11.0	13.9	16.7	18.2
EBITDA	30.2	25.9	29.0	30.8	33.8
OP Margin	12.9%	10.4%	12.7%	13.6%	14.8%
ROE	11.9%	9.5%	11.4%	12.7%	12.7%
EPS (¥/share)	75.94	64.52	83.74	102.11	113.99
Dividend (¥/share)	24	24	26	30	36
Dividend Payout Ratio	31.6%	37.2%	31.0%	29.4%	31.6%
Share Repurchase	2.8	-	5.0	5.0	6.0
Total Assets	183.4	190.1	199.2	208.0	223.9
Net Assets	112.4	119.6	126.7	137.8	151.3
Cash	21.1	27.9	31.9	30.8	31.3
Liabilities with Interest	39.9	38.9	38.1	36.1	35.1
Equity Ratio	60.7%	62.4%	63.0%	65.7%	66.9%
Capex	9.6	8.3	8.1	8.8	9.8
Depreciation	10.4	10.5	9.5	8.5	8.5
R&D Expenses	12.6	13.6	13.7	14.2	15.0
R&D Expenses/Sales	8.2%	9.2%	8.9%	8.7%	8.7%

(Billions of yen)

2015	2016	2017	2018	2019	2020
176.9	180.3	193.4	204.9	206.8	209.1
28.6	31.4	35.0	37.1	38.6	42.5
29.5	31.7	36.2	39.1	40.0	43.9
22.4	24.0	27.1	29.4	30.8	33.5
38.3	40.3	45.5	48.0	49.2	53.0
16.2%	17.4%	18.1%	18.1%	18.7%	20.3%
14.6%	15.1%	16.1%	16.6%	16.9%	17.5%
143.37	156.97	180.30	197.67	210.09	231.73
44	52	68	82	90	104
30.7%	33.1%	37.7%	41.5%	42.8%	44.9%
9.0	9.0	9.0	9.0	10.0	10.0
228.2	231.7	246.0	247.0	249.5	265.5
156.9	163.7	176.4	182.1	185.5	200.6
35.3	35.7	37.7	36.2	30.6	32.4
33.1	30.8	28.6	26.6	24.6	22.7
68.1%	69.9%	71.0%	73.0%	73.7%	74.9%
10.2	14.3	13.7	9.9	15.7	15.8
9.7	8.9	10.5	10.9	10.5	10.4
15.8	16.1	17.2	17.8	17.2	16.5
8.9%	8.9%	8.9%	8.7%	8.3%	7.9%

Financial Review of the Year Ended March 31, 2021

Overview

In the current fiscal year (April 1, 2020 to March 31, 2021), the domestic economy recorded significant negative growth due to the spread of COVID-19 infections. Though exports have been partially picked up towards the latter half of the year, the severe situation continued such as prolonged stagnation of consumer spending. Under these circumstances, sales of Basic Chemicals decreased in the Chemicals Division. In the Performance Materials Division, Display Materials and Semiconductor Materials performed well. Sales of the Agricultural Chemicals Division were unchanged from the previous fiscal year. In the Pharmaceuticals Division, although sales of Finetech® (custom manufacturing and process researching services for pharmaceutical companies) increased, sales of drug discovery decreased.

Operating Results

As a result, the Company's results for the current fiscal year were net sales 209,121 million yen (an increase of 2,283 million yen), operating income 42,530 million yen (an increase of 3,883 million yen) and ordinary income 43,893 million yen (an increase of 3,889 million yen), and net income attributable to owners of parent 33,470 million yen (an increase of 2,690 million yen). Operating and ordinary income achieved record highs for the seven consecutive years and net income attributable to owners of parent for the eight consecutive years, exceeding the earnings outlook announced in November.

ROE was 17.5% and we have achieved the Mid-Term Plan Stage II target (maintain above 16%) in the current fiscal year.

Dividend was 104 yen and dividend payout ratio became 44.9%. We have repurchased share of 10.0 billion yen and total payout ratio was 74.6%.

Financial Position

Total assets as of March 31, 2021 were 265,509 million yen (an increase of 15,987 million yen from the previous year). It is mainly due to the increase of merchandise and finished goods, intangible assets, and investment securities.

Total liabilities as of March 31, 2021 were 64,947 million yen (an increase of 953 million yen). It is mainly due to the increase of deferred tax liabilities.

Net assets as of March 31, 2021 were 200,562 million yen (an increase of 15,033 million yen).

As a result of these factors, equity ratio was 74.9% (an increase of 1.2% from March 31, 2020).

Position of Cash Flow

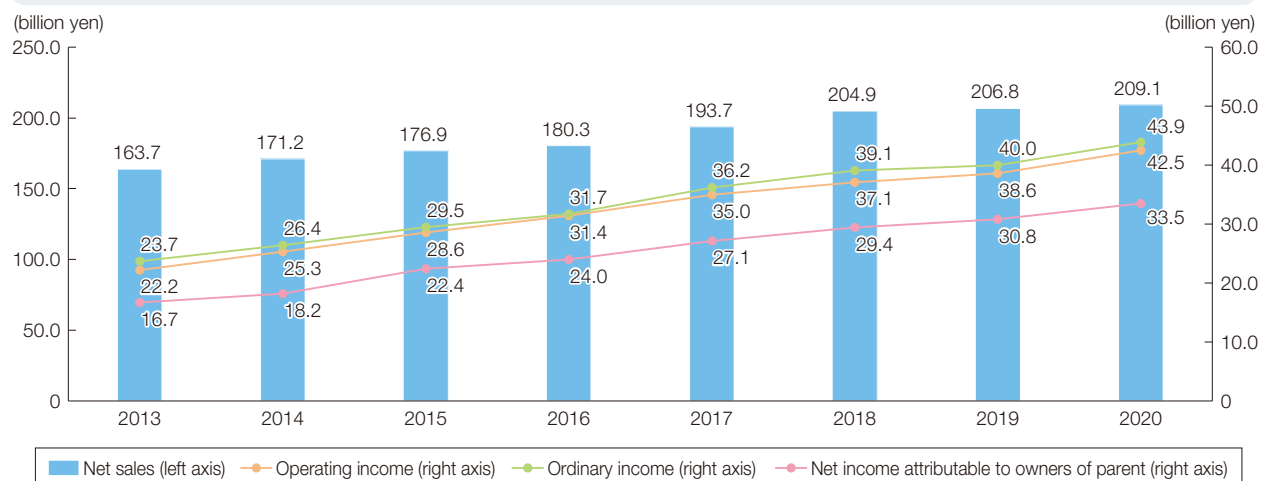
Deducting income taxes paid from income before income taxes and non-controlling interests, depreciation and gain and loss in working capital, net cash provided by operating activities for the consolidated fiscal year ended March 31, 2021 was 39,939 million yen (35,550 million yen for the previous year).

Due to investment on plant and equipment, net cash used in investing activities for the consolidated fiscal year ended March 31, 2021 was 12,854 million yen (15,624 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, 2021 was 25,629 million yen (25,186 million yen for the previous year).

As a result of these factors, cash and cash equivalents for the consolidated fiscal year ended March 31, 2021 were 32,380 million yen (30,639 million yen for the previous year), reflecting exchange of 284 million yen. It increased by 1,741 million yen compared to the previous year.

Business Results and Outlook



Overview by segments

The Chemicals Division

In Basic Chemicals, although sales of high purity sulfuric acid (agent used for cleaning semiconductor) increased, sales of melamine (adhesives agent for particle board) declined due to market conditions. In Fine Chemicals, sales of TEPIC® (powder coating agent for paint, sealants, etc.) were basically unchanged from the previous fiscal year, while sales for environmental chemicals (sterilizing and disinfecting agents for pools and septic tanks, etc.) decreased.

As a result, sales of this division were 31,908 million yen (a decrease of 2,427 million yen) and operating income was 1,482 million yen (an increase of 186 million yen). Compared to the outlook, net sales were above 0.2 billion yen and operating income was above 0.3 billion yen.

As outlook of business result for the next term, we assume net sales will be 34.6 billion yen and operating income will be 2.4 billion yen.

The Performance Materials Division

In Display Materials, sales of SUNEVER® (LCD alignment coating) for tablets and notebook PCs performed well. In Semiconductor Materials, sales of ARC®* (anti-reflection coating materials for semiconductors) and OptiStack®* (multilayer materials) increased, reflecting the strong operation of customers. In Inorganic materials, sales of Organosilicasol / Monomer sol (various kinds of coating materials, resin additive) decreased, while sales of SNOWTEX® for polishes for electronic materials were firm.

As a result, sales of this division were 71,648 million yen (an increase of 6,187 million yen) and operating income was 22,416 million yen (an increase of 5,429 million yen). Compared to the outlook, net sales were above 1.8 billion yen and operating income was above 1.8 billion yen.

As outlook of business result for the next term, we assume net sales will be 75.8 billion yen and operating income will be 23.8 billion yen.

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

The Agricultural Chemicals Division

Sales of Fluralaner (active ingredients for veterinary pharmaceuticals) decreased due to the impact of inventories of customers. In the domestic agrochemicals segment, sales of ALTAIR® (paddy rice herbicide) and DITHANE® (fungicide) acquired in the third quarter of FY2020 contributed to sales. On the other hand, sales of ROUNDUP® (non-selective leaf

treatment herbicide) were firm, and shipments of GRACIA® (insecticide) declined due to moderate insect pests outbreaks. In the overseas agrochemicals segment, sales of GRACIA®, ALTAIR® and PERMIT® (herbicide) were robust.

As a result, sales of this division were 63,848 million yen (a decrease of 189 million yen) and operating income was 18,202 million yen (a decrease of 1,050 million yen). Compared to the outlook, net sales were below 0.8 billion yen and operating income was below 0.5 billion yen.

As outlook of business result for the next term, we assume net sales will be 66.2 billion yen and operating income will be 17.6 billion yen.

The Pharmaceuticals Division

Sales of LIVALO® (anti-cholesterol drug) declined due to increased sales of generic drugs. In Finetech®, sales of active pharmaceutical ingredients (generics) increased.

As a result, sales of this division were 6,652 million yen (a decrease of 310 million yen) and operating income was 357 million yen (a decrease of 575 million yen). Compared to the outlook, net sales were below 0.1 billion yen and operating income was below 0.2 billion yen.

As outlook of business result for the next term, we assume net sales will be 6.1 billion yen and operating income will be 0.3 billion yen.

Trading

Sales of this segment were 69,820 million yen (an increase of 1,912 million yen) and operating income was 2,498 million yen (an increase of 385 million yen). Compared to the outlook, net sales were above 0.7 billion yen and operating income was above 0.4 billion yen.

As outlook of business result for the next term, we assume net sales will be 70.1 billion yen and operating income will be 2.2 billion yen.

Others

Sales of this segment were 23,763 million yen (an increase of 1,369 million yen) and operating income was 831 million yen (an increase of 146 million yen).

As outlook of business result for the next term, we assume net sales will be 23.4 billion yen and operating income will be 0.7 billion yen.

Consolidated Balance Sheets

(For FY2020 and FY2019)

Assets	(Millions of yen)		(Thousands of U.S. dollars)
	FY2020	FY2019	FY2020
Current assets			
Cash and deposits	¥32,380	¥30,639	\$292,449
Notes and accounts receivable - trade	73,937	72,509	667,784
Merchandise and finished goods	33,774	33,131	305,040
Work in process	23	153	208
Raw materials and supplies	12,853	10,590	116,086
Accounts receivable - other	2,534	2,765	22,887
Short-term loans receivable	1,223	2,045	11,046
Other	2,892	2,387	26,120
Allowance for doubtful accounts	(31)	(26)	(280)
Total current assets	159,588	154,196	1,441,366
Non-current assets			
Property, plant and equipment			
Buildings and structures	68,438	67,110	618,118
Accumulated depreciation and impairment loss	(43,601)	(42,260)	(393,795)
Buildings and structures, net	24,837	24,850	224,323
Machinery, equipment and vehicles	140,790	135,476	1,271,586
Accumulated depreciation and impairment loss	(128,053)	(123,035)	(1,156,548)
Machinery, equipment and vehicles, net	12,736	12,440	115,029
Tools, furniture and fixtures	39,775	39,625	359,240
Accumulated depreciation and impairment loss	(36,742)	(35,829)	(331,846)
Tools, furniture and fixtures, net	3,033	3,796	27,393
Land	8,996	8,995	81,250
Construction in progress	2,233	1,499	20,168
Total property, plant and equipment	51,837	51,581	468,181
Intangible assets			
Software	548	566	4,949
Other	11,581	6,812	104,597
Total intangible assets	12,129	7,379	109,547
Investments and other assets			
Investment securities	35,894	30,873	324,187
Deferred tax assets	205	721	1,852
Net defined benefit asset	2,478	1,609	22,381
Other	3,485	3,244	31,476
Allowance for doubtful accounts	(110)	(84)	(993)
Total investments and other assets	41,953	36,364	378,911
Total non-current assets	105,921	95,325	956,656
Total assets	¥265,509	¥249,522	\$2,398,022

Liabilities	(Millions of yen)		(Thousands of U.S. dollars)
	FY2020	FY2019	FY2020
Current liabilities			
Notes and accounts payable - trade	¥16,298	¥16,876	\$147,200
Short-term loans payable	20,937	22,898	189,099
Current portion of long-term loans payable	552	640	4,986
Income taxes payable	7,113	6,167	64,243
Provision for bonuses	2,250	2,151	20,322
Provision for directors' bonuses	7	26	63
Other	12,585	11,254	113,665
Total current liabilities	59,744	60,015	539,595
Non-current liabilities			
Long-term loans payable	1,184	1,076	10,694
Deferred tax liabilities	1,310	76	11,832
Provision for business structure improvement	171	284	1,544
Provision for loss on business of subsidiaries and affiliates	-	309	-
Provision for share-based remuneration for directors (and other officers)	91	46	822
Net defined benefit liability	249	208	2,249
Other	2,196	1,976	19,834
Total non-current liabilities	5,202	3,978	46,983
Total liabilities	¥64,947	¥63,993	\$586,588
Net assets			
Shareholders' equity			
Capital stock	¥18,942	¥18,942	\$171,080
Capital surplus	13,613	13,613	122,950
Retained earnings	161,708	146,997	1,460,513
Treasury shares	(7,340)	(2,470)	(66,293)
Total shareholders' equity	186,923	177,082	1,688,250
Accumulated other comprehensive income			
Valuation difference on available-for-sale securities	11,359	7,782	102,592
Foreign currency translation adjustment	81	(896)	732
Remeasurements of defined benefit plans	463	(51)	4,182
Total accumulated other comprehensive income	11,904	6,834	107,514
Non-controlling interests	1,733	1,610	15,652
Total net assets	200,562	185,528	1,811,434
Total liabilities and net assets	¥265,509	¥249,522	\$2,398,022

Consolidated Statements of Income

(For FY2020 and FY2019)

	(Millions of yen)		(Thousands of U.S. dollars)
	FY2020	FY2019	FY2020
Net sales	¥209,121	¥206,837	\$1,888,737
Cost of sales	121,376	122,379	1,096,243
Gross profit	87,745	84,458	792,495
Selling, general and administrative expenses	45,214	45,810	408,363
Operating income	42,530	38,647	384,122
Non-operating income			
Interest income	16	26	145
Dividend income	981	785	8,860
Equity in earnings of affiliates	1,123	945	10,143
Other	668	852	6,033
Total non-operating income	2,790	2,609	25,199
Non-operating expenses			
Interest expenses	69	123	623
Loss on disposal of non-current assets	696	443	6,286
Plant stop losses	177	298	1,599
Foreign exchange losses	52	235	470
Other	431	151	3,893
Total non-operating expenses	1,427	1,252	12,888
Ordinary income	43,893	40,003	396,432
Extraordinary income			
Gain on sales of investment securities	1,588	1,834	14,342
Total extraordinary income	1,588	1,834	14,342
Extraordinary losses			
Licensing arrangement fee	-	834	-
Total extraordinary losses	-	834	-
Income before income taxes and non-controlling interests	45,481	41,003	410,775
Income taxes - current	12,037	10,102	108,716
Income taxes - deferred	(50)	36	(452)
Total income taxes	11,986	10,138	108,255
Net income	33,495	30,864	302,520
Net income attributable to non-controlling interests	25	84	226
Net income attributable to owners of parent	¥33,470	¥30,779	\$302,294

Consolidated Statements of Comprehensive Income

(For FY2020 and FY2019)

	(Millions of yen)		(Thousands of U.S. dollars)
	FY2020	FY2019	FY2020
Net income	¥33,495	¥30,864	\$302,520
Other comprehensive income			
Valuation difference on available-for-sale securities	3,575	(2,851)	32,289
Foreign currency translation adjustment	1,075	(976)	9,709
Remeasurements of defined benefit plans, net of tax	514	(309)	4,642
Share of other comprehensive income of entities accounted for using equity method	1	(0)	9
Total other comprehensive income	5,167	(4,137)	46,667
Comprehensive income	38,663	26,726	349,196
(Comprehensive income attributable to)			
Owners of parent	38,540	26,733	348,085
Non-controlling interests	¥122	(¥6)	\$1,102

Consolidated Statements of Changes in Net Assets (For FY2020)

(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	¥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

Accumulated other comprehensive income

(Millions of yen)

	Valuation difference on available-for-sale securities	Foreign currency translation adjustment	Remeasurements of defined benefit plans	Total accumulated other comprehensive income	Non-controlling interests	Total net assets
	Balance at beginning of current period	¥7,782	(¥896)	(¥51)	¥6,834	¥1,610
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 FY2019)

(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	¥143,200	(¥6,291)	¥169,464
Changes of items during period					
Dividends of surplus			(12,360)		(12,360)
Net income attributable to owners of parent			30,779		30,779
Share repurchase				(10,801)	(10,801)
Disposal of treasury shares			(0)	0	0
Cancellation of treasury shares			(14,622)	14,622	-
Net changes of items other than shareholders' equity					-
Total changes of items during period	-	-	3,797	3,821	7,618
Balance at end of current period	¥18,942	¥13,613	¥146,997	(¥2,470)	¥177,082

Accumulated other comprehensive income

(Millions of yen)

	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	¥10,634	(¥11)	¥258	¥10,880	¥1,728
Changes of items during period						
Dividends of surplus						(12,360)
Net income attributable to owners of parent						30,779
Share repurchase						(10,801)
Disposal of treasury shares						0
Cancellation of treasury shares						-
Net changes of items other than shareholders' equity	(2,851)	(884)	(309)	(4,046)	(117)	(4,164)
Total changes of items during period	(2,851)	(884)	(309)	(4,046)	(117)	3,454
Balance at end of current period	¥7,782	(¥896)	(¥51)	¥6,834	¥1,610	¥185,528

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

Accumulated other comprehensive income

(Thousands of U.S. dollars)

	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
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 Changes in Net Assets (For FY2019)

(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	\$174,051	\$125,085	\$1,315,814	(\$57,806)	\$1,557,144
Changes of items during period					
Dividends of surplus			(113,572)		(113,572)
Net income attributable to owners of parent			282,817		282,817
Share repurchase				(99,247)	(99,247)
Disposal of treasury shares			(0)	0	0
Cancellation of treasury shares			(134,356)	134,356	-
Net changes of items other than shareholders' equity					-
Total changes of items during period	-	-	34,889	35,110	69,999
Balance at end of current period	\$174,051	\$125,085	\$1,350,703	(\$22,696)	\$1,627,143

Accumulated other comprehensive income

(Thousands of U.S. dollars)

	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	\$97,712	(\$101)	\$2,371	\$99,972	\$15,878
Changes of items during period						
Dividends of surplus						(113,572)
Net income attributable to owners of parent						282,817
Share repurchase						(99,247)
Disposal of treasury shares						0
Cancellation of treasury shares						-
Net changes of items other than shareholders' equity	(26,197)	(8,123)	(2,839)	(37,177)	(1,075)	(38,262)
Total changes of items during period	(26,197)	(8,123)	(2,839)	(37,177)	(1,075)	31,738
Balance at end of current period	\$71,506	(\$8,233)	(\$469)	\$62,795	\$14,794	\$1,704,751

Consolidated Statements of Cash Flows (For FY2020 and FY2019)

	(Millions of yen)		(Thousands of U.S. dollars)
	FY2020	FY2019	FY2020
Cash flows from operating activities			
Income before income taxes and non-controlling interests	¥45,481	¥41,003	\$410,775
Depreciation and amortization	10,346	10,516	93,443
Amortization of goodwill	78	28	704
Interest and dividend income	(997)	(811)	(9,005)
Loss (gain) on sales of investment securities	(1,588)	(1,834)	(14,342)
Interest expenses	69	123	623
Loss (gain) on disposal of non-current assets	696	443	6,286
Decrease (increase) in notes and accounts receivable - trade	(1,016)	(3,656)	(9,176)
Decrease (increase) in inventories	(2,398)	(2,352)	(21,658)
Increase (decrease) in notes and accounts payable - trade	(842)	(715)	(7,605)
Other	(671)	(263)	(6,060)
Subtotal	49,159	42,481	443,994
Interest and dividend income received	1,925	1,565	17,386
Interest expenses paid	(69)	(123)	(623)
Income taxes paid	(11,076)	(8,373)	(100,036)
Net cash provided by (used in) operating activities	39,939	35,550	360,721
Cash flows from investing activities			
Purchase of investment securities	(159)	(657)	(1,436)
Proceeds from sales of investment securities	3,063	3,206	27,664
Purchase of shares of subsidiaries	(1,209)	(330)	(10,919)
Purchase of property, plant and equipment	(8,254)	(8,904)	(74,548)
Payments for retirement of property, plant and equipment	(598)	(391)	(5,401)
Purchase of intangible assets	(688)	(285)	(6,214)
Payments for transfer of business	(5,384)	(6,335)	(48,627)
Net decrease (increase) in short-term loans receivable	522	(1,538)	4,715
Purchase of long-term prepaid expenses	(222)	(645)	(2,005)
Other	77	256	695
Net cash provided by (used in) investing activities	(12,854)	(15,624)	(116,095)
Cash flows from financing activities			
Net increase (decrease) in short-term loans payable	(2,017)	(653)	(18,217)
Proceeds from long-term loans payable	660	600	5,961
Repayments of long-term loans payable	(640)	(1,860)	(5,780)
Cash dividends paid	(13,629)	(12,360)	(123,094)
Dividends paid to non-controlling interests	0	(111)	0
Share repurchase	(10,002)	(10,801)	(90,336)
Other	-	0	0
Net cash provided by (used in) financing activities	(25,629)	(25,186)	(231,476)
Effect of exchange rate change on cash and cash equivalents	284	(283)	2,565
Net increase (decrease) in cash and cash equivalents	1,741	(5,544)	15,724
Cash and cash equivalents at beginning of period	30,639	36,183	276,725
Cash and cash equivalents at end of period	¥32,380	¥30,639	\$292,449

(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, 2021 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 ¥110.72 to US \$1, which is the approximate closing exchange rate reported by the Tokyo Foreign Exchange Market on March 31, 2021. 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-quality urea aqueous 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.



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

Greenwood Sendai Ichibancho Building 2-7-12, Ichibancho, Aoba-ku,
 Sendai 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

Sapporo Sales Office

Maruito Sapporo Building 1-1, Kita-Nijyo-Nishi, Chuo-ku,
 Sapporo 060-0002
 Tel: +81-11-251-0264

Nagoya Sales Office

Nagoya KS Building 3-1-18, Taiko, Nakamura-ku, Nagoya
 453-0801
 Tel: +81-52-452-8623

Hiroshima Office

Dai-ichi Uenoya Building 8-8, Kamihatchobori, Naka-ku,
 Hiroshima 730-0012

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 455-0045
 Tel: +81-52-661-1676

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

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

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
 ■ Production and sales of fertilizers and agrochemicals

Clariant Catalysts (Japan) K.K.

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

Overseas Bases

(As of March 31, 2021)

France

Nissan Chemical Europe S.A.S.

Parc d'Affaires de Crécy -
10A rue de la Voie Lactée
69370 Saint Didier au Mont d'Or, France
Tel: +33-4-37-64-40-20

■ Sales of agrochemicals

America

Nissan Chemical America Corporation

10333 Richmond Avenue, Suite 1100, Houston,
Texas 77042, U.S.A.
Tel: +1-713-532-4745

■ Production and sales of inorganic materials



India

Nissan Agro Tech India PVT. LTD.

502-504, 5th Floor, Tower B, Spazedge
Commercial Complex, Sector-47, Sohna Road,
Gurgaon-122002, Haryana, India
Tel: +91-124-4214446/47

■ Sales support and promotional services for agrochemicals

Nissan Bharat Rasayan PVT. LTD.

502-504, 5th Floor, Tower B, Spazedge
Commercial Complex, Sector-47, Sohna Road,
Gurgaon-122002, Haryana, India
Tel: +91-124-4214446

■ Manufacture and export of active ingredients of agrochemicals

China

Nissan Chemical Product (Shanghai) Co., Ltd.

Rm.3210 Office Tower 1, Raffles City Changning, No.1133
Changning Road, Changning District, Shanghai
200051 PRC
Tel: +86-21-6236-8300

■ Sales support and promotional services for agrochemicals

Nissan Chemical Materials Research (Suzhou) Co., Ltd.

Room101, NW-10, Nanopolis Suzhou 99 Jinji Lake Avenue,
Suzhou Industrial Park 215123, China
Tel: +86-512-62732080

■ R&D, sales support and promotional services for performance
materials

Taiwan

Nissan Chemical Taiwan Co., Ltd.

5F., No.67, Luke 2nd Rd., Luzhu Dist., Kaohsiung City 82151,
Taiwan (R.O.C.)
Tel: +886-7-695-5252

■ R&D and sales support for display and semiconductor materials

Brazil

Nissan Chemical Do Brasil

Avenida Gisele Constantino, 1850,
Salas 1518 a 1520, Parque Bela Vista,
Votorantim, SP, 18110-650, Brasil
Tel: +55-15-3019-8772

■ Sales support and promotional services for agrochemicals



Korea

NCK Co., Ltd.

127, Chupalsandan-ro, Paengseong-eup,
Pyeongtaek-si,
Gyeonggi-do, 17998, Korea
Tel: +82-31-691-7044

■ Production and sales of display and semiconductor
materials

Nissan Chemical Agro Korea Ltd.

Room 2001, 74, Sejong-daero, Jung-gu,
Seoul 04526, Korea
Tel: +82-2-774-6470

■ Sales of agrochemicals

Corporate Profile

(As of March 31, 2021)

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: 2,688
Stock Listing	Tokyo Stock Exchange
Transfer Agent	Sumitomo Mitsui Trust Bank, Limited 4-1, Marunouchi 1-chome, Chiyoda-ku, Tokyo 100-8233, Japan

Share Information

(As of March 31, 2021)

Total Number of Authorized Shares	360,000,000
Shares of Common Share Issued	145,000,000*
Shareholders	11,023

* Includes 1,186,088 treasury shares

Major shareholders (Top ten companies)	Number of shares held (1,000 shares)	Investment (%)
The Master Trust Bank of Japan, Ltd. (Trust Account)	28,724	20.0
Custody Bank of Japan, Ltd. (Trust Account)	12,663	8.8
Custody Bank of Japan, Ltd. as trustee for the Mizuho Trust & Banking Co., Ltd. Retirement Benefit Trust	5,767	4.0
The Norinchukin Bank	4,800	3.3
Nissan Chemical Customer Shareholders Association	3,885	2.7
Custody Bank of Japan, Ltd. (Securities Investment Trust Account)	2,682	1.9
STATE STREET BANK WEST CLIENT-TREATY 505234	1,871	1.3
Meiji Yasuda Life Insurance Company	1,861	1.3
Nissan Chemical Corporation Employees Association	1,742	1.2
Ono Pharmaceutical Co., Ltd.	1,704	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 (%)	51.9	2.9	9.6	24.2	10.6	0.8

