

# TechnoAmenity Report 2022



# Group Mission Framework and Safety Philosophy

## Mission

Nippon Shokubai Group's  
promise to society

## Values

Important guiding principles  
to fulfill our Mission

## Code of Conduct

Guiding action principles for every  
person working at Nippon Shokubai Group

## Safety Philosophy

***Safety takes priority over production***



# TechnoAmenity

Providing Prosperity and Comfort to People and Society,  
with Our Unique Technology

## Respect Diversity

We will create new value by respecting the unique traits of each person.

## Pioneer New Possibilities

We will courageously provide solutions to customer challenges and social issues.

## Preserve the Global Environment

We will work to ensure a better global environment is passed down to the next generation.

In March 2022, we overhauled our Group Mission Framework, aiming to put “**TechnoAmenity**” into practice (having each individual act based on our Mission at an individual and organizational level).

# At a Glance

Under the Group Mission “**TechnoAmenity** — Providing Prosperity and Comfort to People and Society, with Our Unique Technology,” in our Materials business, we provide high-quality materials that support a broad range of industrial activities, and in our Solutions business, we provide high-function products and services that meet various needs.

## Materials Business

Provides high-quality materials worldwide through sophisticated

### Basic materials

Used as raw materials for a broad range of products, including fibers, resins and detergents

- Ethylene oxide
- Ethylene glycols
- Ethanolamines
- Maleic Anhydride



Ethylene oxide, a raw material for surfactants, etc.



Ethylene glycol, a raw material for polyester fibers, etc.

### Acrylics

Consistently manufacture and supply absorbent materials for disposable diapers, materials for paints and adhesives, and acrylic acid (AA), a raw material for them.

- Acrylic acid
- Acrylates
- Superabsorbent Polymers (SAP)

## Solutions Business

Provides unique functional products that can satisfy customer

### Industrial & Household

We provide high-function products and solutions mainly to the infrastructure/housing and lifestyle product markets.

- AQUALIC™L
- AQUALOC™
- ACRYSET™
- Ethyleneimine derivatives
- SOFTANOL™

Water treatment/scavenging of harmful substances



Improvement in the performance of detergents



### Energy & Electronics

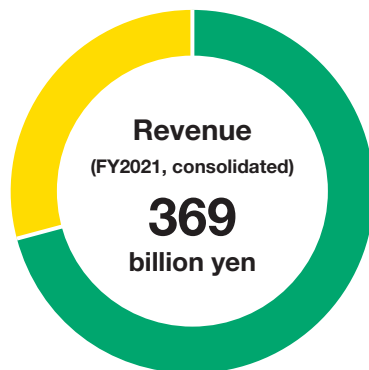
We provide high-function products and solutions to growing areas, including batteries, electronics, and environmental purification.

- ACRYVIEWA™
- IONEL™
- Environment & Catalysts
- VEEA™

Improvement in battery performance







Materials  
Solutions

\*The aggregate totals of revenue and operating profit are each based on the figures reported in the consolidated financial results for the fiscal year ended March 31, 2022.

## production technologies



Acrylates, a raw material for paints, adhesives, etc.



SAP, a material for disposable diapers, etc. prepared from AA

### One of the leading acrylic acid producers in the world

Our unique catalysis and production technologies have enabled a high-quality, stable supply of acrylic acid, which is used as a raw material for SAPs, acrylates and other chemicals in various fields and applications. We maintain the position as one of the leading producers in the world, capable of responding to the expected future increase in demand in the long run.

#### Production capacity

**980** K Tons\*/year

\*Including 100 K Tons/year in Indonesia (Scheduled for commercial operation in 2023)

### Top SAP producer in the world\*

Our SAPs (AQUALIC™ CA), which absorb 100 to 1,000 grams of water per gram of polymer, are not only used as the material in disposable diapers, where they help to reduce the work involved in childcare and nursing care, but also to improve the water retention capacity of soils threatened with desertification, proving useful in the area of environmental protection. With a production capacity of 710 kilo tons, we are the top producer in the world.

#### Production capacity

**710** K Tons/year

\*Survey by Nippon Shokubai

needs in a wide range of industries by capitalizing on our strengths in developing key materials.

#### Optical control



Materials for high-quality printing



#### Decomposition of harmful substances in exhaust gas/waste water



#### Life Science

We provide support for drug discovery and the development of middle-molecular drugs through contract manufacturing services for APIs (active pharmaceutical ingredients), including oligonucleotide and peptides. In addition, we propose multifunctional cosmetics ingredients with skin care as the core target.

- API manufacturing service
- Cosmetics ingredients

#### Manufacturing of middle-molecular APIs



#### Functional cosmetics ingredients








## Editorial Policy

Starting from 2019, Nippon Shokubai has published “TechnoAmenity Report” as a report that covers both financial information, such as business plans and results, and non-financial information, such as ESG (environmental, social, and governance) activities.

From fiscal 2022 onward, we have decided to publish the TechnoAmenity Report as an integrated report that provides a wide range of information—including materiality, value creation processes, business strategies, governance, and financial data—in order to clearly convey the Nippon Shokubai Group’s medium- to long-term initiatives for value creation to all stakeholders, including shareholders and investors.

RC Report, which covers details of our Responsible Care (RC) activities, and ESG data compiling numerical figures of our ESG initiatives are available on our company website. We recommend that you read them along with this Report.

## Overview of our Reporting Media

Financial data		Non-financial data	
<b>Booklet / PDF</b>  <b>Financial Report</b> (English)	<b>PDF</b>  <b>TechnoAmenity Report</b> (Japanese/English)	<b>Booklet/PDF</b>  <b>RC Report</b> (Japanese/English)	<b>PDF</b>  <b>RC Report</b> (Japanese/English)
<b>Website pages</b>  <b>IR data</b> <a href="https://www.shokubai.co.jp/en/ir/">https://www.shokubai.co.jp/en/ir/</a>	 <b>Sustainability</b> <a href="https://www.shokubai.co.jp/en/sustainability/">https://www.shokubai.co.jp/en/sustainability/</a> <b>Major ESG data</b> <a href="https://www.shokubai.co.jp/en/sustainability/esg/">https://www.shokubai.co.jp/en/sustainability/esg/</a>		

## Scope of this Report

The Report covers the entire Nippon Shokubai Group (consolidated). The financial data, excluding the financial section, used in the Report are those as of March 2022, contained in “TechnoAmenity for the future—I.”

**Reporting period** .....April 1, 2021 to March 31, 2022

Some topics in and after April 2022 are also contained in the report.

**Publication date** .....November 2022

**Reference guideline** .....IIRC (International Integrated Reporting Council: International Integrated Reporting Framework)



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# Commitment

Kazuhiro Noda, newly appointed as President, has expressed to all stakeholders his commitment to the “Three transformations” outlined in the Mid-term Management Plan “TechnoAmenity for the future-I” and his resolve to further drive forward transformations toward the Nippon Shokubai Group’s sustainable growth.

## 8 Message from the President



# Message from the President

**I will spearhead efforts to  
push forward transformations  
and change the  
Nippon Shokubai Group  
for the better in a visible way.**

President & CEO  
Member of the Board

*Kazuhiko Noda*





**We will achieve the goals by revising strategies flexibly as necessary in response to changes in the business environment, with keeping the direction or the goals themselves.**

## **Becoming a company that can grow sustainably by pushing ahead with transformation**

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I became president of Nippon Shokubai in June 2022. I promoted the formulation of the new Medium-term Management Plan "TechnoAmenity for the future-I" (hereinafter, "Mid-term Management Plan") when I was in the Corporate Planning Division.

At that time, I considered "what was the most important for the Nippon Shokubai Group" with a strong drive to help change the

company for the better.

Although I believe I can contribute to the company no matter what position I take, in the capacity of the president from now on, I am determined to spearhead efforts to advance transformation, further aiming to make Nippon Shokubai an organization with sustainable growth.

## **Achieving our Vision with TechnoAmenity as a key axis**

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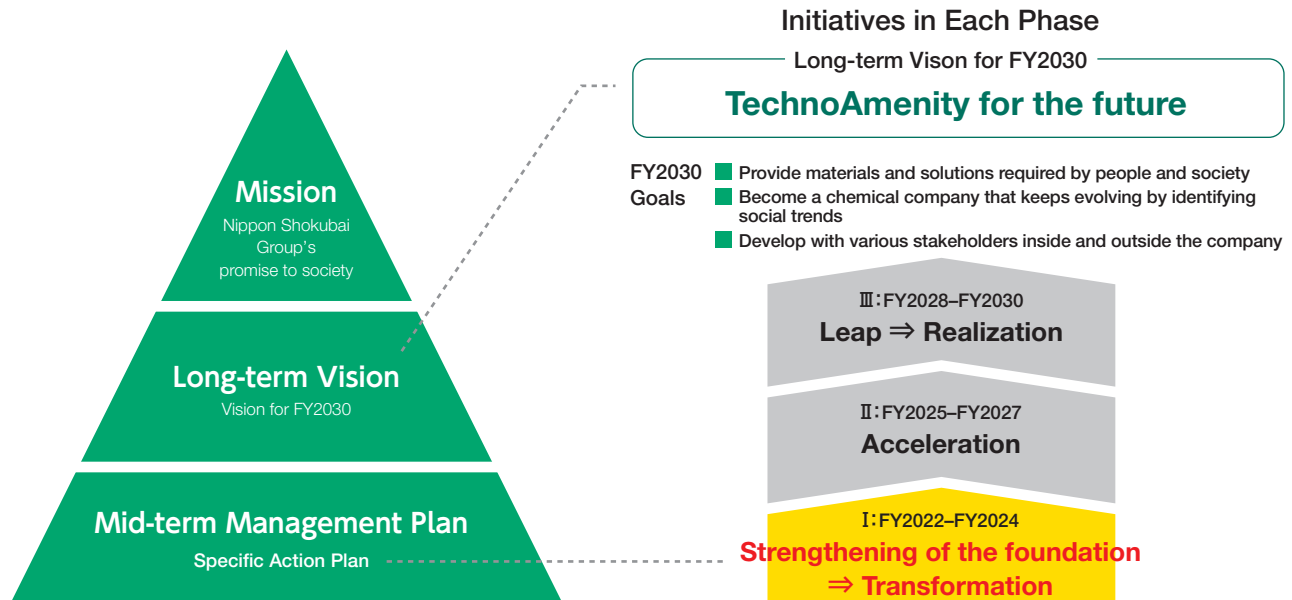
The environment surrounding the Nippon Shokubai Group has been changing constantly, with factors including soaring raw materials and fuel prices, movements toward carbon neutrality, and reorganization of the petrochemical industry. These changes will continue to occur, making it increasingly difficult to predict what is going to happen next. Regardless of how the situation changes, however, we have no plans to change our Long-term vision, the direction of the Mid-term Management Plan, or the goals we have set. I believe that what is important is to ultimately achieve the goals by flexibly revising strategies in response to changes.

Under these circumstances, it is very important to clearly

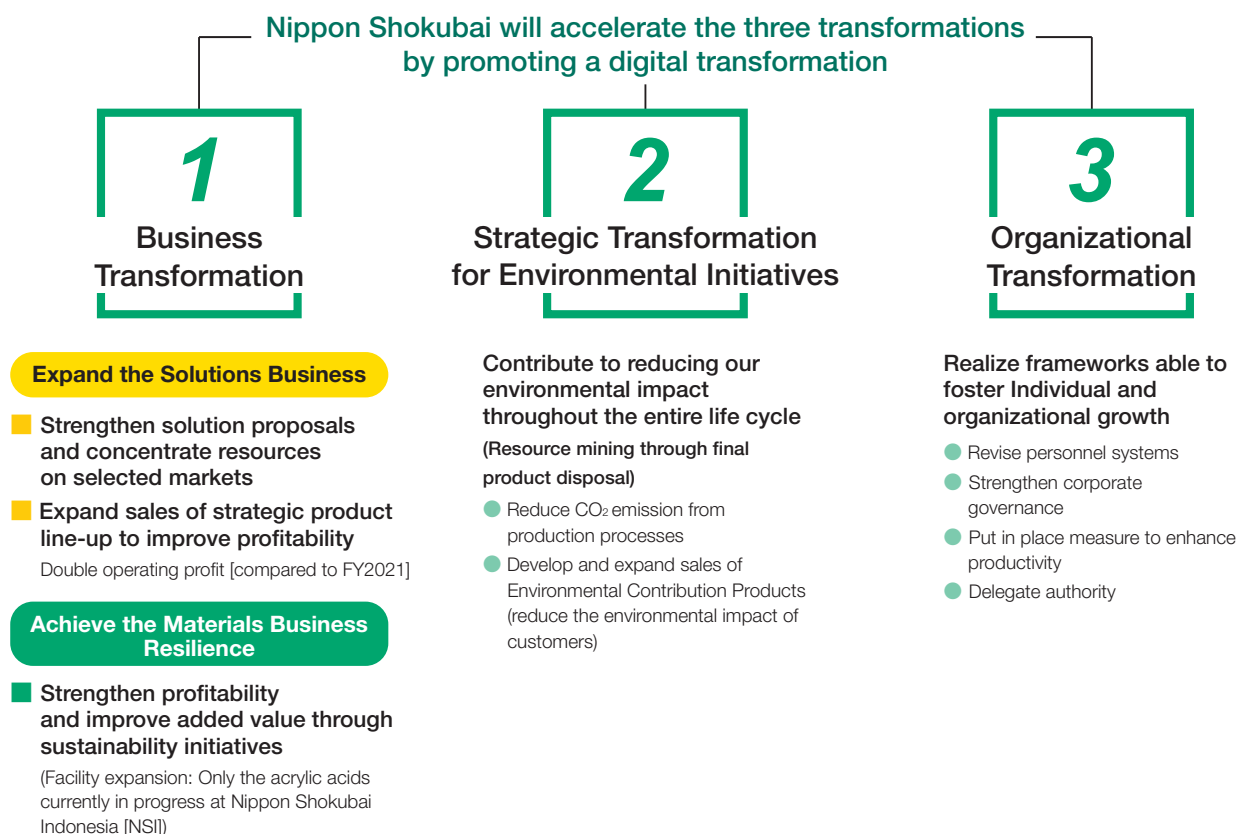
envision what we want to be. We have the Group Mission "**TechnoAmenity**— Providing Prosperity and Comfort to People and Society, with Our Unique Technology," in which our strong desire is reflected to contribute to creating a society where people can not only enjoy material affluence but also lead a comfortable life physically and mentally and where people have hope for the future. From the perspective of what the Group can do to realize such a society, we have set the goals we should achieve by FY2030 in the Long-term vision "TechnoAmenity for the future." We will work together with all our stakeholders toward realizing the Group's Mission "**TechnoAmenity**" and our vision and goals.



## Position of New Mid-term Management Plan



## Three transformations and Initiatives and Target through FY2024



## “Three transformations,” all of which are necessary ingredients for success

In the Long-term Vision and the Mid-term Management Plan, we have set Three transformations: “Business Transformation,” “Strategic Transformation for Environmental Initiatives,” and “Organizational Transformation.” “What is the top priority among these three transformations?” I am often asked, but the three transformations are closely linked. So if we don’t achieve all of them, each transformation will be meaningless. The goal can be only attained by achieving all three transformations.

### Strengthening stable earning power

Effective investment is indispensable for the growth of a company. The Nippon Shokubai Group has achieved growth while maintaining a solid financial base thus far. We will not change this conventional policy, and on the other hand we need to carry out improvements in capital efficiency. To do so, I believe that it is important to increase profit margins. If a product has earning power that matches capital investment, ROA (return on asset) and ROE (return on equity) will be raised. We will push ahead with transformation with a focus on how to strengthen the earning power of each product.

From this fiscal year, our businesses have been reorganized into the two segments of Materials and Solutions. Strategies to be taken differ between the Materials business, which has many products that tend to be influenced by market conditions, and the Solutions business, which has product lines that should be differentiated by function. We are planning to increase profitability by clearly defining the most suitable strategies for individual product lines, leveraging our Group’s strengths, and thereby expanding these businesses. By fiscal 2024, we have set the target of increasing the sales ratio between the Materials business and the Solutions business to 65%:35%, and the operating profit ratio to 50%:50%. We aim to reach record-high earnings in fiscal 2024 by making the Materials business more resilient and expanding the Solutions business.

### Business Transformation

The Nippon Shokubai Group, which has many competitive, unique technologies, has achieved growth by offering materials that meet the needs of individual customers. However, this is no longer enough to respond to diversifying customer needs. We are now in an era when it is difficult to help customers resolve increasingly diverse issues without fully understanding such issues from their perspectives and offering multiple technologies and product lines as solutions to them. In retrospect, it can be said that we had been responding to customer needs in a relatively passive manner. From now onward, it is necessary to approach our customers more proactively. We should share the problems that are really facing them, propose solutions to such problems, and increase our customers’ awareness of our technologies and products. This will help increase their expectations of and trust in our Group, ultimately leading to enhancing our corporate value.

In the Mid-term Management Plan, we have designated 10 markets as Selected Markets to leverage our strengths. At first sight, it may seem like too many “Selected Markets,” but

encompassing a broad range enables us to watch the markets as a bird's-eye perspective. We can select the market at any given time, which to be more noteworthy, or which to allocate more resources, from those whole. The commercialization of a product requires a certain period of time for consideration at a pilot facility and the establishment of a production system. In terms of the current mid-term management period, the facilities of the product groups invested during the previous mid-term management plan period—for example, electronics-related products (ACRYVIEWA™) and water treatment-related products (ethyleneimine derivatives)—are operating at full capacity and will drive earnings. In addition, we will actively invest resources in battery materials (IONEL™) for the present three-year period and make them one of the pillars for profit growth for the following three-year period.

On the other hand, the life cycle of products tends to be shorter than before. The key to success is how quickly we can recoup investment and make a profit after a product is launched. We must keep a close eye on market trends to identify the market in which we can leverage our strengths and continue to introduce new products into a market in a timely manner. Nippon Shokubai Group boasts a large number of excellent researchers, but in many cases, it took a long time before commercialization. Given this situation, we have thoroughly reviewed the conventional system and introduced a new system that enables not only the Research Division but also other relevant divisions, such as the production, planning and sales divisions, to get involved from the early phase of development to discuss market needs, product viability and facility preparations, and share such information. I believe this new system will shorten the time required for commercialization and thereby launch more products into markets.

### Strategic Transformation for Environmental Initiatives

With increasing expectations toward the realization of carbon neutrality, our customers are also considering reducing CO<sub>2</sub> emissions in the supply chain as a whole. Response to carbon neutrality is no longer an option but strategically imperative for us. I believe that the chemical industry has a major role to play in achieving carbon neutrality.

We in the Group have set the goal of reducing CO<sub>2</sub> emissions by 30% by 2030, aiming to achieve carbon neutrality by 2050. A significant issue in considering specific measures is how to balance CO<sub>2</sub> reduction measures and the costs required for them. Since the use of biomass materials and the introduction of renewable energy increases costs, it is necessary to push forward with such initiatives while considering how to share the costs among the supply chain members as a whole, including suppliers and customers.

At production sites, efforts have been promoted to increase the efficiency of raw materials and energy and reduce their environmental impact through waste reduction initiatives. However, the updating of aging facilities is another common issue facing the chemical industry.

At our company, we don't just replace aging facilities, and replace it with more productive facilities. In addition, we are actively improving our processes to reduce the amount of raw



materials and energy used through the adoption of sophisticated control and high-efficiency production technologies.

Regarding business operations, I believe that our Group's technological capabilities can be utilized in environmental fields. In terms of expansion of the use of hydrogen, for instance, we have developed ammonia decomposition catalysts and a separator for alkaline water electrolysis. For the capture and reuse of CO<sub>2</sub>, we are going to deploy CO<sub>2</sub> absorption materials and CO<sub>2</sub> conversion catalysts. I recognize that it is the Group's duty to lead these strengths to growth, eventually realizing its mission "**TechnoAmenity**."

It is difficult to achieve carbon neutrality only through each individual company's efforts. Cooperation among all the supply chain members is indispensable. With regard to biomass materials and materials for recycling, it is also necessary to share challenges with suppliers and work in collaboration to resolve them.

In these ways, we have been promoting various initiatives toward achieving carbon neutrality. We will endeavor to link these initiatives to contribution to environmental preservation and our Group's growth while considering the balance with costs and what cooperation and collaboration ought to be.

## Organizational Transformation

To change and grow a company as a whole, each employ needs to continue to grow. In April 2022, Nippon Shokubai

introduced personnel systems to appreciate talent who take on challenges. To ensure that these new systems work properly, superiors need to evaluate their subordinates' proposals and challenges appropriately. To do so, it is important to change evaluators' mindsets, improve evaluation capability, and create an organizational culture of openness that allows employees to actively make suggestions. As part of such initiatives, a system was launched last year that enables employees to advance various types of proposals to the management. We will continue to endeavor to promote more active and open communication than before.

Diversity is another important factor in strengthening the organization. I myself have had many opportunities so far to interact with overseas customers and business partners, through which I have been able to learn a lot. Different people have different views and ideas. I believe that encounters with diverse views can bring about new ideas, eventually leading to improving the strength of an organization.

For the reform of corporate governance, we have made clear the functions and roles of the Board of Directors and the Corporate Managing Committee, and have changed their operation methods in stages. Board meetings and Corporate Managing Committee meetings have discussed similar agenda items so far, but Board meetings will mainly take up matters to be discussed, including mid- and long-term strategies, from the perspective of the Group as a whole.

## In pursuit of "growth"

Companies are required to grow sustainably. On the other hand, I think the question is what "growth" means to a company. In other words, importance should be placed not only on growth in figures, such as sales and profits, but also on growth that cannot be measured in numerical terms, such as how the company contributes to society and whether its employees can obtain high

levels of job satisfaction. I believe that we will be called a good company only if we can grow sustainably in various aspects. I would like to improve Nippon Shokubai visibly by placing special emphasis on dialogues within and outside the company and actively adopting useful suggestions.

**I am committed to improving Nippon Shokubai by ensuring its sustainable growth in various aspects that cannot be measured in numerical terms.**



# Story of Value Creation

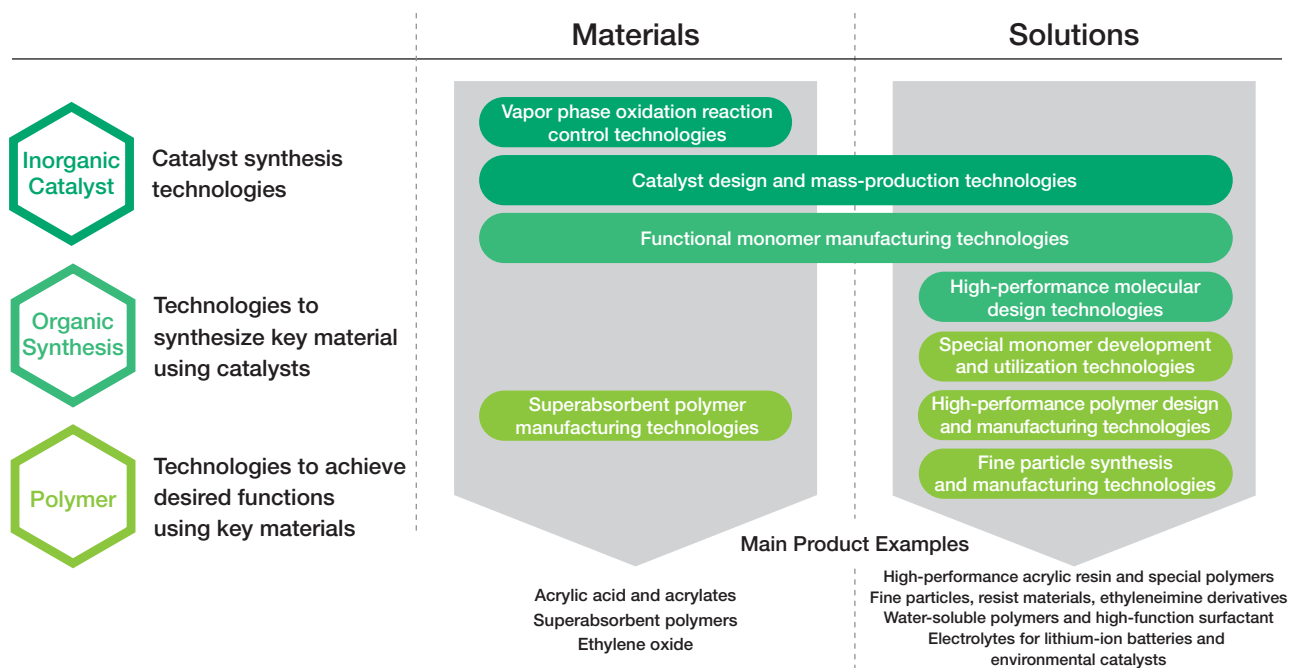
The Nippon Shokubai Group has formulated its Long-term vision “TechnoAmenity for the future,” aiming to flexibly respond to diversifying customer and market needs and help resolve a wide variety of social issues, including climate change. To achieve FY2030 Goals, we will push ahead with “Three transformations” and steadily implement initiatives to address materiality (material issues), thereby offering new value to our customers and society over the medium- to long term.

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# Nippon Shokubai's Core Technology

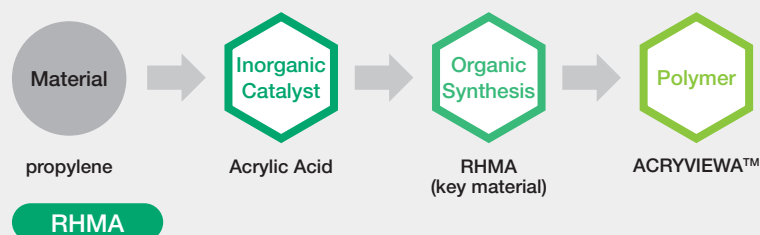
Since it succeeded in commercial production of phthalic anhydride for the first time in Japan in 1941, Nippon Shokubai has been promoting the development of unique technologies.

We have created various monomers, including ethylene oxide and acrylic acid, which serve as a foundation for our business, based on the vapor phase oxidation reaction caused by an inorganic catalyst. We have deployed them in functional monomer manufacturing and deployed catalyst design technologies in the production of environmental catalysts. In addition, those monomers were polymerized to develop into a superabsorbent polymer and other products. By being combined with organic synthetic technology that gives unique performance to materials, polymer design technology has brought about the development of various types of functional materials, including high-function polymers and particle materials.



## FOCUS

### Creating new value by combining core technologies



An abbreviation for  $\alpha$ -hydroxymethyl acrylate  
 The copolymerization of RHMA makes it possible to control heat-resistant and optical properties while maintaining transparency unique to acrylic polymer, thereby enabling the creation of a polymer suitable for optical film.

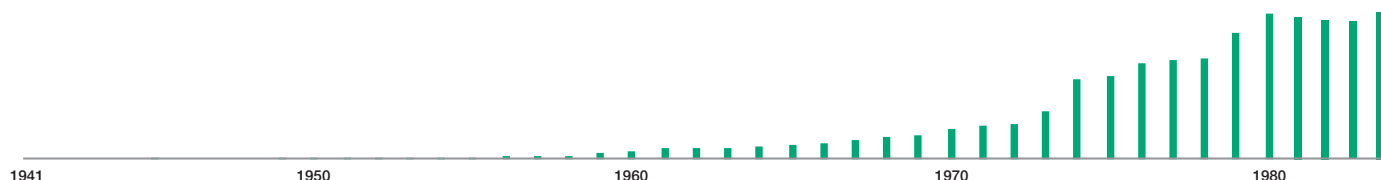


ACRYVIEWA™, contributing to the improvement of LCD (liquid crystal display) performance



# History of Value Creation

Numerous chemical industry firsts in Japan and worldwide are testimony to our history of success in evolving our R&D and production technology capabilities. We are an innovative chemical company that leverages new and existing core technologies to provide customer solutions.



## 1941-

Established as Nippon Shokubai Kagaku Kogyo Co., Ltd.  
First in Japan to commercially produce phthalic anhydride

## 1959-

Used proprietary technology to commercially produce ethylene oxide (EO) for the first time in Japan

**Opened Kawasaki and Himeji factories**

## 1970-

First in Japan to commercially produce acrylic acid (AA)

## 1981-

Launched commercial production of MMA\*  
Launched full-scale production of superabsorbent polymers (SAP)

**Established NAIL**

\* methyl methacrylate

### Resin additives



Contribution to improving the performance of synthetic resins, including polyvinyl chloride

### EO and its derivative



Provision of raw materials for fibers, resins, detergents, and other products that support rapid economic growth

### AA and its derivative



Provision of raw materials that support various industrial materials such as paints and resins

### SAP Building materials



Provision of raw materials for disposable diapers, which help ease the burden of childcare arising along with the progress of women's participation in society

#### ■ Abbreviation

**NAIL** : Nippon Shokubai America Industries, Inc.  
**NSE** : NIPPON SHOKUBAI EUROPE N.V.  
**NSI** : PT. NIPPON SHOKUBAI INDONESIA  
**NSC** : NISSHOKU CHEMICAL INDUSTRY (ZHANGJIAGANG) CO., LTD.  
**SAA** : SINGAPORE ACRYLIC PTE LTD

Contribution to enhancing the safety and durability of social infrastructure with technology that supports high-strength constructions

■ Net sales non-consolidated (billion yen)  
■ Net sales consolidated (billion yen)

(Note) FY1942: August 21, 1941 to May 31, 1942.

FY1943 to FY1945: June 1 of the previous year to May 31.

FY1946 to FY1996: December 1 of the previous year to November 30.

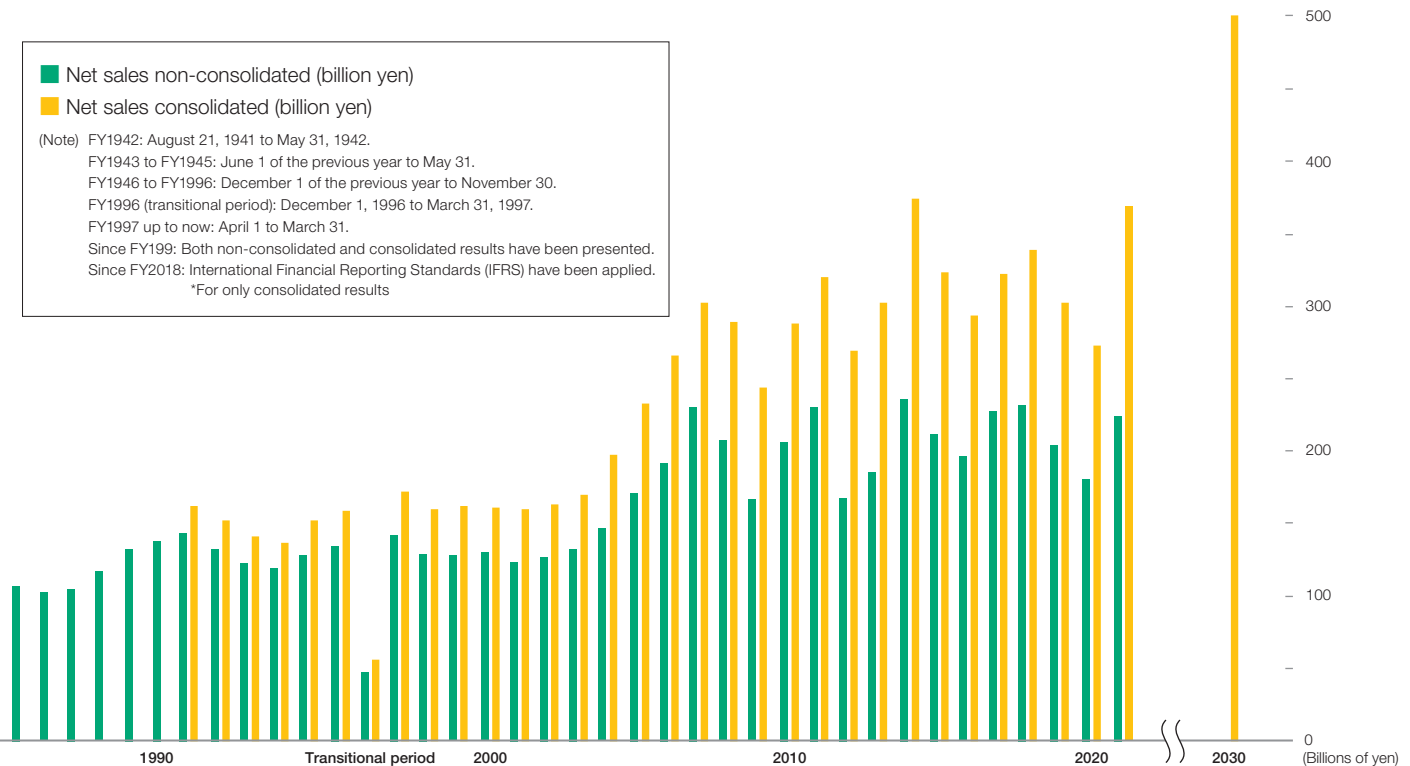
FY1996 (transitional period): December 1, 1996 to March 31, 1997.

FY1997 up to now: April 1 to March 31.

Since FY1999: Both non-consolidated and consolidated results have been presented.

Since FY2018: International Financial Reporting Standards (IFRS) have been applied.

\*For only consolidated results



# 1991-

Accelerated the global rollout of AA and SAP

Established NSE and NSI

# 2001-

Expanded the electronics & information materials business  
Expanded the AA business (AA/MMA business exchange)

Established NSC, acquired SAA shares

# 2010-

Launched the health & medical business and the cosmetics business

# 2030

Revenue (consolidated) target  
Approx. 500 billion yen

## Environmental catalysts Fuel cells



Contribution to detoxifying dioxins and harmful substances in waste water in response to the growing awareness of environmental issues

Provision of new battery materials that support the promotion of green energy

## Electronic materials



Provision of materials that meet demand for increased functionality of smartphones and TVs

## Battery materials



Contribution to enhancing the performance of lithium-ion batteries, a key to CO<sub>2</sub> emission reductions

# Nippon Shokubai's Value Creation

Economic value

## Management capital

### Financial capital

#### Solid financial base

➔Total equity **351** billion yen

➔Rate of equity attributable to owners of parent **66.4%**

### Human capital

#### Expansion of diversity

➔No. of employees (consolidated)

**4,526**

➔Ratio of woman managers **4%**

### Manufacturing capital

#### Global production system

➔Domestic Production Sites **10**

➔Overseas Production Sites **7**

### Social capital

#### Relationships with customers and local communities

### Intellectual capital

#### Technological, sales and production information

## Long-term Vision

### Long-term Vision for FY2030 "TechnoAmenity for the future"

#### FY2030 Goals

- Provide materials and solutions required by people and society
- Become a chemical company that keeps evolving by identifying social trends
- Develop with various stakeholders inside and outside the company

### Three transformations

1

#### Business Transformation

Transform portfolio from existing to growth fields

2

#### Strategic Transformation for Environmental Initiatives

Promote sustainability to realize carbon neutrality by FY2050

3

#### Organizational Transformation

Transform into an organization with sustainable growth and a company where diverse talent are motivated to work

### Materiality

- Contribute to solving customer issues

- Promote climate change response

- Developing/Promoting the Active Participation of Talents
- Strengthen corporate governance

- Promote safe and stable production activities

## Measures for value offerings

### Expand the Solutions Business

#### Investment of resources

Information management/sharing, marketing  
(Expansion to the Materials business)  
Investment approx. **5** billion yen

Add approx. 70 employees over 3years  
Approx. 330 employees ➔  
Approx. **400** employees

Increase of production capabilities in response to the expansion of the Solutions business

### Better Understanding of Customer Challenges and Stronger Solution Proposals

#### Provide even greater added-value through customer-oriented solutions to challenges



Market Needs  
(Social/Customer Needs)

- Identify the challenges in selected markets
- Visualize and share sales information
- Analyze and devise Group-wide measures
- Propose integrated solutions through products with added value (Formulation/services)
- Combine multiple products and technologies

**Nippon Shokubai Group Strengths:**  
Proprietary Products and Technologies



## Value Provided

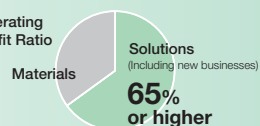
## Management Targets (FY2030 Goals)

- Operating profit ..... Approx. of **60** billion yen
- ROE ..... **9%** or higher
- ROA ..... **9%** or higher

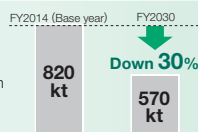
Sales Ratio  
(Revenue: approx.  
500 billion yen)



Operating  
Profit Ratio



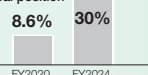
CO<sub>2</sub> emissions  
(Scope 1 & 2)  
Including Group  
companies in Japan



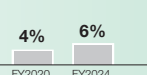
Environmental  
Contribution Products  
Revenue Target & Goal  
(billion yen)



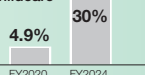
Ratio of woman  
recruitment in clerical  
and chemical position



Ratio of woman  
managers



Ratio of male  
employees  
taking childcare  
leave

Environmental Initiatives /  
Carbon Neutrality

- Broader use of hydrogen
- CO<sub>2</sub> recovery and recycling
- Biomass-derived products
- SAP Recycling
- Securing water resources through the desalination of seawater

Advancement of  
Digital Technologies

- Materials for 3D printers
- Battery materials

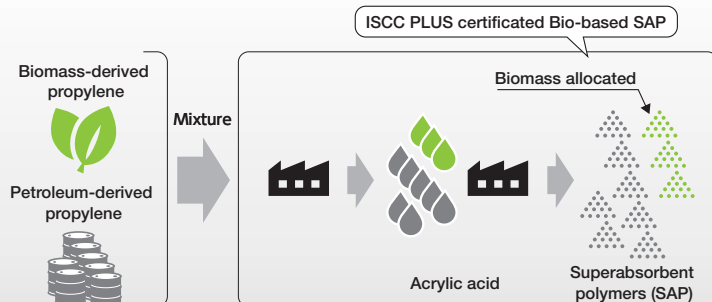


## Higher Quality of Life

- Ingredients for multifunctional cosmetics
- Oligonucleotide drug discovery business

Achieving the Materials  
Business Resilience

## Bio-based SAP Initiatives

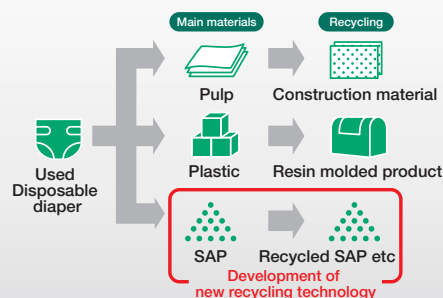


Start production of AA/SAP from bio-based propylene using a mass balance system.  
(Pioneer effort at NSE in Europe)

## Stronger Promotion of Carbon Neutrality Support

## Recycling materials

## Promotion of SAP Recycling



Prove the concept of producing recycled SAP from used disposable diapers that have been collected.

## Social value

# Evolution of a Value Creation System

The Materials business has the advantage of providing high-quality products and having a global supply system. At the same time, however, it also has the weakness of making it difficult to secure stable profits because it is “a material selling business” that is susceptible to market changes. In an effort to enhance medium to long term corporate value, we will grow the more profitable Solutions business by strengthening solution proposals and concentrating resources on selected markets, and thereby evolving our business structure from “selling individual materials” to “providing solutions.”

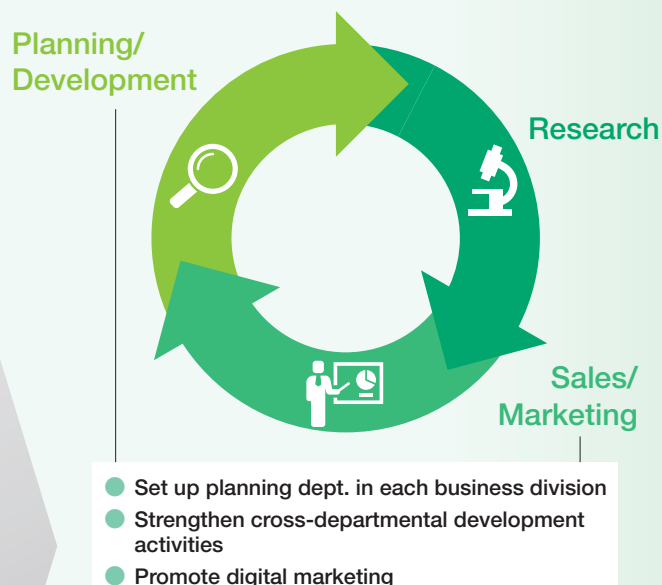
Before

## Selling individual materials

We meet customer needs by enhancing the performance of individual products. We will continue to respond to increasingly sophisticated needs by making improvements (functional advancement, quality improvement, etc.) to products possessed by individual business divisions.



## Strengthen Planning, Development, and Marketing Capabilities



## Strategically Increase Human Resources

Add approx. **70** employees over **3** years



Approx. **330** employees



Approx. **400** employees

Industrial & Household Solutions Division,  
Energy & Electronics Solutions Division,  
Health & Medical Business Development Office,  
Cosmetics Business Office,  
and Business Planning & Development Division

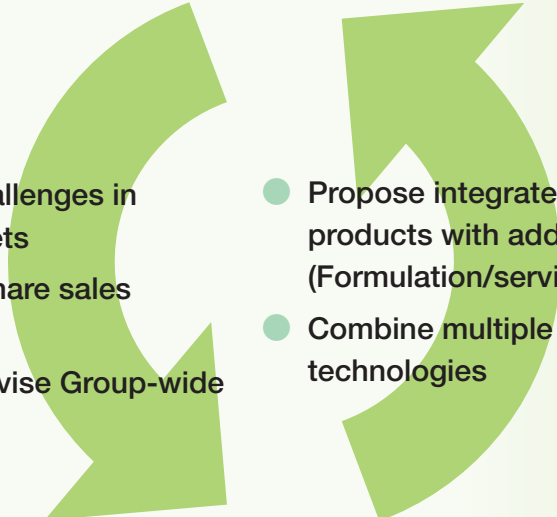
After

## Providing solutions

To meet diversifying and more complex customer needs in a timely manner, we promote cross-departmental sharing of information on selected markets and propose integral solutions, which feature a combination of multiple products, technologies and services. We endeavor to expand a lineup of products with competitive edges in each market and build a system that enables us to continue to meet more needs from customers.



**Market Needs**  
(Social/Customer Needs)

- 
- Identify the challenges in selected markets
  - Visualize and share sales information
  - Analyze and devise Group-wide measures
  - Propose integrated solutions through products with added value (Formulation/services)
  - Combine multiple products and technologies



**Nippon Shokubai Group Strengths:  
Proprietary Products and Technologies**



# “Three transformations” and Materiality

To achieve the FY2030 Goals set forth in the Long-term vision “TechnoAmenity for the future,” the Nippon Shokubai Group is currently working on “Three transformations” under the Mid-term Management Plan “TechnoAmenity for the future-I.” We will appropriately manage the progress of initiatives for the “Three transformations” by identifying materiality (material issues) and clearly setting KPIs (key performance indicators), specific goals and target years.

For the identification of materiality, we determined the scope of challenges to be tackled through discussions at the TechnoAmenity (TA) Promotion Committee, narrowed down the scope by reference to the Group’s long-term vision and “TechnoAmenity for the future-I,” and obtained approval from the Board of Directors after repeated deliberations in the TA Promotion Committee.

Three transformations	Materiality	Initiatives	
<b>1</b> Business Transformation	Contribute to solving customer issues	Strengthen the company's ability to understand issues and propose solutions	
		Strengthen the supply chain management	
<b>2</b> Strategic Transformation for Environmental Initiatives	Promote climate change response	Contribute to carbon neutrality	
		Contribute to the circular economy	
		Promote the development and sales of Environmentally Contribution Products	
<b>3</b> Organizational Transformation	Developing/Promoting the Active Participation of Talent	Develop autonomous talent	
		Promote the active participation of diverse talent	
	Strengthen corporate governance	Enhance the effectiveness of the Board meeting	
		Ensure the knowledge, experience, skills, and diversity of the Board meeting	
		Enhance medium- to long-term incentives for corporate officers	
Key business foundation	Promote safe and stable production activities	Strengthen the safety foundations	
		Foster a culture of safety	

## Materiality Identification Process



➡ For details, please see the Nippon Shokubai website.

KPI and their ideal state	Year of achievement
(1) Develop a platform to strengthen solution proposals (2) Expand the Solutions business to achieve the dual focus of the Materials and Solutions businesses (Sales ratio of 50% each, revenue of the 500 billion yen level)	(1) End of FY2024 (2) End of FY2030
<ul style="list-style-type: none"> <li>Scope 1, Scope 2: reduce CO<sub>2</sub> emissions by 30% from the 2014 level (Nippon Shokubai and Group Companies in Japan)</li> </ul>	End of FY2030
<ul style="list-style-type: none"> <li>Develop and socially implement technologies for resource use reduction and recycling</li> </ul>	—
Environmental Contribution Products Revenue: (1) 55 billion yen (2) 135 billion yen	(1) End of FY2024 (2) End of FY2030
<ul style="list-style-type: none"> <li>Improve the employee engagement score (transformation and growth of people and workplaces through early establishment of a new personnel system, linkage with multi-layered measures, and organizational improvement)</li> <li>Increase in the number of applicants for solicit publicly proposed autonomous learning programs (e-learning, skill development training, online English conversation classes, etc.) and make these programs better known within the company</li> </ul>	End of FY2024
<ul style="list-style-type: none"> <li>Improve the employee engagement score (promotion of suitable assignments, individual motivation, and diverse and autonomous work styles through various systems such as self-assessment and the continuity of work location)</li> <li>Increase the ratio of woman employees hired in the clerical and chemical fields to at least 30%</li> <li>Increase the ratio of woman in managerial position to 6% or more</li> </ul>	End of FY2024
<ul style="list-style-type: none"> <li>Improve the effectiveness of the Board meeting by enhancing its decision-making of anagement policy and strategy, and supervisory functions</li> </ul>	End of FY2024
<ul style="list-style-type: none"> <li>Disclose a skills matrix of the Board meeting</li> <li>Satisfy the skills matrix of the Board meeting</li> </ul>	End of FY2022 End of FY2024
<ul style="list-style-type: none"> <li>Introduce stock-based compensation for internal Members of the Board, etc.</li> </ul>	End of FY2022
<ul style="list-style-type: none"> <li>Third-party evaluation: maintain above industry standards for the petroleum and petrochemical industries</li> </ul>	—

\* CO<sub>2</sub> emissions : Our Group's emissions reduction targets are for greenhouse gases, but since they are mostly carbon dioxide (CO<sub>2</sub>), they are referred to as CO<sub>2</sub>.

# Strengthening management capital



I recognize that we need to solidify Nippon Shokubai's foundation as early as possible to transform it into an organization that can offer solutions according to the types of challenge facing customers. We will reinforce our organizational capabilities and invest resources strategically to solve various challenges from the perspective of our customers.

## Masahiro Watanabe

Member of the Board, Managing Executive Officer  
Sales, Marketing, Purchasing, Logistics  
Energy & Electronics Business Division

### Intellectual capital

## Actively investing in DX to build a platform for management of customer information

To strengthen our capability to propose solutions, it is imperative to build a platform to give impetus to the implementation of cross-departmental initiatives. In order to push forward with this effort under "TechnoAmenity for the future-I," we have planned investment in DX (digital transformation) for the visualization and sharing of information, and have established the Business Planning Division and the Business Planning & Development Department in each solution division as a function to collect and utilize the visualized and shared information.

This platform will enable us to integrate information, from across the company, regarding the progress of the themes on which individual departments are working and the proposals made to

individual customers, and to allocate resources heavily to high-priority projects. I believe that this systematic response will help increase the success rate for business.

In addition, what is important in providing solutions to society or our customers in a timely manner is how we can utilize the information in the platform to assess the best possible commercialization method.

In response to this challenge, we have established a system called "OneTeam," which enables the relevant departments to work together through active discussions on the commercialization of a specific theme, and make a prompt decision.



## Human capital

### Fostering experts with a high level of market knowledge and the capability to propose total solutions

In addition to building these platforms, it is urgent to foster employees equipped with the capability to come up with solutions based on the information acquired. The Mid-term Management Plan “TechnoAmenity for the future-I” clearly indicates selected markets for each business. There is a need for experts who have a deep understanding of trends of target markets, changing customer needs, and how to combine the Group’s products and solutions to match such customer needs and who can propose solutions from a holistic perspective. To develop talent who can quickly perceive changes in the external environment from various perspectives, we have been actively implementing personnel

rotation. We also have measures in place to help employees acquire experience and skills through consultations with the company about their career plans.

As part of efforts to accelerate the growth of each business, we have developed a plan to increase human resources by about 70 employees to 400 employees over three years to strengthen planning, development, and marketing capabilities in the Solutions business. To increase the number of employees, we are also looking at mid-career recruitment. We will reinforce our capability to propose solutions by recruiting and deploying the best personnel for these jobs from inside and outside the company.

## Social capital

### External cooperation will become increasingly indispensable

Although I have talked about the use of mid-career recruitment, I think that external collaboration and cooperation in technology in particular will become increasingly important. To respond to major trends, including those of electric vehicles (EVs), for example, we seek to collaborate broadly—not just with companies that are a familiar presence or venture companies. We will review our independent research and development and shift our emphasis

to active cooperation with outside organizations to improve our technological capabilities.

In the Materials business, cooperation with other companies is essential. We have started a joint feasibility study with ENEOS Corp. and Mitsubishi Corp. toward the manufacturing and sale of ethylene derivatives derived from bio-based raw materials (bio-derivatives).

## Manufacturing capital

### Effective utilization of facilities in response to the expansion of the Solutions business

To lead the solutions created to production at low cost and in a timely manner, it is necessary to consider how to use one’s own facilities or another Group company’s facilities, or whether to entrust the work to an external company. We will conduct

a survey and collect information on the manufacturing capital available inside and outside the company, and make appropriate judgements at different times to develop and implement a plan concerning the effective use of the capital.

I believe that the technological, manufacturing and human capital that we have accumulated so far will continue to be needed in the age to come. We will create new value by making the most of such capital and drastically changing direction from existing fields to growth fields.

# Mid-term Management Plan

## (FY2022–FY2024)

We have developed the Mid-term Management Plan “TechnoAmenity for the future-I,” under which we will work on “three transformations” toward the realization of the FY2030 Goals set in our long-term vision. To leverage the strengths of each business segment and respond flexibly to changes in the business environment, we will move forward with portfolio transformation by reorganizing our businesses into the two segments of “Materials” and “Solutions.”

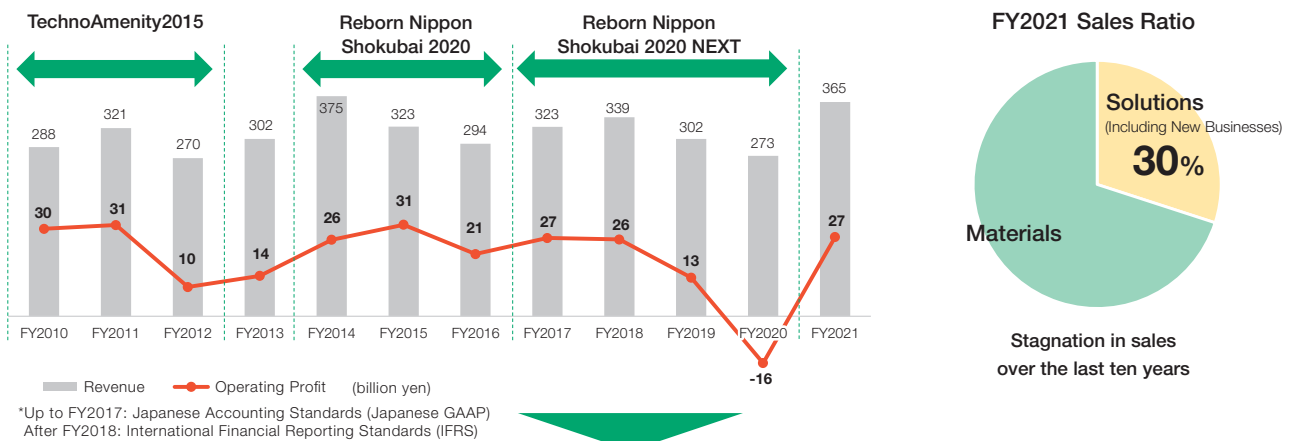
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# Performance Review and Current Status

## Past mid-term management plans and performance

Our sales ratio has remained the same over the last 10 years, with about 70% in the Materials business and about 30% in the Solutions business. In fiscal 2020, our operating profit was significantly affected by the downward trend in the Japanese economy resulting from the impact of the COVID-19 pandemic. In fiscal 2021, however, our operating profit increased remarkably, buoyed by upward momentum of the economy.

To break away from such a business structure that is highly susceptible to changes in market conditions, we need to achieve transformation from a business structure reliant on the Materials business.



## Insufficient Portfolio Transformation

## Current state of each business

To respond to various needs resulting from changes in the environment, we have started to establish a framework that supports the expansion of the Solutions business by enhancing marketing capabilities, strengthening organizational capabilities to provide customer-oriented solutions to challenges, and investing resources strategically.

At the same time, viewing contribution to the preservation of the global environment as a new business opportunity, we will advance the development of technology that helps realize carbon neutrality while working to steadily improve profitability by implementing multiple projects in the Materials business.

### Materials Business

#### < Internal Environment >

- Not yet achieved the SAP survival targets, but showed a positive trend toward those goals

#### < Changes in external environment >

- Fierce competition and dwindling profitability in AA and SAP businesses
- Greater risk of large business fluctuations worldwide due to COVID-19, trade conflicts, and other such factors
- Greater social requirement for companies to work toward carbon neutrality

**Drastic changes in business environment create harsh conditions.**  
However, Nippon Shokubai has many opportunities to contribute to the preservation of the global environment.

### Solutions Business

#### < Internal Environment >

- Progress in releasing new products to markets and expanding businesses in electronic material, new energy, and other growth fields
- Insufficient development and expansion of new peripheral applications leveraging proprietary technologies and existing products

#### < Changes in external environment >

- Diverse needs to overcome complex customer challenges and to respond to more rapid market changes which the strengths of Nippon Shokubai can solve

**Nippon Shokubai can provide solutions through its strengths to address diverse needs in growth markets.**

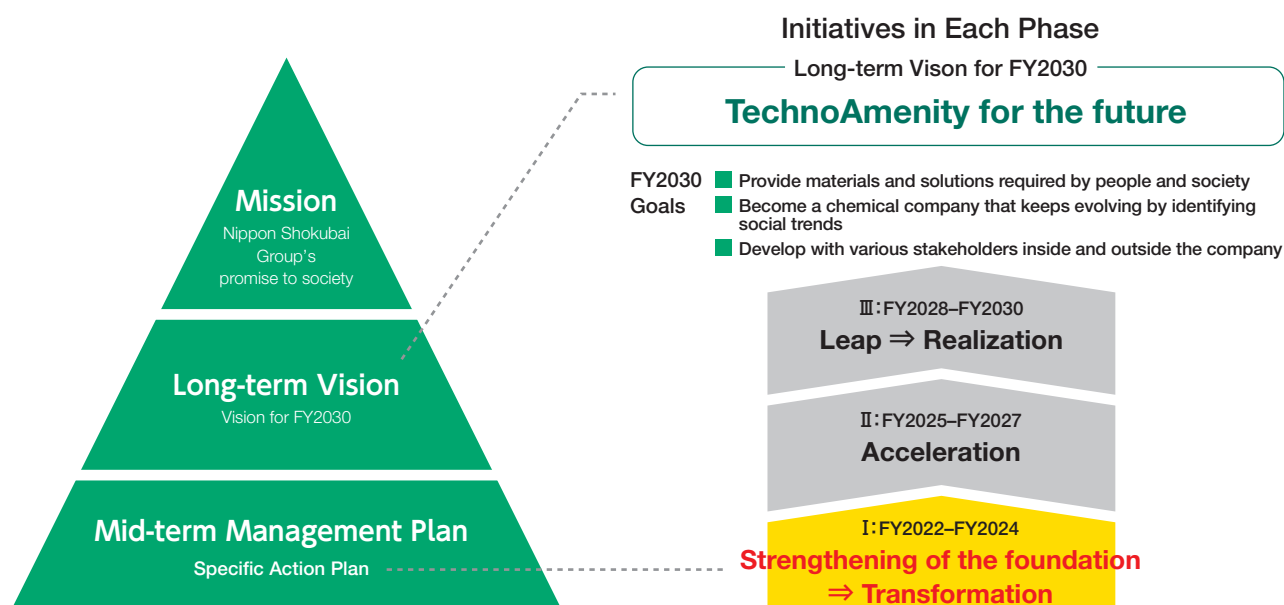
**Nippon Shokubai must clarify its targets and strategies for each business and advance initiatives to flexibly adapt to changes in the business environment.**



# TechnoAmenity for the future-I

## Position of TechnoAmenity for the future-I

We have formulated “TechnoAmenity for the future-I” toward achieving the FY2030 Goals set in our long-term vision. As a specific action plan, we will work on strengthening the foundation and implementing the transformation.



## Three transformations

To achieve the FY2030 Goals, we will push forward with three transformations: business transformation, strategic transformation for environmental initiatives, and organizational transformation. For business transformation, we will implement portfolio transformation from existing fields to growth fields. To expand the highly profitable Solutions business, we endeavor to strengthen solution proposals, concentrate resources on selected markets, and expand sales of strategic product line-ups to improve profitability.

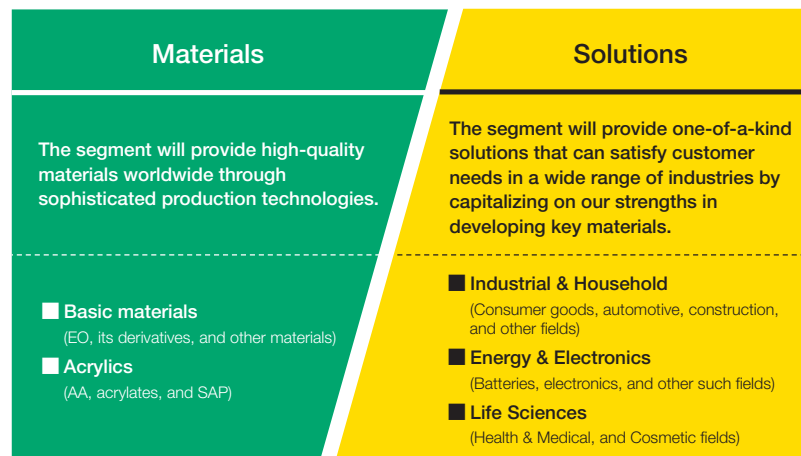
Moreover, we will reinforce the business foundation by increasing the resilience of the Materials business, which is highly susceptible to changes in the external environment. We will also continuously implement the SAP Survival Project, newly launch the EO Resilience Project, and work to improve added value through sustainability initiatives, including promoting a shift to bio-based raw materials and SAP recycling.

With regard to strategic transformation for environmental initiatives, toward achieving carbon neutrality by 2050, we will reduce CO<sub>2</sub> emissions from production processes and reduce the environmental impact of our customers by developing and expanding sales of environmental contribution products. For organizational transformation, we have introduced a system to develop autonomous talent and foster individual and organizational growth by promoting the active participation of diverse talent.



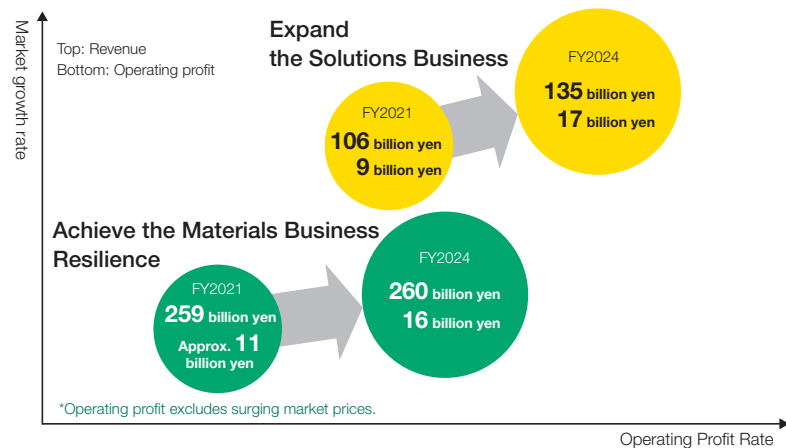
## Reportable Segment Change

We have reorganized our business segments in order to leverage the strengths of each business segment and respond flexibly to the changing business environment. The three segments of Basic Chemicals, Functional Chemicals, and Environment & Catalysts were changed to the two segments of Materials and Solutions. We will clarify the purpose and strategies of each business segment.



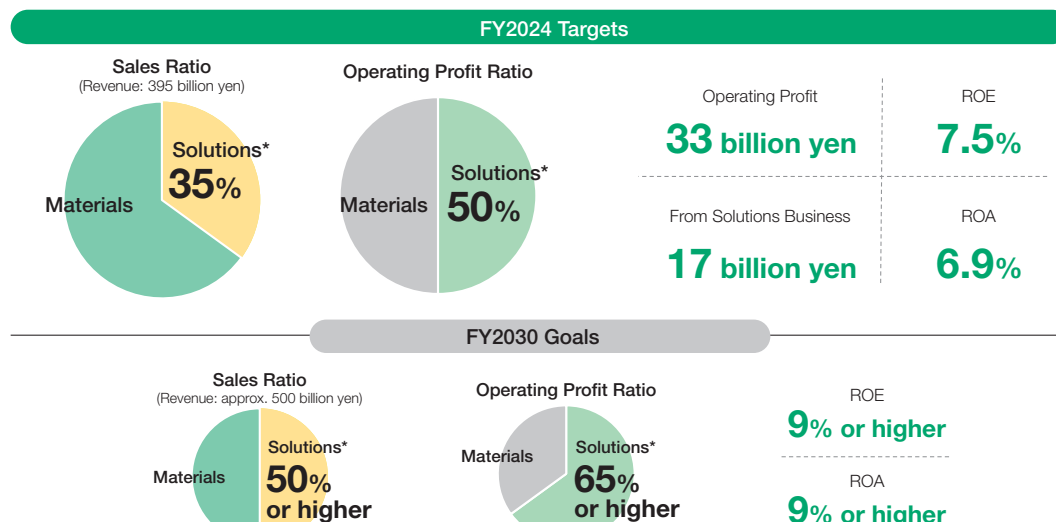
## Portfolio Transformation

Toward portfolio transformation, we aim to double operating profit in the Solutions business in fiscal 2024 compared to fiscal 2021. The Materials business also seeks to increase operating profit about 1.5-fold, excluding surging market prices, compared to fiscal 2021.



## Management Targets

Expand the Solutions Business with the aim to reach record-high earnings in FY2024.

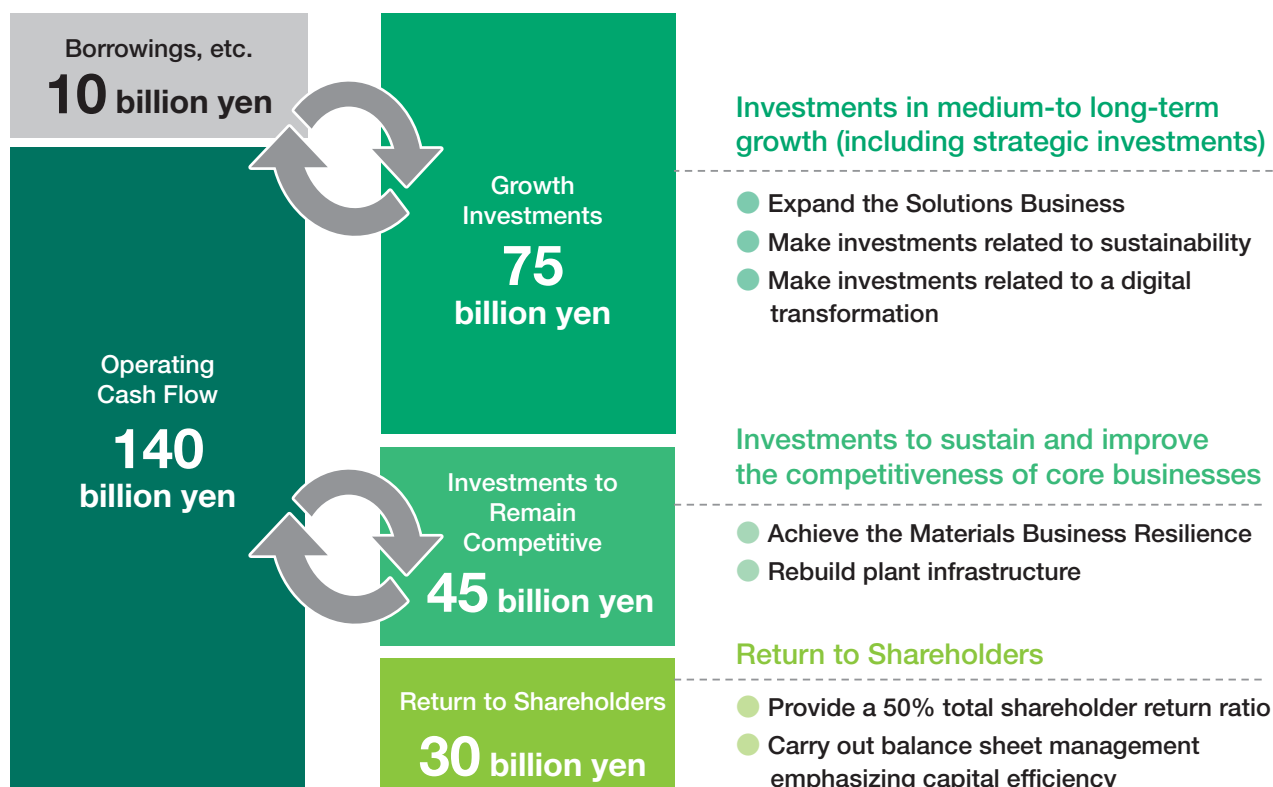


\* Including new businesses

# Investment Strategy and Return to Shareholders

We aim to achieve a 7.5% ROE and a 6.9% ROA by the end of the Mid-term Management Plan “TechnoAmenity for the future-I” (FY2024), by allocating a cumulative total of 150 billion yen generated over the three years to investments in medium- to long-term growth (including strategic investments) (75 billion yen), investments to sustain and improve the competitiveness of core businesses (45 billion yen), and return to shareholders (30 billion yen).

Cumulative Total for FY2022–FY2024



## Growth Investments

We will allocate 75 billion yen as growth investments, 65 billion of which will be used for the expansion of the Solutions business and sustainability-related investments. For the Solutions business, we will implement strategic investments, in addition to new construction and expansion of relevant facilities. As sustainability-related investments, we will put capital into facilities for energy saving or for the prevention of air/water pollution.

We will allocate 10 billion yen to DX-related investments. Investments will be made in building a data integration platform required for the deployment of digital technology in production sites, promoting marketing automation to strengthen our sales, planning and development capabilities, and introducing and utilizing materials informatics to strengthen our R&D capabilities.

## Investments to Remain Competitive

We will allocate 45 billion yen to investments required to sustain and improve our competitiveness. To achieve the Materials Business Resilience, we will reinforce our related capabilities and improve our production efficiency. As part of efforts to rebuild plant infrastructure, we will also improve and update the equipment and buildings of the aging Himeji and Kawasaki Plants.



## Return Policy under “TechnoAmenity for the future-I”

Under “TechnoAmenity for the future-I,” we will provide a stable return to shareholders that balances funding to enable sufficient investments to grow and remain competitive with the pursuit of capital efficiency. With regard to the dividend payout ratio to shareholders, we aim to secure 40%, higher than the 35.5% average over the past 10 years (FY2012 to FY2021). At this time, the total shareholder return ratio, including the purchase of treasury stock, will be 50%.

**Provide a stable return to shareholders that balances funding for sufficient investments to grow and remain competitive with the pursuit of capital efficiency.**

**Total shareholder return ratio: 50%**  
(Dividend payout ratio: 40%; Purchase of treasury stock: 10%)

## Return to Shareholders

The annual dividend per share for FY2021 was 180 yen; an 80th anniversary commemorative dividend of 10 yen was added to the ordinary dividend of 170 yen per share. Taking overall account of business expansion and a stronger corporate structure, and based on forecasts of the trend in consolidated earnings, we are aiming to improve levels of dividends in the medium to long term. We expect the annual dividend per share for FY2022 to be 180 yen, with a dividend payout ratio of 46.3%.

<b>FY2021 dividend</b> Profit attributable to owners of parent 24 billion yen <b>180 yen per share</b> Added a commemorative dividend of 10 yen to the ordinary dividend of 170 yen per share				<b>FY2022 dividend, forecast</b> Profit attributable to owners of parent 16 billion yen <b>180 yen per share</b> the same amount of dividend as previous period			
(Yen/share)	Interim	End of period	Total	(Yen/share)	Interim	End of period	Total
Dividends per share	75	95	170	Dividends per share	90	90	180
80 <sup>th</sup> anniversary commemorative dividend	5	5	10				

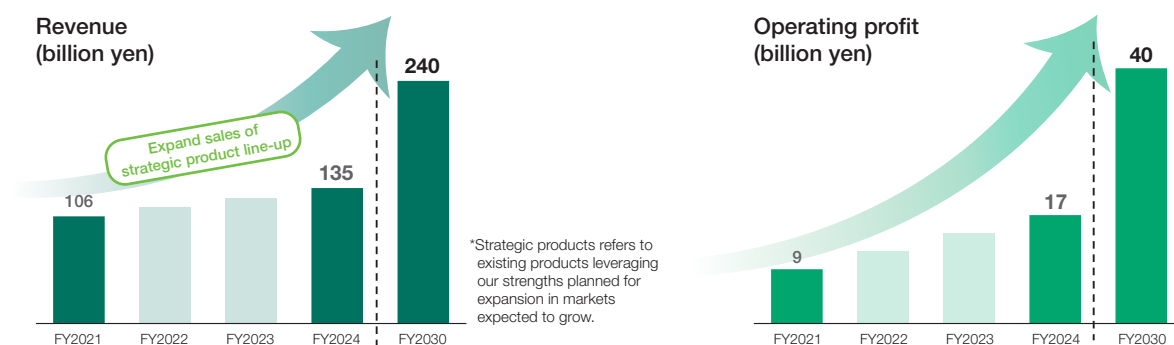
  

	Average FY2012-FY2021	FY2021	FY2022 (Forecasts)
Payout ratio	35.5%	30.3%	46.3%

Transformation 1: Business Transformation

# Expand the Solutions Business

Nippon Shokubai will expand the Solutions business toward portfolio transformation from existing fields to growth fields. We will build a platform to strengthen solution proposals as soon as possible, and aim to increase operating profit two-fold by fiscal 2024 and five-fold by fiscal 2030 through four types of businesses.



## KPI and their ideal state

## Year of achievement

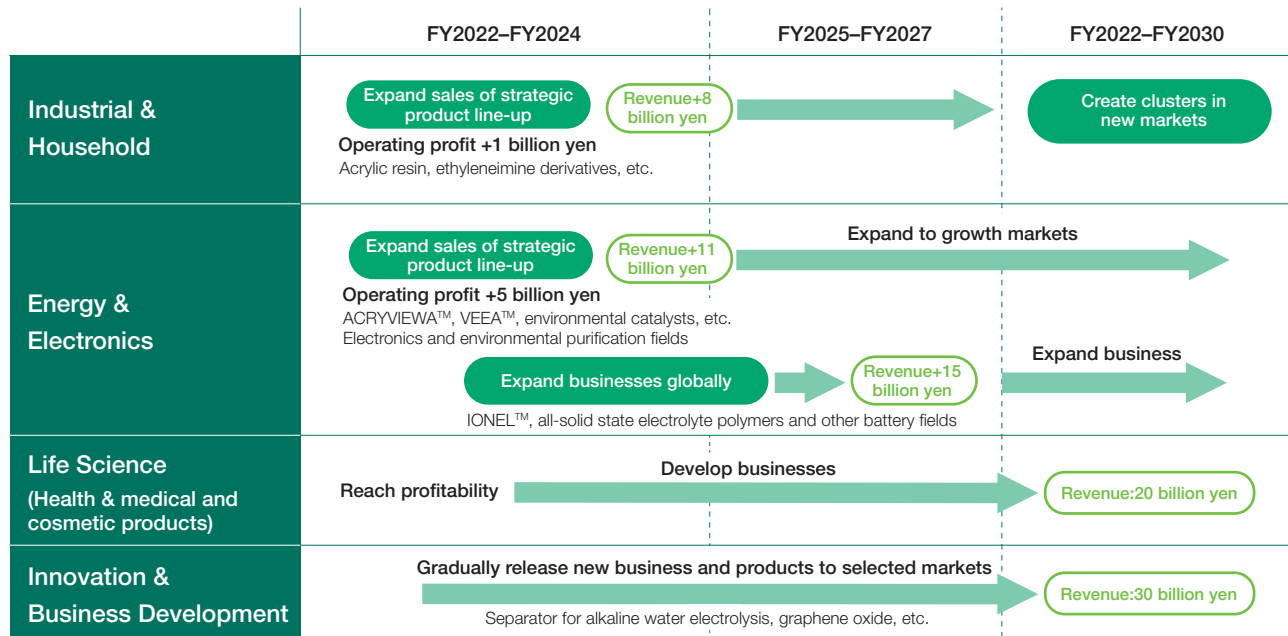
■ Develop a platform to strengthen solution proposals	End of FY2024
■ Expand the Solutions business to achieve the dual focus of the Materials and Solutions businesses (Sales ratio of 50% each, revenue of the 500 billion yen level)	End of FY2030

## Build a platform to strengthen solution proposals

In the Solutions business, we propose solutions that combine multiple products and/or technologies in a timely manner, with a focus on selected markets in which we can take full advantage of our strengths. We are promoting the visualization and sharing of customer information by establishing a system that enables the cross-departmental sharing of information. We are also working to strengthen the planning, development and marketing functions through digital transformation (DX).

<b>Select markets to leverage strengths</b> 	<b>Select markets to leverage strengths</b> (Link with technological strategies)	<b>Swift and flexible allocation of resources</b> (Organize all research themes)
<b>Enhance our ability to understand customer challenges</b> 	<b>Select target customers</b>	<b>Visualize and share customer information</b>
<b>Strengthen solution proposals</b> 	<b>Establish and strengthen planning, development, and marketing capabilities</b> (Increase human resources)	<b>Cultivate experts in each market</b>
<b>Establish timely production systems</b> 	<b>Involve production, technology and engineering Div., at an early stage</b> <b>Effectively use facilities within the Nippon Shokubai Group</b>	<b>Reinforce equipment compatible with solutions</b> <b>Actively cooperate with outside contractors</b>

## Initiatives in Each Business



## Stronger Solution Proposals

### Better understanding customer challenges, establishing and strengthening planning, development and marketing functions

#### ■ Establish a planning department in each business division of the Solution business segment

We have established a planning department within each of the Industrial & Household Solutions Division and the Energy & Electronics Solutions Division. In collaboration with the Business Planning Division and the Innovation & Business Development Division, we will strengthen cross-departmental efforts to develop new customers and propose solutions.

#### ■ Promote digital marketing

To propose our solution to the wider range of customers, we distribute email newsletters regularly to provide helpful information on Nippon Shokubai's products, thereby developing an ongoing relationship with customers. We will increase contacts with customers by proposing solutions to challenges facing customers in a timely manner, and We will understand customer challenges and enhance our ability to provide solutions through our strengths.

#### ■ Promote Digital Transformation

To make our solution proposals to customers more efficient, we will push forward with digital transformation (DX) in our sales activities to promote the visualization and sharing of customer informations, and the improvement of sales processes through data analysis.

### Cultivate experts for target market

#### ■ Add approx. 70 employees over 3 years

We are planning to increase our human resources by about 70 employees from about 330 employees to about 400 employees over three years to strengthen our planning, development and marketing capabilities. To cultivate experts for target market, we will actively implement personnel rotation and hire more midcareer workers with specialized skills.

### Establish timely production systems

#### ■ Strengthen cross-departmental development activities

We have introduced a tool that enables relevant departments to see the progress of research themes, so that relevant department members can collaborate from an early stage of R&D. At the same time, we have established a cross-departmental cooperation system called "One Team" to accelerate the commercialization of newly developed products. Under the system, we will work to accumulate and organize information on the facilities of individual production sites of Nippon Shokubai, group companies, and outsourcing contractors, and plan and implement an effectively utilization of such facilities in order to respond to various tasks in developing new products, including manufacturing prototypes at the pilot stage, reducing the time required for facility construction, and holding down initial investment.

## Business Overview

# Industrial & Household

Take advantage of contact points with a broad range of businesses and customers to grasp the changes in overall industrial sectors and provide solutions to customer challenges.

## Selected Markets



## Business Strengths

### Infrastructure/Housing

Broad product line-up from concrete admixture polymer to acrylic coating resins as well as concrete testing centers and other evaluation technologies

### Lifestyle Products

Water-soluble polymer materials, such as EO derivatives and polycarboxylates, and technologies as well as Nippon Nyukazai and Sino-Japan Chemical product lines

### Material/Functional Product Line-up

Special function products such as ethyleneimine derivatives, oxazoline-functional crosslinkers and pyrrolidones

## Business Strategies

- Contribute to environmental initiatives and better quality of life through multiple strengths to generate global growth opportunities
- Create growth strategies for each market and shift from selling individual materials to providing solutions
- Create clusters in new markets as well to achieve FY2030 Goals

We will expand our business globally targeting emerging growth opportunities such as environmental initiatives and better quality of life, especially in focused markets.

Accordingly, we will promote product development that leverages our strengths, such as the relationships of trust we have cultivated with customers who have a presence in their respective markets, and evaluation technologies that support our broad R&D knowledge and ability to make proposals.

In addition, we are shifting from conventional sales of individual materials to specific markets to the provision of solutions to

customer challenges. We will, for example, broadly identify the needs of each market and develop them into strategic planning; for the infrastructure market, we will promote proposals that incorporate various products, such as concrete admixtures, coatings, and surfactants.

With a functional product line that is used in broad industries, we will continue to expand our new technologies and product lines in markets where we can leverage our strengths, while developing product lines for new markets.



## Particularly Strategically Important Products

### Efficient desalination of seawater with less environmental impact and at lower cost

#### Draw solutions for forward osmosis processes

##### Strength: Water-soluble polymer materials and technologies

Osmotic pressure generating agent (Draw Solute or DS) is a key component of the Forward Osmosis (FO) system, a next generation seawater desalination technology.

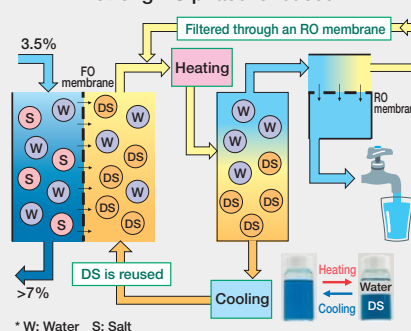
The DS our company developed extracts water from seawater with its high osmotic pressure within the FO system, and then separates it from water by heating, enabling efficient freshwater extraction.

By using factory waste heat and solar heat for the heat source used in this process, it is possible to conserve energy, reduce CO<sub>2</sub> emissions, and reduce costs when compared to existing seawater desalination technologies such as reverse osmosis (RO) systems. In addition, our company's DS can be used repeatedly, and has a reduced environmental impact.

Moreover, the FO system can be applied to industrial wastewater treatment applications (Zero Liquid Discharge or ZLD). It is therefore attracting attention as a technology that can meet increasingly stringent global wastewater regulations.



DS is separated by heating, and the strong DS phase is reused



### Steadily growing demand in the water treatment field with a backdrop of tighter environmental regulations

#### ethyleneimine derivatives

##### Strength: Water-soluble polymer materials and technologies

Ethyleneimine derivatives are a family of products using ethyleneimine made from ethylene oxide using a unique manufacturing process as a raw material. "Epomin™" (Polyethyleneimine), one of our main products, is a water-soluble polymer produced by polymerization of ethyleneimine. And it is not an entirely linear polymer but a partly branched polymer containing primary, secondary and tertiary amine. Epomin™ is a water-soluble polymer with the highest cation density among existing materials and very high reactivity. There has been growing demand for heavy metal treatment agents\* in the water treatment field due to tightening environmental regulations.

Polyethyleneimine ethoxylate (PN-100) is a water-soluble nonionic polymer that is characterized by a booster for anionic surfactants, high compatibility with various types of surfactants, and high dispersibility of various types of particles. This product is very useful in improving cleaning performance and reducing the use of anionic surfactants.

\*Heavy metal Scavenger: agents used to clean wastewater containing heavy metals harmful to ecosystems by stabilizing (inactivating) such heavy metals and separating them by sedimentation.



Heavy metal scavenger (water treatment field)



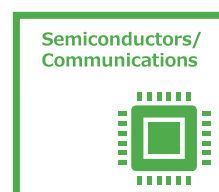
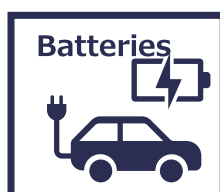
Pigment ink dispersant (paint/ink field)

## Business Overview

# Energy & Electronics

Use Nippon Shokubai strengths as key tools to expand businesses in growth markets from batteries and electronics to environmental purification fields.

## Selected Markets



## Business Strengths

### Energy

Strategic product line-up such as electrolytes for lithium-ion batteries, electrolyte sheets for solid oxide fuel cells (SOFC), and all-solid state electrolyte polymers

### Electronics & Imaging

Proprietary product line-up such as acrylic resins for optical films, fine particles, resist materials, and VEEA™/AOMA™ polymerizable monomer

### Environmental Catalysts

Catalyst products and technologies for environmental purification such as de-NOx, wet oxidation, and waste gas processing

## Business Strategies

- Expand the market for battery materials to continually develop multiple items as global businesses while investing resources to focus on growth
- Develop growth applications and reinforce the product line-up related to electronics in businesses at a certain scale with focus on the display field

In anticipation of growing demand for batteries for electric vehicles, we will promote the global roll-out of IONEL™, which is an electrolyte in lithium-ion batteries to improve battery performance, and zirconia electrolyte sheets that support a stable supply of large amounts of clean electric power to large-scale infrastructure, demand for which has been increasing mainly in North America.

In addition, we are working on the development and commercialization of multiple products in the area of batteries,

including separators that resolve charging challenges facing zinc secondary batteries, and a hybrid zinc battery with a new mechanism.

In the electronics & imaging area, we will expand the product line-up—including "ACRYVIEWA™" acrylic resin for optical materials and "VEEA™" UV-curable reactive diluents, for which the expansion of production facilities has been completed—and increase their applications to grow the business to a certain size.

## Particularly Strategically Important Products

**Expand sales in LCD display fields  
And strengthen application expansion by capitalizing on  
heat-resistant and optical properties**

### ACRYVIEWA™

Acrylic resins for optical films

**Strength:** High-function polymer design and mass production technologies

ACRYVIEWA™ is a high-performance acrylic resin for optical materials made from a performance polymer developed in-house. In 2006, Nippon Shokubai became the world's first company to succeed in commercial production of the performance polymer with outstanding transparency, optical properties and heat resistance, contributing to the spread of high-performance liquid crystal displays (LCDs), such as large-screen televisions, and digital devices such as smartphones and tablets.

Demand for ACRYVIEWA™, which has the characteristic of low moisture permeability preventing a panel from warping and reducing the risk of color unevenness on the screen, has increased for application to larger LCD televisions. Expansion of demand for ACRYVIEWA™ is particularly expected in the production of polarizing plates, which is concentrated in China.

In addition, ACRYVIEWA™ is also expected to have a wide range of applications in the mobility field—including head-up displays (HUDs), light guide for headlamps, and meter covers—as a solution to the insufficient heat resistance in acrylic resin and its application using its transparency.



ACRYVIEWA™ (Optical film fields)



ACRYVIEWA™ (mobility fields)

**Carry out strategic marketing in global markets to expand  
foothold in electric vehicle (EV) markets**

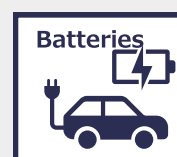
### IONEL™

Electrolytes for lithium-ion batteries

**Strength:** Synthesis technologies and sophisticated production processes

In 2013, Nippon Shokubai developed the world's first industrial production process for IONEL™, an electrolyte for lithium-ion batteries, using a proprietary synthesis and purification method, and has obtained numerous patents for the material worldwide. IONEL™ is high in purity and quality, and exhibits stable electrochemical properties. It has been found that use of IONEL™ as an electrolyte for lithium-ion batteries delivers effects such as cruising range extension, vehicle weight reduction, safety improvement, and battery life extension of EVs. With its increasing use in lithium-ion batteries for EVs, IONEL™ has seen a rapid rise in demand. In May 2022, a feasibility study was launched to build production facilities for IONEL™ in Europe.

IONEL™ is also expected to be applied to various other applications, such as smartphones, stationary power supplies, and drones. It has already been adopted and certified as an electrolyte for many lithium-ion batteries in Japan and overseas. It is expected to be adopted more widely and to further contribute as a low-carbon, recycling-oriented green energy technology in the future.



IONEL™ (For EV Lithium-ion batteries fields)

## Business Overview

# Life Science

Establish health & medical and cosmetics businesses with 10 billion yen in revenue by FY2030.

## Selected Markets



## Business Strengths

### Health & Medical

Excellent GMP manufacturing systems (proven shipping track record) in Japan and unique technologies

### Cosmetics

Provision of ingredients with high added value driven by molecular design, and synthesis and polymerization technologies

## Business Strategies

### Health & Medical

We have a mass production facility dedicated to the production of APIs, active pharmaceutical ingredients, of middle-molecular drugs, and offer integrated contract manufacturing services, from drug discovery and clinical development to commercial production. Through collaboration with drug discovery venture companies having promising seeds for middle-molecular drugs, such as oligonucleotide drugs and peptide drugs, we will also contribute to drug discovery support and development. The target sales figure for medical materials businesses in fiscal 2030 is over 10 billion yen.

### Cosmetics

With the skin care and peripheral market as the core target, we develop ingredients for cosmetics with various functions by using our proprietary catalyst and organic synthesis technologies.

In addition, by acquiring the natural ingredients and new techniques we do not have through external partnerships and using unique compounding/formulation technologies, we will establish a proposal-based cosmetics business capable of presenting a story for customers. We aim to achieve sales of 10 billion yen in fiscal 2030.



## Particularly Strategically Important Products

Focus on the fostering contract development and manufacturing service for APIs, active pharmaceutical ingredients, of middle-molecular drugs



### Contract manufacturing service for active pharmaceutical ingredients

**Strength:** There are three GMP (Good Manufacturing Practice) production lines (two lines for oligonucleotide APIs and one for peptide APIs) in a mass production facility. The lines for oligonucleotide APIs are equipped with separation and purification equipment, high and low pressure.

We have been focusing our efforts on fostering a contract development and manufacturing service for APIs, an active pharmaceutical ingredient of middle-molecular drugs, centering on oligonucleotide drugs. We will grow the business by making our integrated solution services widely known—from exploratory research, non-clinical trials, and clinical trials, to the supply of APIs after marketing approval, the development of production processes for each stage, and the development of analytical methods—and by strengthening partnerships with pharmaceutical companies.

In addition, we are working on DDS (Drug Delivery System) technologies, which are essential for middle-molecular drugs, by including Rena Therapeutics Inc. in the Nippon Shokubai Group. Rena Therapeutics has Hetero Duplex Oligonucleotide (HDO) technology, which makes it possible to selectively deliver an oligonucleotide drug to a targeted disease site and bring about high medicinal benefits. We believe that our role is to offer drugs to patients in need of treatment as quickly as possible through the supply of APIs.



API synthesis production facility  
(Middle-molecular pharmaceuticals fields)

“CC-H700” reduces unpleasant odors included in hair-coloring agents, etc.

### Cosmetic Grade “CC-H700”



**Strength:** Molecular design, polymerization technologies, bio technologies, compounding/formulation technologies, evaluation technologies

Cosmetic grade “CC-H700” is a specially structured polymer, which has the characteristic of having a strong binding with hydroxyl, carboxyl, and carbonyl.

CC-H700, which has the power to absorb various kinds of odors, can absorb substances responsible for odor contained in hair-coloring agents and perm chemicals when added to such chemical agents, and can reduce unpleasant odors during treatment and for several weeks after the treatment.

To take advantage of this function, we are proactively working to propose solutions for various agents used for hair coloring, perming or hair straightening.

Moreover, CC-H700 acts effectively against substances responsible for body odors and is expected to have deodorizing effects against isovaleric acid, diacetyl, and 2-nonenal. We are proposing the application of CC-H700 to deodorant products.



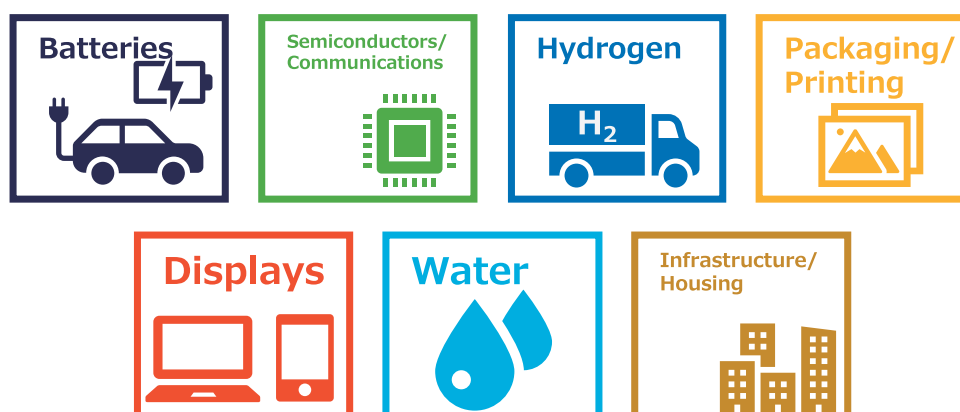
Cosmetics fields

## Business Overview

# Creation of new businesses

Develop business scenarios in selected markets using a backcasting Approach from medium-to long-term perspectives

## Selected Markets



## Strengthen ability to launch businesses

### Promotion of open innovation

With the aim of acquiring technologies differentiated from the competition and promoting the commercialization of products under development, we are proactively working on open innovation—including collaboration with academic/research institutions in Japan and abroad, and start-up companies—and the use of R&D centers overseas. As representative examples, we are making efforts to strengthen collaboration with venture capital companies in which we have invested and to promote joint research with the Nippon Shokubai Research Alliance Laboratory established within Osaka University and Nanyang Technological University in Singapore.

### Acceleration of product commercialization through revised commercialization promotion systems

We are making company-wide efforts to establish an IT system to commercialize technologies and products in a timely manner by sharing information from an early stage regarding products under development, including their development status and challenges toward their commercialization, not only with sales & marketing divisions but also with production, RC, and purchasing & logistics divisions.

### Increase in development speed via a digital transformation

We have established the Data Science & Informatics (DS & I) Promotion Office and have been enhancing data-driven research and development, including materials informatics, in order to meet increasingly sophisticated and diversifying customer needs and shorten the lead time to commercialization in overall product development. Specifically, the use of data science has brought about many results, including shorter lead time to commercialization and improved performance of superabsorbent polymers (SAP).

### Development of R&D human capital

We consider that high priority should be given to talent development in order to create new businesses continuously. To enhance the ability of R&D personnel to launch businesses, we are working to improve talent development programs. In addition, we are preparing talent portfolios as a total composition of talent models to aim for.

## Promising Development Examples

### Continue to tap into markets primarily in Europe for green hydrogen production

#### Separators for alkaline water electrolysis

##### Strength: Organic-inorganic hybrid technologies

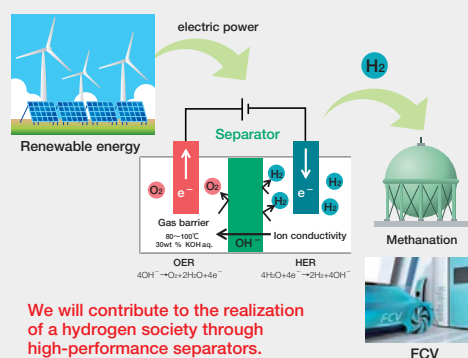
The separator for alkaline water electrolysis is used for alkaline water electrolysis<sup>\*1</sup>, a technique attracting attention as the production method for green hydrogen<sup>\*2</sup>. Hydrogen energy does not emit CO<sub>2</sub> when used and therefore its applications have been expanding as fuel cells for automobiles and houses.

The separator has a significant impact on the hydrogen production efficiency and therefore is required to have two characteristics: high electrolysis efficiency (low ionic resistance) and not cross leaking the generated hydrogen and oxygen (high gas barrier property). Under the severe conditions of high-temperature, high-concentration alkaline water, the number of both practical and durable separators is limited. However, Nippon Shokubai has succeeded in the development of a product that ensures both of these characteristics by applying our unique organic/inorganic hybrid technology and sheet manufacturing technology.

This separator is expected to show several advantages, including reduction of power consumption and improvement of the purity of the hydrogen produced, thereby contributing to the spread of green hydrogen and a reduction in CO<sub>2</sub> emissions.

<sup>\*1</sup> Method of water electrolysis using strong alkaline solution, such as potassium hydroxide

<sup>\*2</sup> Hydrogen produced using renewable energy with reduced CO<sub>2</sub> emissions



Separator for alkaline water electrolysis (Hydrogen field)

### Continue devising new applications by leveraging proprietary functions

#### Graphene oxide

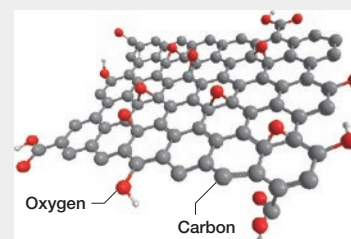
##### Strength: Synthesis technologies and production processes

We are working on the development of graphene oxide, a new nanocarbon material attracting public attention these days, utilizing our unique technologies. With an eye on its commercialization, we are engaging in proposal activities for customers and developing mass production technologies.

Graphene oxide, which has a sheet structure with a thickness of about 1 nm, is manufactured by oxidizing graphite that has a multi-layered structure with a strong oxidizing agent, expanding interlayer distance, and exfoliating thin flakes. Graphene oxide of a water-dispersible type, which is uniformly dispersible in water, and of an organic solvent-dispersible type, which is available for a wide range of organic solvents, such as MEK (methyl ethyl ketone), have been highly appreciated for their easiness in coating for films and kneading into resin.

In addition, we are promoting research and development on complex-type graphene oxide, combined with other chemical compounds. Graphene oxide strongly interacts with various substance by utilizing its rich oxygen-functional groups. This property is expected to enable graphene oxide to fulfill various functions.

We aim to apply graphene oxide to applications: those requiring heat dissipation, such as next-generation telecommunication and automotive-related materials, battery materials, and antibacterial/antiviral agents.



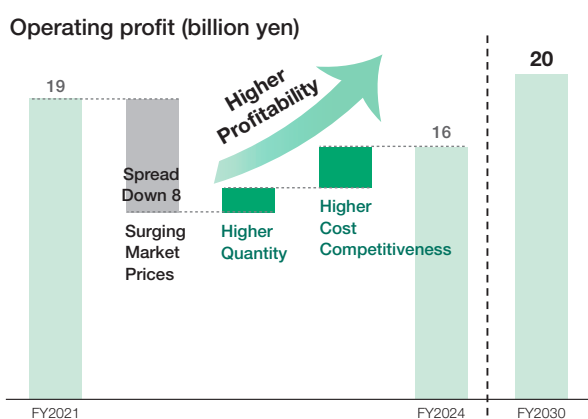
Graphene oxide  
(next-generation telecommunications field)

## Transformation 1: Business Transformation

# Achieve the Materials Business Resilience

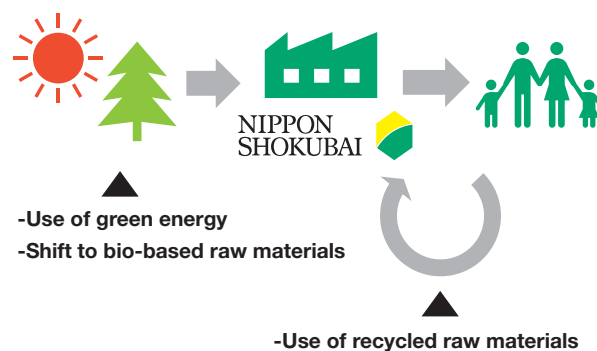
In the Materials business, rather than expanding the business, we will push ahead with our business by enhancing the profitability of the SAP Survival Project, the EO Resilience Project and other projects, and placing emphasis on increasing added value through the promotion of sustainability.

### Strengthen Profitability



### Improve added value by promoting sustainability

#### Stronger Promotion of Carbon Neutrality Support



## Major Initiatives in the Acrylic Business

### Continue the SAP Survival Project

We will promote the SAP Survival Project, implemented as a measure to improve profitability from the medium-term management plan from 2017 to 2020, to continuously enhance profitability.

Under this project, we will implement various measures throughout our supply chain from the procurement of raw materials to manufacturing, storage, transportation and sales, including not only short-term cost reduction measures, but also capital investment measures to improve productivity, and measures to improve the efficiency of maintenance and logistics,

at our sites around the world.

Under “Techno Amenity for the future-I,” we will further strengthen the competitiveness of our Group businesses by establishing globally optimal production & supply systems and reducing fixed costs.

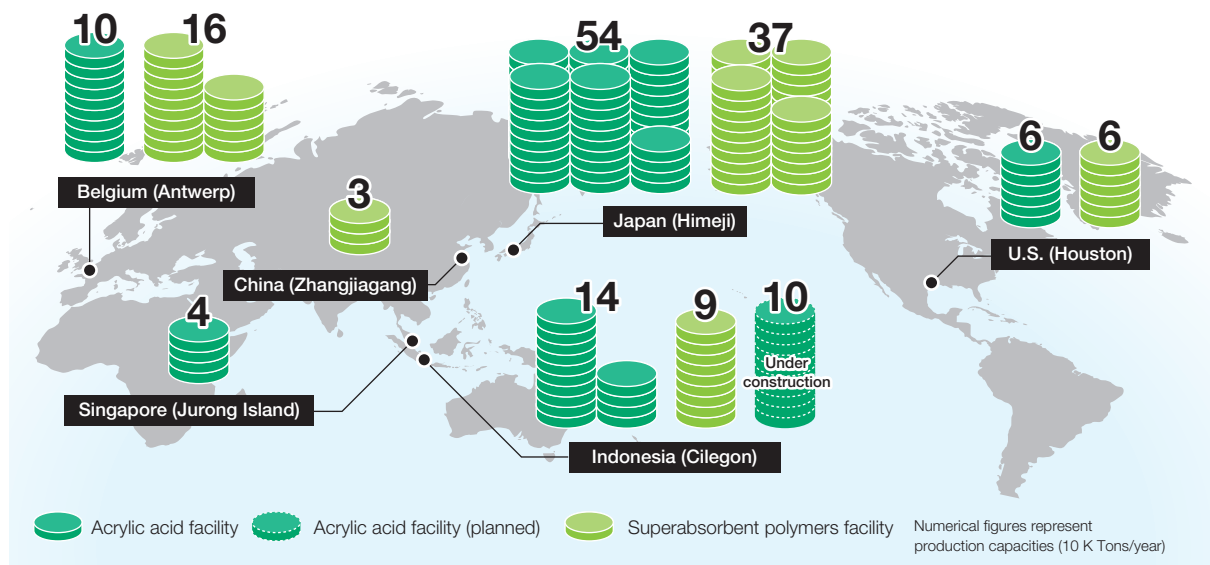
Specifically, we will strengthen our capabilities through renovations of existing plants, shift to facilities that have implemented high-efficiency production technologies, and enhance AA (acrylic acid) and SAP (superabsorbent polymer) productivity.

### Strengthen the global supply network

Its unique technologies have made Nippon Shokubai one of the world’s leading producers of SAPs and AA, which are used as raw materials for SAPs. We have established a globally stable supply system through production sites in Japan, the U.S., Indonesia, Belgium, China and Singapore. In 2023, an AA

plant with production capacity of 100 kilo tons per year, which is currently under construction in Indonesia, will be put into commercial operation, boosting the production capacity of the Nippon Shokubai Group to 980 kilo tons per year for AAs and 710 kilo tons per year for SAPs.





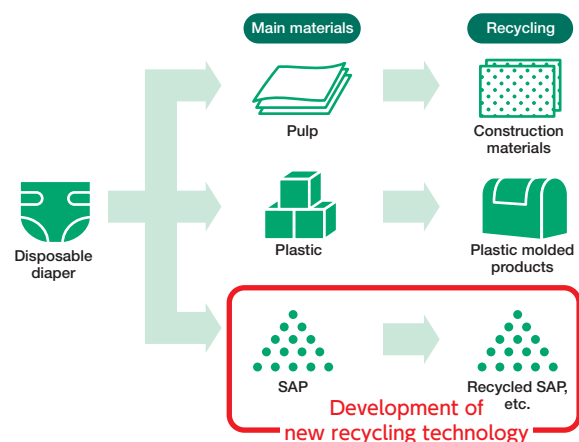
### Promote initiatives for recycling and a shift to bio-based AA/SAP raw materials

For the AA and SAP business, we will enhance added value by promoting sustainability. At the stage of raw materials, we are currently working on the development of new production methods for AA which use bio-based raw materials, taking advantage of our strengths in catalyst design and mass-manufacturing technologies. We will implement a proof-of-concept pilot project by 2025 and put those technologies into practical use by 2030.

A pioneering effort has been made at a subsidiary in Europe to start the production of AAs and ISCC PLUS-certified SAPs from bio-based propylene using a mass balance system.

In addition, we will promote the proof-of-concept work of new technology for producing recycled SAPs from collected used disposable diapers, and advance the development of easy-to-recycle materials and treatment technology, thereby establishing a recycling system.

#### Recycling of used disposable diapers



## Major Initiatives in the Basic Materials Business

### Promote the EO Resilience Project

We will promote the EO (Ethylene Oxide) Resilience Project to improve the profitability of the Kawasaki Plant and participating Nippon Shokubai Group companies by leveraging knowledge from the SAP Survival Project even in EO and its derivatives.

We are promoting cost reduction efforts by introducing processes with increased productivity and high-efficiency catalysts and facilitating the optimization of productivity by reviewing all the processes—from the purchase of raw materials to production, quality management, and shipping. We are planning to complete the introduction of advanced process control technology by the end of fiscal 2023. In addition, we will take into consideration the development of ultra-high-efficiency catalysts and the resulting improvement of production capacity.

### Bioethylene Initiatives

We are undertaking a joint feasibility study on the manufacture and sale of ethylene derivatives derived from bio-based raw materials (bio-derivatives). Our plan is to commence operations in fiscal year 2024. By leveraging our respective strengths, our companies shall endeavor to forge Japan's first bio-derivatives supply chain, thereby better equipping us to contribute to the realization of a carbon-neutral and circular economy.

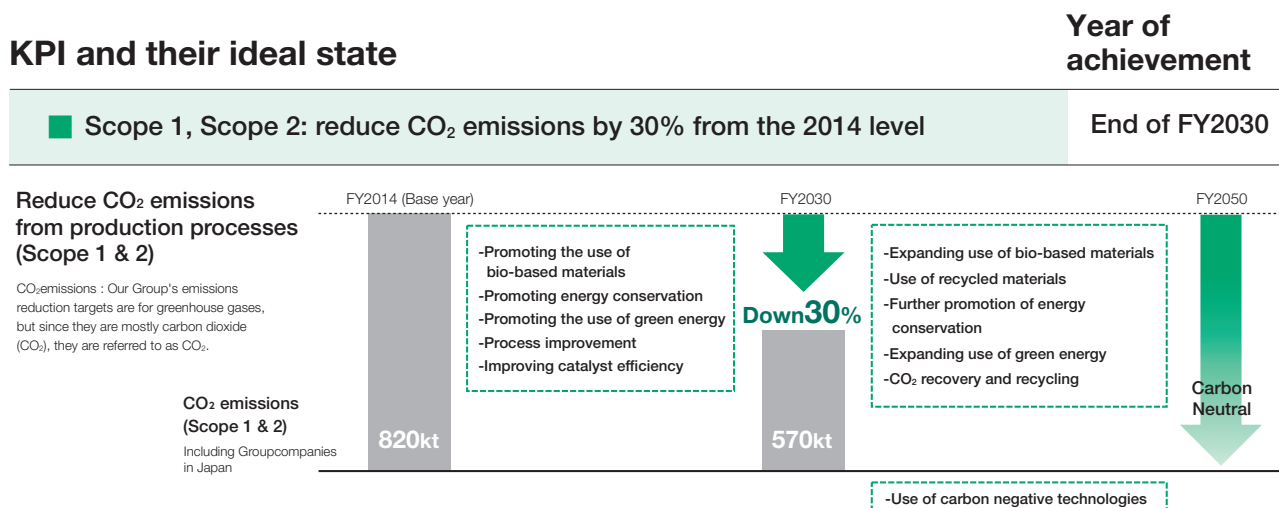
## Transformation 2: Strategic Transformation for Environmental Initiatives

# Scenarios to Realize Carbon Neutrality

In strategic transformation for environmental initiatives, we will reduce CO<sub>2</sub> emissions from production processes and expand the development and sale of environmental contribution products in order to contribute to reducing our environmental impact throughout the entire life cycle under “TechnoAmenity for the future-I,” toward the FY2030 Goals set under the long-term vision.

## Reduce CO<sub>2</sub> emissions from production processes (Scope 1 & 2)

To achieve carbon neutrality by 2050, we have set the target of reducing CO<sub>2</sub> emissions from our company (Scope 1 & 2) by 30% (570 kilo tons) by fiscal 2030 from 820 kilo tons in fiscal 2014, which is the base year.



## Contribute to the reduction of Scope 3 emissions in via the supply chain

In Scope 3, we will take on the issue of preserving the environment through product sales, by developing and expanding sales of “environmental contribution products,” designed to contribute to resolving various environmental issue including the reduction of CO<sub>2</sub> emissions. Seeing strategic transformation for environmental initiatives as a business opportunity, we will actively disseminate our product information to various markets.

KPI and their ideal state	Year of achievement
<p>■ Environmental Contribution Products Revenue</p> <p>(1) 55 billion yen (2) 135 billion yen</p>	<p>(1) End of FY2024</p> <p>(2) End of FY2030</p>

Develop technologies to reduce CO<sub>2</sub> emission worldwide  
(CO<sub>2</sub> conversion technologies and technologies using hydrogen and ammonia)

Provide materials and solutions that can reduce CO<sub>2</sub> emissions  
throughout the entire life cycle of final products for corporate customers



**Contribute to CO<sub>2</sub> emission reductions through product offerings and recycling**

## TOPICS

## Publication of "TCFD Report"

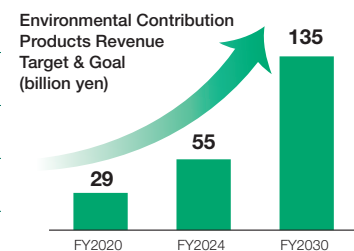
In March 2021, we announced our support for the TCFD (Task Force on Climate-related Financial Disclosures) recommendations. We conducted evaluation of the impact of climate change on our businesses in line with the TCFD recommendations, and published the "TCFD Report" that summarizes the results of the evaluation. This report contains information, in line with the TCFD framework for information disclosure, on the response of our Group to the impact of climate change, including a scenario analysis of opportunities and risks related to climate change issues, and their impact on our businesses. For details, please access the Sustainability Library page below.

Sustainability Library <https://www.shokubai.co.jp/en/sustainability/library/>

## Environmental Contribution Products

We will approach various social issues regarding response to the environment as a new business opportunity and seek the further growth of our businesses by offering products and technologies driven by Nippon Shokubai Group strengths. In close collaboration with our customers, we will work on the early commercialization of the products under development and technologies mentioned in the table below. In addition, we will explore the possibilities of creating new technologies and materials based on our own technologies and materials and through their combinations, and creating new businesses through collaboration and cooperation with external partners.

Opportunities	Products and technologies driven by Nippon Shokubai Group strengths
Broader use of hydrogen	<ul style="list-style-type: none"> <li>Ammonia decomposition catalyst</li> <li>Separators for alkaline water electrolysis</li> </ul>
CO <sub>2</sub> recovery and recycling	<ul style="list-style-type: none"> <li>CO<sub>2</sub> absorption materials</li> <li>CO<sub>2</sub> conversion catalysts</li> </ul>
Progressing shift to electric vehicles and other equipment	<ul style="list-style-type: none"> <li>Electrolytes for lithium-ion batteries (IONEL™)</li> <li>Separators for zinc batteries</li> </ul>
More stringent environmental regulations	<ul style="list-style-type: none"> <li>Wastewater treatment catalysts</li> <li>Eco-friendly packaging materials</li> </ul>
Realization of energy savings	<ul style="list-style-type: none"> <li>Draw solutions for forward osmosis processes</li> <li>Development of heat storage devices</li> </ul>



### Successfully developing maintenance-free systems with highly efficient, low-cost treatment capacity as a wastewater treatment method replacing the incineration treatment method

#### Wastewater treatment catalysts

The catalytic wet air oxidation

#### Strength: Inorganic catalyst technologies

Catalytic wet air oxidation (CWAO) is a technology for treating organic matter and hazardous substances in wastewater very efficiently, with low running costs. Our proprietary solid catalysts trigger liquid-phase oxidation with air as the oxidant to neutralize highly toxic organic matter, organic nitrogen compounds, ammonia, sulfur compounds, and other hazardous substances into carbon dioxide, water, nitrogen, sulfates, and other harmless substances.

CWAO is cleaner and eco-friendlier than incineration because it does not emit any exhaust that contains SO<sub>x</sub>, NO<sub>x</sub>, or dioxins, and does not produce any incinerator ash or other secondary contaminants. Moreover, the energy yielded by oxidative decomposition can be reused, thereby thermally isolating systems and reducing CO<sub>2</sub> emissions.

CWAO also facilitates efforts to further advance treatment in combination with biotreatment in later stages. It is an apt choice for treating wastewater that has not been fully purified by biotreatment, specifically wastewater from places such as chemical and semiconductor plants.



CWAO: Catalytic Wet Air Oxidation  
Catalytic wet air oxidation (CWAO)



Catalytic wet air oxidation (CWAO)  
(Wastewater treatment facility field)

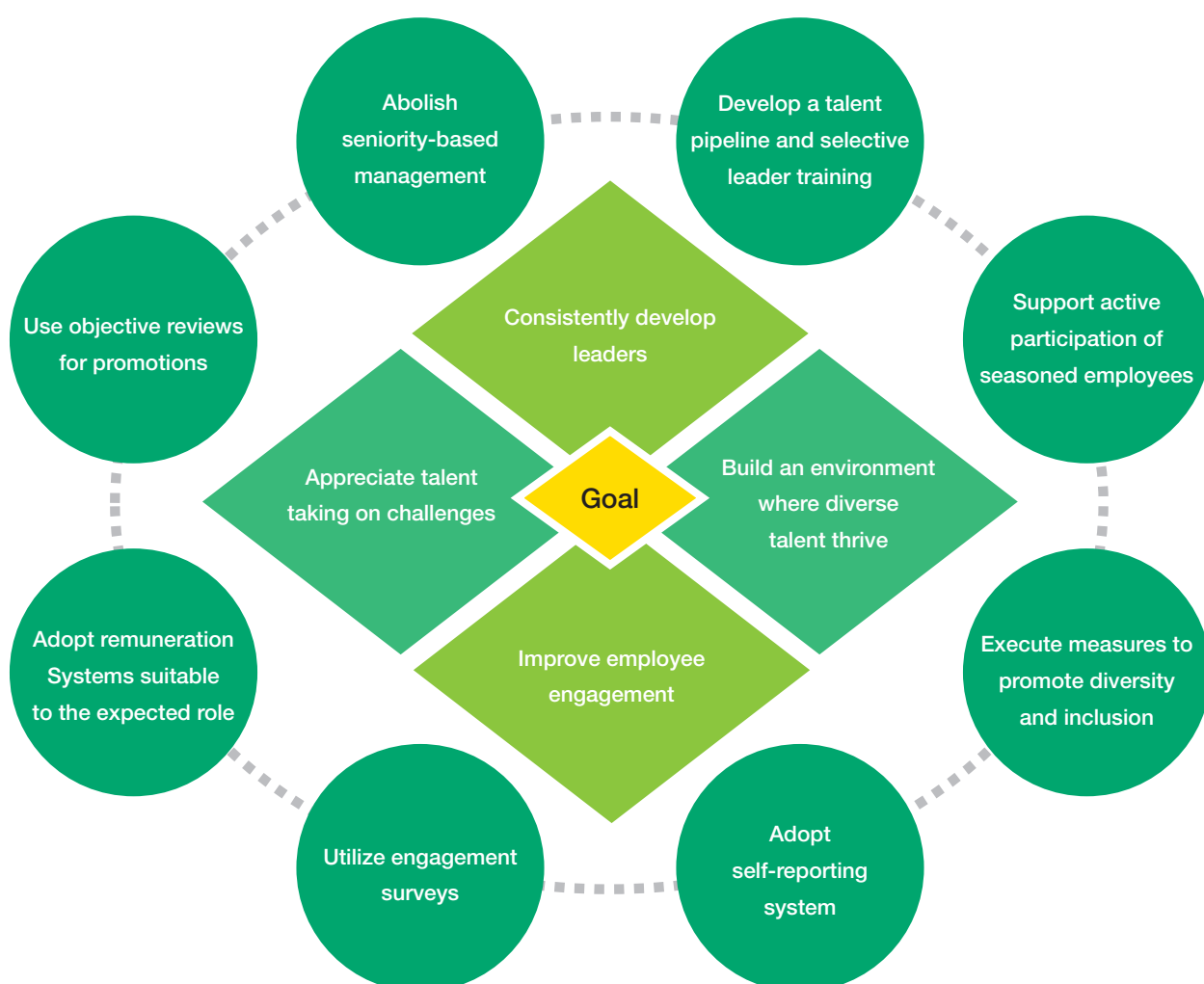
Transformation 3: Organizational Transformation

# Develop and Empower Human Resources



- Introduce human resource management system to appreciate talent who take on challenges (starting April 2022)
- Promote the active participation of diverse talent (promotion of diversity and inclusion, active employment of seasoned employee, and leader development)
- Introduce systems that support diverse work styles and set up IT infrastructure

Recognizing that it is “people” who create value in a sustainable manner, we in the Nippon Shokubai Group consider our employees as important assets. In promoting talent development, we place importance on the three factors of (1) utilizing the individuality, willingness and abilities of diverse talent, (2) providing support to talent who think, act and grow on their own initiative, and (3) fairly evaluating and rewarding employees under company systems. Taking these into consideration, we will implement measures to develop talent with a focus on each individual employee, and carry out various measures to help each employee perform to the best of his/her potential.





## Develop “autonomous talent”

We are working on fostering “autonomous talent” who can think, learn and act on their own initiative to resolve challenges. The new human resources management system put in place in April 2022 has established four job families, and defined the roles those in each job family are expected to play. In addition, we have developed a “Map to Embody the Think & Act Principle” to visualize the skills and mindset required for individual job classes, and have established the talent development system.

Moreover, we will support the career of each employee by enriching the content of open application-based learning support programs. They include education programs other than conventional group-based ones, such as e-learning and online English language training, to enable employees to develop their skills and abilities for themselves.

KPI and their ideal state	Year of achievement
<ul style="list-style-type: none"> <li>■ Improve the employee engagement score (transformation and growth of people and workplaces through early establishment of a new human resources management system, linkage with multi-layered measures, and organizational improvement)</li> <li>■ Increase in the number of applicants for open application-based learning support programs (e-learning, skill development training, online English conversation classes, etc.) and make these programs better known within the company</li> </ul>	End of FY2024

## Promote the active participation of diverse talent

To promote the active participation of diverse talent, we expect individual employees with different values and different career-mindedness to “think and act” on their own initiative and grow toward the next phase through their autonomous learning. We will provide highly motivated employees with the opportunity to take on challenges by minimizing the number of job classes and abolishing the seniority system.

In April 2021, the Diversity & Inclusion (D&I) Promotion Group was established. Under the D&I Promotion Policy, the Group will address various issues—ranging from developing women in leadership positions to providing career formation support for women in workplaces—to create an organization in which employees can work with diversity and mutual respect and can grow together.

In addition, we are also providing “second career training” with a focus on the career formation of seasoned employees. We have set the period of re-employment until the age of 65, ensuring employment in a familiar work environment. This initiative, intended to provide employees with a sense of security and improved motivation for work, has encouraged experienced seasoned employees to contribute to the handover of core techniques and the development of young talent.

KPI and their ideal state	Year of achievement
<ul style="list-style-type: none"> <li>■ Improve the employee engagement score (promotion of suitable assignments, individual motivation, and diverse and autonomous work styles through various systems such as self-reporting and the continuity of work location)</li> <li>■ Increase the hiring ratio of women in the clerical and chemical fields to at least 30%</li> <li>■ Increase the ratio of women in managerial positions to 6% or more</li> </ul>	End of FY2024

**Results for Fiscal 2020/2021** Ratio of women recruitment in clerical and chemical position: 8.6% / 23.3%  
Ratio of women in managerial positions: 4.0% / 4.1%  
Ratio of men taking childcare leave: 4.9% / 7.2%

# Organizational Growth



- Execute specific measures to improve productivity (reduce man-hours of operations by 10% in indirect departments by FY2030)
- Revise approval process to delegate authority and expedite decisions in each department (starting April 2022)
- Continue to strengthen the dialogue between labor and management (Continue system for making proposals to the president)

## Execute specific measures to improve productivity

To transform the organization equipped with the ability to respond in a timely and flexible manner to changes in the business environment and with high resilience, we aim to reduce man-hours of operations by 10% in indirect departments by fiscal 2030, and allocate the man-hours generated through the full use of digital services and tools to more sophisticated work.

By fiscal 2024, we will review the roles and duties of all the indirect departments, and complete the identification of target work/functions and the development of specific measures toward reducing the man-hours by 10% in indirect departments, and start implementing feasible measures.

Specifically, we will implement measures based on seven keywords: (1) delegation of authority, (2) sharing and use of information, (3) paperless operation, (4) IT utilization, (5) stop/change of existing operations, (6) consolidation of each operation, and (7) promotion of outsourcing of operations. These measures will promote the establishment of a system that enables employees to work from home at any time and the building of necessary infrastructure, ultimately leading to the minimization of various in-house procedures (e.g., simplified applications, delegation of authority, abolition of sealing, use of IT, and outsourcing).

## Revise approval process

In order to make decisions quickly in each department and reduce the time and cost involved in making decisions, we promoted the delegation of authority, with a focus on reviewing approval authority. Therefore, we significantly reduced the number of committees, reviewed the agenda items to be discussed at Corporate Managing Committee meetings and the monetary standards requiring the decision-making authority of those in managerial positions, and then reduced their maximum limits in fiscal 2022. With regard to important decision-making matters in each department, excluding production sites, we have set the internal rules that define the authority and roles of those in managerial positions, and clarify their authority and responsibility and the roles to be played by the persons involved.

## Strengthen the dialogue between labor and management

Opportunities were created for direct dialogue between the executive level and employees, and dialogue meetings on "TechnoAmenity for the future-I" were held for each business location and domestic and overseas affiliated companies. In March 2021, we launched "Gamaguchi Delivery," a system that allows employees to submit opinions, suggestions and requests to the president. Based on the feedback received, we worked to install expanded monitors necessary to improve operational efficiency, and to liberalize the dress code at the Osaka and Tokyo headquarters.

# Strengthen Corporate Governance



- Enhance the effectiveness of the Board of Directors
- Ensure knowledge, experience, skills, and diversity within the Board of Directors
- Strengthen medium-to long-term incentives for corporate officers

⇒ For details, see "Corporate Governance" (pages 50 to 53).

## Promotion of a Digital Transformation

# Promotion of a Digital Transformation

## Set up an organization to promote a digital transformation (DX) that pioneers, supports, and rolls out Group-wide measures

With the goal of “Transformation is being implemented in 2030 with digital technologies and data as a driving force by fiscal 2030”, we will develop Group-wide DX strategy and collaboratively implement initiatives at each department under the leadership of the newly established DX Promotion Office. Under “TechnoAmenity for the future-I,” we are planning to invest about 10 billion yen during the period to promote digital transformation, including building data infrastructure to collect data from various systems and analyzing them to establish future DX foundations, and digitalizing experiment data to speed up research and development. In addition, we will set requirements for talent to promote DX in each department, and promote the development of them.

### Five Points to Promote a Digital Transformation



**Invest 10 billion yen to promote a digital transformation by FY2024**

## Nippon Shokubai Certified as DX Business Operator

On May 1, 2022, Nippon Shokubai obtained DX Certification from the Ministry of Economy, Trade and Industry (METI), which is awarded to companies implementing excellent initiatives in line with a guideline established by METI. The DX Certification is based on the Act on Facilitation of Information Processing. The national certification initiative certifies companies that are recognized as being ready to promote digital transformation, and that meet the basic requirements specified in the "Digital Governance Code," which is a document summarizing what action business managers are required to take to accommodate how society is being transformed by digital technology.

Note: [https://www.meti.go.jp/english/press/2021/0402\\_004.html](https://www.meti.go.jp/english/press/2021/0402_004.html)



# Governance

To pursue value creation over the medium to long term and achieve sustainable growth, Nippon Shokubai works to strengthen and enhance its corporate governance by improving the effectiveness of its Board Meetings, thereby establishing a solid management foundation.

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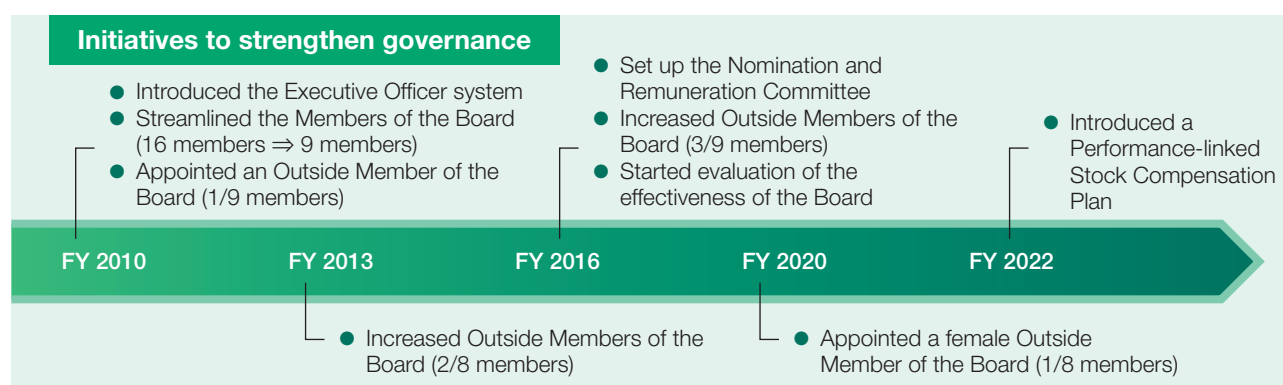
# Corporate Governance

We are working on continuously improving our systems and their operation to strengthen and enhance a viable corporate governance.

## Our basic approach to corporate governance

Under the Nippon Shokubai Group's Mission of **TechnoAmenity** — “Providing Prosperity and Comfort to People and Society, with Our Unique Technology” — we will increase our corporate value and achieve sustainable growth.

We consider viable corporate governance to be essential and have adopted initiatives toward that end. We ensure the rights and equality of our shareholders and maintain an open dialogue, collaborate with various stakeholders as appropriate, disclose information as appropriate and ensure transparency, ensure that the roles of Board Meeting and management teams relate to the appropriate execution of duties, ensure appropriate supervision of the execution of these duties and strengthen and enhance our internal control systems.



## Our basic information on corporate governance system (as of June 21, 2022)

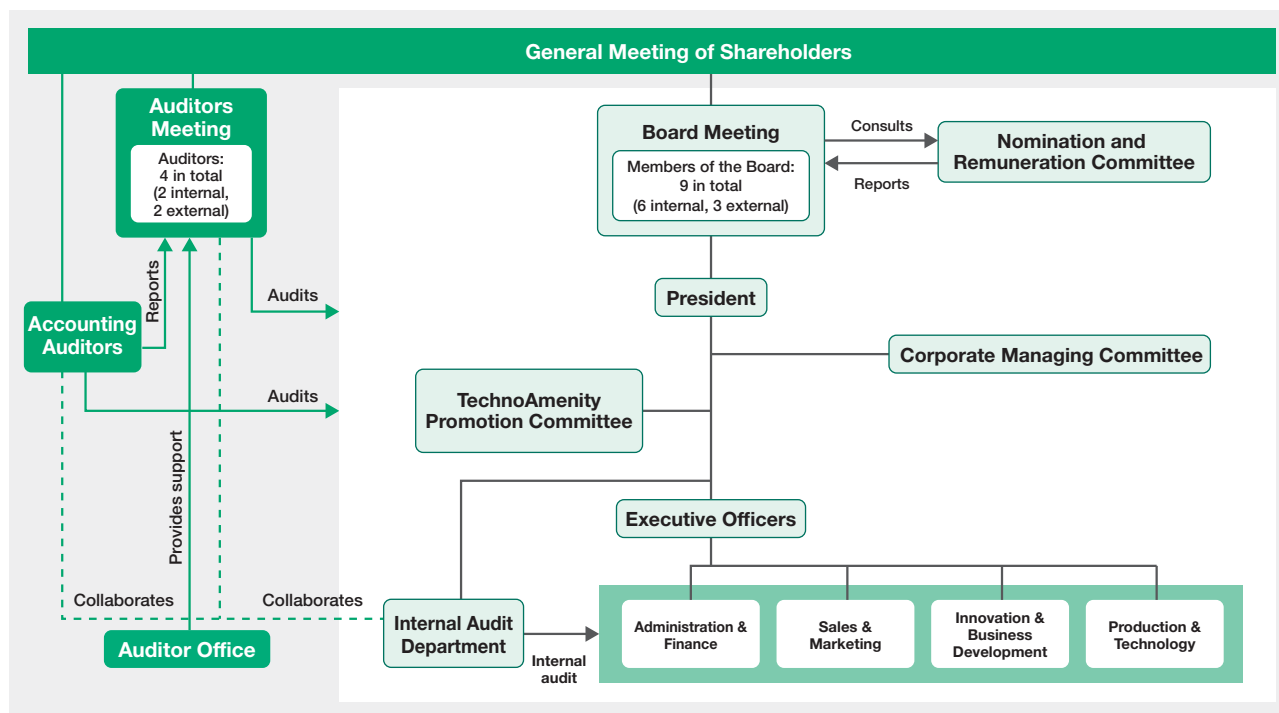
Main Items	Content
Institutional design	Company with an Auditors Meeting
Number of Members of the Board	9 (6 internal, 3 external), including a female Member of the Board
Ratio of Outside Members of the Board (Independent Officers)	33%
Term of office of the Members of the Board	1 year
Number of Board Meetings (FY2021) (Average attendance rate of Outside Members of the Board / External Statutory Corporate Auditors each)	15 times (100% / 96.7%)
Number of Statutory Corporate Auditors	4 (2 internal, 2 external)
Ratio of External Statutory Corporate Auditors (Independent Officers)	50%
Term of office of Statutory Corporate Auditors	4 years
Number of Auditors Meeting (FY2021) (Average attendance rate of External Statutory Corporate Auditors)	15 times (96.7%)
Executive Officer system	Have already been introduced
Number of Executive Officers	17, including 5 who concurrently serve as a Members of the Board
Advisory body to the Board Meeting	Nomination and Remuneration Committee established

\* The ratios are rounded to the nearest unit.



## Corporate Governance

### Our corporate governance system (as of June 21, 2022)



## Roles and Functions of Various Bodies and Committees

### Board Meeting

Comprising nine Members of the Board, including three Outside Members of the Board, Board Meeting reports, deliberates and resolves important matters related to business operations, and supervises the business operations of each Member of the Board. In general, meetings are convened monthly under the chairmanship of a Member of the Board selected from members who are not executive officers by a resolution of the Board Meeting. Four Statutory Corporate Auditors, including two External Statutory Corporate Auditors, also attend to give advice and state their opinions when necessary.

### Corporate Managing Committee

Comprising the President and executive officers, this committee generally convenes once a month to deliberate on items related to the implementation of basic policies and important management issues. Among proposals discussed by the Corporate Managing Committee, important issues are forwarded to Board Meeting for consideration.

### Auditors Meeting

Comprising four Statutory Corporate Auditors, including two External Statutory Corporate Auditors, the Auditors Meeting usually convenes monthly, submits reports and engages in discussions and deliberations on important matters related to audits.

### Accounting Auditor

Nippon Shokubai is audited by Ernst & Young ShinNihon LLC.

### Nomination and Remuneration Committee

An advisory body to the Board Meeting, this is a voluntary organization comprising three or more Members of the Board (including a majority of Outside Members of the Board). It advises on the election/dismissal of the President and Representative Member of the Board, as well as draft nominations of candidates for Members of the Board and Statutory Corporate Auditor positions and on remuneration and bonuses for Members of the Board.

#### Nomination and Remuneration Committee members

Name	Status	Attendance rate
Kazuhiro Noda	President and Representative Member of the Board	—
Tetsuo Setoguchi	Outside Member of the Board	100%
Miyuki Sakurai	Outside Member of the Board	100%

\*Mr. Kazuhiro Noda assumed the post as of June 21, 2022.

### TechnoAmenity Promotion Committee

We promote sustainability activities based on our belief that promoting sustainability means implementing the Nippon Shokubai Group Mission **"TechnoAmenity"** - Providing Prosperity and Comfort to People and Society, with Our Unique Technology." We consider promotion of sustainability activities as a core theme of our corporate management. The Committee is responsible for deciding policies and strategies therefor, providing instructions to relevant departments, and evaluating the results of the activities.

### Internal Audit Department

The Internal Audit Department (6 members) conducts audits on the effectiveness and efficiency of each operational process, compliance and other matters from a standpoint independent from other executive sections, with the aim of enhancing internal control of the Company. It also works in cooperation with Statutory Corporate Auditors and the Accounting Auditor through mutual exchange of information and opinions, thereby improving internal audit operations.

# Outline of the executive remuneration system

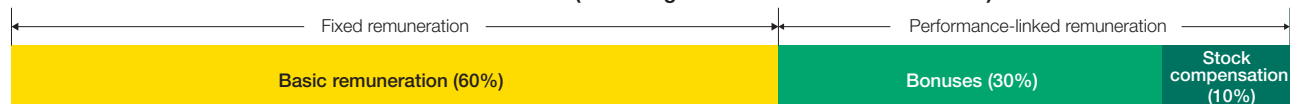
## 1. Basic Policy

- To have Members of the Board put the Company's mission into practice and provide an incentive to sustainably enhance corporate value
- To have Members of the Board share interests with shareholders according to the Company's business results and commensurate with their responsibilities
- To set the executive remuneration system at a reasonable level in light of the Company's business results, the level of employee salaries, and that of other companies
- To have the Nomination and Remuneration Committee, consisting mainly of independent Outside Members of the Board, deliberate on the matter, thereby ensuring transparency and fairness

## 2. Components of the Remuneration

The remuneration for Members of the Board (excluding Outside Members of the Board) consists of basic remuneration, which is fixed remuneration, and bonuses and stock compensation, which are performance-linked remuneration. Outside Members of the Board receive only basic remuneration as fixed remuneration because they oversee business operations from an independent standpoint.

### The Ratio of remuneration for the Members of the Board (excluding Outside Members of the Board)



\*The above ratio is only a guide and is subject to change according to the Company's business results, stock market conditions, and degrees of achievement of targets by each individual as assessed by the target management system.

### Outline of remuneration

	Fixed remuneration	Performance-linked remuneration	
	Basic remuneration	Bonuses	Stock compensation
Type	Fixed remuneration	Short-term incentive	Medium- and long-term incentive
Persons to be paid	Members of the Board	Members of the Board (excluding Outside Members of the Board)	Members of the Board (excluding Outside Members of the Board)
Method of payment	Money	Money	Shares and Money
Time of payment	Monthly	Paid at a certain time after the Ordinary General Meeting of Shareholders each year	Paid upon the retirement of a Member of the Board
Description	<ul style="list-style-type: none"> <li>● Paid based on the position and responsibilities.</li> <li>● The amount of remuneration for Outside Members of the Board is determined by comprehensively considering the level of remuneration of the Company's officers, and that of other companies.</li> </ul>	<ul style="list-style-type: none"> <li>● Bonuses are paid according to evaluation indicators: the degree of achievement of key performance indicators (KPIs) and the degrees of achievement of targets by each individual as assessed by the target management system.</li> <li>● KPIs consist of "profit before tax" and "ROA (return on assets before tax)," with achievement ratings ranging from 0 to 150%.</li> </ul>	<ul style="list-style-type: none"> <li>● Utilizing the share benefit trust mechanism for officers, payments shall be made according to the total cumulative number of performance-linked points, which are linked to the achievement level of the mid-term management plan, and fixed points, which are for the purpose of holding shares to share stock value.</li> <li>● Performance-linked points and fixed points shall be granted at a ratio of 1:1.</li> <li>● Performance-linked points vary depending on the degree of achievement of KPI results in the final year of the mid-term management plan against the targets of the mid-term management plan set as KPIs.</li> <li>● KPIs consist of "operating profit" and "ROE (return on equity attributable to owners of parent)", with evaluation weights of 50% for "operating profit" and 50% for "ROE". In addition, each achievement rating shall be in the range of 0 to 150%.</li> </ul>

## 3. Process for Determining Remuneration

- The Nomination and Remuneration Committee, a voluntary advisory organization consisting mainly of independent Outside Members of the Board, has been established. The Committee deliberates on policies, systems, and issues related to the determination of remuneration for Members of the Board, as well as the appropriateness of the level of remuneration, and reports back to the Board Meeting.
- Based on the Committee's report, the Board Meeting determines the policy for determining the details of remuneration, etc. for each individual Member of the Board and details of remuneration, etc. within the framework of the amount of remuneration approved by the General Meeting of Shareholders. After the determination of the Board Meeting, the President and Representative Member of the Board is entrusted with decisions regarding the details of remuneration, excluding stock compensation, for individual Members of the Board in light of the contents of the Committee's report.

### Aggregate Amount of Remuneration to Members of the Board and Statutory Corporate Auditors

Category of positions	Aggregate amount of remuneration (million yen)	Aggregate amount of remuneration by type (million yen)				Number of persons to be paid (persons)
		Fixed remuneration	Performance-linked remuneration			
		Basic remuneration	Basic remuneration	Bonuses	Aggregate amount	
Members of the Board (Outside Members of the Board)	369 (36)	181 (36)	38 (—)	150 (—)	188 (—)	10 (3)
Statutory Corporate Auditors (External Statutory Corporate Auditors)	64 (18)	64 (18)	— (—)	— (—)	— (—)	4 (2)
Total (Outside Officers)	433 (54)	245 (54)	38 (—)	150 (—)	188 (—)	14 (5)

\*1 The above total amount of remuneration, etc., is based on the executive remuneration system prior to the introduction of the Performance-linked Stock Compensation Plan, etc., which was resolved at the 110th Ordinary General Meeting of Shareholders.

\*2 The number of persons and the amounts of remuneration above include one Member of the Board who stepped down during the fiscal year 2021.

\*3 The total amount of remuneration, etc., includes bonuses of 150 million yen for Members of the Board which was resolved at the 110th Ordinary General Meeting of Shareholders.

## Corporate Governance

### Policy and procedure for election/dismissal of Members of the Board and Statutory Corporate Auditors

The Board Meeting, including three independent Outside Members of the Board, decides on election/dismissal of management executives and nomination of candidates for Members of the Board and Statutory Corporate Auditors, taking thoroughly into account their expertise, experience, achievements, qualities, abilities, personalities and the like. Also, the Nomination and Remuneration Committee, a voluntary organization consisting mainly of independent Outside Members of the Board, has been established to receive advice on election/dismissal of the President and Representative Member of the Board and nomination of candidates for Members of the Board and Statutory Corporate Auditors, thereby ensuring transparency and fairness in election/dismissal of the President and Representative Member of the Board, and nomination of candidates for Members of the Board and Statutory Corporate Auditors.

### Evaluation of the effectiveness of the Board Meeting

#### 1. Process of evaluating the effectiveness of the Board Meeting

Based on the results of analysis and evaluation of responses to a questionnaire, which was distributed to all Members of the Board and Statutory Corporate Auditors, an opinion exchange meeting was held between all independent Outside Members of the Board and the President and Representative Member of the Board. Based on these, the evaluation of the effectiveness of the Board Meeting was summarized at a Board Meeting.

#### 2. Items for improvement

The items for improvement identified in the evaluation of the previous fiscal year are as follows:

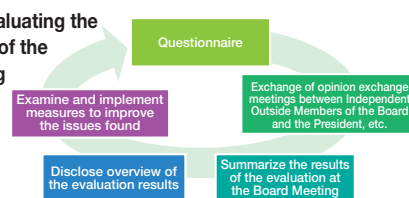
- Further improvement in explanations, discussions and material/document preparation to aid the understanding of the entire business, including “issues, risks and outlook” and “business environment and strategies including review of decision making in the past” of Group companies and in existing and new fields, which have been continuously conducted
- Holding opinion-exchange meetings for outside officers
- Enhancement of training programs

#### 3. Evaluation results and initiatives for the future

- It was confirmed that all the systems that support the composition, operation, deliberations/reports and the supervision of business execution of the Board Meeting were functioning properly and that the effectiveness of the Board Meeting was ensured. It was also confirmed that the measures taken based on the items for improvement identified in the evaluation of the effectiveness of the Board Meeting in the previous fiscal year had been implemented properly.
- To steadily achieve “stronger corporate governance” to foster sustainable growth and enhance medium- to long-term corporate value set forth in “TechnoAmenity for the Future-I” launched in fiscal 2022, we are currently making the following efforts:

- Enhancing discussions regarding management policies and strategies at the Board Meeting
- Strengthening the supervisory/advisory function for business execution
- Developing a skill matrix for the Board Meeting
- Nurturing candidates for an officer position in charge of sustainable growth

#### Process of evaluating the effectiveness of the Board Meeting



### Cross shareholding

Under the Nippon Shokubai Group’s Mission of “**TechnoAmenity** — “Providing Prosperity and Comfort to People and Society, with Our Unique Technology” — we are willing to further advance our contributions to industry and society. To this end, Nippon Shokubai, as a chemical manufacturer, with a view to continuously improving its corporate value, believes that long and stable relationships of trust with business partners are important in development, production, sales and other activities. Based on this belief, we own shares of our partners for the purpose of cross share holding when deemed necessary.

Each year, the Board Meeting, including three independent Outside Members of the Board, comprehensively examines all the listed shares we own by issue in light of the above purpose, taking into consideration the capital costs, and confirms the importance of the shareholding. We sell shares if it is judged no longer important to hold such shares. In fiscal 2021, we sold all shares of seven issues and a part of the shares of four issues. As a result, the number of issues of crossheld shares as of March 31, 2022 decreased from 70 as of the end of the fiscal year before the introduction of the Corporate Governance Code (March 31, 2015), to 38.

## Message from Outside Members of the Board

### It is important to refine the skills required to have people fully understand our technologies

**Tetsuo Setoguchi** Outside Member of the Board

“TechnoAmenity for the future-I” aims at transformation to expand business in areas where an increase in revenue and growth are expected. Under this Mid-term Management Plan, however, our mission to continue to create products, technologies and solutions to enhance customer value remains the same. On the other hand, it is also equally important to refine our skills and mind to have our customers and society understand our strengths and potential. Hints to motivate customers come from the stimulation and conflict we experience in manufacturing, products and customer contact, just as we create new value. I would like to continue to help further strengthen such contact points through organizational transformation and create a corporate culture that enables a diversity of members to have open communication vertically and horizontally and actively take on new challenges, by providing stimuli from an outside perspective. It is very important to make efforts toward achieving the goal of “TechnoAmenity for the future-I.” However, I believe what is more important for every member of the Nippon Shokubai Group is to keep in mind that the significance of our existence is to realize its mission—**TechnoAmenity**: Providing Prosperity and Comfort to People and Society, with Our Unique Technology, which eventually leads to enhancing the value of all our stakeholders.



### Care from various angles is important in preventing corporate scandals

**Tsukasa Takahashi** Outside Member of the Board

Corporate scandals have been reported daily by newspapers, TV, magazines and the Internet. There are various types of scandals. For example, frauds or falsifications in testing involve the risk of eroding public confidence in a company and worsening the company's business performance or even endangering its existence. Statutory corporate auditors, accounting auditors and internal auditors are responsible for checking whether such misconduct is occurring. In addition, the Whistle-Blower Protection Act revised in June 2022 requires companies to establish systems necessary to make whistle-blowing more functional. In other words, it can be said that all of the officers and employees of a company are expected to play a role in preventing corporate fraud. Competition can bring about growth, but at the same time it can also cause fraud. The vertical and horizontal expansion of business may expand the possibilities of the company, but at the same time may weaken the state of mutual monitoring. Accordingly, it is necessary to review the common sense shared within the company from time to time to make sure that it is really correct and can be accepted by society. I believe that officers, such as board members and statutory corporate auditors—outside officers in particular, are expected play a role in identifying what does not work outside the company. I myself hope to act as such, as an external auditor.





# Management

## Members of the Board

		Major careers	Reasons for appointment	Attendance at meetings
	<b>Yujiro Goto</b> Member of the Board, Chairman	August 1980 Joined the Company. June 2012 Executive Officer, Plant Manager of Kawasaki Plant June 2015 Member of the Board, Managing Executive Officer April 2017 President and Representative Member of the Board June 2022 Member of the Board, Chairman (current position)	He has achievements in playing a key role in our management, including the formulation and execution of mid-term management plans, through his experience as President and Representative Member of the Board.	15/15 Board Meetings
	<b>Kazuhiro Noda</b> Representative Member of the Board, President & CEO	April 1986 Joined the Company. April 2005 General Manager, Superabsorbents Sales Department April 2011 General Manager, Corporate Planning Division April 2015 Deputy Director, Corporate Planning Division and General Manager, Group Management and Project Planning Department April 2017 Director, Superabsorbents Business Division June 2018 Executive Officer June 2020 Member of the Board, Managing Executive Officer Director, Corporate Planning Division June 2022 Representative Member of the Board, President & CEO (current position)	He has years of experience in planning and promoting managerial measures and strengthening the competitiveness of the superabsorbent polymer business. He also has achievements in playing a central role as the Executive Officer in charge of corporate planning in the formulation of a new mid-term management plan.	15/15 Board Meetings
	<b>Jiro Iriguchi</b> Representative Member of the Board, Senior Managing Executive Officer Production, Technology, Engineering DX Promotion Division Engineering Division Indonesia Project DX Promotion Team IONEL Construction Team	April 1984 Joined the Company. April 2004 General Manager of Fine & Specialty Chemicals Production Department of Himeji Plant April 2009 General Manager of Chemicals Production Department of Himeji Plant April 2011 Deputy Plant Manager of Himeji Plant June 2013 Director of NIPPOH CHEMICALS CO., LTD. June 2018 Member of the Board, Managing Executive Officer June 2021 Representative Member of the Board, Senior Managing Executive Officer (current position)	He has years of experience in stably operating manufacturing sites and smoothly managing subsidiaries, etc., and has achievements in implementing initiatives to improve operating effectiveness by utilizing digital services as the Executive Officer in charge of the promotion of DX.	15/15 Board Meetings
	<b>Kuniaki Takagi</b> Member of the Board, Managing Executive Officer Administration, HR, Finance, Accounting General Affairs & HR Division	April 1987 Joined Sumitomo Chemical Co., Ltd. April 2019 Joined the Company as an entrusted worker. May 2019 Director of General Affairs & HR Division June 2019 Executive Officer June 2020 Member of the Board, Managing Executive Officer (current position)	He has years of experience in strengthening the corporate governance system and executing management strategies from a global perspective, and has achievements in promoting initiatives for organizational transformation, including the formulation and introduction of a new human resource system, as the Executive Officer in charge of administration, HR, finance and accounting.	15/15 Board Meetings
	<b>Masahiro Watanabe</b> Member of the Board, Managing Executive Officer Business Sector, Purchasing & Logistics, Business Planning Energy & Electronics Solutions Division President of Nishoku Butsuryu Co., Ltd.	April 1984 Joined the Company. April 2009 General Manager of Raw Materials Purchasing Department April 2013 General Manager of Performance Polymers Sales & Marketing Department April 2016 Director of Purchasing & Logistics Division June 2018 Executive Officer President and Representative Director of Nishoku Butsuryu Co., Ltd. (current position) June 2021 Member of the Board, Managing Executive Officer (current position)	He has years of experience in formulating and implementing purchasing and logistics strategies and strengthening the sales foundation, etc., and has achievements in expanding the Solutions business and reinforcing the Materials business as the Executive Officer in charge of sales, marketing, purchasing and logistics.	15/15 Board Meetings
	<b>Yasutaka Sumida</b> Member of the Board, Managing Executive Officer Innovation & Business Development Corporate Research Division Health & Medical Business Division Cosmetics Business Division Director of Innovation & Business Development Division R&D Management Department	April 1991 Joined the Company. April 2017 General Manager of Research Center April 2020 Director of Innovation & Business Development Division (current position) June 2020 Executive Officer June 2021 Member of the Board, Managing Executive Officer (current position)	He has years of experience in strengthening research and development capabilities and promoting open innovation, etc., and has achievements, as the Executive Officer in charge of innovation & business development, in promoting initiatives to accelerate the creation of new businesses and products and spearhead research development toward carbon neutrality.	15/15 Board Meetings
	<b>Shinji Hasebe</b> Member of the Board  Outside Independent	April 1993 Associate Professor, Faculty of Engineering, Kyoto University August 2003 Professor, Graduate School of Engineering, Kyoto University June 2018 Outside Member of the Board at the Company (current position) April 2019 Program-Specific Professor, the Institute for Liberal Arts and Sciences, Kyoto University (current position)	We expect that he will offer valuable opinions and proposals that would benefit our management and provide supervision from an independent position based on his expertise in chemical engineering and familiarity with the chemical industry, in addition to his past achievements as an Outside Member of the Board.	15/15 Board Meetings
	<b>Tetsuo Setoguchi</b> Member of the Board  Outside Independent	April 1981 Joined Osaka Gas Co., Ltd. April 2015 Representative Director, Executive Vice President of Osaka Gas Co., Ltd. April 2018 Director of Osaka Gas Co., Ltd. June 2018 Outside Member of the Board at the Company (current position) Advisor to Osaka Gas Co., Ltd. (current position) April 2020 Chairman and Director of OSAKA GAS URBAN DEVELOPMENT Co., Ltd. June 2021 Outside Auditor of YOMIURI TELECASTING CORPORATION (current position) April 2022 Chairman and Director of OGIS-RI Co., Ltd. (current position)	We expect that he will offer valuable opinions and proposals that would benefit our management and provide supervision from an independent position based on his experience in corporate management in the manufacturing industry and at a company with high public utility properties, in addition to his past achievements as an Outside Member of the Board.	15/15 Board Meetings
	<b>Miyuki Sakurai</b> Member of the Board  Outside Independent	April 1992 Registered as an attorney-at-law. Joined Nishimura Law and Accounting Office. May 2003 Partner of Hananizuki Law Office (current position) March 2015 Auditor of Nissay Life Foundation (current position) April 2016 Auditor of Osaka University (current position) June 2017 External Director, Nippon Shinyaku Co., Ltd. (current position) June 2020 Outside Member of the Board of the Company (current position)	We expect that she will offer valuable opinions and proposals that would benefit our management and provide supervision from an independent position based on her highly professional expertise and a wealth of experience as attorney-at-law and achievements as External Director of other companies, in addition to her past achievements as an Outside Member of the Board of the Company.	15/15 Board Meetings



Corporate management	Internationality	Sustainability	Compliance/Governance	Finance/Accounting	Production technology /R&D	Sales and Marketing	Other
●		●			●		
●	●			●			
●					●		● (DX)
	●		●	●			
●						●	● (SCM)
		●			●		● (Intellectual property)
					●		● (Academic experience)
●	●					●	
			●				● (Internal control/Audit)

## Statutory Corporate Auditors

### Reasons for appointment



**Takashi Kobayashi**

We believe that he will contribute valuable opinions to Board Meetings and will properly audit the legality of management execution, etc., based on his wealth of experience in the corporate planning and finance & accounting divisions.



**Teruhisa Wada**

We believe that he will contribute valuable opinions to Board Meeting and properly audit the legality of management execution, etc., based on his wealth of experience at the general administration & personnel division.



**Yoritomo Wada**

External Independent

We believe that he will contribute valuable opinions to Board Meeting and properly audit the legality of management execution, etc., from an objective position, based on his highly professional expertise and a wealth of experience as a certified public accountant.



**Tsukasa Takahashi**

External Independent

We believe that he will contribute valuable opinions to Board Meeting and properly audit the legality of management execution, etc., from an objective position, based on his highly professional expertise and a wealth of experience as attorney-at-law and achievements as Outside Officers of other companies.

## Managing Executive Officers

**Yukihiro Matsumoto** (Director of Production Division)

**Katsunori Kajii** (Director of Acrylics Business Division)

## Executive Officers

**Gun Saito** (Director of Responsible Care Division)

**Naoki Hijikuro** (Director of Basic Materials Business Division)

**Yoshihisa Oka** (Plant Manager of Kasawaki Plant)

**Kenta Kanaida** (President of Nippon Shokubai America Industries, Inc.)

**Kazuhiro Sakuma** (Director of Industrial & Household Solutions Division)

**Shinya Kataoka** (Director of Purchasing & Logistics Division)

**Tokihiro Yokoi** (Plant Manager of Himeji Plant)

**Kenjiro Komoda** (Director of Business Planning Division)

**Shigeru Harada** (Director of Finance & Accounting Division)

**Tomiyuki Sawada** (President of NIPPON SHOKUBAI EUROPE N.V.)

\*In the list on the left-hand side, items marked with ● (up to three items) indicate the specialty and experience of each person.

\*\*“DX” is an acronym for digital transformation, and “SCM” is an acronym for supply chain management.

## 11-Year Consolidated Financial Data

Japanese GAAP	2011	2012	2013	2014	2015	2016	
For the fiscal year							
Net sales	320,704	269,520	302,136	374,873	323,124	293,970	
Gross profit	68,341	44,619	48,955	65,738	70,001	60,471	
Operating profit	31,100	10,034	13,752	26,133	31,234	21,151	
Ordinary profit	33,114	13,824	16,647	29,941	34,342	24,664	
Profit attributable to owners of parent	21,257	8,401	10,503	19,089	26,003	19,361	
Cash flows from operating activities	43,857	27,322	16,992	32,697	53,264	37,474	
Cash flows from investing activities	- 21,747	- 31,878	- 25,141	- 18,941	- 12,963	- 44,515	
Cash flows from financing activities	- 9,671	81	- 2,519	- 10,237	- 20,012	- 3,533	
Depreciation	16,767	15,402	16,995	18,971	17,875	17,957	
Capital investments	23,684	29,137	25,067	12,346	15,156	37,289	
R&D expenses	11,938	11,441	11,161	11,948	12,303	13,283	
As of the end of the fiscal year							
Total assets <sup>*1</sup>	356,407	352,373	398,396	419,634	407,997	433,610	
Net assets	209,070	220,248	242,193	270,128	282,485	292,275	
Interest-bearing debt	59,507	64,872	68,553	66,842	50,680	58,040	
Per share information							
Profit attributable to owners of parent per share (Yen) <sup>*2</sup>	104.71	41.38	51.74	470.28	640.69	478.36	
Net assets per share (Yen) <sup>*2</sup>	1,006.48	1,059.85	1,164.10	6,535.66	6,870.84	7,238.33	
Dividends (Yen) <sup>*2</sup>	22.00	16.00	16.00	120.00	150.00	150.00	
Payout ratio	21.0%	38.7%	30.9%	25.5%	23.4%	31.4%	
Management index							
Shareholders' equity ratio <sup>*1</sup>	57.3%	61.1%	59.3%	63.2%	68.3%	66.6%	
ROA (Ratio of ordinary profit to total assets) <sup>*3</sup>	9.7%	3.9%	4.4%	7.3%	8.3%	5.9%	
ROE (Ratio of profit to shareholders' equity) <sup>*4</sup>	10.8%	4.0%	4.7%	7.6%	9.6%	6.8%	
Overseas sales ratio	45.3%	46.5%	47.3%	51.3%	49.8%	49.0%	

\*1: The Company has applied "Partial Amendments to Accounting Standard for Tax Effect Accounting" (ASBJ Statement No. 28, February 16, 2018) from the beginning of FY 2018. Accordingly, the total assets and shareholders' equity ratio for FY 2017 are the values that were revised retrospectively after the application.

\*2: The Company conducted a stock consolidation of its common shares at a ratio of one share for every five shares on October 1, 2015. Dividend is the value that was presented on the assumption that the relevant stock consolidation had been implemented at the beginning of FY 2014. Accordingly, profit per share and net asset per share were calculated.

\*3: ROA (Ratio of ordinary profit to total assets) = Ordinary profit/Total assets (average of beginning and ending balance of the year)

\*4: ROE (Ratio of profit to shareholders' equity) = Profit attributable to owners of parents/Shareholders' equity (average of beginning and ending balance of the year)

\*5: The payout ratio is not presented for FY 2020 because the Company reported a net loss.

\*6: ROA (Ratio of profit before income tax to total assets) = Profit before income tax/Total assets (average of beginning and ending balance of the year)

\*7: ROE (Ratio of profit to equity attributable to owners of parent) = Profit attributable to owners of parents/Total equity attributable to owners of parent (average of beginning and ending balance of the year)

\*8: The Group has prepared its consolidated financial statements in accordance with the International Financial Reporting Standards (IFRS) from FY 2018 (Date of transition: April 1, 2017).

(Unit: Millions of yen)

(Unit: Millions of yen)

2017	IFRS	2017	2018	2019	2020	2021
	For the fiscal year					
322,801	Revenue	313,939	338,869	302,150	273,163	369,293
66,137	Gross profit	67,544	66,577	53,484	48,047	77,707
26,727	Operating profit (loss)	25,610	26,170	13,178	- 15,921	29,062
32,293	Profit before income tax (loss)	29,805	32,119	15,748	- 12,926	33,675
24,280	Profit attributable to owners of parent (loss)	22,641	23,849	11,094	- 10,899	23,720
38,823	Cash flows from operating activities	44,206	35,918	37,499	35,277	35,058
- 27,498	Cash flows from investing activities	- 31,563	- 31,316	- 32,806	- 30,623	- 23,158
- 9,762	Cash flows from financing activities	- 10,601	- 9,982	- 7,859	- 12,750	- 10,751
16,997	Depreciation and amortization	22,918	25,626	28,653	29,470	28,875
25,827	Capital investments	30,355	29,919	30,440	26,726	16,522
13,266	R&D expenses	14,251	13,996	14,774	14,603	15,182
	As of the end of the fiscal year					
467,386	Total assets	480,316	481,668	475,641	471,617	518,151
310,762	Total equity	316,188	329,227	326,108	323,725	351,123
58,064	Interest-bearing debt	58,474	56,633	63,375	61,572	59,677
	Per share information					
608.84	Basic earnings per share (loss) (Yen)	567.71	598.05	278.21	- 273.33	594.86
7,705.05	Equity attributable to owners of parent per share (Yen)	7,750.24	8,099.97	8,017.17	7,959.07	8,624.02
160.00	Dividends (Yen)	160.00	170.00	180.00	90.00	180.00
26.3%	Payout ratio <sup>5</sup>	28.2%	28.4%	64.7%	—	30.3%
	Management index					
65.7%	Rate of equity attributable to owners of parent	64.3%	67.1%	67.2%	67.3%	66.4%
7.2%	ROA (Ratio of profit before income tax to total assets) <sup>6</sup>	6.4%	6.7%	3.3%	- 2.7%	6.8%
8.1%	ROE (Ratio of profit to equity attributable to owners of parent) <sup>7</sup>	7.6%	7.5%	3.5%	- 3.4%	7.2%
48.0%	Overseas sales ratio	52.8%	53.8%	53.9%	55.1%	56.9%

## Overview of Operating Results, etc.

### Overview of Operating Results for the Fiscal Year under Review

In the current fiscal year, the global economy continued to recover from the impact of the novel coronavirus disease (COVID-19). While the degree of economic recovery varied by country and industry, economic activities were resuming. In the current situation, there are concerns about economic downside due to soaring resource prices and supply-side constraints amid uncertainty about the future due to the situation in Ukraine and other factors.

In the United States, the economy is steadily picking up, while in Europe, the economy is slowing down due to soaring prices of raw materials and fuels such as natural gas. In China, the economy continued to recover gradually, but the pace of recovery slowed down due to the re-expansion of infection and the resulting zero-corona policy and other factors. In emerging Asian countries, there were signs of economic recovery.

In Japan, exports and corporate earnings generally showed signs of improvement, as capital investment and production activities continued to pick up, although personal consumption stalled amid the severe conditions caused by expanding the Omicron variant infection.

In the chemical industry, the yen weakened against the U.S. dollar due to differences in monetary policy between Japan and the United States and other factors, and crude oil prices also rose, which drove up prices of raw materials and fuels such as domestically produced naphtha. In addition, marine transportation costs rose due to continued disruptions in the global logistics network.

### ■ Overview

Under these conditions, the Group's revenue in the current fiscal year increased 35.2% year-on-year to 369,293 million yen, up 96,130 million yen, due to higher selling prices in line with higher raw material prices and conditions of overseas market prices for products, as well as an increase in sales volume.

With regard to profits, operating profit increased by 44,982 million yen year-on-year to 29,062 million yen. Although selling, general and administrative expenses increased due to soaring marine transportation costs and other factors, the increase in profit was due to factors such as a widening of the spread due to higher overseas market prices for some products, an increase in production and sales volumes, and the impact of inventory valuation differences due to higher raw material prices. In addition, there were no impairment losses of 11,903 million yen on fixed assets of NIPPON SHOKUBAI EUROPE N.V. (hereinafter, "NSE") and 9,282 million yen on goodwill and technology-related assets related to SIRRUS Inc., and 1,713 million yen in costs related to the cancellation of the business integration between the Company and Sanyo Chemical Industries, Ltd., which were recorded in the previous fiscal year.

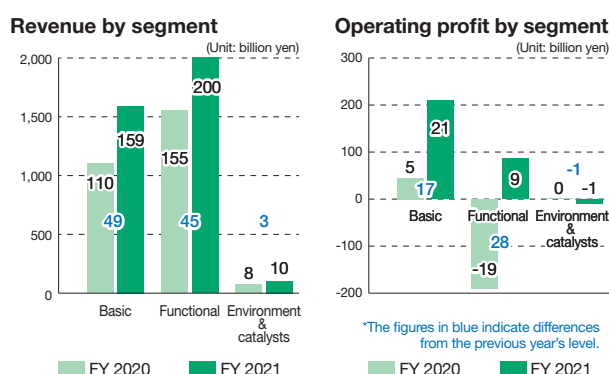
Profit before tax was 33,675 million yen, a year-on-year increase of 46,601 million yen, due to increases in operating profit and share of profit of investments accounted for using equity method.

As a result, profit attributable to owners of parent of 23,720 million yen was posted, up 34,619 million yen year-on-year.

Furthermore, the profit before income tax to revenue ratio was higher than that of FY2020 due to widening spreads, increased sales volume, and the absence of impairment losses recorded by consolidated subsidiaries.

In addition, the asset turnover ratio increased from FY2020 due to an increase in sales revenue resulting from increased sales prices and increased sales volume. Consequently, the ROA (ratio of profit before income tax to total assets) increased 9.5 points from -2.7% to 6.8%.

### Outline of Sales by Business Segment



#### [ Basic Chemicals ]

Sales of acrylic acids and acrylates increased due to higher selling prices resulting from higher raw material prices and higher overseas market prices for products, as well as an increase in sales volume.

Sales of ethylene oxide increased due to higher selling prices resulting from higher raw material prices and an increase in sales volume.

Sales of ethylene glycol increased due mainly to higher selling prices resulting from higher overseas market prices of the product, despite a decrease in sales volume.

Sales of secondary alcohol ethoxylates increased due to an increase in sales volume and higher selling prices in line with higher raw material prices and other factors.

As a result, revenue in the basic chemicals segment increased 44.1% year-on-year to 158,896 million yen.

Operating profit increased 16,507 million yen year-on-year to 21,042 million yen due to factors such as widening spreads resulting from higher overseas market prices for products, increased production and sales volumes, and the impact of inventory valuation differences resulting from higher raw material prices.

#### [ Functional Chemicals ]

Sales of superabsorbent polymers increased due to higher selling prices in line with rising raw material prices and product overseas market conditions, as well as an increase in sales volume.

Sales of special acrylates increased due to higher selling prices

in line with rising overseas market prices of the products and higher sales volumes.

Sales of polymers for concrete admixtures, water-soluble polymers such as raw materials for detergents, ethyleneimine derivatives, and resins for paints increased mainly due to higher sales volumes.

Sales of maleic anhydride increased due to higher selling prices, mainly reflecting higher raw material prices.

Sales of iodine compounds increased due to an increase in product sales mix and sales volume.

Sales of resin modifiers, electronic and information materials, and processed adhesive products decreased due to lower sales volumes.

As a result, revenue in the functional chemicals segment increased 28.8% year on year to 200,004 million yen.

Operating profit increased due to higher production and sales volumes and the impact of inventory valuation differences resulting from higher raw material prices, despite an increase in selling, general and administrative expenses due to higher marine transportation costs and other factors. In addition, the absence of impairment losses on fixed assets of NSE and goodwill and technology-related assets of SIRRUS Inc., which were recorded in the previous period, resulted in 8,669 million yen, a year-on-year increase of 27,788 million yen.

### [ Environment & Catalysts ]

Sales of process catalysts, De-NOx catalysts, and fuel cell materials increased due to higher sales volumes.

Sales of materials for lithium-ion batteries increased due to an increase in sales volume despite a decline in selling prices.

Sales of wet air oxidation catalysts decreased due to a decline in sales volume.

As a result, revenue in the environment & catalysts segment increased 36.2% year on year to 10,393 million yen.

Operating profit decreased 1,144 million yen year-on-year to operating loss of 941 million yen due to the impact of inventory valuation difference and an increase in selling, general and administrative expenses.

### Overview of Financial Position for the Fiscal Year under Review

Total assets at the end of the current fiscal year increased by 46,534 million yen from the end of the previous fiscal year to 518,151 million yen. Current assets increased by 45,851 million yen compared to the end of the previous fiscal year. This was mainly due to an increase in trade receivables as sales prices increased in line with a rise in raw material costs as well as an increase in inventories in line with higher raw material costs. Non-current assets increased by 684 million yen from the end of the previous fiscal year. This was mainly due to an increase in intangible assets associated with an increase in investments accounted for using equity method and an acquisition of software, despite a decrease in other financial assets due to changes in the fair value of stocks held.

Total liabilities increased by 19,137 million yen compared to the end of the previous fiscal year to 167,028 million yen. This was mainly due to an increase in trade payables in line with a rise in raw material costs and an increase in income tax payable in line with an increase in taxable income.

Total equity increased by 27,398 million yen compared to the end of the previous fiscal year to 351,123 million yen. This was mainly due to an increase in retained earnings from the recording of profits and an increase in translation adjustments for foreign operating activities due to changes in foreign exchange rates.

The ratio of profit to equity attributable to owners of parent decreased by 0.9 percentage points, from 67.3% at the end of the previous fiscal year to 66.4%. Equity attributable to owners of parent per share increased by 664.95 yen compared to the end of the previous fiscal year to 8,624.02 yen.

### Overview of Cash Flows for the Fiscal Year under Review

Cash and cash equivalents at the end of the current fiscal year amounted to 39,363 million yen, an increase of 3,022 million yen from the end of the previous fiscal year, as cash flows provided by operating activities exceeded cash flows used in investing activities including capital investment and cash flows used in financing activities.

#### ( Cash flow from operating activities )

Net cash provided by operating activities in the current fiscal year amounted to 35,058 million yen, a decrease of 219 million yen from a cash inflow of 35,277 million yen in the previous fiscal year. This was mainly due to an increase in trade receivables, which increased in line with rising sales prices; an increase in inventories, which increased as a result of a rise in raw material costs; and a decrease in impairment losses, despite increases in profit before tax and trade payables.

#### ( Cash flow from investing activities )

Net cash used in investing activities in the current fiscal year totaled 23,158 million yen, a decrease of 7,466 million yen from a cash outflow of 30,623 million yen in the previous fiscal year, mainly due to a decrease in outflow for purchase of property, plant and equipment.

#### ( Cash flow from financing activities )

Net cash used in financing activities in the current fiscal year amounted to 10,751 million yen, a decrease of 1,999 million yen from a cash outflow of 12,750 million yen in the previous fiscal year, mainly due to an increase in short-term borrowings, despite increased cash outflow from the redemption of bonds and repayment of long-term borrowings in the current fiscal year.



## Consolidated Financial Statements

### Consolidated Statement of Financial Position

(Unit: Millions of yen)

	March 31, 2021	March 31, 2022
Assets		
Current assets:		
Cash and cash equivalents	¥ 36,341	¥ 39,363
Trade receivables	82,053	103,577
Inventories	57,612	75,311
Other financial assets	9,661	12,427
Other current assets	6,140	6,979
Total current assets	191,806	237,656
Non-current assets:		
Property, plant and equipment	193,197	191,143
Intangible assets	5,989	7,895
Investments in associates and joint ventures accounted for using equity method	20,108	22,868
Other financial assets	44,285	40,981
Net defined benefit assets	11,571	12,820
Deferred tax assets	3,093	3,320
Other non-current assets	1,568	1,468
Total non-current assets	279,811	280,495
Total assets	¥ 471,617	¥ 518,151

(Unit: Millions of yen)

	March 31, 2021	March 31, 2022
Liabilities and equity		
Liabilities		
Current liabilities:		
Trade payables	¥ 45,912	¥ 57,616
Bonds and borrowings	23,981	23,559
Other financial liabilities	8,671	10,570
Income taxes payable	1,422	5,812
Provisions	4,734	5,931
Other current liabilities	6,030	5,527
Total current liabilities	90,750	109,014
Non-current liabilities:		
Borrowings	28,887	28,634
Other financial liabilities	8,023	6,784
Net defined benefit liability	14,162	14,044
Provisions	2,157	2,347
Deferred tax liabilities	3,914	6,205
Total non-current liabilities	57,142	58,014
Total liabilities	147,891	167,028
Equity:		
Share capital	25,038	25,038
Capital surplus	22,472	22,472
Treasury shares	-6,286	-6,291
Retained earnings	267,729	288,124
Other components of equity	8,420	14,538
Total equity attributable to owners of parent	317,373	343,882
Non-controlling interests	6,352	7,241
Total equity	323,725	351,123
Total liabilities and equity	¥ 471,617	¥ 518,151

## Consolidated Statement of Income and Consolidated Statement of Comprehensive Income

### Consolidated Statement of Income

(Unit: Millions of yen)

	Years ended March 31,	
	2021	2022
Revenue	¥ 273,163	¥ 369,293
Cost of sales	225,116	291,586
Gross profit	48,047	77,707
Selling, general and administrative expenses	41,486	48,992
Other operating income	2,297	3,013
Other operating expenses	24,778	2,667
Operating profit (loss)	-15,921	29,062
Finance income	1,922	1,932
Finance expenses	369	682
Share of profit of investments accounted for using equity method	1,441	3,362
Profit before income tax (loss)	-12,926	33,675
Income tax expense	-2,635	9,204
Profit (loss)	¥ -10,291	¥ 24,470
Profit (loss) attributable to:		
Owners of parent	-10,899	23,720
Non-controlling interests	608	750
Profit (loss)	¥ -10,291	¥ 24,470
Earnings per share (loss):		
Basic earnings per share (loss) (Yen)	-273.33	594.86
Diluted earnings per share (Yen)	—	—

### Consolidated Statement of Comprehensive Income

(Unit: Millions of yen)

	Years ended March 31,	
	2021	2022
Profit (loss)	¥ -10,291	¥ 24,470
Other comprehensive income		
Items that will not be reclassified to profit or loss:		
Net changes in financial assets measured at fair value through other comprehensive income	7,827	-2,160
Remeasurements of defined benefit plans	3,186	1,054
Share of other comprehensive income of associates and joint ventures accounted for using equity method	20	-38
Subtotal of items that will not be reclassified to profit or loss	11,033	-1,144
Items that may be reclassified to profit or loss:		
Exchange differences on translation of foreign operations	2,954	9,041
Share of other comprehensive income of associates and joint ventures accounted for using equity method	41	416
Subtotal of items that may be reclassified to profit or loss	2,995	9,457
Total other comprehensive income	14,028	8,312
Comprehensive income	¥ 3,737	¥ 32,782
Comprehensive income attributable to:		
Owners of parent	3,064	31,497
Non-controlling interests	674	1,285
Comprehensive income	¥ 3,737	¥ 32,782

# Consolidated Financial Statements

## Consolidated Statement of Changes in Equity

FY2020(April 1, 2020 to March 31, 2021)

(Unit: Millions of yen)

	Share capital	Capital surplus	Treasury shares	Retained earnings	Other components of equity	
					Net changes in financial assets measured at fair value through other comprehensive (loss) income	Remeasurements of defined benefit plans
Balance as of April 1, 2020	¥ 25,038	¥ 22,472	¥ -6,281	¥ 280,555	¥ 126	¥ —
Loss	—	—	—	-10,899	—	—
Other comprehensive income	—	—	—	—	7,823	3,199
Comprehensive (loss) income:	—	—	—	-10,899	7,823	3,199
Purchase of treasury shares	—	—	-6	—	—	—
Disposal of treasury shares	—	-0	0	—	—	—
Cash dividends	—	—	—	-5,383	—	—
Transfer from other components of equity to retained earnings	—	—	—	3,457	-258	-3,199
Total transactions with owners	—	-0	-6	-1,926	-258	-3,199
Balance as of March 31, 2021	¥ 25,038	¥ 22,472	¥ -6,286	¥ 267,729	¥ 7,691	¥ —

(Unit: Millions of yen)

	Other components of equity		Total equity attributable to owners of parent	Non-controlling interests	Total equity
	Exchange differences on translation of foreign operations	Total			
Balance as of April 1, 2020	¥ -2,212	¥ -2,086	¥ 319,699	¥ 6,410	¥ 326,108
Loss	—	—	-10,899	608	-10,291
Other comprehensive income	2,942	13,963	13,963	65	14,028
Comprehensive (loss) income:	2,942	13,963	3,064	674	3,737
Purchase of treasury shares	—	—	-6	—	-6
Disposal of treasury shares	—	—	0	—	0
Cash dividends	—	—	-5,383	-731	-6,115
Transfer from other components of equity to retained earnings	—	-3,457	—	—	—
Total transactions with owners	—	-3,457	-5,389	-731	-6,121
Balance as of March 31, 2021	¥ 730	¥ 8,420	¥ 317,373	¥ 6,352	¥ 323,725

FY2021(April 1, 2021 to March 31, 2022)

(Unit: Millions of yen)

	Share capital	Capital surplus	Treasury shares	Retained earnings	Other components of equity	
					Net changes in financial assets measured at fair value through other comprehensive (loss) income	Remeasurements of defined benefit plans
Balance as of April 1, 2021	¥ 25,038	¥ 22,472	¥ -6,286	¥ 267,729	¥ 7,691	¥ —
Profit	—	—	—	23,720	—	—
Other comprehensive income	—	—	—	—	-2,157	999
Comprehensive (loss) income:	—	—	—	23,720	-2,157	999
Purchase of treasury shares	—	—	-5	—	—	—
Disposal of treasury shares	—	—	—	—	—	—
Cash dividends	—	—	—	-4,984	—	—
Transfer from other components of equity to retained earnings	—	—	—	1,659	-660	-999
Total transactions with owners	—	—	-5	-3,325	-660	-999
Balance as of March 31, 2022	¥ 25,038	¥ 22,472	¥ -6,291	¥ 288,124	¥ 4,874	¥ —

(Unit: Millions of yen)

	Other components of equity		Total equity attributable to owners of parent	Non-controlling interests	Total equity
	Exchange differences on translation of foreign operations	Total			
Balance as of April 1, 2021	¥ 730	¥ 8,420	¥ 317,373	¥ 6,352	¥ 323,725
Profit	—	—	23,720	750	24,470
Other comprehensive income	8,935	7,777	7,777	535	8,312
Comprehensive (loss) income:	8,935	7,777	31,497	1,285	32,782
Purchase of treasury shares	—	—	-5	—	-5
Disposal of treasury shares	—	—	—	—	—
Cash dividends	—	—	-4,984	-396	-5,380
Transfer from other components of equity to retained earnings	—	-1,659	—	—	—
Total transactions with owners	—	-1,659	-4,989	-396	-5,385
Balance as of March 31, 2022	¥ 9,664	¥ 14,538	¥ 343,882	¥ 7,241	¥ 351,123

## Consolidated Statement of Cash Flows

(Unit: Millions of yen)

	Years ended March 31,	
	2021	2022
Cash flows from operating activities:		
Profit before income tax	¥ -12,926	¥ 33,675
Depreciation and amortization	29,470	28,875
Loss (gain) on sale of property, plant and equipment	-4	-502
Impairment loss	21,185	575
Decrease in net defined benefit asset	71	-46
Increase in net defined benefit liability	145	-11
Interest and dividend income	-1,385	-1,483
Interest expenses	340	338
Share of profits of associates and joint ventures accounted for using equity method	-1,441	-3,362
Decrease (increase) in trade receivables	-6,415	-19,005
Increase in inventories	4,092	-15,750
Increase in trade payables	360	10,231
Other	3,507	1,314
Subtotal	36,999	34,848
Interest and dividends received	2,656	2,775
Interest paid	-424	-340
Income taxes paid	-3,954	-2,225
Net cash flows provided by operating activities	35,277	35,058
Cash flows from investing activities:		
Purchase of property, plant and equipment	-29,658	-20,189
Proceeds from sale of property, plant and equipment	9	730
Purchase of intangible assets	-1,728	-2,067
Purchase of investments	-525	-895
Proceeds from sale and redemption of investments	496	1,727
Acquisition of shares of subsidiaries and affiliates	-2	-500
Other	785	-1,963
Net cash flows used in investing activities	-30,623	-23,158
Cash flows from financing activities:		
Net decrease in short-term borrowings	-6,834	6,227
Proceeds from long-term borrowings	8,191	10,035
Repayments of long-term borrowings	-6,305	-9,722
Redemption of bonds	—	-10,000
Payments of lease liabilities	-1,682	-1,906
Purchase of treasury shares	-6	-5
Dividends paid	-5,383	-4,984
Dividends paid to non-controlling interests	-731	-396
Other	0	—
Net cash flows used in financing activities	-12,750	-10,751
Effect of exchange rate changes on cash and cash equivalents	569	1,872
Net increase (decrease) in cash and cash equivalents	-7,529	3,022
Cash and cash equivalents at the beginning of the year	43,869	36,341
Cash and cash equivalents at the end of the year	¥ 36,341	¥ 39,363

## Outline

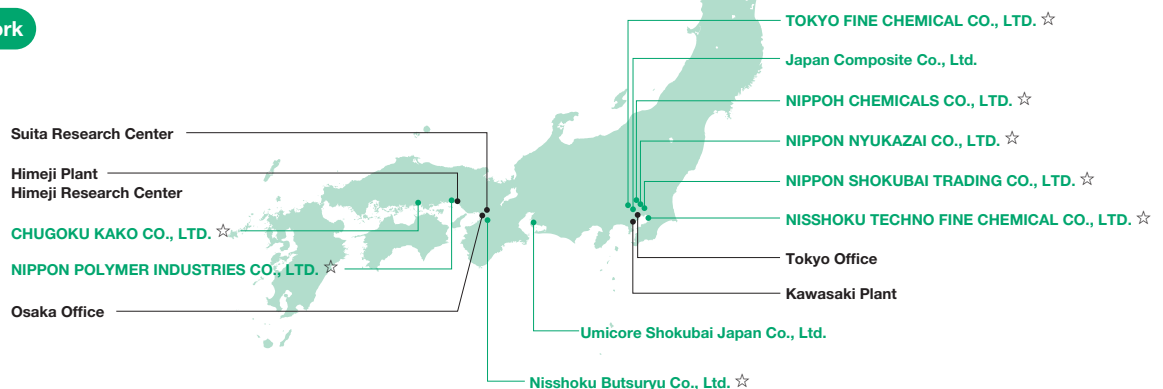
Established	August 21, 1941	Osaka Office	Kogin Bldg., 4-1-1 Koraihashi, Chuo-ku, Osaka 541-0043, Japan Tel: +81-6-6223-9111 Fax: +81-6-6201-3716
Share capital (as of March 31, 2022)	¥25,000 million	Tokyo Office	Hibiya Dai Bldg., 1-2-2 Uchisaiwai-cho, Chiyoda-ku, Tokyo 100-0011, Japan Tel: +81-3-3506-7475 Fax: +81-3-3506-7598
Revenue (FY2021)	¥369,300 million (consolidated) ¥224,400 million (non-consolidated)	Main Plants and Research Centers	Himeji Plant, Kawasaki Plant, Suita Research Center, Himeji Research Center
Number of employees (as of March 31, 2022)	4,526 (consolidated) 2,412 (non-consolidated)		

## Business Locations

Nippon Shokubai has established a group network encompassing the fields of chemical manufacturing, processing and transportation, which can provide prompt, safe and secure supply in response to customer needs. Our Group was formed to ensure improved global production and a more effective supply chain (as of April 1, 2022).

### Domestic Network

- Nippon Shokubai
- Main affiliate



### Global Network

- Main affiliate



\* For both domestic and overseas networks: ☆ Consolidated subsidiary



## Stock Information

- Number of Shares Authorized ..... Common stock 127,200,000 shares
- Number of Shares Issued ..... Common stock 40,800,000 shares
- Number of shareholders ..... 10,765

### Major shareholders

As of March 31, 2022

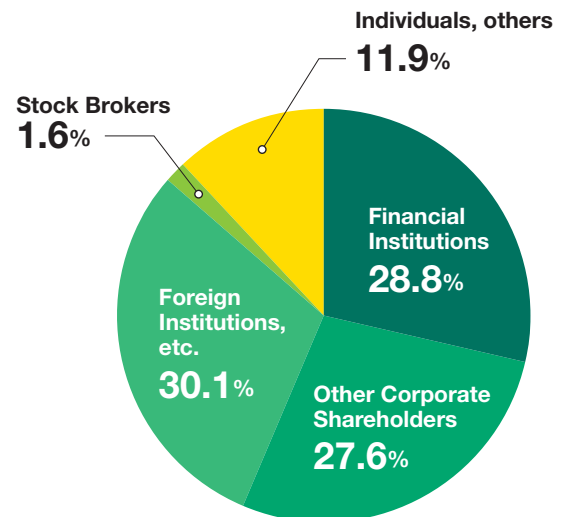
Name	Number of Shares Owned (thousand shares)	Ratio of capital Contribution (%)
The Master Trust Bank of Japan, Ltd. (Trust Account)	4,641	11.63
Sumitomo Chemical Company, Limited	2,727	6.84
NORTHERN TRUST CO. (AVFC) RE SILCHESTER INTERNATIONAL INVESTORS INTERNATIONAL VALUE EQUITY TRUST	2,304	5.77
ENEOS Holdings, Inc.	2,129	5.33
Custody Bank of Japan, Ltd. (Trust Account)	1,708	4.28
Resona Bank, Limited	1,373	3.44
Sanyo Chemical Industries, Ltd.	1,267	3.17
NORTHERN TRUST CO. (AVFC) RE U.S. TAX EXEMPTED PENSION FUNDS	1,139	2.85
Mizuho Bank, Ltd.	948	2.37
TOYO INK SC HOLDINGS CO., LTD.	904	2.26
Total	19,145	48.01

\* Other than the above, the Company holds 924 thousand shares as treasury stock

\* Treasury stock is excluded from the calculation for "Shareholding Ratio of the Total Shares Outstanding" above

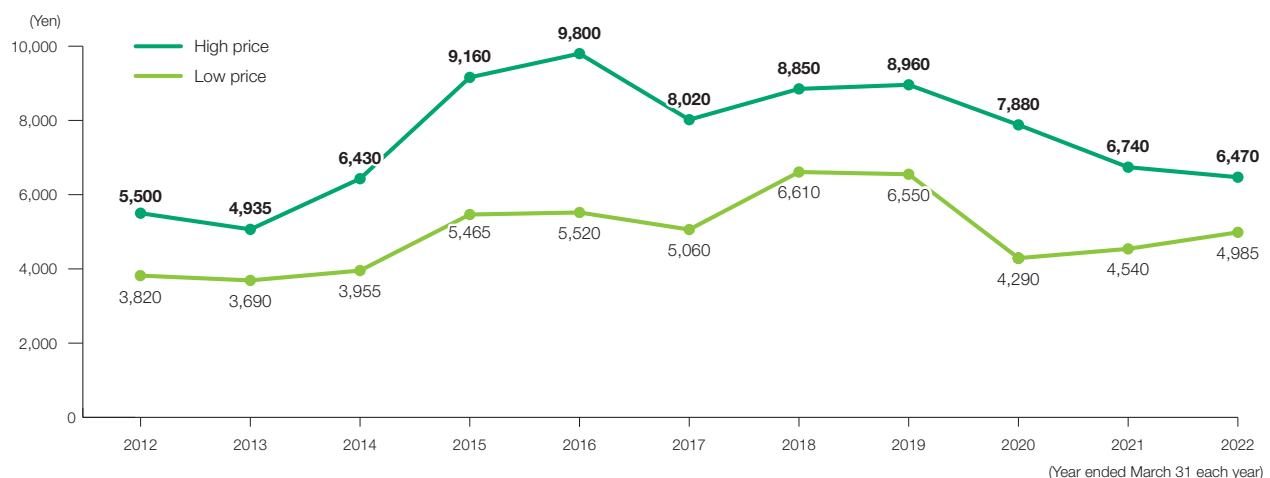
\* Figures in "Number of Shares Owned" and "Shareholding Ratio of the Total Shares Outstanding" are truncated.

### Distribution of Shareholders



\* Treasury stock is included in "Individuals, others."

## Historical Share Prices (11 years)



\* The high and low share prices are from the first section of the Tokyo Stock Exchange.

\* The Company conducted a stock consolidation of its common shares at a ratio of one share for every five shares on October 1, 2015.

\* The share prices before the fiscal year ended March 2015 are five times the price before the share consolidation.

# TechnoAmenity

Providing Prosperity and Comfort to People and Society,  
with Our Unique Technology

## NIPPON SHOKUBAI CO.,LTD.

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TEL : +81-6-6223-9111 FAX : +81-6-6201-3716

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100-0011, Japan  
TEL : +81-3-3506-7475 FAX : +81-3-3506-7598

Website: <https://www.shokubai.co.jp/en/>



Our company logo  
represents the spirit of  
**TechnoAmenity**

- |                              |  |
|------------------------------|--|
| ■ Hexagon                    | ▶ One of the fundamental symbols used in chemistry   |
| ■ Cosmo yellow               | ▶ Represents the hidden energy of the sun            |
| ■ Earth green                | ▶ Represents the life-supporting nature of the earth |
| — Horizon between two colors | ▶ Represents the future we always seek               |

