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NAGASE & CO., LTD.

20
22

Integrated Report
2022

Integrated Report

Delivering next.



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Delivering Next.

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Forward-Looking Statements Non-historic information contained in this integrated report related to the NAGASE Group revenue and profit plans, strategies, assumptions, etc. are forward-looking statements that entail elements of risk and uncertainty. Actual earnings may differ significantly from forecasts due to changes in these elements. Accordingly, the reader is cautioned to refrain from placing undue reliance on such future forecasts contained in this document. Elements that could impact earnings results are not necessarily limited to those explicitly noted in this document.



"Delivering next."
With our eyes fixed on the future, we will confront the "next," solving the problems before us and delivering value unique to the NAGASE Group. The sentiment behind these words is represented in the warm illustration.

Illustration by Ran Kobayashi

About this Report

The NAGASE Group has created this integrated report to help our diverse stakeholders better understand the Group's wide-ranging business fields and business activities, as well as its unique value creation process. Going forward, we will continue to improve this report as a communication tool for conveying the Group's corporate value enhancement activities in an easy-to-understand manner.

Referenced Guidelines

- International Integrated Reporting Council
- International Integrated Reporting Framework
- Ministry of Economy, Trade and Industry's Guidance for Collaborative Value Creation



Period Covered

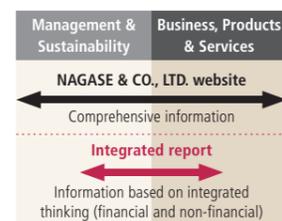
April 2021–March 2022 (FY2021). Some information after March 2022 is also included.

Organizations Covered

NAGASE & CO., LTD. and the NAGASE Group

Positioning of this Report

This integrated report organizes information on Management & Sustainability and Business, Products & Services based on "integrated thinking." Please refer to NAGASE's website for more detailed information.



Delivering next.

The NAGASE Group pursues sustainability, stacks "next" on top of "next," and creates a sustainable future.

What are our strengths, what is our growth strategy and what kind of future are we aiming for?

In three parts, we will reveal the reasons why the NAGASE Group is chosen.



Our Value Creation Story

The NAGASE Group has upheld a Business Designer that creates a sustainable future as part of the “Ideal NAGASE” for 2032, the 200th anniversary of its founding. The concept of a Business Designer is working with partners to bring together trading as well as manufacturing, R&D, bio, DX, and other functions to create new businesses. By harnessing the strengths we have accumulated over our 190-year history, responding flexibly to changes in the external environment, and constantly evolving business, we will promptly identify issues facing our customers and society and generate value that leads to solutions. Beyond that, the NAGASE Group aims to enhance economic and social value and contribute to a sustainable society.

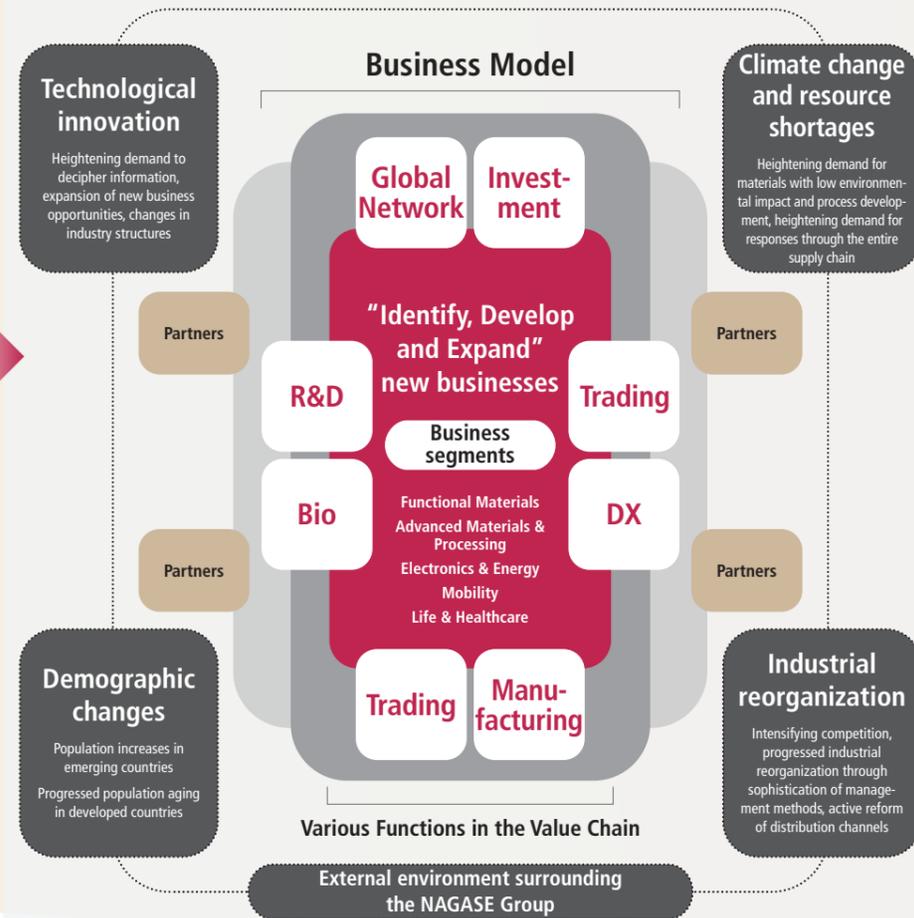
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WHAT Our Strengths

- Partnerships Built on Trust
- High Level of Technical Expertise in Chemical and Bio Fields
- Extensive Network
- Personnel / Ability to Solve Problems
- Financial Soundness and Strict Financial Discipline

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HOW NAGASE Group Growth Strategy

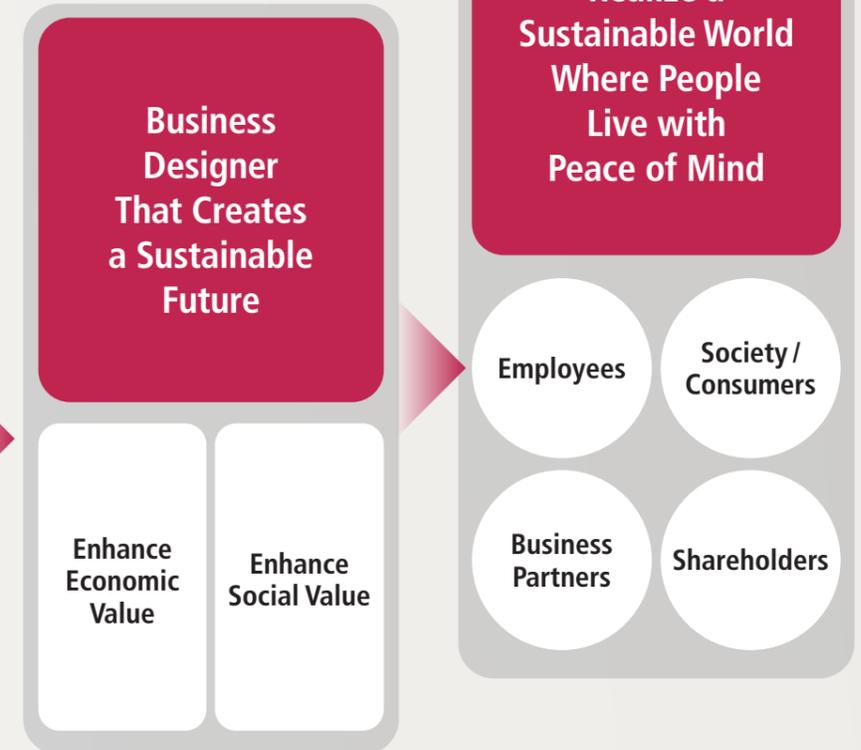


Evolution in our business model based on changes in the external environment

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WHERE NAGASE Group’s Ideal Future

“Ideal NAGASE” for 2032 (200th Anniversary)



CEO Message

朝倉 研二

Kenji Asakura

We will advance the “Pursuit of Quality”
with unwavering resolve.

We are determined to deliver value
that is unique to
the NAGASE Group to society.



We Will Engage in the “Pursuit of Quality” by Leveraging Our Current Strengths and a Sustainability Perspective

Deepen the “Pursuit of Quality,” Without Resting on Our Laurels

I’m pleased to report that we delivered solid results in the first year of the medium-term management plan **ACE 2.0**, which embraces the “Pursuit of Quality.”

In fiscal 2021, we faced a challenging earnings environment mainly because of factors such as the impact of the semiconductor shortage and logistics disruptions, as well as surging raw materials prices. Even in this challenging business environment, the NAGASE Group met its supply obligations as a key distributor. We retained and enhanced customer trust by helping to maintain supply chains in relevant industries.

“If we ask NAGASE, they will come through for us.” I can confidently state that this type of feedback from our customers reflects the true strength of the NAGASE Group. I believe it is one of the reasons we have increased our market share in a variety of fields. Consequently, our results have grown, resulting in higher earnings across all of our segments. We delivered record-high earnings at all profit levels, from gross profit on down. Automobile, resins, electronics-related and food-related businesses performed particularly well.

That said, our analysis shows that our recent strong results were partly attributable to a tailwind from the impact of market conditions, such as soaring materials prices. While closely monitoring future market conditions, we will continue to expand in areas where we are performing well to achieve robust growth unaffected by market conditions.

We are still only halfway to achieving the “Pursuit of Quality” laid out in **ACE 2.0**. Without becoming complacent with our strong results, we have strengthened our resolve by reminding ourselves of the importance of steadily implementing the plan’s measures. Of course, we delivered major achievements in the first year of working on the “Pursuit of Quality.” We made steady progress on improving efficiency in areas such as replacing assets in our business portfolio. We invested in outstanding technologies such as new materials development, and in startups with expertise in fields where new businesses are expected to emerge. Employees’ mindsets have also started to shift dramatically. We have undoubtedly started to move forward.

Meanwhile, in terms of recent issues, supply chain disruptions are expected to persist for some time. We will continue to closely monitor developments closely as we work to maintain supply chains.

Awareness of the External Environment Surrounding NAGASE’s Businesses

We believe that the current business environment has not changed significantly since the development of **ACE 2.0**. The change in the situation in Ukraine, on the other hand, was unexpected. In the face of geopolitical risks, economic activities have become powerless. In response to the issue of Russian energy supplies, our relevant policies have also been drastically altered.

NAGASE does not always do a lot of work that is directly related to energy. However, soaring prices could reduce consumer purchasing sentiment for consumer goods in the future, so we must keep a close eye on trends, particularly in the Life & Healthcare segment. Another source of concern is rising energy costs in the NAGASE Group’s manufacturing.

We are also keeping a close eye on events in China. The world relies heavily on China for goods such as pharmaceuticals and food. Against this backdrop, rising tensions between the U.S. and China and Taiwan and China could have an impact on all of NAGASE’s businesses—an impact that we would be unable to avoid. To prepare for this risk, we have started to consider diversifying our sourcing activities. Other issues include extended shipping congestion and strikes on North America’s West Coast, as well as the 2024 problem* in Japan. The NAGASE Group intends to address these issues and advance the “Pursuit of Quality” by leveraging its strengths as a trading company and its sustainability perspective.

Paving the Way for the Future Through Both Focus Businesses and Core Businesses

The external environment is undergoing rapid changes as described above. Nonetheless, we have a number of highly promising businesses that are expected to drive the NAGASE Group’s growth.

The bio-related business is one that we are most excited about for future business expansion. The three companies, NAGASE & CO., LTD., Nagase ChemteX Corporation, and Hayashibara Co., Ltd. each work on biotechnology research and development at the NAGASE Group. We have consolidated their activities on a single platform and are applying biotechnologies to a wide range of fields. We expect that many accomplishments will result from these activities during the time period covered by **ACE 2.0**.

Next is the semiconductor business. Electronic component demand is increasing in a variety of industries, including automobiles, and is expected to rise further in the future. The NAGASE Group carries many high-performance materials used as process materials in semiconductors, so this is a major plus. Going forward, we will work to share information and promote collaboration throughout the supply chain by establishing an organization that spans the whole Group.

With increased health consciousness around the world, we are also excited about the future of the food ingredients business related to nutrition. As a result of the acquisition of the Prinova Group LLC, the NAGASE Group already has a certain amount of market share, which adds to our expectations for this business. Furthermore, we have set our sights on accelerating initiatives in the Southeast Asia region, and expanding through capital investments or M&A.

Our proactive investments in new businesses in these fields have started to generate current returns, and I expect that they will become key drivers of the NAGASE Group. Of course, the NAGASE Group has more than just these types of focus businesses. It also has core businesses, such as the chemicals and resins businesses. These businesses continue to be NAGASE’s breadwinners. We will continue to advance the “Pursuit of Quality,” not just business volume, in our core businesses by incorporating the element of sustainability.

Furthermore, I have high expectations for environmental businesses further in the future. We are leveraging the NAGASE Group’s diverse spectrum of technological capabilities to contribute to environmental improvement in a variety of ways, including carbon neutrality. For

* The 2024 problem refers to various issues that will arise as a result of the Act on the Arrangement of Related Acts to Promote Work Style Reform imposing upper limits on overtime work hours for motor vehicle driving services and other rules beginning in April 2024.

example, to promote carbon neutrality in the chemicals industry, we are working to develop business in collaboration with Zeroboard, Inc, which has developed cloud services for computing and visualizing greenhouse gases (GHGs). This service provides proposals on initiatives to reduce GHG emissions, encompassing not only Scope 1 and 2 emissions, but also Scope 3 emissions, and we will continue to pursue value that other companies cannot match. The first step will be to work on resolving customer issues. In the future, we hope that these efforts will pave the way for providing solutions that leverage new technologies.

Strongly Determined to Promote Sustainability

The pursuit of sustainability is a critical theme for the NAGASE Group to grow its business and create value. We have made the framework for promoting sustainability stronger. Notably, on April 1, 2022, we changed the name of the Corporate Communication Dept. to the Corporate Sustainability Dept. and made it an organization that reports directly to the president.

My personal approach to sustainability has changed tremendously, even more so than the NAGASE Group's stance on the subject. When I was appointed as president and the SDGs were adopted around 2015, they did not elicit the same level of interest that they do today. Even when I visited Europe and the United States, I don't recall hearing much about the SDGs. However, from around 2018, just a few years later, the attitudes of world-famous manufacturers started to change dramatically. I was filled with a strong sense of urgency. Japan lags far behind the forward-thinking activities of companies in Europe and the United States. We must not fall behind this trend. That sense of urgency motivated me to work to spread the SDGs throughout the organization.

Based on the belief that our sustainability activities are part of the "Pursuit of Quality", we are working to raise sustainability awareness among all NAGASE Group employees in 2022 under the "Green it!" theme. The company's social value will surely increase if each employee takes individual ownership of our sustainability goals.

Improving employee engagement and achieving carbon neutrality have been identified as urgent issues for our sustainability activities. Two corporate projects focused on these issues were launched, and non-financial targets (KPIs) were set in **ACE 2.0** following extensive discussions. We are determined to meet these targets, believing that non-financial targets (KPIs) are just as important as financial goals.

Employee engagement is, of course, essential for sustainable growth. The NAGASE Group defines engagement as the organization and its employees understanding and enhancing one another. People, in my opinion, are a company's most important asset. What NAGASE needs going forward are human resources who are willing to take the initiative in making changes. However, what a single person can accomplish is limited. If we can foster a corporate culture that creates a process where the organization and employees enhance each other, we can energize communication beyond the boundaries of both parties, and make NAGASE a far stronger organization. First, we conducted an employee engagement survey to assess the current situation and identify issues. We will continue to promote two-way communication between the organization and employees.

Stack "Next" on Top of "Next" and Create a Sustainable Future

Over the past 1.5 years or so since 2021, we have been implementing an outward branding project with the goal of globally communicating the value that the NAGASE Group provides. To properly convey our brand's strengths, we conducted customer and employee interviews on our universal values, such as our management philosophy and vision, as well as changes in the internal and external environment, such as the values sought by our customers. We reopened discussions on the value the Group provides and established "Delivering next." as our new Group slogan.

"Delivering next." is an exciting phrase with multiple meanings. The company has a long history, and all stakeholders must remain vital partners in order for the company to progress to the next stage. The phrase

"Delivering next." — Pursuing Sustainability as a Business Designer



"Delivering next." was chosen because it embodies our commitment and aspirations to face whatever may come next with a forward-looking mindset while resolving our current issues. I'm confident that if the NAGASE Group and its partners stack "next" on top of "next," this will pave the way for a brighter future.

We are currently in the midst of a reform of profit structure and reform of corporate culture under **ACE 2.0**. We are determined not to become preoccupied with

short-term results as we continue to advance the "Pursuit of Quality" into the future. Instead, we will work to become a Business Designer that Creates a Sustainable Future, which describes the "Ideal NAGASE" for 2032, our 200th anniversary, and go further beyond. Guided by our universal management philosophy, we will continue to take ambitious initiatives with an unwavering resolve and pursue sustainability to deliver value unique to the NAGASE Group to all stakeholders.

CFO Message

Balancing Base Businesses with Focus and Develop Businesses to Shift to a Robust Profit Structure

Masaya Ikemoto

Representative Director and Managing Executive Officer

Review of the First Year of ACE 2.0 from a Business Portfolio Perspective

The first year of ACE 2.0 was a phase in which we tried to move forward while reassessing our platforms and foundations. In doing so, we sought to augment our fundamental strengths to ensure the NAGASE Group's sustainable growth. Our results grew, but our analysis shows that this growth was primarily due to the impact of tailwinds such as rising market prices. Keeping this in mind, I can proudly state that the source of our profits was that we continued to maintain the highest standards of integrity, which meant that we served our customers with the utmost sincerity in the face of drastic changes in the external environment, and that we firmly kept our promises.

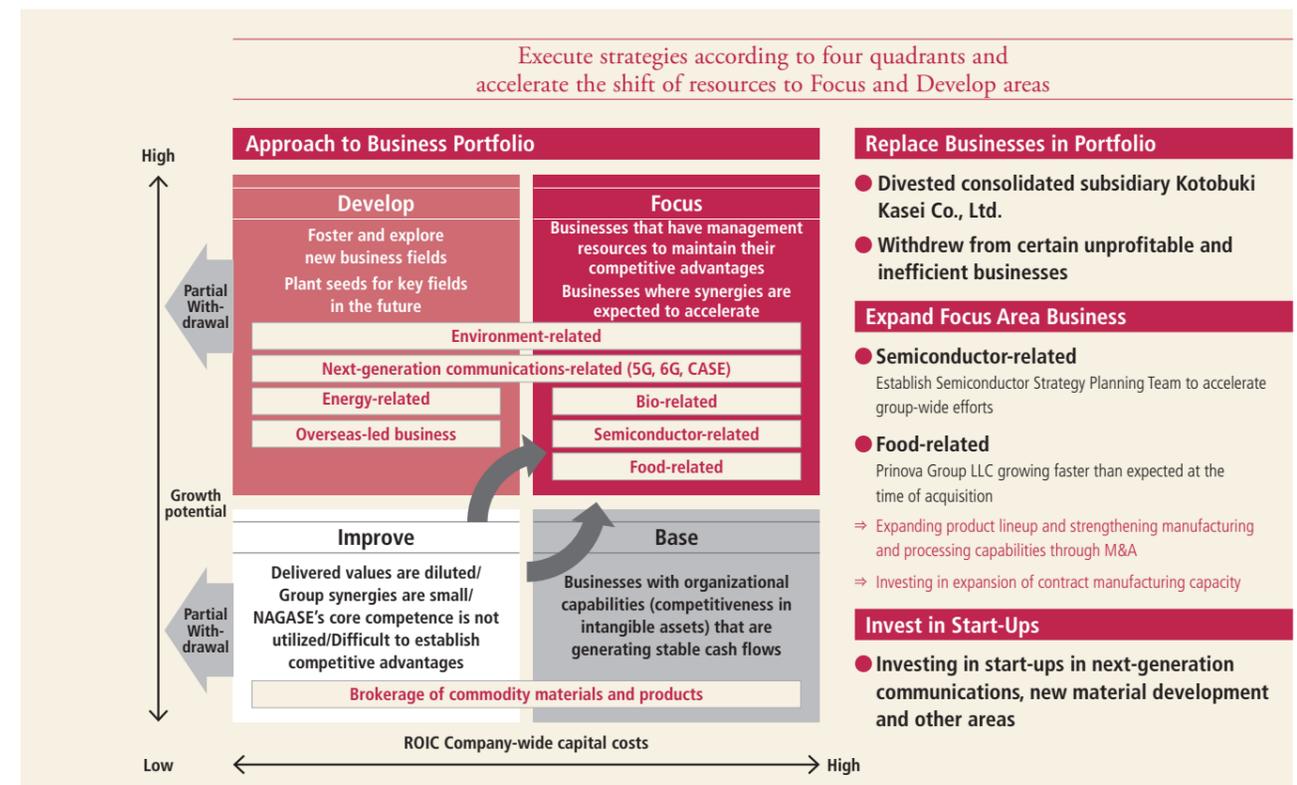
In the past year, we have started to recognize that the next stage of our future lies in the continuation of the steadfast efforts we have continued to make since the previous medium-term management plan ACE 2020. The NAGASE Group has classified its diverse business portfolio into four quadrants, specifically the Improve, Base, Develop, and Focus areas based on the two dimensions of growth potential and capital costs. While the chemical and resins

businesses are carefully managed in the base area, capital will be intensively allocated to the focus and growth areas, with the aim of continuing to drive growth. The focus areas for ACE 2.0 have been defined as the bio-related business, semiconductor business and food ingredients business. The replacement of businesses in the portfolio has been progressing because we have increased capital allocation to those businesses from the plan's first year.

We have long concentrated our efforts in the semiconductor field. Going forward, our main priority in this field will be to turn it into a highly profitable business. The NAGASE Group supplies materials such as epoxy resins, which are deeply embedded in the semiconductor manufacturing process, and we intend to establish a solid business foundation in the semiconductor industry. Notably, China is a massive market on which we should concentrate our efforts. Although conditions are volatile due to factors such as U.S-China friction, we have a strong belief that the semiconductor business that we have worked so hard to develop will finally begin to flourish in China. Meanwhile, Japanese companies

provide 60–70% of the manufacturing process technology in the U.S. semiconductor market. Concerns about China will likely hasten the shift of production to the U.S. Because Japanese companies have strengths in equipment and materials, I believe that demand for Japanese semiconductor equipment and materials will increase further in the U.S. While the company will continue to have high expectations for China, I believe that determining how we will enter the U.S. semiconductor industry will be one of our challenges going forward.

The food ingredients business is one of the signature reforms of ACE 2.0. We acquired the Prinova Group at the same time that we were solidifying our base with the acquisition of Hayashibara Co., Ltd. and these actions demonstrated our presence both in Japan and abroad. In Prinova-related areas, besides the two business acquisitions, we established a sports nutrition manufacturing plant in the state of Utah in the U.S., and business is expanding. The addition of sports nutrition as a new category has significantly increased the NAGASE Group's earnings.



Prospects for Achieving ROE Target and ROIC as a Decision-Making Indicator

Under **ACE 2.0**, we set a target for achieving return on equity (ROE) of 8.0% by fiscal 2025, the plan's final year (actual ROE for fiscal 2021: 7.7%). In addition, we intend to achieve a return on invested capital (ROIC) that exceeds the weighted average cost of capital (WACC). While there are many issues that need to be resolved, I am confident that we will meet our ROE target of 8.0%.

Meanwhile, under **ACE 2.0**, we adopted ROIC as one of our indicators for management decisions. We are dividing our existing businesses into smaller pieces with an eye toward ROIC and carefully considering how we will replace businesses in the portfolio. Businesses that can provide high added value, for example, will be transferred from the Base area to the Focus and Develop areas. We will not immediately withdraw from important businesses, such as core businesses that support NAGASE's technologies, simply because they have a low ROIC, but will instead aim to improve their ROIC first.

In fiscal 2021, ROIC improved from 4.2% to 5.3%. Working capital increased, causing an increase in invested capital. We will work to optimize invested

capital by maintaining strict inventory control. In addition, WACC fell from 5.7% to 5.5%. Overall, operating income, one of the quantitative targets of **ACE 2.0**, reached ¥35.0 billion. However, we recognize that we continue to face efficiency issues, so we intend to promote the "Pursuit of Quality" in this area too.

We consider ROIC to be a preliminary indicator for investment decisions such as prioritizing invested capital and replacing businesses. Efforts are being made to raise awareness of this principle throughout the company. We have already established a system for calculating the ROIC of businesses at a certain level, and have begun monitoring operations with BI tools*. As we move forward with **ACE 2.0**, I'm convinced that ROIC-based thinking will gradually permeate our organization.

Honing Businesses Through Asset Replacements

We will continue to increase new investment projects, in part to strengthen the NAGASE Group's ability to generate ideas and its ambitious spirit. Under **ACE 2.0**, we have set a strategic growth investment limit of ¥150.0 billion and intend to make these investments over the next 5 years. We plan to replace 10% of our assets with assets in Focus and Develop areas that offer high ROIC and growth potential.

I'm also aware that M&A will be critical in our efforts to enhance our manufacturing business. While our ROIC is our primary investment criterion, we also have businesses that should not be decided solely based on ROIC, such as specific core businesses that are essential to maintaining and expanding our customer base. I believe that one of my most important roles as CFO is to make appropriate decisions on such businesses, while keeping the NAGASE Group's medium- and long-term growth prospects in mind.

Turning to shareholder return measures, we have conducted share buybacks, which we had not done before, for the past two consecutive years, as part of our efforts to shift away from shareholder returns centered on dividends. The total return ratio, which is the sum of dividends and share buybacks, is expected to surpass 40%. In terms of measures to bolster our capital structure even further, we will seek to reduce strategic cross-shareholdings by ¥6.0 billion per year, with plans to reduce these cross-shareholdings by ¥30.0 billion over the 5 years covered by **ACE 2.0**. We have already begun to steadily reduce strategic cross-shareholdings and will continue to do so.

The Mission of the Group Manufacturing Management Innovation Office

On April 1, 2022, we established the Group Manufacturing Management Innovation Office as a new head office organization. This office grew out of efforts to enhance the Group Manufacturers' Collaboration Committee, which was formed in 2019 to bolster the foundation of manufacturing companies in the NAGASE Group.

Manufacturing businesses account for almost half of the NAGASE Group's profits. Manufacturing businesses' scale and influence within the whole Group have grown year after year, as has their share of our consolidated results. Meanwhile, I had the impression that our ability to coordinate our manufacturing businesses was lacking. Our manufacturing businesses did not share a common language or culture, nor did they have common goals. Therefore, we launched this organization with the aim of enhancing our Group's collective capabilities.

Our goal is not to control the Group's manufacturing companies. Instead, it is to encourage each company's

individual growth while also building a common platform to improve our collective capabilities.

First, we will assess current conditions from a management viewpoint so that the manufacturing companies can discuss their diverse values and benchmarks in a common language, ensuring that the Group's manufacturing businesses create new value. Specifically, we started by evaluating the value chains of Group manufacturing businesses, from development to production and quality assurance activities, identifying common management indicators, and attempting to understand and standardize diverse manufacturing processes.

Group companies have already expressed their anticipation and enthusiasm for these initiatives. We see this as a crucial opportunity to strengthen the NAGASE Group further.

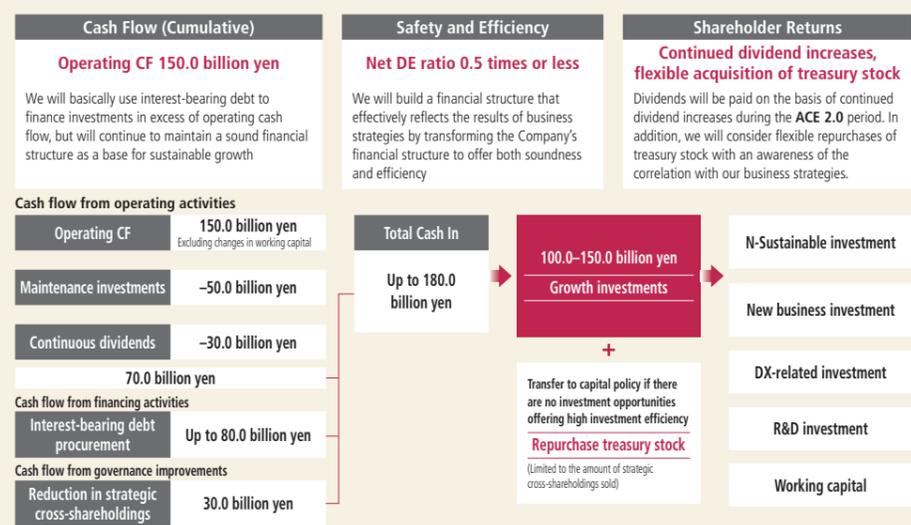
Continue to Maintain the Highest Standards of Integrity and Demonstrate the Value of the NAGASE Group

The NAGASE Group must be a sustainable company if it is to continue to be chosen by its stakeholders. We must continue to promote the businesses that will lead to sustainability that we are currently pursuing, as well as gain the empathy of all stakeholders for the NAGASE Group's *raison d'être*. To achieve these goals, we must also build a robust earnings base while properly replacing assets and continuing to provide sustainable added value to society.

As I said I earlier, I believe that one of the most important things that the NAGASE Group should emphasize is the importance of maintaining the highest standards of integrity in each employee. We would not have been unable to establish a presence within supply chains if we had not acted with the utmost sincerity so far. We would have lost touch with NAGASE's identity if we had not maintained the highest standards of integrity. Without this spirit, we will be unable to celebrate our 200th anniversary in 2032. We must always maintain the highest standards of integrity. Keeping these words close to our hearts, we will continue to demonstrate the NAGASE Group's *raison d'être* to society.

Deepen Awareness of Capital Efficiency

We will generate cash flow through sustained growth and portfolio improvements, ensure financial soundness, and efficiently allocate funds to new business investments and R&D investments for new growth.



* Business Intelligence tools: Software that collects vital information from a company's vast amount of data, and analyzes and visualizes it so that it can be used to help management and business operations

WHAT

HOW

WHERE

The NAGASE Group's Strengths

Corporate Philosophy of the NAGASE Group

Sustainability Basic Policy

"Continue to make efforts for solving social and environmental issues through our corporate activities for the sustainable growth of the NAGASE Group and society" is positioned as a common idea throughout the philosophy structure.

Management Philosophy

We recognize our responsibility to society and offer beneficial products and services while maintaining the highest standards of integrity. Through our growth, we will contribute to society and enrich the lives of our employees.

Vision

To realize a sustainable world where people live with peace of mind, each of us embodies our value proposition, "Identify, Develop and Expand" through daily activities.

"Ideal NAGASE"
for 2032 (200th Anniversary)

Business Designer that creates a sustainable future:

"Identify, Develop and Expand" —
Contribute to the development of a sustainable society.

1. Business operations with integrity

2. Good relationship with society

3. Consideration for the environment

Our Significance

We also established the Sustainability Basic Policy as a way of thinking shared throughout our value system, including our management philosophy and vision. Our raison d'être is to contribute to society and enrich the lives of our employees by maintaining the highest standards of integrity, which is a cornerstone of our management philosophy. We aim to help realize a sustainable world where people live with peace of mind through activities rooted in our process for value creation, "Identify, Develop and Expand."

"Identify, Develop and Expand"

The NAGASE Vision

● Strengths/ Characteristics

- » **Maintaining the highest standards of integrity** for almost 200 years
- » **Working with partners** to enable new businesses
- » **Driving new technologies** with knowledge and experience
- » **Staying a step ahead of the market** to actively offer solutions

● Value Proposition

- » **Identify**
We discover untapped business opportunities
- » **Develop**
We convert opportunities into customer value
- » **Expand**
We deliver solutions to multiple fields and regions

● Vision for the Future

We will contribute to a sustainable world where people live with peace of mind

History of Value Creation

Fiscal year ended March 31, 1967
(Non-consolidated)

Net Sales: **65.0** billion yen
Total Assets: **27.5** billion yen
Operating Income: **1.8** billion yen

Fiscal year ended March 31, 1987
(Non-consolidated)

Net Sales: **430.5** billion yen
Total Assets: **193.6** billion yen
Operating Income: **6.4** billion yen

Fiscal year ended March 31, 2007
(Consolidated)

Net Sales: **701.3** billion yen
Total Assets: **422.8** billion yen
Operating Income: **21.6** billion yen

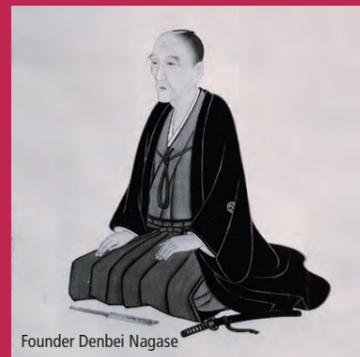
Fiscal year ended March 31, 2022
(Consolidated)

Net Sales: **780.5** billion yen
Total Assets: **739.7** billion yen
Operating Income: **35.2** billion yen

* The Company adopted the Accounting Standard for Revenue Recognition, etc. (ASBJ Statement No. 29, March 31, 2020) from the start of the fiscal year ended March 31, 2022.

1832—

Founding



Founder Denbei Nagase

The NAGASE Group traces its roots to 1832 when founder Denbei Nagase established Urokogataya, a dyestuffs wholesale business that handled safflower, *funori* seaweed and starches in Nishijin, Kyoto. Later on, we established a foothold in the chemical industry by starting to handle synthetic dyes.

1901—

Forging Ties with Leading Overseas Manufacturers

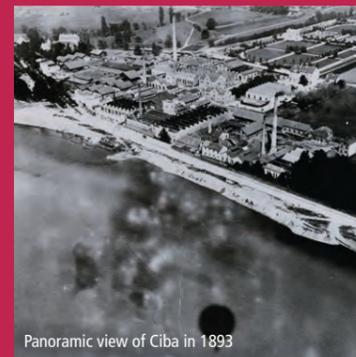


General Electric Co. (GE)

Entering the 1900s, the NAGASE Group started doing business with overseas manufacturers to pursue the possibilities of chemicals. As it expanded its import business, NAGASE established an office in Lyon, France in 1901. That spurred the expansion of partnerships with overseas manufacturers, including Basel Chemical Co. of Switzerland (at that time called Ciba), as well as Eastman Kodak Co. (now Kodak) and DuPont of the U.S. While importing state-of-the-art products from overseas, including technology not yet available in Japan, and making great strides as a trading company specializing in chemical products, the NAGASE Group delivered new value.

1970—

Enhancing Functions as a Manufacturer



Panoramic view of Ciba in 1893

Since its founding, the NAGASE Group has engaged in diverse operations. In 1970, it established Nagase-CIBA Ltd. (now Nagase ChemteX Corporation) as a joint venture with Ciba for manufacturing epoxy resins. The following year, it established Engineering Plastics, Ltd. (EPL) in a 50-50 joint venture with GE. It also built several new plants as part of steps to strengthen and expand its manufacturing, processing, and other functions as a manufacturer.

1990—

Demonstrating Advantages in R&D Functions



Nagase Bio-Innovation Center

From the 1990s, the NAGASE Group began enhancing its R&D functions in earnest. In 1990, it established the Nagase R&D Center (now the Nagase Bio-Innovation Center) as a base for R&D into bio-related materials. In the 2000s, it established Nagase ChemteX (Wuxi) Corporation in China as an epoxy resin plant for Nagase ChemteX Corporation. It also made Pac Tech-Packaging Technologies GmbH of Germany a subsidiary. In 2007, it opened the Nagase Application Workshop, an open innovation laboratory, in a push to also secure an advantage in R&D functions.

2010—

Gearing Up the Food Ingredients Business



Prinova Group

In the 2010s, biotechnology also started to gain more attention. In 2012, the NAGASE Group made the biotechnology specialist Hayashibara Co., Ltd. a subsidiary to strengthen its food ingredients business. In 2019, it made Prinova Group LLC, a U.S.-based company that sells and processes food ingredients and has a global sales network, a subsidiary. By generating synergies among the new Group companies, NAGASE brought its food ingredients business into full swing and global development.

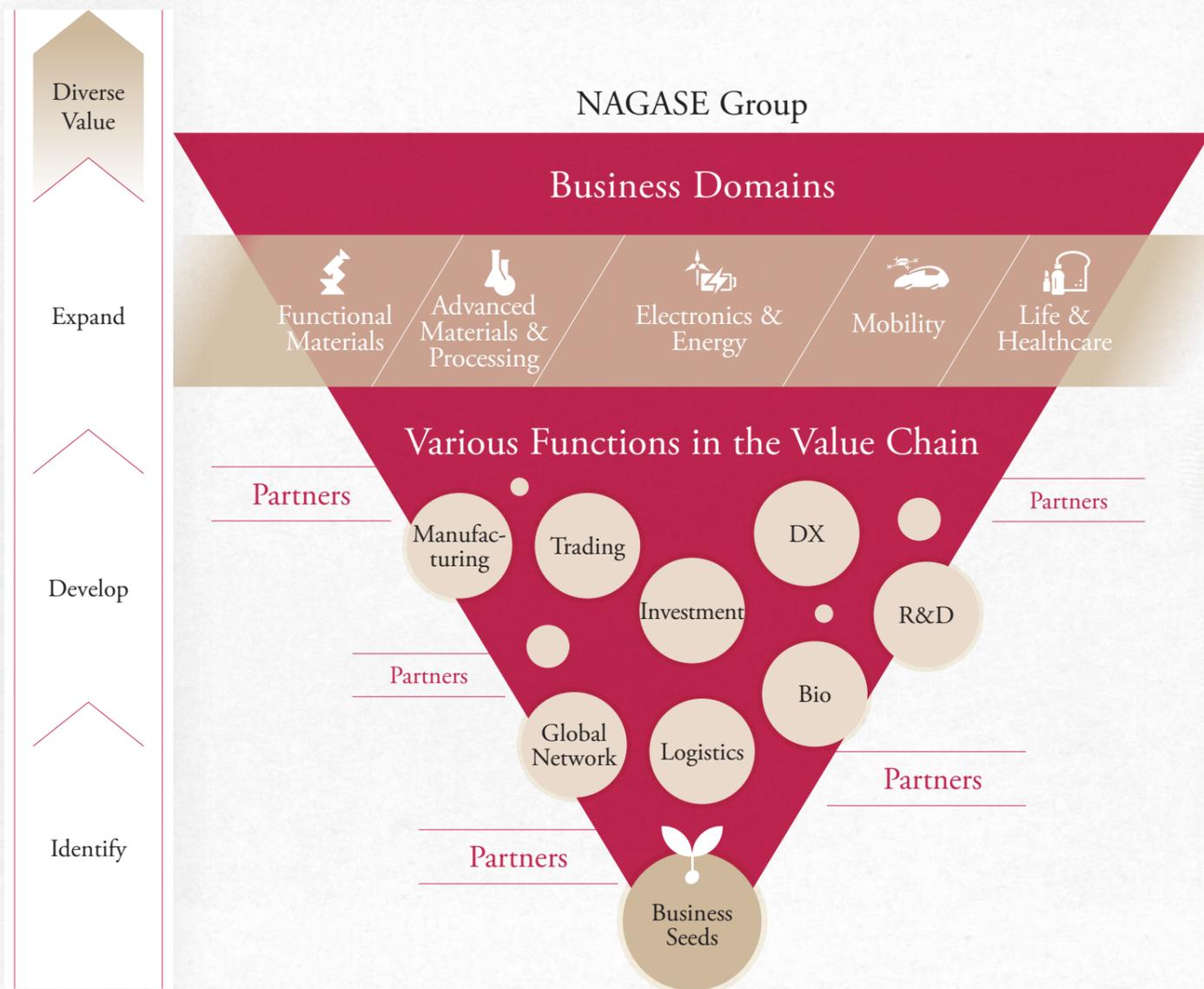
2020—

Promoting Sustainability



The NAGASE Group has grown into a corporate entity with diverse functions, including trading, manufacturing, processing, and R&D. While leveraging and adding on to those functions as a Business Designer, the Group strives to create an array of value. With the establishment of the Sustainability Committee and formulation of the Sustainability Basic Policy in 2020, it has also been focusing on sustainability in recent years. The Group aims to help solve social and environmental issues for the sustainable growth of society and the Group.

Our Business Model

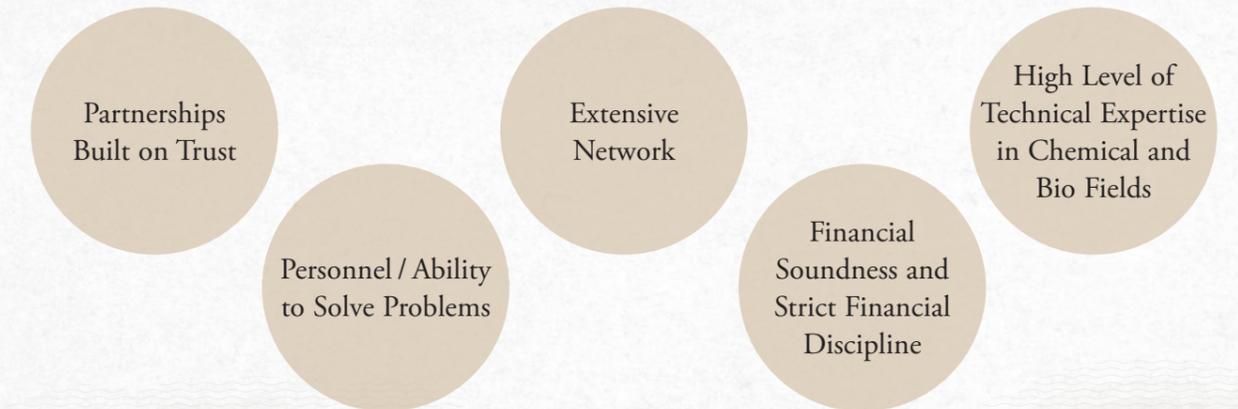


A Business Designer Working with Partners to Create an Array of Value through “Identify, Develop, and Expand”

The technologies that the NAGASE Group has cultivated over its 190-year history are one of its strengths. In addition to trading capabilities with a wide array of business domains and an extensive global network, it has enhanced its manufacturing, R&D, and other capabilities. In addition, it has strengthened new functions such as digital transformation (DX) to evolve into a corporate group that creates a myriad of value.

The NAGASE Group brings together those capabilities in working with partners to identify the seeds of technologies and businesses, develop them into new value, and expand that through business development that goes beyond borders and domains. Delivering an array of value to society and customers as a Business Designer developing unique businesses that set us apart from competitors is our current business model.

Our Strengths



Global Network



Consolidated Net Sales 780.5 billion yen <small>Overseas 530.1 billion yen</small> <small>(Fiscal year ended March 31, 2022)</small>	Overseas Gross Profit Ratio 48.8% <small>(Fiscal year ended March 31, 2022)</small>	Number of Bases 32 Countries and Areas 114 Companies <small>(Fiscal year ended March 31, 2022)</small>
Number of Manufacturing Companies 16 Countries and Areas 50 Companies <small>(Fiscal year ended March 31, 2022)</small>	Number of Sales and Servicing Companies 30 Countries and Areas 64 Companies <small>(Fiscal year ended March 31, 2022)</small>	Number of Employees (Consolidated) 7,113 <small>Overseas 3,319</small> <small>(Fiscal year ended March 31, 2022)</small>

»See P66–67, “Regional Strategy”

Important Management Resources

Here, we introduce important management resources supporting the NAGASE Group's sustainable growth.

Financial Capital

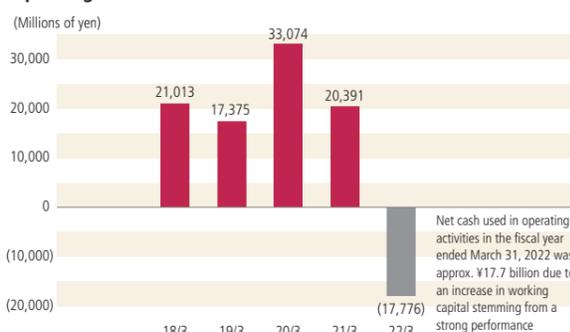
The NAGASE Group has sufficient financial capital to handle its various financial needs. Specifically, it recognizes the importance of steadily and flexibly securing funds to meet its capital requirements, including for working capital, capital investments, M&A, DX, and other investments in new growth. Its main source of capital is funds provided by operating activities. It also uses loans from financial institutions as a means of procuring funds, and obtains funds from the capital market by flexibly issuing corporate bonds and commercial paper. It takes a diversified and well-balanced approach to fund procurement.

We announced the NAGASE Group Carbon Neutral Declaration in January 2022. We are also conducting financing through Sustainability Linked Bonds to increase the effectiveness of using finance to achieve carbon neutrality and realize a sustainable society.

Credit Rating

Name of Credit Rating Agency	Issuer Rating	Commercial Paper Rating
Rating and Investment Information, Inc. (R&I)	A	a-1

Operating Cash Flows



» See P10-13, "CFO Message"

Nagase Business Expert Co., Ltd.

Helping Group Companies Raise Productivity and Profitability

Nagase Business Expert Co., Ltd. is a shared services company. By standardizing and streamlining intra-Group operations such as logistics, trade, payroll services, accounting, credit control, general affairs, account settlements, and tax services, it is helping increase productivity and profitability. It also supports the Group by developing human resources. Going forward, it will continue to contribute to the Group's sustainable growth on the

human resources front and by enhancing governance and making intra-Group operations even more efficient.

Established: 2017

Number of employees: About 240

(Fiscal year ended March 31, 2022)

Human Capital

The NAGASE Group has robust human capital. Of its 7,113 employees in total, 3,319 reside overseas. It aims to build a strong organization from both fronts to strengthen human resources to drive reforms and to bolster compliance.

Human resources are a source of sustainable growth. ACE 2.0 advocates to strengthen human resources to drive reforms as part of corporate climate reform. To give an example, the Global Marketing Division Philadelphia (GMD-P) in the U.S., which has an abundance of specialized human resources, was established to promote transformation in the digital and marketing fields and strives to assign the right people to the right places. In addition, we launched an employee engagement improvement project in 2021 to realize sustainable growth and development of employees and the company.

The NAGASE Group also regards respect for employee personality and individuality and human rights in general as a prerequisite for maintaining and enhancing human resources' capabilities. It has accordingly released a Group Code of Conduct, and conducts compliance training as needed to improve awareness among all Group employees in Japan and overseas.

Number of Employees (Consolidated)



» See P46-47, "Creating Social Value"

» See P48 for Global Marketing Division Philadelphia (GMD-P) initiatives

Intellectual Capital

The NAGASE Group's intellectual capital is distinctive in that it is not limited to chemicals, but extends to various domains, including electronics, automobiles, and healthcare. Another feature of the Group's intellectual capital is that it often applies for patents jointly with an array of partners such as universities and corporations as a trading company. To harness its total

capabilities and create new businesses, the Group undertakes R&D for the purpose of providing technical information and developing new technologies and products based on marketing activities. Expediting the mobilization of such expertise serves to enhance intellectual capital, which is a fount of innovative business activities.

Nagase Bio-Innovation Center (formerly the Nagase R&D Center)



Creating Innovation through Biotechnological Expertise and Technologies

The Nagase Bio-Innovation Center aims to create new value that contributes to society in such ways as improving people's health and solving environmental problems through research and development in the biotechnology field. Biotechnology, which enables environmentally friendly production processes, is expected to be used in a wide range of industrial fields. The center will promote bio-innovation throughout the Group by collaborating with Group companies and related organizations that possess bio-related technologies, and by integrating planning, research and development. Under ACE 2.0, we aim to expand new material production platform technologies in addition to

further developing our origin N-STEPP™ material production technology using streptomycetes.

Developments harnessing and linking together our expertise

- Fermentation Production of Trehangerin, a promising antiaging ingredient
- Fermentation production of the so-called longevity vitamin ergothioneine
- Fermentation production of D-sedoheptulose, a rare sugar with potential uses in supplements and medicine

Established: 1990

Location: Kobe City, Hyogo Prefecture

Nagase Application Workshop (NAW)



Providing Customers with a Place for Collaboration

The Nagase Application Workshop is an open innovation laboratory for plastics and coatings. As a reliable development partner to the NAGASE Group's customers, NAW provides evaluation and analysis of unique new technologies and materials, advances the development of new applications and more in an ongoing pursuit of function and design in the fields of plastics and coatings, with a focus on developing environmentally friendly materials. In addition to enriching open laboratory capabilities, NAW targets global collaboration among laboratory functions within the Group. It is promoting information sharing among domestic and overseas business bases, including Nagase ChemteX Corporation,

Hayashibara Co., Ltd., and Interfacial Consultants LLC of the U.S. It is also working to build systems for global cooperation in Japan, Asia and the U.S.

Developments harnessing and linking together our expertise

- Development of various biodegradable coating and plastic materials derived from biomass
- Color design proposals according to customer needs

Established: 2007

Location: Amagasaki City, Hyogo Prefecture

New Value Creation (NVC) Office

Create the Core of Future Business

The NVC Office advances the NAGASE Group's innovation. It forms the core of business looking 5 to 10 years down the line through cross-sectional collaboration among business divisions. It leads the Group in coming up with strategies in the materials, semiconductor, IoT and healthcare domains revolving around the slogan, "Creating new value from big data."

Developments harnessing and linking together our expertise

- Developed SaaS services for materials informatics for multiple customers, centered on TABRASA®
 - Continued development with North American partners for applications for global 5G carriers
- Used rewritable semiconductors FPGA as a platform to develop a solution to accelerate the database search middleware Redis, which is widely used in large-scale cloud computing, and began promoting that among cloud computing engineers.

Established: 2017

Manufacturing Capital

The NAGASE Group encompasses about 50 manufacturing subsidiaries, including Nagase ChemteX Corporation, Hayashibara Co., Ltd., and Prinova Group LLC. It combines its trading and manufacturing functions to offer a wide range of solutions to customers.

This manufacturing capital is an important management resource for the NAGASE Group. As part of revenue structure reform, **ACE 2.0** looks to strengthen existing businesses by expanding added value through

technological innovations and improvements in manufacturing productivity.

In addition, we newly established the Group Manufacturing Management Innovation Office in April 2022 to deepen the role of the Group Manufacturers' Collaboration Committee: MCC, which was launched in 2019 to bolster the foundation of manufacturing companies in the NAGASE Group.



Nagase ChemteX Corporation

Building an Abundant Future with Chemistry

A core manufacturing subsidiary of the NAGASE Group that possesses creative technologies in a variety of areas including electronics and biotechnology. Nagase ChemteX Corporation uses its core technologies in synthesis, formulation, and biotechnology to develop materials that are completely new to the world and create products with No. 1 market share. As a value-creating manufacturing company capable of meeting the needs of customers around the world, it will continue to embrace the challenge of developing new technologies and products.

● **Topics: Aiming to Reduce Environmental Impact, Installed Highly Efficient Wastewater Treatment Facilities**



Highly efficient wastewater treatment facility (Photo: METAWATER Co., Ltd.)

Nagase ChemteX Corporation installed a highly efficient wastewater treatment facility, one of the largest in Japan for industrial wastewater treatment, to improve the company water purification rate of wastewater generated in the manufacturing process of special epoxy compounds, and the facility is scheduled to start operation some time from the autumn of 2022 onward. Improving the in-house water purification rate is estimated to reduce the industrial waste output by 10% (approximately 400 tons), and it aims to further reduce its impact on the environment.



Functional Resins
Epoxy adhesives, encapsulants (sheets, liquids)



Precision Process Materials
Photolithography materials, 3D printing materials, silver nano ink



Functional Chemicals
Special epoxy resins, transparent conductive coating materials, low-endotoxin materials



Biochemicals
Food enzymes, industrial enzymes, phospholipids

Established: 1970
Location: Osaka City, Osaka Prefecture
Sales: About 29 billion yen
Number of employees: About 590 (Fiscal year ended March 31, 2022)



Hayashibara Co., Ltd.

Contributing through Business to the Realization of a Sustainable Society

This core business in the NAGASE Group's life sciences field develops ingredients for food, personal-care products, pharmaceuticals, and functional dyes. Hayashibara works together with stakeholders to provide materials that enrich peoples' lives and strengthen activities to reduce environmental impact, and strives for co-creation of new value.

● **Topics: Participating in an International Summit**



Health of people and the planet, and promotes the spread of safe and sustainable foods. See the Hayashibara website for details about various types of food systems initiatives.

Hayashibara Co., Ltd. expressed its commitment to sustainable food systems at the UN Food Systems Summit 2021 in September 2021 and the Tokyo Nutrition for Growth Summit 2021 in December 2021. Leveraging strengths in enzyme utilization technology cultivated over a long time and naturally derived materials created through biotechnology, it supports the



Food Ingredients
TREHA™, SUNMALT™, PULLULAN



Health Food Ingredients
HAYASHIBARA HESPERIDIN S, Fibryxa™, Ascofresh™



Personal Care Ingredients
AAZG™, MG-60, Alpha Glucosyl Hesperidin



Pharmaceutical Ingredients
MALTOSE PH, PULLULAN, TREHALOSE SG



Functional Dyes
Dyes for information recording, information displays, and diagnostic agents

Established: 1932
Location: Okayama City, Okayama Prefecture
Sales: About 27 billion yen
Number of employees: About 680 (Fiscal year ended March 31, 2022)



Prinova Group LLC

Global Development of Food Ingredients



Sells food ingredients, manufactures premixes, and undertakes contract manufacturing of final products. It has an edge in terms of ingredient sourcing, blending and flavor-related R&D capabilities, sports nutrition experience, and its network. By expanding business in North America and enhancing manufacturing and processing functions, it aims to develop high-value-added services mainly in the North American, European and Southeast Asian markets.

● **Topics: Expanding Business through Proactive Investment**



The new plant in the U.S. state of Utah for contracted manufacture of sports nutrition products

Prinova Group LLC expanded its business by welcoming The Ingredient House LLC, a sweetener distributor, in October 2021 and Lakeshore Technologies, LLC, which is involved in contracted flour milling and fine powder processing, in December 2021. In addition, it will newly open a contracted manufacturing plant from the summer of 2022 for sports nutrition products in the U.S. state of Utah. It aims to expand and enhance manufacturing functions.



Ingredients
Distribution
Over 2,000 ingredients



Aromas
Distribution Aroma chemicals, essential oils



Premixes & Solutions
Premixes, OEM, beverages, tablets, food applications



Flavors
Manufacturing
Beverages, functional food applications



Armada
Nutritional food development, manufacturing solutions, sports nutrition

Founded: 1978 **Location: Illinois, USA**
Sales: About 120 billion yen
Number of employees: About 1,200
(Fiscal year ended December 31, 2021)

» See P26–27, "[Feature] The Food Ingredients Business Led by the Prinova Group," for details about the Prinova Group's initiatives.

Group Manufacturing Management Innovation Office

Charged with Reinforcing the Domestic Manufacturing Foundation

The NAGASE Group is increasing the size and influence of our Group-wide manufacturing operations, which now account for a growing percentage of consolidated results, for creation of new value as a group manufacturing company. To that end, we newly established the Group Manufacturing Management Innovation Office in April 2022 to strengthen and expand the Group's manufacturing business by providing a comprehensive overview of each manufacturing company's manufacturing capabilities, production technology, R&D, quality control, engineering and investment evaluation from a management perspective.

The Office's predecessor, the Group Manufacturers' Collaboration Committee, was launched in 2019 with the purpose of strengthening collaboration from aspects such as safety, quality and the environment in the Group's manufacturing, and the Group Manufacturing Management

Innovation Office was launched to achieve further growth.

Currently, with the aim of creating new value as a group manufacturing company, we started with activities such as evaluating the value chain of the Group manufacturing from development to production and quality assurance activities, ascertaining common key manufacturing management indicators and understanding and standardizing diverse manufacturing processes.

● **Topics: Leading Discussions within the Group to Create Value**

The Group Manufacturing Management Innovation Office and Steering Committee take a central role in deepening understanding of the characteristics, functions and challenges of each company, and discuss how these can be linked to create new value. We have also started a half-year initiative to visit and survey each company's front lines under the theme of understanding and standardizing diverse manufacturing processes.

Social Capital

Solid relationships of trust with diverse stakeholders are very important social capital for the NAGASE Group. The Group operates globally in a wide range of business domains. It has 114 business bases in 32 countries and

regions around the world, and roughly 18,000 business partners in total in Japan and overseas.

Natural Capital

The NAGASE Group believes that a sustainable global environment is a prerequisite for continuing our business operations. To maintain and enrich such natural capital, the NAGASE Group helps realize a sustainable society by actively working to solve environmental problems. That includes striving

for a carbon-neutral and recycling-oriented society, preventing pollution, preserving biodiversity, and efficiently using water.

» See P40–43, "Creating Environmental Value"

WHAT
HOW
WHERE

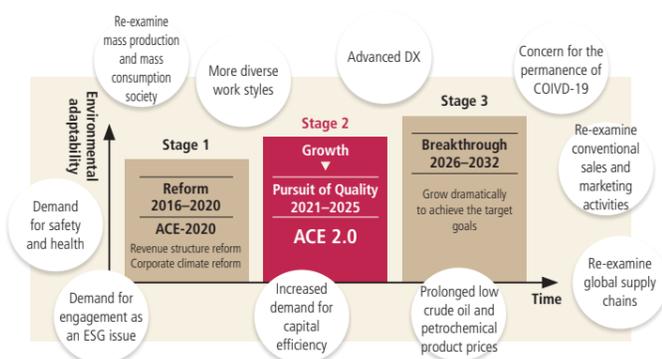
NAGASE Group Growth Strategy

Overview and Progress of the Medium-Term Management Plan

Positioning of ACE 2.0

ACE 2.0 is a five-year medium-term management plan that started in FY2021, and was back cast from 2032 to envisage the "Ideal NAGASE" at that time (the 200th anniversary of foundation), and is positioned as a period to move ahead on the "Pursuit of Quality."

The ACE in ACE 2.0 stands for Accountability, Commitment, and Efficiency.



ACE 2.0 Basic Policies

ACE 2.0 draws on the results and challenges from ACE-2020, the previous medium-term management plan, and NAGASE works to give concrete form (business, mechanisms, culture) to expectations from all of its stakeholders in a plan where it aims to be as a Business Designer that creates a sustainable future.

Specifically, we will work on the two reforms of revenue structure reform and corporate climate reform, and we will further accelerate DX, promote sustainability and strengthen corporate functions as functions to support both reforms.



Quantitative Goals (KGIs, KPIs)

The key goal indicators (KGIs) for "Pursuit of Quality" in regard to enhancing the rate of capital efficiency are ROE of 8.0% or more and operating income of ¥35.0 billion for improvement of profitability. Key performance indicators (KPIs) have also been set for revenue structure reform, corporate climate reform and corporate functions supporting reforms and we rigorously manage these goals.

"Pursuit of Quality" KGIs (KGI: Key Goal Indicator)

Measures	Indicators	FY2021	FY2025*
Improvement in capital efficiency	ROE	7.7%	8.0% or more
Increased profitability	Operating income	35.2 billion yen	35.0 billion yen

* FY2025 assumptions: 1 USD = 108.7 yen, 1 RMB = 15.6 yen

Key Performance Indicators (KPIs) for Achieving the "Pursuit of Quality" (KPI: Key Performance Indicator)

Reform / Function	Measures	Indicators	FY2021	FY2025*
Revenue structure reform	Company-wide asset replacement and reallocation of resources	Growth investments*1	—	150.0 billion yen*2
	Create "N-Sustainable businesses"	Secure 10% of company-wide invested capital and reinvest in focus and development areas	—	10% or more
		Operating income	—	5.0 billion yen or more*3
	Improve productivity of manufacturing and expand value added through technical innovation	Manufacturing business operating income*4	16.9 billion yen*5	20.0 billion yen or more
Corporate climate reform	Improve productivity of core operations	Ratio of general administrative expenses to gross profit*6	—	52.1%
	Deepen awareness of capital efficiency	Net DE ratio	0.33 times	0.5 times or less
Corporate functions supporting reforms	Accelerate DX further	Invested capital (including expenses)*7	—	10.0 billion*2

*1 N-Sustainable investment, new business investment, DX-related investment, R&D expenses, working capital
*2 Five-year cumulative total
*3 Figure based on internal management
*4 Simple sum calculation
*5 Manufacturing classifications were reviewed, and Prinova Group was reclassified as a manufacturing business from FY2021
*6 Excludes R&D expenses, amortization of goodwill and other acquisition-related intangible assets, and profit and loss due to amortization of actuarial differences
*7 Five-year cumulative total of 10.0 billion yen in DX-related investments is included in growth investments of 150.0 billion yen

Revenue Structure Reform

The key to revenue structure reform is to secure and redeploy management resources to maximize efficiency. Specifically, from the standpoint of efficiency and growth potential, we have classified businesses into four quadrants: Improve, Base, Develop and Focus, and are executing strategies according to each area.

Focus Areas	Development Areas	Base Areas
Food-related businesses <ul style="list-style-type: none"> Acquired The Ingredient House LLC (by the Prinova Group), a distributor specializing in sweeteners, and strengthen and bolster manufacturing capacities in the contracted manufacturing business » See P26-27, "[Feature] The Food Ingredients Business Led by the Prinova Group" 	<ul style="list-style-type: none"> Invest resources in areas expected to contribute to future earnings through investments in, and alliances with, startups that possess outstanding technologies and expertise that can be expected to create new businesses 	<ul style="list-style-type: none"> Enhance efficiency by working to improve profitability Promote efficiency in marketing and sales activities by using digital technology. Expand value provided by using it as new points of contact with customers
Semiconductor-related businesses <ul style="list-style-type: none"> Share information and strengthen collaboration within the Group throughout the entire semiconductor supply chain Strengthen competitiveness in such as understanding technological reform and development trends 	Bio-related businesses <ul style="list-style-type: none"> Newly established the NAGASE Biotech Office to accumulate knowledge and expertise related to biotechnologies (April 2021) Changed the name of the NAGASE R&D Center to the Nagase Bio-Innovation Center and built a promotion structure for innovation creation for the entire Group's bio-related efforts (April 2022) » See P28-29, "[Feature] Holding the Key to Growth through NAGASE's Biotechnology" 	Improvement Areas <ul style="list-style-type: none"> For businesses judged to need improvement, decide on an improvement policy, set KPIU and promote a rigorous PDCA cycle. In FY2021, withdrew from certain unprofitable businesses and secured capital by divesting a subsidiary

Corporate Climate Reform

The key point in the corporate climate reform is the pursuit of both points of economic value and social value.

- In addition to financial information, we have set KPIs in the following two areas to quantitatively evaluate and monitor non-financial information initiatives.

Theme	KPIs		
Enhance employee engagement*	Applicability	Group companies	Percentage conducting periodic employee engagement surveys: 100%
		NAGASE & Co. (non-consolidated)	Engagement survey total score: 60 or higher
Carbon neutrality	Applicability	Consolidated	Scope 1, 2 reduction rate: 37% or more (compared to 2013) Volume of reductions due to generation or purchases of renewable energies: 35,000 tons or more (cumulatively)
		NAGASE & Co. (non-consolidated)	Scope 2 zero emissions

* Applies to consolidated subsidiaries, with the Prinova Group counted as a single company.
* FY2021: Percentage of Group companies implementing the program is 41% (24 companies (including cases implemented only once)).
NAGASE & Co. (non-consolidated) engagement survey total score was 52.4.
» See P42, "Carbon Neutral Declaration" and P46, "Employee Engagement Improvement Project"

- Enhance ROIC through business strategy and improve the ROIC spread through financial strategy. We are moving ahead on quantification and visualization of ROIC for each business, building a system that enables monitoring and have started periodic monitoring.

Improvements in efficiency

	FY2020	Change	FY2021	FY2025 Goal
ROE	5.9%	+1.8%	7.7%	8.0% or more
WACC	5.7%	-0.2%	5.5%	5.0% or less
ROIC	4.2%	+1.1%	5.3%	5.0-5.5%
Net DE ratio	0.23	+0.1	0.33	0.5 or less
Net assets (Billions of yen)	338.4	+16.6	355.0	
Interest-bearing debt (Billions of yen)	118.9	+47.5	166.5	

- We conducted an employee engagement survey to understand the current situation and formulate measures to improve it so that we can improve employee and organizational engagement for the sustainable growth and development of both parties.

» See P46-47, "Creating Social Value"

- To improve productivity in core business operations, Nagase Business Expert Co., Ltd., a shared services company, has been promoting business process reengineering (BPM) to improve operational efficiency. In addition, the efficiency of indirect operations and sales and marketing activities is promoted through the use of business intelligence (BI) tools and customer relationship management (CRM).

Corporate Functions Supporting Reforms

We are strengthening DX, sustainability and corporate functions to realize revenue structure reform and corporate climate reform.

- We built a platform to strengthen and expand the customer base through digital marketing, and launched customer experience websites at the Prinova Group and other Group companies in the Americas (FY2021).

- To realize the "Ideal NAGASE," we changed the name of the Corporate Communications Dept. to the Corporate Sustainability Dept. in April 2022 to pursue economic value and social value. The organization reports directly to the representative director and president.

» See P32-33, "Our Sustainability Initiatives"

[Feature]

The Food Ingredients Business Led by the Prinova Group

Achieving Dramatic and Sustained Growth Driven by High-Value-Added Businesses

In 2019, the Prinova Group (“Prinova”), which is a U.S. based group of companies that sells and processes food ingredients and has a global sales network, joined the NAGASE Group. Prinova joining the NAGASE Group made the entire food ingredients business begin to make significant strides forward. Three years later, Prinova’s business results have exceeded initial expectations laid out at the time of the acquisition, with strengths in high-value-added businesses. At this time, Prinova has emerged as a major force in NAGASE’s food ingredients business.

Prinova Continuing to Grow Rapidly, with Strengths in High-Value-Added Businesses

The food industry is currently facing headwinds such as large-scale supply chain issues, product shortages and inflation. Facing a turbulent external environment, the NAGASE Group has identified the food ingredients business as a focus area in ACE 2.0. By leveraging Prinova’s global supply chain expertise to fulfill customer demand, the Group has increased sales and profits in the food ingredients business.

Founded in Illinois, U.S. in 1978, Prinova has continued to grow as the world’s largest distributor of a wide range of food ingredients, such as food vitamins, amino acids, sweeteners, and caffeine. It has also grown as one of the world’s largest importers of nutrition products. In the past few years, Prinova has been strategically developing businesses to address fast-changing demand in the food, beverage, nutrition and supplement sectors, with the aim of enhancing high-value-added businesses.

Strengthening the Food Ingredients Business’ Earnings Base through M&As and by Expanding Manufacturing Sites

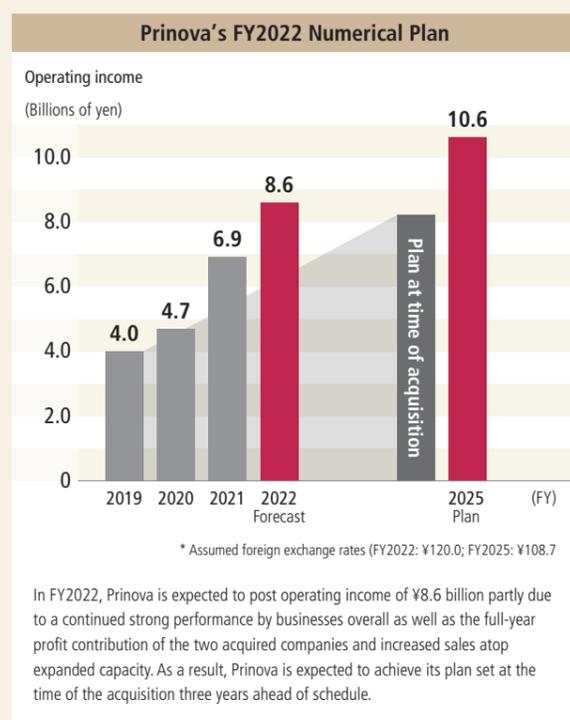
In October 2021, the NAGASE Group acquired The Ingredient House LLC (“TIH”), a distributor specializing in sweeteners, with the goal of expanding the items carried by Prinova and growing its business domains. TIH sells sweeteners in various categories to food and beverage manufacturers all over the world. Its main sweetener categories are sugar alcohols such as xylitol and high intensity sweeteners such as sucralose.

The acquisition of TIH as a subsidiary expanded the approximately 2,000 types of ingredients carried by Prinova such as vitamins and amino acids, and is expected to broaden the range of sales and contract manufacturing proposals it can offer to existing customers. Moreover, the addition of TIH’s customer network further strengthened Prinova’s global sales network.

Furthermore, in response to rising sports nutrition demand and increased demand for higher quality and safer products in the U.S., Armada Nutrition’s new plant has been built in the state of Utah in the U.S. to conduct Prinova’s contract manufacturing for sports nutrition. The plant has started operations in



A sports nutrition contract manufacturing plant was built in the U.S. state of Utah



stages since the summer of 2022. The new plant is capable of contract manufacturing on the largest scale in the U.S. sports nutrition sector, and it is expected to further strengthen the earnings base. In addition, the NAGASE Group has steadily enhanced its management base through such means as assigning the General Manager of the Food Ingredients Department to the U.S. The Group’s main goals are to expand sales of the food ingredients of Hayashibara Co., Ltd. using Prinova’s customer base, realize and strengthen synergies by combining the products carried by Prinova and NAGASE’s customer base centered on Asia, and increase discussions on the development of global strategies.

Food is the primary source of activities in daily life, and it is absolutely necessary for a sustainable world where people live with peace of mind. Going forward, the NAGASE Group will continue to fully leverage Prinova’s global network and portfolio to achieve sustainable growth of the food ingredients business.

Focus Businesses in the Food Ingredients Business

Beverages



The global beverage industry is growing, especially the energy beverage category. Consumers are pivoting their preferences to drink options that feature better-for-you, healthier, cleaner label, and reduced sugar beverage offerings.

Sports Nutrition



Sports nutrition is still growing at 9% per year in the U.S. and has enjoyed continued growth in Europe and around the world. This is the fastest growing category for Prinova and given our dominance in relevant functional ingredients, we are strongly positioned to meet customer demands.

Gummies



The global gummy market size was valued at USD 16.28 billion in 2020 and is expected to grow at a CAGR of 12.6% from 2020 to 2028. While gummies now command almost 20% of the market for nutrition supplements, we at Prinova are selling into this market, and are looking at manufacturing gummies in our Utah plant to meet customer needs.

Interview

Working to Solve Problems in Global Supply Chains through “One Global Prinova”

Donald K. Thorp

Managing Executive Officer, NAGASE & CO., LTD. and President, Prinova Group LLC

What are the strengths of Prinova and its pillars for growth?

Prinova’s mission is “Customer First” and our vision is “One Global Prinova.” Prinova is well-known throughout the world for the safety of its supply chain, expertise and customer service concerning ingredients. By expanding our high-value-added services, we have evolved and grown. We are currently differentiating ourselves utilizing the full range of the Group’s portfolio, including ingredient sales, premix manufacturing, flavor manufacturing, powder product development and contract manufacturing, so that each of our customers can conduct business in accordance with their needs.

Prinova has three pillars of growth. The first is its specialized knowledge on supply chains and their safety. During the spread of COVID-19 and the ongoing logistics crisis, this pillar assisted us in strengthening customer service. The second pillar is to leverage our strengths as “One Global Prinova” through collaboration to bring out the capabilities of the companies we have acquired. We will generate new synergies and enhance our customer value propositions through these efforts. The third is our ability to build strong and optimal supplier relationships that meet customer needs regardless of the size of their business, through global business operation.

What issues does the NAGASE Group’s food ingredients business face and how is it addressing them?

The main issues in the food ingredients business in the ASEAN region, the Middle East and the rest of the world are enhancing the variety of ingredients and materials available to customers and developing the employee skills required to conduct sales to customers. Prinova holds weekly meetings for teams responsible for the Middle Eastern market and is considering the formation of a specialized purchasing department as well as training sessions and follow-up activities to improve product procurement and sales skills. In both the Middle Eastern and Japanese markets, competition is fierce. Time, training and effort are required to enter these markets.

Could you please describe your vision for ideal Prinova and what you are doing to realize that vision?

Prinova aspires to be the company that customers think of first when it comes distribution, high-value-added solutions and manufacturing in the food, beverage, and nutrition sectors, both now and in the future. Going forward, we will work with integrity as one group to solve the global supply chain problems that many U.S. companies are experiencing. We will make every effort to ensure that each department and employee can find solutions that meet the needs of customers.



[Feature]

Holding the Key to Growth through NAGASE's Biotechnology

Evolving Into "NAGASE, the Biotechnology Company"

Based on the Keywords of Microorganisms, Enzymes, and Fermentation

Through unique biotechnology that goes beyond the boundaries of a trading company, the NAGASE Group aims to provide technology value that other companies cannot match. The Group is working to develop sustainable new materials that are needed in these times by bringing together the biotechnologies of each Group company.

In response to rising social demands for environmentally responsible manufacturing, interest is growing in biotechnologies, which enable environmentally friendly production processes by producing useful materials through natural living things such as plants and microorganisms. Biotechnology is a technology that uses the functions of living things in everyday life. Biotechnology-based products and services are being developed in a variety of fields, including health foods, cosmetics, pharmaceutical ingredients, and chemicals.

Striving for Efficient Production of Useful Materials by Bringing Together Each Group Company's Biotechnologies

In April 2021, the NAGASE Group established the NAGASE Biotech Office as an organization that spans the whole Group, bringing together biotechnologies. The NAGASE Biotech Office collaborates closely with the Nagase Bio-Innovation Center (formerly the Nagase R&D Center), which is responsible for research and development (R&D) functions at NAGASE & CO., LTD., and Group companies Hayashibara Co., Ltd. and Nagase ChemteX Corporation. The NAGASE Biotech Office is focusing on R&D for new materials that apply synthetic biology, which aims to produce rare, useful materials more efficiently. The NAGASE Group's strengths are its ability to approach customer needs from a variety of technical perspectives because it understands fermentation and enzyme technologies, which are essential to microorganism-based bioprocesses, as well as its ability to cover a broad range of areas, from R&D to manufacturing and sales.

In addition, as biotechnologies and digital technologies have advanced in the last few years, next-generation bioproduction technology has attracted growing interest. Next-generation bioproduction technology uses smart cell technology (a biosynthesis technology that artificially maximizes the substance production capability of cells) to bring out previously unusable, potential functions of living cells. For example, ergothioneine (EGT), a rare natural amino acid found in organisms such as mushrooms, is thought to have excellent antioxidant properties and

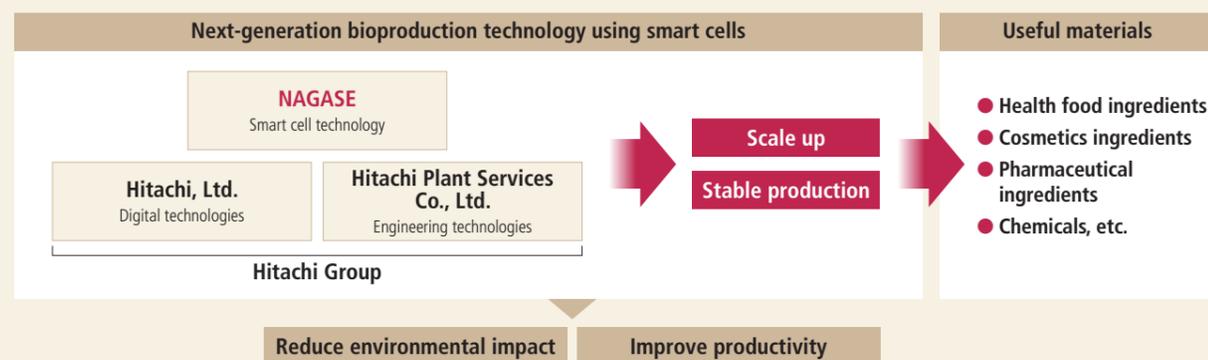
high anti-aging effectiveness. Potential applications are expected in a variety of fields including food products, cosmetics, and medicine. However, because EGT is only found in trace amounts in mushrooms, production has been difficult. Extraction methods for EGT from natural materials take time and effort and organic synthesis of EGT has a significant environmental impact. In 2015, NAGASE & CO., LTD. began developing an environmentally friendly bioproduction process that could provide a stable supply of EGT via fermentation using microorganisms. Due partly to these efforts, the Company succeeded in using smart cell technology to increase EGT productivity by a factor of approximately 1,000 when compared to conventional levels.

Start of Smart Cell-Based Joint Development with the Hitachi Group

Furthermore, in April 2022, NAGASE & CO., LTD. started joint development with Hitachi, Ltd. and Hitachi Plant Services Co., Ltd. on the commercialization of smart cell-based production processes for EGT and other useful materials. Hitachi, Ltd. has cell culture simulation technology and data analytics technology, while Hitachi Plant Services Co., Ltd. has engineering technologies for the design and construction of large-scale cell culture plants and the scaling up of production facilities. This joint development is expected to enable further scale-up and commercialization of production processes, which are essential to the industrialization of useful substances, by utilizing and integrating the experiences and expertise developed by the Hitachi Group to date.

The NAGASE Group will continue working to bring together biotechnologies within the Group and to solve social issues. Moreover, the Group will strengthen its presence as "NAGASE, the biotechnology company" both by reducing the environmental impact and increasing the efficiency of the production of useful materials. In doing so, the Group will contribute to the creation of a sustainable world where people live with peace of mind.

Concept Map of Joint Development with the Hitachi Group



Nagase Bio-Innovation Center (formerly the Nagase R&D Center)

Develop Research Themes That Can Contribute to Society from a Macro Perspective

The Nagase R&D Center was established in 1990 and has conducted fundamental research for the NAGASE Group, mainly in the fields of genetic engineering, enzyme engineering, and metabolic engineering. In April 2022, the Nagase R&D Center was renamed the Nagase Bio-Innovation Center to promote bio-innovation across the Group.

The Nagase Bio-Innovation Center's basic principle is "Unavailable Made Available & Sustainable Way." Through R&D in the biotechnology field, the center aims to create new value that leads to social contributions such as people's health issues and solving environmental problems. The center's mission is to achieve innovation using biotechnologies. For example, the center owns many unique technologies in materials

production that use actinomycetes as a host.

Furthermore, the center collaborates with around 150 researchers from various Group companies to promote the NAGASE Group's bio-related businesses from the research stage. It is working to develop new enzymes and biochemicals through the use of the center's technologies, as well as the marketing capabilities of each organization, and the product development capabilities and manufacturing functions of Hayashibara Co., Ltd. and Nagase ChemteX Corporation.



Interview

Striving to Create New Businesses by Integrating Market Needs and R&D Seeds

Yuki Okaza and Ayana Oki,
NAGASE Biotech Office

What are NAGASE's strengths in biotechnology?

Okaza: NAGASE's strengths include the ability to manufacture using three different technologies: microorganism, enzyme and fermentation. Many companies can manufacture using one of these technologies, but I believe NAGASE is highly unique in that it has three technology options for manufacturing. Another point that distinguishes NAGASE from other companies is that despite being a trading company, it has manufacturing and R&D sites.

Oki: Nagase Bio-Innovation Center has microorganism design technologies, Hayashibara Co., Ltd. has enzyme screening and functional carbohydrate production technology, Nagase ChemteX Corporation has industrial enzyme production technology, and our salesforce has proposal skills. I believe that NAGASE's strength in biotechnology is that by working as one Group, it can consistently follow through operations, from designing targeted materials so that they can be efficiently produced with microorganisms, to mass producing those materials, developing applications for them and selling them.

Which technologies are you focused on?

Oki: I'm focused particularly on microorganism design technologies. We are currently preparing to launch NAGASE's EGT in the market. This is one example where NAGASE was able to use its technology to improve productivity by a factor of around 1,000. The production of materials with microorganisms has also attracted growing interest in the past few years because of its environmental friendliness.

Okaza: I'm focused on genetic engineering. I used genome editing technology to conduct research as a university student. With this background, I'm particularly interested in advances in gene manipulation technology. We created a metabolic map for EGT and manufactured it with microorganisms designed to reduce the number of cell

culture days and achieve high efficiency. As a result, I'm hopeful that we will be able to produce many more products like this in the future.

What is your outlook for the future?

Oki: The Group will make a concerted effort to provide the materials and value that the market requires, while leveraging NAGASE's foundational biotechnologies. Manufacturing methods with a high environmental impact, as well as the manufacturing of items such as petrochemical products, will be replaced in the future by bioprocesses. By doing so, we aim to establish ourselves as the "NAGASE Group that contributes to environmentally friendly manufacturing" and to realize "Green it!" which is this year's theme for the NAGASE Group.

Okaza: Based on the keywords of microorganisms, enzymes, and fermentation, I would like to work on developing new businesses by integrating market needs and R&D seeds. Going beyond the traditional boundaries of a chemicals trading firm, we will accelerate our activities in order to be known as "NAGASE, the biotechnology company" in 10 or 20 years.



WHAT

HOW

WHERE

The NAGASE Group's Ideal Future

Message from the General Manager of the Corporate Sustainability Dept.

Surviving in a Business Environment That is Changing Rapidly with the Promotion of Sustainability

Koichi Sagawa

Executive Officer, GM, Sustainability Promotion Department



Turning a Pivot to a Recycling-Oriented Society into a Business Opportunity

We have positioned the NAGASE Group's Sustainability Basic Policy as a way of thinking shared throughout our value system, which comprises our management philosophy, vision, and the "Ideal NAGASE" for 2032.

Our corporate strategy now emphasizes strategies based on a long-term view that takes into consideration the natural environment and people in addition to the conventional perspectives of economic development and pursuit of profit. This is also evident in our medium-term management plan, **ACE 2.0**, which started in FY2021 and requires us to pursue "quality" in both economic and social value.

Back in around 2005, the Company had a department called the Eco-Materials Department, which handled various environmentally considerate materials, such as environmental products made by combining artificial wood and resin. Although our business partners showed some interest in these at the time, economic rationality was still the highest priority in those days, making it difficult to grow the business. Today, over 15 years later, one can sense that the world has clearly changed. Particularly in these past few years, there have been obvious changes in our business partners' social policies and purchasing policies, and demand has increased for materials and products with high environmental value. Looking ahead, I am certain that this trend is going to accelerate.

The NAGASE Group recognizes the following as important social issues: technological innovation, climate change and resource shortages, demographic changes, and industrial reorganization. We consider climate change and resource shortages in particular to be the most important of these, and we view it as both a risk and a significant opportunity. Assuming that the traditional pattern of mass production, mass consumption, and mass disposal is now coming to an end, then by changing from

a linear economic model of make, use, and discard to a cyclical model of make, use, and reuse, I feel that new business opportunities will open up for us in areas such as recyclable materials.

Two Major Themes: Decarbonization and Employee Engagement

The NAGASE Group established the Sustainability Committee in June 2020. The committee is chaired by the President and is currently composed of members including representatives of the Group's trading business, manufacturing business, R&D functions, and areas. I am also a member.

In its first year, the committee formulated the Sustainability Basic Policy, and in the second year, 2021, it established the Employee Engagement Improvement Project and the Carbon-Neutral Project. These two projects have been positioned as important issues to be addressed by the entire Group.

With regard to the Carbon-Neutral Project, in January 2022, the Group announced its Carbon Neutral Declaration. In addition to trading company functions, the NAGASE Group has manufacturing and processing functions that occupy a distinctively large position in the Group and are categorized into two axes and four quadrants of "trading/manufacturing" and "visualization/reduction."

Up until the fiscal year ended March 31, 2022, I was working as the person in charge of plastic-related business. Decarbonization initiatives are an urgent issue for this industry, and I have always been acutely aware of them personally in my activities. These days, demands on companies to reduce greenhouse gas (GHG) emissions and pressure to disclose them are increasing more and more. In fact, companies on the Prime Market are required to disclose Scope 3 information in accordance with the Task

Force for Climate-related Financial Disclosures (TCFD) recommendation. However, complying with Scope 3 is difficult to achieve with the efforts of the Company alone. Cooperation along the supply chain is becoming necessary, and in the current situation, standard method of calculating GHGs hasn't been determined. Since the Company is able to approach companies both upstream and downstream on the supply chain, it will use its strengths to bolster initiatives for supporting decarbonization among business partners.

As a specific initiative, the Company entered a business alliance with Zeroboard, Inc. in September 2021, aiming to develop a cloud service business for calculating and visualizing GHG emissions. Currently, we are rolling out this service for initiatives across all of our business divisions.

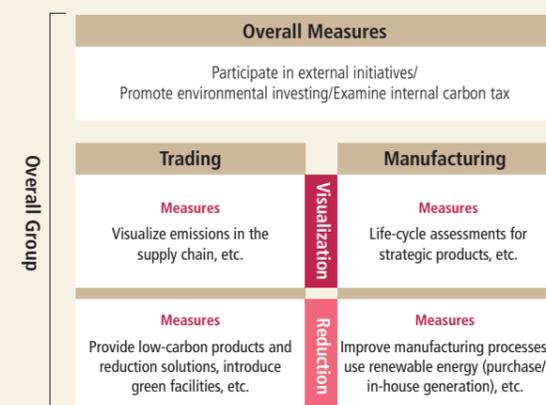
Through these activities, we are seeing an increase in opportunities to talk with people in the corporate divisions of our business partners, with whom we have had no interaction until now, and they are now also sharing their management issues with us. Therefore, in addition to calculating and visualizing GHG emissions, as a leading player in the chemical industry we consider it our mission and also our role as a partner to propose and lead solutions and facilitation to reduce emissions, and we are actively pursuing these initiatives.

Meanwhile, in the Employee Engagement Improvement Project, the President himself has taken the role of project owner and has positioned this issue as the highest priority. This demonstrates our thinking that employees are essential for realizing our philosophy, vision, and the "Ideal NAGASE." We will continue to promote open communication between the Company (organization) and employees with the objective of increasing understanding of employee engagement and promoting it internally.

Using My Own Experience to Instill a Sense of Crisis

In April 2022, the Corporate Communication Department was renamed the Corporate Sustainability Department, and launched as an organization under direct supervision of the President. I believe that the mission of this team is to prepare tools and create mechanisms for promoting sustainability activities across the entire NAGASE Group. On the other hand, there remain significant disparities in understanding and awareness of sustainability between the business divisions, Group companies, and areas of the NAGASE Group. I will share my sense of crisis that if we do not tackle this now, we will be left behind with people concerned, using my own experience on the sales front line to drive the NAGASE Group's sustainability forward.

Initiatives to Realize Carbon Neutrality by 2050



Our Sustainability Initiatives

The NAGASE Group has identified priority issues (materiality) for sustainability based on providing value to stakeholders.

Through the establishment of the Sustainability Basic Policy as a way of thinking shared throughout our value system along with the pursuit of activities to “Identify, Develop, and Expand” espoused in the NAGASE Vision, we will contribute to the realization of a sustainable society.

Sustainability Basic Policy

1. Integrity in Business Activities

- We shall conduct our corporate activities in compliance with all applicable national and regional laws and regulations, and in keeping with societal norms and common sense.
- We shall strive to prevent corruption of all kinds and maintain healthy and proper relations with our partners and government entities.
- We shall strive to provide safe, high-quality products and services, and seek to maintain and improve the value to our customers and partners.
- We shall safeguard the benefit to the consumer through maintaining and promoting fair and free competition.
- We shall strive toward rigorous management and protection of information about our customers and our company.

2. Positive Relations with Society

- We respect human rights and do not permit any sort of discriminatory conduct. We absolutely refuse to accept infringements of human rights such as forced labor or child labor.
- We respect the cultures and practices of national and regional societies, and maintain positive relations with society.
- We shall strive to ensure health, safety, and appropriate communication with our diverse stakeholders.
- We shall constantly pay detailed attention to sustainability among our suppliers, and shall work to make corrections should there be any doubt to their sustainability.
- We shall proactively disclose corporate information as appropriate.

3. Consideration for the Environment

- We shall comply with national and regional environmental regulations.
- We shall contribute to the maintenance of the global environment, including limiting climate change and preventing contamination, promoting reduction in the environmental footprint of our business activities through suppression of greenhouse gas emissions and energy consumption.
- We shall, through environmentally-conscious products and services, provide information to our customers about appropriate product usage, recycling, and disposal methods.
- We shall contribute broadly to society through environmental conservation activities in various countries and regions.
- We recognize the importance of biodiversity and shall strive to conserve ecosystems.

Note: Information about the NAGASE Group's sustainability is also available on our website. <https://www.nagase.co.jp/english/sustainability/>

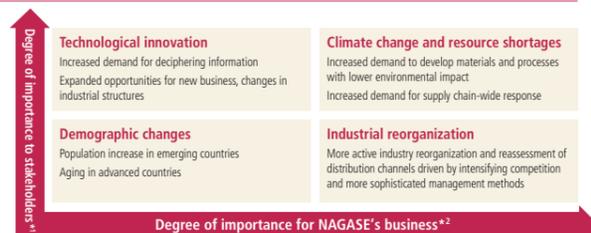
Sustainability Committee

We have established the Sustainability Committee, chaired by the Representative Director and President with the aim of continuously increasing the NAGASE Group's corporate value by contributing solutions to social and environmental issues through our corporate activities. The committee is composed of a chair and at least two members, who are appointed by the president from the employees of the Company and its Group companies. The Corporate Sustainability Office conducts business execution (practical implementation) based on the sustainability promotion policy.



The NAGASE Group's Materiality (Important Issues)

The NAGASE Group conducted an external environmental analysis during the formulation of its medium-term management plan ACE 2.0 and identified the most important issues to both NAGASE and its stakeholders. We also identified important issues (materiality) in sustainability based on the value we provide to our stakeholders. We use the process shown at the top of the right page to identify materiality, formulate KPIs, and manage them.



*1 Assessed as important matters that produce great change to the respective needs of employees, business partners, local communities, consumers, and shareholders.
*2 Assessed as important matters that offer opportunities for new businesses, opportunities for existing businesses, threats to existing businesses, and threats to business continuation.

● Formulation and Monitoring of KPIs

FY2020	FY2021	FY2022	FY2025
● Identification of Materiality Conducted discussion in the NAGASE Group sustainability promotion project to elicit issues. Identified these as materiality in medium-term management plan ACE 2.0	● Formulation of KPIs Established the following two projects for the identified materiality 1) Employee Engagement Improvement Project: Using diverse human resources; offering a workplace environment and corporate culture 2) Carbon-Neutral Project: Solving social and environmental issues, and globalization	● KPI Management and Materiality (Monitoring) Set KPIs for “Carbon neutrality” and “Employee engagement enhancement.” Formulate FY2025 medium-term management plan target for carbon neutrality and an FY2025 target employee engagement enhancement. Start managing progress on materiality, mainly through KPIs, in the second year of the five-year medium-term management plan ACE 2.0.	Achieve targets of medium-term management plan

Materiality and KPIs

The NAGASE Group has identified materiality for each group of stakeholders. In May 2022, KPIs were set for materiality for employees and society/consumers, and the Group will promote sustainability management while checking its progress on these.

Stakeholders	Materiality	Report on KPIs and Initiatives	Relevant SDGs
Employees	Use diverse human resources; offer a workplace environment and corporate culture <ul style="list-style-type: none"> ● Use advanced technologies to improve productivity and leverage diverse human resources. ● Provide a workplace environment and foster a corporate culture as a Group where employees with diverse backgrounds have mutual respect and motivate each other. 	KPI Group companies ● Ratio periodically conducting engagement survey: 100% NAGASE & Co. (non-consolidated) ● Total score on engagement survey: 60 or above »See P46	
Business Partners	Use of state-of-the-art technology to create new value <ul style="list-style-type: none"> ● Create new value leveraging advanced technologies and a network of business partners. ● Provide a wide range of solutions based on understanding the true causes of the increasingly complex problems of business partners. 	Report on initiatives We have established the three N-Sustainable business fields: Environment and Energy, Next-generation Communications, and Life & Healthcare. By 2025, we aim to achieve operating income of ¥5.0 billion or more in these businesses (based on internal management).	
Society and Consumers	Solving social and environmental issues, and globalization <ul style="list-style-type: none"> ● Solve problems that threaten safety and security, e.g., climate change and food and water shortage. ● Contribute to securing and improving food safety by utilizing biotech, AI and other advanced technologies. ● Fulfill health maintenance demands due to increasingly aging societies in advanced countries. ● Contribute to the acceleration of globalization and solve social issues in each region. 	KPI Consolidated ● Reduction rate for Scopes 1 and 2: 37% or more (compared to 2013) ● Reduction amount due to generation/purchase of renewable energy: 35,000 tons or more (cumulative) NAGASE & Co. (non-consolidated) ● Scope 2 zero emissions »See P42	
Shareholders	Corporate governance <ul style="list-style-type: none"> ● Establish a highly transparent corporate governance system. ● Make sustainable improvement of enterprise value by balancing economic and social value. 	Report on initiatives We have been presenting a directors' skill matrix, and as a company listed on the Tokyo Stock Exchange Prime Market, we are also making progress on disclosing information in line with the TCFD recommendations.	

Organizations Responsible for Implementing Materiality Initiatives

The Sustainability Committee is promoting two projects (described on the right) under the supervision of the Board of Directors. The committee makes regular reports to the Board of Directors regarding progress on KPIs for each materiality issue.



Corporate Governance

Basic Approach

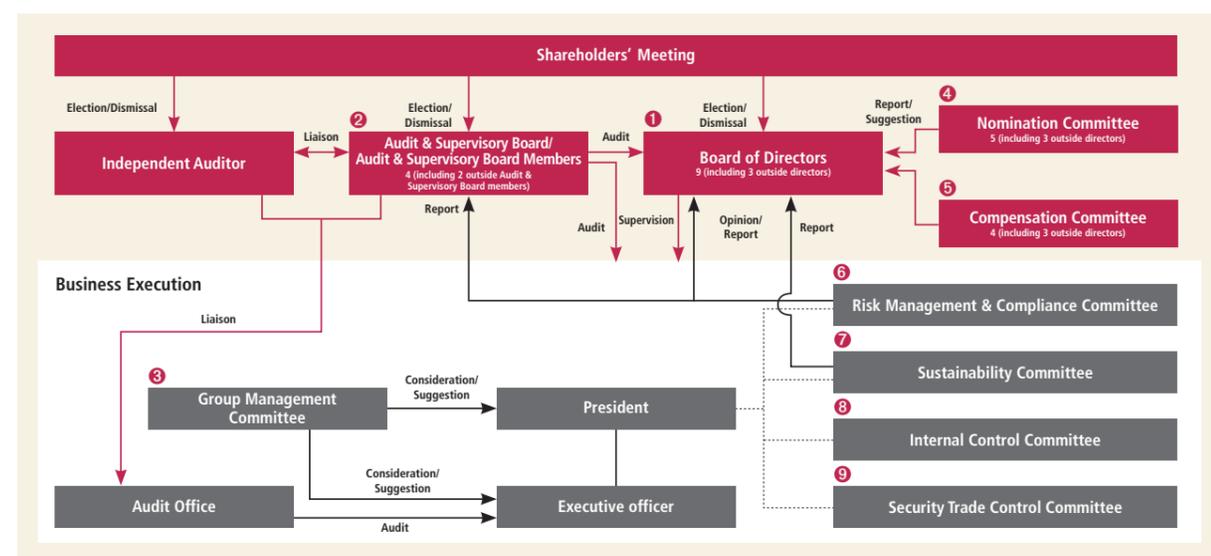
The NAGASE Management Philosophy recognizes its responsibility to society and offers beneficial products and services while maintaining the highest standards of integrity. Through our growth, we will contribute to society and enrich the lives of our employees. Based on this philosophy, NAGASE strives to increase corporate value over the medium to long term in line with the NAGASE Vision, its commitment to stakeholders. We are strengthening our corporate governance, because we believe that rapid decision-making and execution, and ensuring transparency are essential for us to accomplish these objectives.

Note: Our latest Corporate Governance Report is available on our website. <https://www.nagase.co.jp/english/assetfiles/tekijikajji/20220721.pdf>

Governance Summary

Institutional Format Company with Audit & Supervisory Board	Effective functioning of neutral and objective audits by the Audit & Supervisory Board providing objective recommendations and advice from multiple independent outside directors with specialist knowledge.	Number of Directors 9	The number of directors has been reduced from 20 in 2000 to 9 in 2021, enabling faster decision-making.
Separation of Management and Business Execution Executive officer system	An executive officer system was introduced in 2001 to accelerate decision-making and enhance business execution.	Outside Directors 3	The first outside director was appointed in 2004. There are currently three outside directors, including one woman.
Outside Audit & Supervisory Board Members 2	Outside Audit & Supervisory Board members have been appointed since 1994. There are currently two outside Audit & Supervisory Board members (two of the total four members).	Director Compensation Compensation Committee	Established in 2010, three of the four members are outside directors. The committee debates the fairness of compensation levels and systems.
Board Member Appointment Nomination Committee	Established in 2018, outside directors form the majority of the committee, which debates proposals for nominating directors and executive officers, and succession plans.	Compliance/Risk Management Risk Management & Compliance Committee	The Compliance Committee was formed in 2001 and converted to the Risk Management & Compliance Committee in 2008.
Internal Control Internal Control Committee	The Internal Controls Promotion Committee was renamed the Internal Control Committee in 2009.	Sustainability Sustainability Committee	Created in 2020, the Sustainability Committee is chaired by the President and its members are employees from the Company or Group companies.

Corporate Governance System



1 Board of Directors

The Board of Directors is clearly positioned as the body in charge of making decisions on management policies and strategies, and supervises the execution of operations. It holds a regular monthly meeting to make important decisions, track business performance and formulate measures.

2 Audit & Supervisory Board/Audit & Supervisory Board Members

In accordance with the audit policy and audit plans set at Audit & Supervisory Board meetings, Audit & Supervisory Board members conduct audits of the execution of duties by directors by attending important meetings such as Board of Directors meetings and receiving reports solicited from subsidiaries on an as-needed basis.

3 Group Management Committee

The Group Management Committee comprises executive officers appointed by the Board of Directors, and in principle, meets regularly twice a month to discuss management strategies, investment projects, and other important matters to support business decision-making. This committee serves as an advisory body that discusses matters resolved by the Board of Directors.

4 Nomination Committee

The Nomination Committee has five members, the majority being outside directors. It deliberates on appointment proposals for directors and executive officers and succession plans for the Chief Executive Officer. It then provides reports and recommendations to the Board of Directors with the aim of ensuring objectivity and transparency in nominations of NAGASE's top management.

5 Compensation Committee

The Compensation Committee has four members, the majority being outside directors. It enhances the objectivity and transparency of the decision-making process regarding compensation of directors and executive officers by screening the appropriateness of every compensation level and the compensation system to report and make recommendations to the Board of Directors.

6 Risk Management & Compliance Committee

The Risk Management & Compliance Committee establishes and strengthens risk management and compliance systems that cover not only legal compliance with also corporate ethics.

7 Sustainability Committee

The Sustainability Committee is chaired by the President with employees of the Company or Group companies as members. This committee formulates policies for promoting sustainability throughout the Group, establishes and maintains the promotion system, monitors measures, and conducts educational activities within the Group.

8 Internal Control Committee

The Committee deliberates on basic policies for the internal control system, builds frameworks established by the internal control system, and monitors the management of the frameworks to ensure the appropriateness of business operations.

9 Security Trade Control Committee

The Security Trade Control Committee ensures compliance with export-related laws and regulations in relation to foreign currency exchange and foreign trade for the Company's trading of cargoes and technologies covered by such laws and regulations.

Policy for Determining Level of Compensation

NAGASE & CO., LTD. has established a policy for determining overall board member compensation and methods for calculating the amounts of compensation. We have established the Compensation Committee, with outside directors representing the majority of members. The Committee deliberates on the validity of compensation standards and systems, reporting to, and advising the Board of Directors in the process of determining compensation. Our basic policy is to ensure

compensation is appropriate for the role and scope of responsibilities of each board member and motivates them toward sustainable improvement of corporate value. As a basic policy, the standards for percentage according to type of compensation are 50%–70% basic salary, 25%–40% performance-linked compensation, and 5%–10% non-monetary compensation (in cases where 100% of performance targets are achieved).

Board of Directors Effectiveness Evaluation

● Evaluating the Effectiveness of the Board of Directors

The Company analyzes and evaluates the effectiveness of the Board of Directors every year, believing in the importance of improving board effectiveness. It conducts an anonymous survey of all directors and Audit & Supervisory Board members in order to generate more proactive and honest opinions. The Company also eliminates bias by utilizing third-party organizations to collect, tally and analyze the survey results, thereby ensuring transparency in its evaluation methods.

● Overview of Effectiveness Evaluation Results

Based on the results, the Company confirmed that its Board of Directors functions effectively, conducting appropriate and timely deliberations and decision-making. The status of items recognized as issues in the previous fiscal year is as follows. To optimize information delivery for prior deliberation of agenda items, the Company made thorough notifications about document quality and distribution in advance through its administrative office, and made improvements. On the other hand, new issues such as the reevaluation of document composition were recognized, and the

Company continues to make improvements. The Company addressed the expansion of feedback and follow-up by reporting to the Board of Directors in cases where follow-up is considered necessary depending on the content of an agenda or project item, and made improvements. On the subject of further discussions to ensure diversity in the composition of the Board of Directors in the longer term, it made improvements by newly appointing one director with specialized knowledge of manufacturing and R&D and by formulating and disclosing a skill matrix. Meanwhile, from the perspective of establishing the Board of Directors meeting as an opportunity for more enhanced consideration and discussion, the Company fully discussed its Group strategy and future vision during the formulation of the medium-term management plan ACE 2.0, but confirmed that there was a need to additionally secure opportunities to discuss its overall direction even after formulating the plan. The Company intends to continue initiatives to improve the effectiveness of the Board of Directors.

Status of Audit by Audit & Supervisory Board Members

The Audit & Supervisory Board comprises three full-time members (one of whom is an outside member) and one part-time member (who is an outside

member). The Audit & Supervisory Board meets once a month in principle and as necessary to discuss matters. In FY2021, it held 16 meetings.

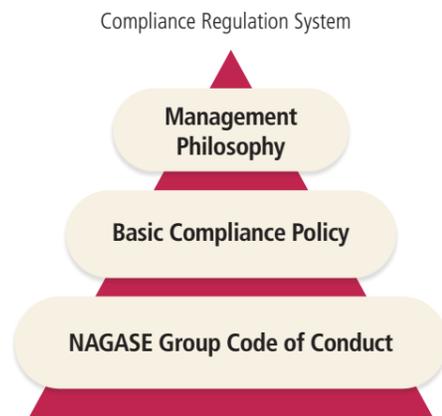
*Details are available on our website. https://www.nagase.co.jp/english/sustainability/governance/corporate_governance/

Compliance

Basic Approach

The NAGASE Group values employee education and business activities that follow socially accepted norms and ethics as well as observing laws and regulations, which are becoming more complex and stringent in an increasingly borderless world. Thus, we are committed to compliance that keeps pace with the changing times. To this end, we have established a Risk Management & Compliance Committee to oversee risk management and compliance, and defined its functions and authority. The Risk Management & Compliance Committee operates as a structure with clearly defined roles and responsibilities.

Components of the Basic Policy and Code of Conduct



● Compliance Regulation System and Operation

Increasing the effectiveness of compliance requires clarification of our compliance philosophy, a functional system to implement that philosophy, and the demonstration of concrete action guidelines. The NAGASE Group has established a Basic Compliance Policy based on its core Management Philosophy, and has formulated and implemented the NAGASE Group Code of Conduct, which incorporates the Management Philosophy into more concrete actions, as important rules that all Group executives and employees must uphold.

Components of the Basic Compliance Policy and Code of Conduct

- 1 Comply with applicable laws and regulations; conform to internal rules
- 2 Eliminate anti-social elements
- 3 Provide useful products and service
- 4 Respect employee's personality and individuality
- 5 Disclose information
- 6 Protect the global environment
- 7 Responsibilities of top management

Our Basic Policy and Code of Conduct are available on the Sustainability section of our website. <https://www.nagase.co.jp/english/sustainability/governance/compliance/>

Establishing a Compliance System

The NAGASE Group has established consultation and reporting hotlines as well as compliance rules for each Group company and region, and established a system which makes it possible to detect compliance issues that have occurred within the Group in a timely manner and improve and resolve them quickly. It checks to make sure that the system for handling consultations and reports of harassment within the Group is properly functioning, and continually promotes compliance activities that involve taking proactive measures, such as education focused on management and those in administrative positions who lead organizations.

Fair Business Practice Initiatives

In regard to the Antimonopoly Act, the NAGASE Group actively runs education programs, mainly for our manufacturing companies, to ensure that they are not involved in unfair trade. We are also providing bribery education to Group companies in Japan and overseas in the context of strengthening our approach to the prevention of bribery of foreign public officials under Japan's Unfair Competition Prevention Act and extraterrestrial application of the U.S. Foreign Corrupt Practices Act and the U.K. Bribery Act.

Number of participants in compliance training: **2,750**

FY2021

Response to Security Trade Controls

Trade is the foundation of the NAGASE Group's activities. To conduct appropriate trade in line with laws and regulations as a member of the international society, the Security Trade Control Committee works to understand the export control situation, follows the latest revisions to the Foreign Exchange and Foreign Trade Control Law, and ascertains a detailed picture of export controls across the entire Group, while formulating related Group policies. The Item Compliance Management Council is in charge of directing and educating each business division and Group company in matters and statute updates determined by the Security Trade Control Committee. It is the responsibility of the Item Compliance Management Council to protect the company and affiliates against the risk of illegal acts.

● Efforts to Promote Personnel Development

The practical business of security trade controls changes every year. To keep pace with developments, the NAGASE Group encourages its employees—primarily those involved in export operations—to become Security Trade Control Associates by taking the exam offered by the Center for Information on Security Trade Controls (CISTEC).

Qualified Security Trade Control Associates (cumulative): **1,089**

FY2021

Risk Management

Basic Policy

The NAGASE Group runs a global and diversified operation, being exposed to various risks associated with the nature of its businesses. We therefore endeavor to gain an accurate assessment of risks related to business activities within and outside the company, take appropriate action, and make improvements so that we can achieve sustainable growth while minimizing harm from emerging risks.

Risk Management & Compliance System



● Managing Corporate Risk

The Risk Management & Compliance Committee analyzes and manages risks in 17 categories consisting of compliance risks and business risks by sharing a Report on the Status of Risk Management Item Control at regularly scheduled committee meetings.

Category	Name of risk	
Compliance risk	Labor dispute	Laws and regulations related to products
	Violation of the Act against Delay in Payment of Subcontract Proceeds, etc. to Subcontractors	Bribery
	Violation of Act Concerning Prohibition of Private Monopolization and Maintenance of Fair Trade	Other compliance issues
Business risk	Product quality	IT
	Vendor	Information security
	Occupational safety and health of Group manufacturing companies	Dealings with antisocial forces
	Natural disasters and pandemics	Food product and cosmetic business
	Overseas safety	Rumors
		Falsifying quality

Internal Control

The NAGASE Group established an internal control system to build a stable and sustainable corporate foundation for the Group with the aim of enhancing corporate value through corporate activities. The Internal Control Committee, the main entity for advancing internal controls, discusses the basic policy of the internal control system, monitors the construction and operation of frameworks defined under the internal control system, and ensures the propriety of operations.

Crisis Prevention and Business Continuity Planning (BCP)

Each NAGASE Group company has taken steps to mitigate such risks as those related to natural disasters that could have an impact on the continuity of business activities as well as the safety and lives of employees, and implements countermeasures through the dual wheels of crisis prevention activities and BCP activities. As for crisis prevention activities, we annually conduct one drill that coordinates our major domestic bases of Tokyo, Nagoya, and Osaka, checking the first responses during times of crisis. As for BCPs, each department has formulated a recovery plan to assure delivery to major business partners.

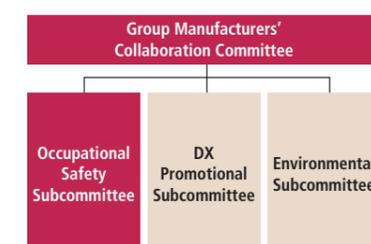
Product Safety and Quality Control

The NAGASE Group considers product safety and quality control a major social responsibility to provide customers with safe products and build a safe and secure society. According to the NAGASE Group Product Safety Principles, we strive to ensure the safety of products through Group-wide

rules and education. In addition, the Legal and Compliance Department provides management of vendors and manufacturing contractors, and Group Manufacturers' Collaboration Committee provides support to Group manufacturing companies and internal education.

Occupational Safety and Health Management by Group Manufacturers' Collaboration Committee

With regard to the occupational safety and health of Group manufacturing companies, the Group supports improvements to occupational safety and health activities undertaken by each company at the Occupational Safety Subcommittee within Group Manufacturers' Collaboration Committee. It also supports solid implementation of activities and conducts occupational safety evaluations and follow-ups on priority target companies to achieve KPIs.



Examples of occupational safety evaluation by an industrial safety consultant (Nagase ChemtEX Corporation)



Interview with the Outside Directors

Since June 2022, Mr. Noriaki Horikiri has been appointed as an outside director.

In this interview, Mr. Takahiko Ijichi, Ms. Ritsuko Nonomiya, and Mr. Horikiri were asked about the issues the NAGASE Group must address to realize sustained growth.

Mr. Horikiri, could you please tell us about your goals as a newly appointed outside director?

Horikiri Outside directors, as the name implies, are expected to monitor the governance of a company from an outsider's perspective and apply their experience and knowledge to the company. For many years, I worked in food manufacturing at Kikkoman Corporation. Kikkoman has anchored its brewing and fermentation technologies in biotechnologies. The NAGASE Group has been accumulating technologies in the biotechnology field, so I would like to use my experience to help the NAGASE Group grow.

Mr. Ijichi and Ms. Nonomiya, what kind of issue awareness do you maintain while attending Board of Directors meetings? Could you talk about the points you think are positive in the last year and the ones you think are continuing challenges in the same time frame?

Ijichi Since I was appointed as an outside director two years ago, I've worked to understand the values that the current management emphasizes and their problem awareness in the face of current conditions. I sometimes make forthright comments to get a sense of how serious they feel about issues and their determination. I feel that management is attentive to these types of comments too. I develop a full understanding of the background and discussions that occur before each agenda item is presented to the Board of Directors and I determine whether those measures are really sustainable from an accounting and personnel standpoint. I discuss matters to ensure that "what the numbers really say" is not overlooked.

Nonomiya Following the dramatic changes in the business environment due to the COVID-19 pandemic, the agenda items for Board of Directors meetings now cover a lot more ground than they used to. While I may not be familiar with all of the agenda items, I make it a point to do my best to understand each one so that I don't approve a proposal I don't understand or reject one simply because I don't understand it. The NAGASE Group provides outside directors with advance briefings on agenda items, and the content of those briefings is also reported to President Asakura and reflected in the Board of Directors' discussions. I believe that the discussions in advance briefings lead to deeper discussions in the official Board of Directors



Noriaki Horikiri

"I have the impression that the key to sustained growth will be to grow by repeatedly choosing good businesses and rejecting bad ones."

meetings and help to enhance the directors' effectiveness.

Ijichi Under President Asakura's leadership, the NAGASE Group Board of Directors is able to hold free and open-minded, in-depth and interactive discussions. Young employees who brief the Board members on projects properly express their own opinions, and the chairman and vice chairman pay attention to those briefings as well. Since the announcement of the medium-term management plan **ACE 2.0** in 2021, I've felt that top management is strongly determined to shed the clothes of the old NAGASE & CO., LTD., so to speak, and transform the company at any cost. Over the past year, I've also noticed that their determination has permeated the whole company as a result of discussions in Board of Directors meetings. If I had to raise a concern, it would be horizontal coordination within the organization. Because the NAGASE Group values business division autonomy, the vertical dimension is well-coordinated. However, in order to successfully advance global business expansion in the future, it will be critical to strengthen the functional dimension in the horizontal direction even further. For example, on the corporate level, functions like human resources, accounting, quality, and safety should be reinforced. Doing so is difficult because it involves corporate culture, but I believe it is a core issue.

Nonomiya The NAGASE Group has an excellent corporate culture and DNA, and I'm particularly impressed that this culture and DNA have been passed down to younger generations of employees. Furthermore, I believe the company is forthright and honest about the need for transformation. That said, while it is important to share each other's values, it can be problematic because if you see things from the same perspective, you can only express the same opinion. The appointment of outside directors, as well as promoting the success of women and diversity in the workplace, are crucial. However, I believe that a key consideration in accelerating growth is

how many people with opposing viewpoints can be brought together and whether they can discuss their differences.

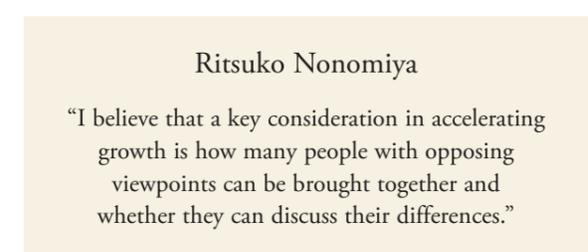
Horikiri Similarly to Kikkoman, which has a 300-year history, the NAGASE Group is a family-run company with a nearly 200-year history. The greatest risk to the governance of family-run companies is succession planning, and how to interact with the founding family. In terms of appointing a person in charge of management who is appropriate for the times, I believe that the NAGASE Group is addressing this challenge under President Asakura's leadership by distinguishing between what should and should not be changed. With mounting calls to strengthen governance in recent years, outside directors have assumed increased roles and responsibilities. However, governance must not succumb to empty formalism. We should consider more than just the number of outside directors, but also the positioning of outside directors in a substantive manner.

Ijichi The NAGASE Group has stood apart from the social trend of emphasizing the SDGs and ESG. I believe that the Group decides what it should do on a case-by-case basis and acts accordingly. I'm impressed by the Group's stance of considering what is truly in the company's best interests and making decisions based on that, rather than getting caught up in fads in society.

Nonomiya People will demand that companies maintain a sense of balance as they strengthen their governance in the future. The good thing about the NAGASE Group's governance, in my opinion, is that it is not preoccupied with formalities.

Could you please discuss the main points the NAGASE Group needs to address to support its growth?

Nonomiya In order to accelerate growth, it is necessary to correctly understand which factors pose risks. Outside directors play a role in providing monitoring. To help the company grow positively, they should ideally be able to support the company as it ambitiously works toward the next stage of growth, while also understanding the risks that the company faces. They shouldn't just tell it to not to do this or that. I read the interim report on digital transformation (DX) and gave it high marks. In addition to early investments and the



Ritsuko Nonomiya

"I believe that a key consideration in accelerating growth is how many people with opposing viewpoints can be brought together and whether they can discuss their differences."



Takahiko Ijichi

"By considering DX to be a functional dimension, I believe that the NAGASE Group can transform itself into an organization capable of integrating operations across divisions."

CEO's commitment, the company has incorporated the advice of external experts and is implementing a global roll-out. From the standpoint of an outside director, these factors demonstrate that the company is making a very good effort. In terms of M&A, I'm pleased that the company has achieved additional growth by making a significant investment in the Prinova Group LLC. With that said, I believe that portfolio management is a critical issue that management must address continuously.

Ijichi The first point is that the company has set clear targets in **ACE 2.0**, so all that remains is to execute what needs to be done thoughtfully in accordance with its specific roadmap while implementing PDCA cycles. If the company is unable to complete this task, the vision we have outlined will not be realized, but I think the NAGASE Group can execute measures properly. The second point is that I would like the NAGASE Group to consider DX to be a functional dimension. President Asakura has made a top-down decision to appoint talented human resources in each division as DX leaders. As a result, I believe that the NAGASE Group can transform itself into an organization capable of integrating operations across divisions. In order to transform the NAGASE Group's culture and business model in earnest, I would like the company to see DX as more than just a technology and develop it into a cross-organizational capability with a functional dimension.

Horikiri I believe that determining how it can horizontally integrate individual businesses and turn them into growth drivers is a key priority for the NAGASE Group, which has many business fields. As Ms. Nonomiya mentioned, portfolio management will also be crucial. I have the impression that the key to sustained growth will be to grow by constantly repeating the process of choosing good businesses and rejecting bad ones.

Ijichi The brand power of the NAGASE name, in my opinion, is highly significant. When considering the next 100 years, branding strategy will be critical, and I hope that the company will use the NAGASE name skillfully.

Profile

Takahiko Ichiji

After a long career in accounting, finance and human resources with Toyota Motor Corporation, Takahiko Ichiji has served as an outside director of NAGASE since 2020.

Ritsuko Nonomiya

An M&A advisory specialist whose career has mainly been in the U.S. Ritsuko Nonomiya has been an outside director of NAGASE since 2020.

Noriaki Horikiri

Noriaki Horikiri served as a director of Kikkoman Corporation and has extensive expertise in corporate management, becoming an outside director of NAGASE in 2022.

Creating Environmental Value

Basic Approach

Currently, changes in the global environment are pressuring companies and individuals around the world to make big decisions. The NAGASE Group helps realize a sustainable society by actively working to solve environmental problems, including by promoting a carbon-neutral society, realizing a recycling society, preventing pollution, preserving biodiversity, and efficiently using water.

NAGASE Group Environmental Policy

1 Comply with all environmental laws, regulations and other rules

We will observe all environmental laws, municipal bylaws, environmental regulations and other rules as we conduct our business activities.

2 Develop businesses that give full consideration to environmental issues

In pursuing business activities, we will conduct activities that give consideration to the conservation of the natural ecosystem, local environment and global environment to the greatest extent technically and economically possible.

3 Fulfill our responsibilities as a good corporate citizen

As a good corporate citizen, we will work together with public institutions, industries, and local communities to promote environmental conservation measures that are suitable for the NAGASE Group.

4 Establishment of environmental management systems and continuous improvement

The NAGASE Group has set environmental targets to achieve our environmental policies. Further, we have established and operate an environmental management system, striving for continuous improvement.

5 Disclose and make the relevant parties fully aware of our Environmental Policy

We will disclose our Environmental Policy to the public and make all who work for the NAGASE Group fully aware of its contents.

Environmental Management and Internal Projects

● ISO/Environmental Management Structure

The Risk Management & Compliance Committee (Environmental ISO Management General Secretariat) provides advice and support for acquiring certification for ISO 14001, an international standard for environmental management systems. Today, NAGASE & CO., LTD. operates an environmental ISO organization that includes six other Group companies, which will continue activities to improve environmental management systems going forward.

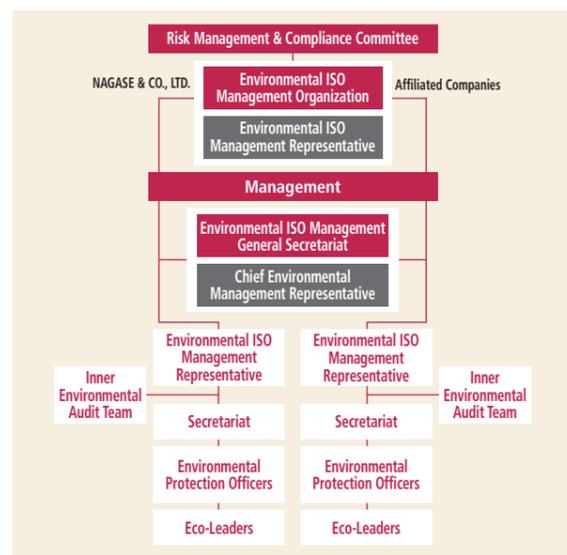
Note: Information on Group companies that have obtained ISO 14001 certification is published on our website.
<https://www.nagase.co.jp/english/sustainability/environment/environmental-management/>

● Carbon-Neutral Project

The Carbon-Neutral Project was established as a project within the Sustainability Committee in July 2021. The project held discussions centered on expressing support for TCFD and setting and disclosing long-term climate change targets. The analysis of risks and opportunities that emerged from these discussions were reported to employees in a climate change briefing held in November 2021, and a climate change workshop led by representatives from business departments was held in December 2021. Participants in the workshop shared and discussed issues that should be addressed on a Group-wide basis, with a focus on opportunities related to climate change.

● Group Manufacturers' Collaboration Committee (Environmental Subcommittee)

In the Environmental Subcommittee established within the Group Manufacturers' Collaboration Committee, discussions are held on visualizing and setting KPIs for various environmental items (including Scope 1, 2, and 3).



Project Name	FY2021 Activities
Carbon-Neutral Project	<p>Purpose Develop medium- and long-term policy proposals (for 2050, 2030 and 2025) on carbon neutrality (targets and measures, etc.)</p> <p>Progress Expressed support for TCFD (January 2022) Developed long-term targets and KPIs</p>
Group Manufacturers' Collaboration Committee (Environmental Subcommittee)	<p>Purpose Support environmental measures undertaken by each company, such as exchanging information and setting targets</p> <p>Progress Conducted GHG reduction simulation and prepared scenarios Shared the results of questionnaires on environmental items</p>

Sustainability Data at a Glance

About data boundaries Group: NAGASE & CO., LTD., Nagase ChemteX Corporation, Hayashibara Co., Ltd. (Coverage: 41%) Non-consolidated: NAGASE & CO., LTD. (Coverage: 62%)

Disclosed in July 2022

[Group] Greenhouse gas emissions in our business activities

Item (t-CO ₂)		FY2019	FY2020	FY2021	
Direct greenhouse gas emissions (Scope 1)		32,831	30,537	33,168	
Indirect greenhouse gas emissions (Scope 2)	Location reference	32,057	30,334	31,143	
	Market reference	35,976	33,105	27,405	
	Total	3,064,973	2,808,895	3,417,616	
Greenhouse gas emissions in the supply chain (Scope 3)	Breakdown	Purchased products and services	2,978,809	2,715,238	3,327,194
		Capital goods	22,762	30,492	17,497
		Activities related to fuel and energy not included in Scopes 1 and 2	12,242	11,513	14,384
		Transportation/distribution (upstream)	39,903	42,928	46,606
		Business waste	5,250	3,474	3,838
		Business travel	676	577	258
		Commuting of employees	1,096	716	722
		Leased assets (upstream)	—	3,803	0
		Transportation/distribution (downstream)	4,070	61	6,980
		Processing of sold products	—	93	0
		Use of sold products	—	—	0
		Disposal of sold products	67	—	75
		Leased assets (downstream)	98	—	62
		Franchise	—	—	0
Investment	—	—	0		

[Group] Use of water resources

Item	Classification	FY2019	FY2020	FY2021
Total water intake (ML)	Water supply and industrial water	1,332	1,223	1,204
	Well water	2,179	2,412	2,418
	Total	3,511	3,635	3,622
Total water discharge (ML)	River	2,625	3,215	3,289
	Sea	0	0	0
	Sewage	240	273	190
	Other	0	0	0
Total	Total	2,865	3,488	3,479
Total consumption (ML)	Total	646	147	143

[Non-consolidated] Amount of raw material consumption

Item	FY2019	FY2020	FY2021
Amount of copy paper used (sheets)	4,382,500	1,526,750	1,382,250
[Group] Amount of general industrial waste			
Amount of general industrial waste (t)	13,802	8,561	9,017
[Group] Amount of special controlled industrial waste			
Amount of special controlled industrial waste (t)	4,452	4,597	3,950
[Non-consolidated] Waste and recycling rate (for offices)			
Amount of waste (t)	175	118	109.7
Amount of recycled waste (t)	142	97	92.9
Recycling rate (%)	81.4	82.4	84.7

* The Scope 1, 2, 3 data we disclose is third-party guaranteed by SOCOTEC Certification Japan to enhance the reliability of the information.

Disclosure on Sustainability Website

The data listed below is disclosed on the company's website. For details on the data, please visit the company's website.

<https://www.nagase.co.jp/english/sustainability/environment/>

Data Disclosed on Website

Climate Change	[Group] Greenhouse gas emissions in our business activities [Group] Breakdown of greenhouse gas emissions by type (Scope 1)	[Group] Energy usage [Group] Electricity Consumption [Group] Renewable Energy Generation [Group manufacturing companies] Basic unit for production (t-CO ₂ /Converted production volume t)
Biodiversity	[Non-consolidated] Sustainable palm oil procurement performance data	
Prevention of Pollution and Resource Circulation	[Non-consolidated] Amount of raw material consumption [Group] Amount of general industrial waste [Group] Amount of special controlled industrial waste [Non-consolidated] Waste and recycling rate (for offices)	[Group manufacturing companies] Amount of raw materials consumption [Group manufacturing companies] VOC (air pollutant) emissions [Group] Environment-related fines and penalties
Chemicals Management	[Group] Reported quantity of PRTR substances	
Water Resources	[Group] Use of water resources [Group manufacturing companies] Basic unit of water used in food production (basic unit of clean water for main products (m ³ /t))	

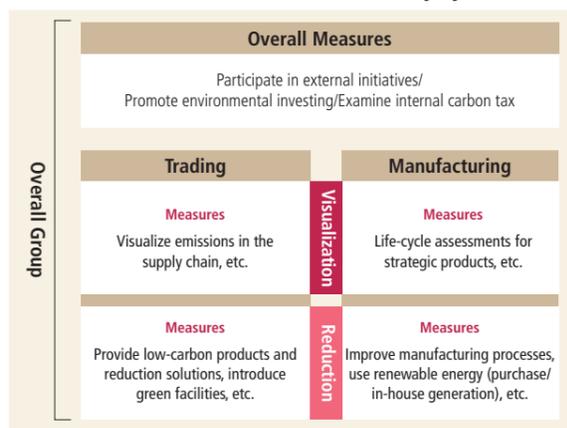
Carbon Neutral Declaration

● NAGASE Group Carbon Neutral Declaration

The NAGASE Group, as a global enterprise, recognizes that addressing climate change is an important issue that the entire Group should deal with. In January 2022, the company established its policy on realizing carbon neutrality by 2050 in the NAGASE Group Carbon Neutral Declaration. The NAGASE Group possesses trading functions as well as manufacturing and processing functions. Accordingly, the Group has classified its activities into four quadrants based on the two dimensions of trading business and manufacturing business and visualization and reduction (see chart to the right), and is working to achieve the following targets.

By 2050 Achieve carbon neutrality with net zero GHG emissions (Scope 1 and 2)	By 2030 Reduce Scope 1 and 2 emissions by 46% (compared to 2013) Reduce Scope 3 emissions by 12.3% or more (compared to 2020)
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Initiatives to Realize Carbon Neutrality by 2050



KPIs Related to Carbon Neutrality in ACE 2.0

Theme	KPI		
Carbon neutrality	Scope	Consolidated	Scope 1 and 2 reduction rate of 37% or more (compared to 2013)
		NAGASE & CO., LTD. (non-consolidated)	Reduce emissions through the generation or purchase of renewable energy of 35,000 tons or more (cumulative total)
			Scope 2 zero emissions

Specific Measures for the Carbon Neutral Declaration

In the Carbon-Neutral Project, the Group is working to realize its carbon neutrality through overall measures and four specific measures.

Measures	Specific Activities
Overall Measures Participation in external initiatives Promote environmental investing, examine internal carbon tax	Expressed support for TCFD (January 2022) and issued Sustainability Linked Bonds (June 2022)
Measures Visualize emissions in the supply chain, etc.	Promote widespread adoption of zeroboard, a calculation and visualization tool for greenhouse gas emissions and endorse the GX League Basic Concept
Measures Calculate life cycle assessments for strategic products, etc.	Begin to calculate life cycle assessments for semiconductor-related products
Measures Provide low carbon products and reduction solutions, introduce green facilities, etc.	Endorse the GX League Basic Concept and conduct demonstration trials of joint logistics services for chemicals
Measures Improve manufacturing processes, use renewable energy (Purchase/in-house generation), etc.	Share examples of activities in the Group Manufacturers' Collaboration Committee and invest in solar power generation facilities at Group manufacturing sites (around ¥0.5 to ¥1.0 billion)

● Calculating and Visualizing Greenhouse Gas Emissions in the Supply Chain Using zeroboard

Zeroboard Inc. and NAGASE & CO., LTD. have agreed on a business alliance for sales and expansion of zeroboard, a cloud service developed by Zeroboard Inc. for calculating and visualizing greenhouse gas emissions to support the decarbonization of companies. NAGASE sells the service mainly to the chemical industry, collects information on customer needs, and develops and provides GHG emissions reduction solutions.

For details, see "[Feature] Contributions Toward Decarbonization in the Supply Chain" on pages 44 and 45.

● FTSE Blossom Japan Sector Relative Index

NAGASE & CO., LTD. was selected as a component of the FTSE Blossom Japan Sector Relative Index, in recognition of factors including its initiatives related to climate governance and climate change.



FTSE Blossom Japan Sector Relative Index

● Issuance of Sustainability Linked Bonds

In June 2022, NAGASE & CO., LTD. issued Sustainability Linked Bonds, which are bonds linked to progress made toward achieving the NAGASE Group Carbon Neutral Declaration.

TCFD Information Disclosure

In January 2022, the NAGASE Group expressed its support for the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), which was created by the Financial Stability Board. The Group discloses information through its integrated report and

sustainability website in accordance with disclosure recommendations by the TCFD in the thematic areas of governance, strategy, risk management and metrics and targets.



Governance

● The board's oversight of climate-related risks and opportunities

The NAGASE Group recognizes climate change as one of its important management issues. Under the oversight of the Board of Directors, the Group has established the Sustainability Committee and the Risk Management & Compliance Committee, in which it considers and discusses policies, issues and other matters. The NAGASE Group Carbon Neutral Declaration and the Group's expression of support for TCFD

were approved by the Board of Directors in fiscal 2021. The activity policy based on this declaration was laid out in the form of non-financial targets in ACE 2.0, and single-year results are disclosed. In this manner, the Group has put in place a structure in which the Board of Directors provides regular and direct oversight of the Group's efforts to address climate change.

Strategy

● Risks and opportunities

In fiscal 2021, a materiality assessment of risks and opportunities was performed as part of the NAGASE Group's climate change measures and strategy. The following material risks and opportunities for the NAGASE Group have been identified from among a wide range of climate change-related risks and opportunities.

Transition Risks

Classification	Description	Degree of Impact
Policy and Legal	<ul style="list-style-type: none"> Regulations for carbon pricing, emissions trading, etc. (materials manufacturers with large GHG emissions may pass their costs onto prices, and this impact is being considered) Costs to address relevant laws and regulations (Act on Promotion of Global Warming Countermeasures, Act on Promotion of Resource Circulation for Plastic Materials, stricter regulations on petrochemical products, etc.) 	Large
Market and Technology	<ul style="list-style-type: none"> Consumer preferences for petrochemical products decline, resulting in lower market demand and sales Delays in addressing the transition to environmentally friendly products as the era of mass production, mass consumption and mass disposal ends 	Large
Reputation	<ul style="list-style-type: none"> Declining trust from stakeholders and external evaluations as a result of a lack of activities and information disclosure 	Small

Physical Risks

Classification	Description	Degree of Impact
Acute	<ul style="list-style-type: none"> Supply chain interruptions and stagnation in sales and production activities due to major natural disasters Water outages caused by floods or droughts Increasing energy for temperature control caused by climate warming or cooling 	Large
Chronic	<ul style="list-style-type: none"> Serious impacts on business sites and surroundings in coastal areas due to rising sea levels (measures to address the risk of flooding or tsunamis) Rising market prices in commodity procurement Additional measures and reduced labor productivity to protect the lives and safety of employees 	Large

Opportunities

Classification	Description	Degree of Impact
Products and Services	<ul style="list-style-type: none"> Provide alternative materials that help to improve energy efficiency (lighter weight, thermal insulation and heat dissipation, etc.) Develop resource circulation-oriented materials (low carbon, biomaterial or biodegradable, recyclable) Provide products with high environmental value, such as disclosure of life cycle assessments (visualize emissions for each product) Provide energy reduction solutions for electricity, gas, etc. Provide emissions visualization and reduction solutions in the supply chain Provide new food manufacturing technologies and materials that help to reduce global environmental impact, such as plant-based proteins and insect foods 	Large
Markets	<ul style="list-style-type: none"> Materials markets that require emissions reductions for raw materials (B-to-B overall) Product markets that require emissions reductions for end products (mobility, office appliances, etc.) Consumer markets in which rising temperatures are expected to create demand (skincare, daily necessities, home electric appliances, etc.) Emerging markets to be generated by changes in the behavior of consumers with new values (meat substitutes, circular products, products with emissions disclosures) 	Large

Risk Management

● Risk Management

Under the Risk Management & Compliance Committee, we operate an environmental ISO management organization and conduct continuous ISO14001 environmental management system activities. The Sustainability Committee shares business risks and opportunities arising from climate change and measures to address those risks and opportunities, along with managing progress.

Metrics and Targets

The NAGASE Group seeks to achieve carbon neutrality with net zero greenhouse gas emissions by 2050 (Scope 1 and 2). By 2030, the Group aims to reduce Scope 1 and 2 emissions by 46% by 2030 (compared to 2013) and Scope 3 emissions by 12.3% or more (compared to 2020).

Going forward, the Group will consider updating its Scope 3 target based on dialogue with stakeholders in its supply chain.



Non-Financial Targets of the Medium-Term Management Plan ACE 2.0	
Consolidated	<ul style="list-style-type: none"> Scope 1 and 2 reduction rate of 37% or more (compared to 2013) Reduce emissions through the generation or purchase of renewable energy of 35,000 tons or more (cumulative total)
NAGASE & CO., LTD. (non-consolidated)	<ul style="list-style-type: none"> Scope 2 zero emissions

[Feature]

Contributions Toward Decarbonization in the Supply Chain

Supporting Companies' GHG Emissions Calculations and Industry-wide Decarbonization

The NAGASE Group is working in collaboration with Zeroboard Inc. to achieve decarbonization throughout the supply chain by leveraging the network it has established in the chemical industry, including the development of a package to support GHG emissions calculations.

Quantifying GHG Emissions in the Entire Supply Chain Poses a Challenge to Decarbonization

As carbon neutral initiatives are picking up steam worldwide, companies can no longer delay the transition to decarbonized business operations. Companies are expected not only to disclose and reduce their own direct GHG emission volumes and reduction targets, but also data on the entire supply chain related to their business activities.

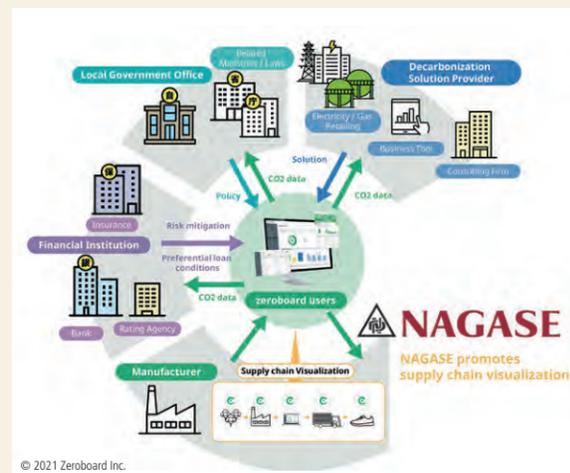
Companies are faced with issues related to their own GHG emissions (Scope 1), such as the labor burden of collecting data from multiple locations and the cost of implementing specialized solutions. Companies also have difficulty acquiring primary data (Basic unit of emissions for each of the suppliers' products and services) on emissions throughout the supply chain (Scope 3). In addition, supply chains in the chemical industry are extremely long and span across the globe, making Scope 3 emissions even more difficult to track.

Supporting GHG Emissions Calculation and Visualization in Collaboration with Zeroboard Inc.

In order to solve these issues, NAGASE & CO., LTD. has formed a business partnership with Zeroboard Inc. from September 2021. Together they have launched an initiative to support the decarbonization of companies primarily in the chemical industry through sales of zeroboard, a cloud service that calculates and visualizes GHG emissions.

The first step to establishing GHG reduction measures is to know the volume of GHG the company emits. The NAGASE Group supports the shift to corporate decarbonization by helping companies that have

adopted zeroboard to visualize their GHG emissions, working together to consider reduction measures, and using on-site feedback to develop and provide concrete solutions for reducing emissions. In this way the NAGASE Group's unique strengths are put to use, including the expertise it has cultivated in the chemical industry since its founding and the strong relationships with each of its business partners from upstream to downstream of the supply chain.



The NAGASE Group's Collaboration with Zeroboard Inc.

The NAGASE Group's Carbon Neutrality

In January 2022, the NAGASE Group announced its Group-wide commitment to carbon neutrality and set the following targets.

Targets for 2030

- Reduce Scope 1 and 2 by 46% (compared to 2013)
- Reduce Scope 3 by 12.3% or more (compared to 2020)

Specific numerical targets up to Scope 3 are highly difficult to achieve. In working with customers to reduce GHG emissions along the supply chain, we will first set high targets for our own GHG emissions calculations, with the aim of becoming a role model for decarbonization in the chemical industry.

zeroboard: A Cloud Service that Calculates and Visualizes GHG Emissions

In addition to streamlining the calculation of companies' GHG emissions, zeroboard also calculates and visualizes GHG emissions stemming from corporate activities and their supply chains based on the categories of the GHG Protocol, which are international standards. In addition to linking and sharing GHG emissions data among user companies along the supply chain, zeroboard also helps with labor burden and cost issues by providing an easy-to-use interface and offering low-cost plans, making it simple for SMEs to adopt the service.



Interview

Speedy Sharing of Business Partners' Opinions



Shoichi Furukawa
Environmental Solutions Section, Specialty Chemicals Department

How do you support business partners' GHG emissions calculation and visualization?

Calculating GHG emissions along the supply chain is a challenge for many companies because the data collection and calculation process is extremely complex and difficult for one company to undertake alone. The NAGASE Group has a network and expertise in the chemical industry that allows it to engage in dialogue with many companies from upstream to downstream in the supply chain. It harnesses these strengths to help business partners visualize their GHG emissions. Our internal sales team is a cross-departmental team composed mainly of young employees, and we have built a system that enables us to quickly share honest opinions from our business partners in various industries and supply chains, which serves as a driving force both inside and outside the Company.

How did your business partners react to zeroboard?

zeroboard is not limited to calculating GHG emissions in the supply chain. In the future, it will enable companies along the supply chain to work together and facilitate Scope 3 reduction efforts by linking

data between user companies. The product version of zeroboard was launched in January 2022 and has already been adopted by many companies. We have received comments from companies in a wide range of industries, including fragrances/cosmetics, paints, automotive parts, and chemical materials, saying that they were able to visualize their GHG emissions smoothly. Companies also voiced their expectations for the NAGASE Group to continue demonstrating its strengths and help them reduce their GHG emissions.

What is your outlook for the future?

Our business partners face many diverse challenges in the visualization of GHG emissions. We will continue to propose appropriate solutions to the issues faced by our business partners, both within the Group and in collaboration with Zeroboard Inc. In this rapidly changing world, NAGASE will not only support the visualization and reduction of GHG emissions, but will also promote environmental responses to biodiversity and the water environment. We will deliver value that only NAGASE can provide as a "guide runner" alongside our business partners, finding solutions to all their problems.



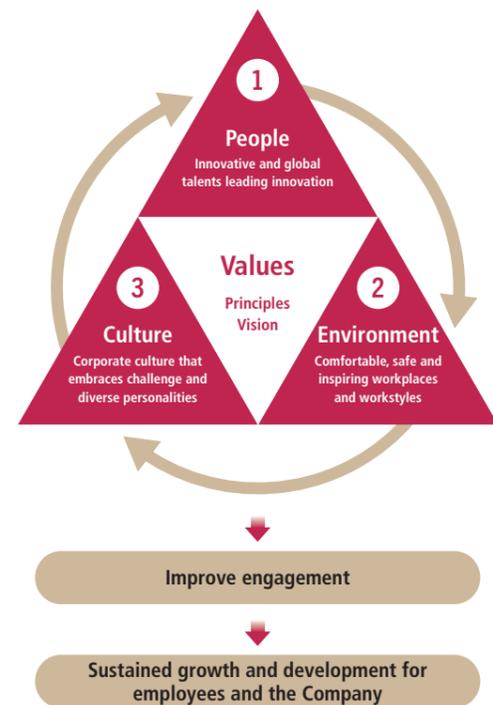
NAGASE's zeroboard promotion team members

Creating Social Value

Basic Policy

The NAGASE Group solves various social issues through innovation to help realize a sustainable society. Diversity is vital for developing human resources that drive innovation and provide an agile response to changes in the environment. It is one of our key corporate strategies. We are also implementing cross-departmental initiatives to develop new businesses and advance activities that lead to solutions for social issues and innovation.

Human Resource Development to Drive Innovation



1. People	
Talent Management Acquire and develop talents and place them in the right roles <ul style="list-style-type: none"> Visualize global personnel portfolio Acquire and strengthen talents in conjunction with business strategy 	Health and Productivity Management Ensure that employees are in good physical and mental health <ul style="list-style-type: none"> Visualize and strengthen analysis of employees' health condition and execute new measures
2. Environment	
Work Style Innovation	
Offices where employees can exercise their creativity <ul style="list-style-type: none"> Establish a new workplace vision where strong individuals work together with a sense of unity 	Work styles independent of time or place <ul style="list-style-type: none"> Introduce effective and efficient work styles such as working from home and staggered shifts
3. Culture	
Diversity & Inclusion Diversification of personnel <ul style="list-style-type: none"> Improve ratio of women, non-Japanese, and highly specialized personnel in Japan 	Human Resources Policy Management decisions focused on both improving capital efficiency and challenging new businesses <ul style="list-style-type: none"> Revision of the executive compensation system

Employee Engagement Improvement Project

The NAGASE Group defines employee engagement as a relationship between company (organization) and employee built on mutual respect and mutual motivation and considers it essential for the Group's sustainable growth. In September 2021, the first year of our medium-term management plan ACE 2.0, NAGASE & CO., LTD. conducted an employee survey across 16 categories related to the Company, supervisors and the workplace. The survey was designed to identify and improve the state of employee engagement.

Whole Company	1 Company Base	Supervisor	1 Explanations
	2 Philosophy		2 Awareness
	3 Field		3 Decisions
	4 Job		4 Support
	5 Organization	Team	1 Customer
	6 People		2 Integration
	7 Facilities		3 Innovation
	8 Conditions		4 Sharing

Source: Link and Motivation Inc.

Key Performance Indicators (KPIs) Related to Improving Employee Engagement in ACE 2.0

Category	KPIs						
Improve employee engagement*	<table border="1"> <tr> <td>Target</td> <td>Group companies</td> <td>Percentage of companies conducting regular engagement surveys: 100%</td> </tr> <tr> <td></td> <td>NAGASE (Non-Consolidated)</td> <td>Total score on engagement survey: 60 or above</td> </tr> </table>	Target	Group companies	Percentage of companies conducting regular engagement surveys: 100%		NAGASE (Non-Consolidated)	Total score on engagement survey: 60 or above
Target	Group companies	Percentage of companies conducting regular engagement surveys: 100%					
	NAGASE (Non-Consolidated)	Total score on engagement survey: 60 or above					

* Calculated for consolidated subsidiaries, treating the Prinova Group as a single company. FY2021: 41% of Group companies conducted a survey (24 companies). NAGASE (Non-Consolidated) engagement survey score: 52.4

NAGASE by the Numbers Creating Social Value with Human Resources as the Focal Point

Number of Group employees and promoting the advancement of women

Number of Group employees
7,113

The NAGASE Group has 7,113 employees on a consolidated basis, with a diversity of employees with different genders, nationalities, ages, senses of values and lifestyles. Of these employees, 805 work for NAGASE & CO., LTD., of whom 37.14% are women, and the percentage of woman in management is 4.56%. The NAGASE Group regards the empowerment of women as an important initiative to promote diversity. We will continue to hire women as career-track employees, promote them to management and strive to expand their opportunities to advance, while also moving forward on fostering a corporate climate where women can continue to work through the likes of systems for childbirth and childcare.

Creating organizations where diverse human resources can advance

Mid-career recruitment ratio (2021)
54%

In recent years, the number of national staff at overseas Group companies grew from 2,441 in 2017 to 3,021 in 2021, and the NAGASE Group aims to promote ideal human resource strategies by visualizing its global human resource portfolio. We are also proactively engaged in mid-career recruitment, with 54% of those hired by NAGASE & CO., LTD. in 2021 in mid-career. In addition to attracting outstanding human resources, we are also strengthening onboarding (a system supporting the process of hired employees adjusting to the organization and department and demonstrating their abilities as early as possible) to support the empowerment of diverse human resources.

Building an efficient, creative and healthy work environment

Adopting Activity-Based Working (ABW)
Since August 2022

PROJECT BRIDGE is to update offices and work styles in conjunction with the reconstruction of the Tokyo Head Office of NAGASE & Co., Ltd. While the office is being rebuilt, temporary facilities are in place, and Activity-Based Working (ABW) was adopted from August 2022, enabling employees to choose where to work depending on that day's duties and circumstances. In January 2022, we also adopted a free-dress code (where employees can choose all year-round to wear their ideal clothes to match that day's duties). The project confirms the importance of the physical and mental health of employees and their families, who are NAGASE's assets, and promotes discussions and initiatives to build a comfortable work environment for diverse employees.

Occupational health and safety in Group manufacturing companies

Frequency rate	Frequency of work-related accidents
1.26%	1.35

Occupational health and safety initiatives are a crucial issue. The Group Manufacturers' Collaboration Committee (MCC) has set up an occupational health and safety subcommittee that supports occupational health and safety initiatives at each company. The subcommittee engages in such activities as occupational safety diagnoses by experts, follow-up diagnoses and seminars to raise awareness and knowledge that will lead to improved on-site capabilities. Group manufacturing company occupational health and safety data showed an accident frequency rate of 1.26% and frequency of work-related accidents of 1.35 for FY2021.

NAGASE Technical Vitality Program (NTV)

Total number of NTV participants
94

The NAGASE Group launched the NAGASE Technical Vitality Program (NTV) to strengthen in-house collaboration in R&D activities and to develop human resources with a long-term perspective. In its second phase from 2020–2021, the program undertook activities under cutting edge technology themes including AI, IoT, healthcare, and biomimetics in five working groups. The third phase started in August 2021 with the aim to create the seed of a next-generation business like the SaaS-based materials informatics service TABRASA™, which has already launched on the market. In total, 94 Group employees have developed new technologies or new products, or disseminated technological information to create new business.

Disclosure on the Sustainability Site

NAGASE discloses the following data on our corporate website. See the NAGASE website for details on the data.

<https://www.nagase.co.jp/english/sustainability/social/>

Data Being Disclosed

Data Category	Disclosed Data
Data on Labor Practices	[Consolidated] Employees by segment [Non-consolidated] Gender, age structure and attributes of employees [Non-consolidated] Number of new graduates and mid-career hires [Non-consolidated] Announcement of mid-career hiring ratio based on the Act on Comprehensively Advancing Labor Measures [Non-consolidated] Retention rate after three years of hiring new graduates [Non-consolidated] Voluntary turnover of full-time employees [Non-consolidated] Average years of service [Non-consolidated] Average annual salary [Non-consolidated] Total annual working hours [Non-consolidated] Annual paid leave [Non-consolidated] Employment of persons with disabilities [Non-consolidated] Childbirth and childcare support system
Human Resource Development	[Non-consolidated] Participants in human resource development training
Occupational Health and Safety	[Non-consolidated] Occupational Health and Safety (frequency rate, frequency of work-related accidents, etc.) [Group manufacturing companies] Occupational Health and Safety (frequency rate, frequency of work-related accidents, etc.) [Group] Training on safety and health
Respect for Human Rights and Community	[Group] Total amount of community support

[Feature]

NAGASE's Organizations to Promote DX

Promote Placing Talents in the Right Roles Globally and Build Workplaces That Empower Diverse Human Resources

One of the basic policies of the NAGASE Group's medium-term management plan **ACE 2.0** is "corporate functions supporting reforms." To "accelerate DX further," one of the measures under the policy, we established the Global Marketing Division Philadelphia (GMD-P) in Philadelphia in the U.S. where human resources in the digital and marketing fields are abundant, and are deploying highly specialized human resources globally.

GMD-P was established in 2020 with the purpose of promoting DX in the NAGASE Group. GMD-P recruited experienced DX people in the U.S. and started as a 7-member organization that now has about 35 members. Including the members of an organization in Japan, it creates a marketing department of about 40 people who work in collaboration with the Marketing Promotion Department based in Tokyo, takes charge of building NAGASE's platform. GMD-P, which aims to place highly specialized talents in the right roles, is implementing the **ACE 2.0** goal to "create a foundation for empowering diverse personnel," and is an organization

taking the lead in strengthening human resources, which is the key to the NAGASE Group's growth going forward.



Interview

Timothy Williams
 Manager of Global Marketing,
 Marketing Promotion Department

GMD-P is a transformational organization with the mission to use digital technology as a tool to further bolster the NAGASE Group's strengths. The Global Marketing Division that I oversee comprises two organization that collaborate organically with the Philadelphia office based in Philadelphia in the U.S., and the Tokyo office (Asia Management Section) based in Tokyo.

GMD-P members specialize in areas such as marketing, technology, partner management and branding, but when we're hiring, in addition to these specialized skills, we also recruit human resources based on whether they have attributes such as an ability to think critically, willingness to change, ability to plan strategies, technical expertise, creativity and analytical perspective.

Accelerating DX while understanding the NAGASE Group's complex business domains and corporate functions such as a trading company, manufacturer and researcher is a mission with a high degree of difficulty. We need to brainstorm over these various ideas from diverse perspectives to be able to move these

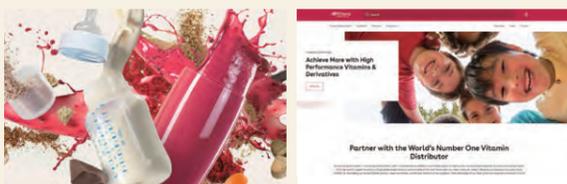
innovations forward. Consequently, GMD-P has been a team rich in individuality since its initial establishment. Members are comprised from all sorts of cultural backgrounds, ages and living areas, but these differences are only ever secondary matters, and the diversity we need is diverse sets of values. In our team, we respect each other's unique way of thinking, evolving them, creating a climate of acceptance and sharing all ideas as being feasible.

By enhancing the presence of the NAGASE Group globally, we can secure even greater diversity in human resources, and I believe this will lead to accelerating innovation.



Topics: Building the Prinova marketing website

In 2021, we updated the Prinova Group's website together with the Prinova Group LLC. In addition to enabling online quotes and requests for samples, customers in some countries can now create accounts to view real-time prices and make purchases through the website.



Social Contribution Activities

Basic Approach

The NAGASE Management Philosophy reminds us that we are a member of society and that, through our growth, we will contribute to society and enrich the lives of our employees. We engage in a variety of social contribution activities under this banner.

Supporting and Training Technologists

● Nagase Science and Technology Foundation

To help advance science and technology in Japan, we established the Nagase Science and Technology Foundation in 1989 and made it a public interest foundation in 2011. The foundation strives to advance science and technology by supporting research and development in the fields of organic chemistry and biochemistry with the aim of contributing to socioeconomic progress.

In 2022, a total of 25 research grant winners were selected from 322 applicants in the fields of organic chemistry and biochemistry, and each received a grant of ¥2.5 million and the Nagase Foundation Award.

● Chemistry Experiment Study for Elementary School Students

Since 2019, Nagase ChemteX Corporation has been holding an event to invite the Tatsuno Kodomo Eco Club, an environmental learning group for elementary school students run by the city of Tatsuno in Hyogo Prefecture, to the Harima Plant.

Participants enjoy learning through simple experiments using the Company's environmentally friendly products and explanations of how factory wastewater is purified, and the participants have received the program well.



Hands-on events for children

Nurturing Local Culture

● Hayashibara Museum of Art

The Hayashibara Museum of Art is operated and supported by NAGASE Group company Hayashibara Co., Ltd. The museum houses a collection of Japanese and other East Asian paintings, crafts, and other items. The museum also exhibits furnishings inherited from the estate of the feudal Ikeda clan of the Okayama Domain. The goal of the museum is to contribute to research of cultural assets and improve the culture of the region and of Japan. It does this by preserving works of art, conducting research on them, and allowing the general public to enjoy them through unique exhibitions and other events.



Contributing Broadly to Society

● Supporting Para-Sports

The NAGASE Group supports para-sports. Shinya Wada and his guide runner Takumi Hasebe (both Nagase employees) won silver medals in the 1500m (T11) and bronze in the 5000m (T11) at the Tokyo 2020 Paralympic Games in August 2021. They also broke the marathon T11 world record at the 70th Memorial Beppu-Oita Mainichi Marathon in February 2022.

In addition, NAGASE sponsored the WPA Approved NAGASE Cup Para Athletics Competition, hosted by the Japan Para Athletics federation in July 2022. NAGASE Group employees supported the event as volunteers.



The NAGASE Cup





Message from the Director in Charge of Sales

NAGASE's Potential as a Company That Creates Value with an Eye to the Future

Masatoshi Kamada

Director and Executive Officer

Review of the First Year of ACE 2.0 and Status of Focus Business Activities

The first year of the medium-term management plan **ACE 2.0** produced record-high results. Because the NAGASE Group's business is heavily reliant on the petrochemical industry, soaring raw materials prices contributed positively to certain aspects of our business performance. The spread of COVID-19 led to stay-at-home demand, resulting in increased demand for products such as laptop computers, televisions and video game consoles. Consequently, this demand acted as a tailwind for the NAGASE Group, which supplies the materials for those products.

Meanwhile, as efforts to achieve carbon neutrality intensify, the NAGASE Group has begun to take steps toward decarbonizing the entire chemicals industry. One prime example is our collaboration with Zeroboard Inc. This company provides a cloud service for visualizing greenhouse gas (GHG) emissions. It is advancing decarbonization efforts by spreading this platform throughout supply chains in the chemicals industry through the NAGASE Group.

Under **ACE 2.0**, examples of focus businesses include biotechnology, semiconductors and food ingredients. We are giving top priority to the biotechnology business. The key to our strategy will be how we will take the

biotechnology business to the next stage over the next five years. We will support the transformation of petroleum-derived industries into future-oriented sectors, while also bringing together the Group's biotechnologies, from companies such as Nagase ChemteX Corporation and Hayashibara Co., Ltd., to propose decarbonization solutions. In April 2021, the NAGASE Biotech Office was established to strengthen Group-wide horizontal collaboration and in April 2022, the Nagase R&D Center was renamed the Nagase Bio-Innovation Center. These initiatives are speeding up open communication across the Group. Through this structure, we will focus our efforts over the next five years to establish a solid reputation as "NAGASE, the biotechnology company."

In the semiconductor business, the Semiconductor Strategy Planning Team was established in June 2021 to strengthen efforts on a Group-wide basis. The NAGASE Group is expanding business in China as well as Taiwan and South Korea. In China, we have established the Semiconductor Department and are developing business throughout the semiconductor value chain while utilizing Nagase ChemteX Corporation's epoxy resins for back-end semiconductor processing. In the food ingredients business, Prinova Group, LLC has become our growth driver. Going forward, we will actively expand business into Asia, while leveraging the expertise of Prinova Group, which is strong in the European and U.S. markets. We will further harness the NAGASE Group's strengths by combining these efforts with the biotechnologies of Hayashibara Co., Ltd.

Bold Localization

The "Pursuit of Quality" is a central theme of **ACE 2.0**. With the "Pursuit of Quality," we aim to shift away from a conventional trading company business to a marketing approach. The background to this shift is that customers increasingly need us to serve as a strategic partner that solves various management issues together with them. That is why we will proactively identify issues and propose solutions in tandem with utilizing DX to support our customers' ideals for who they want to be. We will strengthen horizontal collaboration within the Group so that we can accelerate efforts to share information and explore new businesses. In 2021, the creation of N-Sustainable businesses began in earnest. We have not

yet produced results. However, we have been putting together various themes, and we have numerous projects with exciting prospects for the future.

As global business opportunities increase, if we fall behind in the localization of people, organizations and businesses, our local businesses may weaken. Previously, we took the approach of transferring businesses created by head office to local markets. However, speaking from my own international work experience, I believe that we should value and respect the sensibility of local staff who share the NAGASE Group's values, and we should implement bold localization. Only by embracing diversity in people, businesses and thought will the NAGASE Group be able to demonstrate the true value of its global businesses, in my opinion. For example, in the semiconductor business in China, national staff have led the creation of a unique business management model, and the new model has produced results. Although there are only a few Japanese companies in which local personnel serve as top leaders, the NAGASE Group has created businesses that establish a firm foothold in the Chinese market by appointing Chinese personnel as top leaders of local subsidiaries.

Maintaining the Highest Standards of Integrity into the Future

In its corporate advertisements in newspapers and other channels, the NAGASE Group has published messages such as "Listen to the voices of the future," "Let's challenge ourselves. Precedents need not apply," and "For the view that never seen before." As stated in these words, in order to continue to be chosen by our stakeholders, we must create value with an eye to the future, without being preoccupied with precedents.

Above all, I believe that it will be critical to maintain the highest standards of integrity along the way. The highest standards of integrity mean that your thoughts and actions are congruent with one another. NAGASE has grown by turning its heart's ambitions into action without fear of failure. If you have an ambitious goal you wish to achieve, you should make it known and begin taking action. A leader's job is to foster a culture that inspires people to take such action. I intend to continue nurturing NAGASE's collegial, free and open-minded, and energetic corporate culture.

List of Businesses



Functional Materials Segment

»P54

- **Performance Chemicals Dept.:** Provides high-performance materials for the paint, inks and urethane industries. Also focused on developing sustainable products based on the key words "environment" and "bio," for which demand is quickly increasing.
- **Speciality Chemicals Dept.:** Having established businesses over many years in a diversity of industries, now handles more than 10,000 products. Is also expanding into new fields with a focus on business partners' elemental technologies.



Main Products and Services

Performance Chemicals Department

- Resin raw materials, resins, pigments, solvents, paint and ink additives, urethane materials, flame retardants, release agents

Speciality Chemicals Department

- Petrochemical products, raw materials for industrial metal-working oil solutions, surfactants and surfactant raw materials, environmental equipment and chemicals (wastewater, exhaust gas, energy conservation), resin raw materials and additives, electronics chemicals, UV curing agent materials, chemical outsourcing coordination



Advanced Materials & Processing Segment

»P56

- **Colors & Advanced Processing Dept.:** Offers high-value-added products and services centered around color and function to a wide range of business fields, including the printing, film and LCD industries. Fully utilizes the Group's manufacturing, research and processing functions to meet customer needs.
- **Polymer Global Account Dept.:** With a well-developed sales network and national staff in Asia, works with global companies to sell resins for the OA equipment, game, electrical and electronics industries. Also focusing on biomass plastics and other eco-friendly businesses.



Colors & Advanced Processing Department

- Dyestuffs, colorants, pigments, additives, dispersion processing materials, 3D decorative services, conductive materials, functional sheets, films, adhesives, copolyester resins, endo-toxin removal services, tempered glass, hygiene materials

Polymer Global Account Department

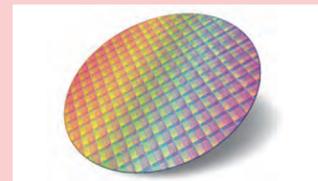
- Engineering plastics, commodity plastics, packaging materials and other plastics-related products



Electronics & Energy Segment

»P58

- **Electronics Dept.:** In addition to providing functional materials and their constituent components to the silicon wafer, semiconductor, electronic components and display industries, is working with partner companies to develop products that align with market and customer needs.
- **Information & Communication · Energy Office:** Provides technologies (materials, processes and equipment) and mechanisms for realizing new information communications and energy infrastructure in a smart society by leveraging the Group's product development capabilities.
- **Functional Resin Dept.:** Nagase ChemteX Corporation's modified epoxy resins, developed based on its formulation and compounding technologies, are sold in and outside Japan, with key fields including the electrical/electronics industry, mobility, the environment, energy and semiconductors.
- **Precision Process Materials Dept.:** Offers photolithography for displays and semiconductors, and high-performance materials for 3D printing, both in and outside Japan, based on Nagase ChemteX Corporation's formulation technology from the perspectives of precision cleaning, surface treatment, and photosensitive materials design.



Electronics Department

- Fine polishing abrasives, optical materials for displays, touch panel components, functional paints, conductive and insulating materials, adhesive and encapsulating materials, high-heat-resistant films, optical lenses

Information & Communication · Energy Office

- Battery Energy Storage systems, energy management systems, optical wireless communication devices, high-frequency devices, low dielectric materials, MLCC materials, ALD coating, sensing modules, optical materials for XR, semiconductor and electronic device-related equipment

Functional Resin Department

- Formulated epoxy resins and related materials

Precision Process Materials Department

- Photolithography materials for flat panel displays and semiconductors, 3D printing-related materials



Mobility Segment

»P62

- **Mobility Solutions Dept.:** Will contribute to the realization of a safe, secure and comfortable mobility society by grasping the needs of the mobility industry, including automobiles, agricultural machinery, construction machinery and aircraft, and by pursuing new technological innovations and offering diverse solutions.



Mobility Solutions Department

- Automotive interior/exterior and functional components: Various resins, functional paints, adhesives, lightweight components, decorative components, HMI components
- CASE-related: xEV-related components, heat management components, battery materials, sensors, LIDAR devices, autonomous driving technologies



Life & Healthcare Segment

»P64

- **Life & Healthcare Products Dept.:** In recent years, we have taken up medical imaging fields besides pharmaceutical business. And leveraging the entire NAGASE Group's capabilities such as R&D and manufacturing functions, we launched a new anti-aging agent to reinforce our product line in the cosmetics and perfumery field.
- **Food Ingredients Dept.:** Provides a wide range of solutions for the processed foods and nutrition markets globally through the Group's research, manufacturing, processing, procurement, application development and regulatory functions. Contributes to healthy, enriched lifestyles through food.



Life & Healthcare Products Department

- Raw materials and active ingredients for cosmetics and household products, Intermediates and APIs for pharmaceuticals, materials for in-vitro diagnostics

Food Ingredients Department

- Food ingredients (TREHA™ and others, enzymes), functional ingredients, nutritional ingredients, premix (OEM/ODM), materials for agriculture, fisheries and livestock

Key Indices by Segment

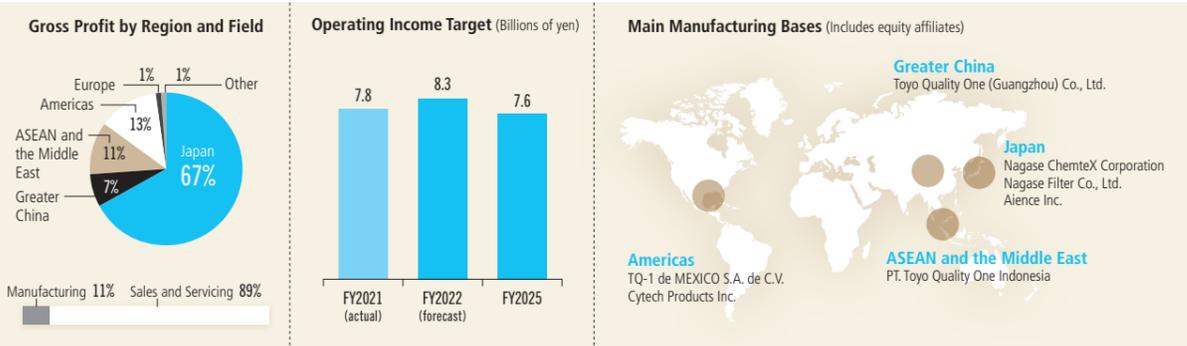
Gross Profit (Billions of yen)	Operating Income (Billions of yen)	Total Assets (Billions of yen)	Employees (Consolidated)	R&D Expenses (Millions of yen)	Capital Investment*1 (Millions of yen)	Total
139.4	35.2	739.7	7,113	5,539	10,725	Total
19.8 (14.2%)	7.8 (22.2%)	83.7 (11.3%)	704 (9.9%)	266 (4.8%)	562 (5.2%)	
32.3 (23.2%)	10.8 (30.8%)	164.2 (22.2%)	1,574 (22.1%)	974 (17.6%)	1,742 (16.2%)	
29.7 (21.3%)	10.2 (29.1%)	77.1 (10.4%)	1,391 (19.6%)	2,030 (36.7%)	1,610 (15.0%)	
12.7 (9.1%)	4.1 (11.7%)	68.4 (9.3%)	317 (4.5%)	129 (2.3%)	558 (5.2%)	
44.7 (32.1%)	9.4 (26.7%)	218.0 (29.5%)	2,084 (29.3%)	1,719 (31.0%)	2,435 (22.7%)	
0.1*2 (0.1%)	(7.2)*2 (-20.6%)	127.9*2 (17.3%)	1,043*2 (14.7%)	418*2 (7.6%)	3,816*2 (35.6%)	

*1 Investments in tangible and intangible fixed assets.

*2 Other/Corporate: Includes businesses not included in reported segments and eliminated inter-segment transactions, etc.



Functional Materials Segment



Performance Chemicals Business

Business Opportunities

- Promotion of sustainability business of productivity enhancement in the paint, ink and urethane industries

Business Risks

- Lost opportunities in the general purpose chemicals trading business due to the penetration of DX as symbolized by EC
- Diluting of functional value as functional chemicals become more generalized

Strengths

- Supply chain management functions backed by an overwhelming market maintained for many years, as well as a global network, problem-solving capabilities and professionalism

Medium-Term Issues

- Measures to address supply chain maintenance based on BCP and consideration for the environment
- Promote sustainability in the industry and contribute to improving the environmental value of chemicals

Committed to improving the industry's social value and environmental value through technological expertise and mobility



Tamotsu Isobe

GM, Performance Chemicals Department

In the first year of **ACE 2.0**, from a numerical aspect, results were favorable not just in Japan but also on a global consolidated basis. In addition to the supply chain management functions that NAGASE has traditionally excelled at handling, such as addressing rising prices in basic chemicals and derivative products and systematic response to supply issues, we also produced rapid procurement of alternative products by leveraging our unique global network and displayed professionalism in the department even in the face of adversity as symbolized by the pandemic.

As a new test, we have developed a decarbonized platform for the paint industry. In a solution that can contribute to improving social value and economic value through the entire industry, we are promoting provision of a greenhouse gas (GHG) reduction and offset solution centered on visualization of Company-wide promotion of GHG emissions. Promotion of sustainability and activities to improve productivity are already moving ahead in the paint and ink and urethane industries. The department believes it can contribute to improving the social value of the industry by identifying new commercial materials and technologies and taking early action. With fresh information obtained from technological expertise cultivated through all chemicals and obtained from the relationships of trust built up with suppliers added to digital functions in our global network, we will create value that only NAGASE can provide.

Sustainability Topic

Began Building a Shared Logistics Platform for Chemicals Using AI

Leveraging Japan Pallet Rental Corporation's TranOpt AI matching system, we aim to build a shared transport platform specializing in chemicals to address the "logistics crisis," an urgent issue facing the chemicals industry. Multiple manufacturers handling products such as chemicals or paint launched a study workgroup to begin trials of joint transport using TranOpt. This will contribute to covered to sustainable chemicals logistics.



Speciality Chemicals Business

Business Opportunities

- Contribute from an environmental aspect in a business environment that requires sustainability

Business Risks

- Environmental impact of businesses centered on chemicals
- Dilution of the value provided as a trading company due to reform of business methods through DX

Strengths

- Strong relationships of trust with suppliers cultivated from the standpoint of a parent organization department
- In-depth knowledge of the industry and chemicals, and information capabilities that leverage the Group's capabilities

Medium-Term Issues

- Portfolio optimization and acceleration of global expansion
- Operational streamlining and human resource development

Making an in-depth contribution precisely because of being a business with a heavy environmental impact



Noriaki Arashima

Executive Officer
GM, Speciality Chemicals Department

Looking back at the progress of **ACE 2.0**, the external environment was good, and business itself was brisk. In the wastewater solution business, one of our environment-related businesses, we achieved results in some projects. Our department provides consulting services to address issues faced by plants, such as exhaust gas, wastewater treatment and energy conservation, and provide optimal solutions based on technology and expertise.

In the porous coordination polymer, metal organic framework* (PCP/MOF) business, we invested in manufacturer Atomis Inc. and moved into the carbon dioxide (CO₂) separation and recovery business. In the organic synthesis business using the micro-flow method, which is expected to conserve energy and enable synthesis by reducing waste, we started an N-Sustainable Business initiative that included the introduction of pilot equipment. As our department's business centers on chemicals, there is a risk of a heavy impact on the environment, but at the same time we see this as an opportunity and believe we can contribute to sustainability through environment-related and organic synthesis businesses.

From the standpoint of DX, as well, the department is promoting digital marketing and shifting to effective sales promotion activities and sales activities to ascertain customers' needs.

* Expected to have various applications as a new material with the properties of selectively separating, adsorbing and storing macromolecules and low weight molecules using space.

Sustainability Topic

Achieve Both the 3Rs and Enhance Corporate Value through Environmental Solutions

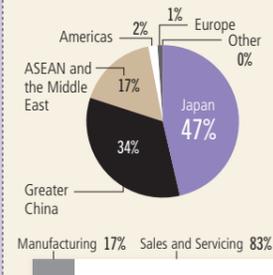
In response to the severe maintenance management required on the front lines of plant wastewater and exhaust gas treatment, and issues of sharing knowledge due to personal skills, we provide three solutions for energy saving, exhaust gas and wastewater for various issues faced at the front lines. These solutions contribute to reducing operational management labor, enhance productivity, cut costs, show consideration for the environments around plants and create recycling of liquid wastes through the 3Rs (reduce, reuse and recycle), which contributes to things such as the reduction of CO₂ emissions.



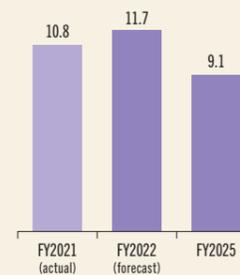


Advanced Materials & Processing Segment

Gross Profit by Region and Field



Operating Income Target (Billions of yen)



Main Manufacturing Bases (Includes equity affiliates)



Colors & Advanced Processing Business

Business Opportunities

- Rising global awareness of sustainability and the need for products that contribute to the environment

Business Risks

- Establishing a presence as new technology arises
- Sluggishness in chemical-related investment due to changes in the external environment

Strengths

- Customer approach from a technological perspective
- Product planning capabilities utilizing manufacturing and laboratory functions

Medium-Term Issues

- Take on the challenge of selling “things” and selling “ideas”

Sustainability needs toward decarbonizing society provide an opportunity



Hayaki Goto
GM, Colors & Advanced Processing Department

In the first year of **ACE 2.0**, we identified the functions required of the department, studied stakeholders, and found ways to raise value. We are still only partway toward achieving results, but believe this was an acceptable period to gather information for the second year of the plan onward.

TIMELESS®, a gas control technology applicable to film and paper packaging materials, was jointly developed by NAGASE & Co. and MIB Co., Ltd., which acquired the patent, and is a technology particularly expected to contribute to expanding business over the medium- to long-term. TIMELESS® provides gas control functions, so we expect it to become popular as an alternative to plastic valve products, such as those conventionally used for packaging coffee beans, which expel carbon dioxide gas from the beans through plastic valves to prevent the bags from swelling or bursting.

Our department will contribute to society by delivering environmentally friendly products that leverage our expertise in matching materials in key fields such as sustainability, bio, organic synthesis, dispersion processing and recycling plastics. We view the rising global momentum toward achieving a decarbonized society as an opportunity and by fusing with the biotechnology business that NAGASE has continued meticulously pursuing, aim to further increase corporate value.

Sustainability Topic

Enter the U.S. Coffee Market through an Environmental Technology Moving Away from Plastics

NAGASE is the exclusive distributor for coffee applications for TIMELESS® and we will make a full-scale expansion into the U.S. market going forward. The U.S. coffee market is larger and forecast to have greater demand than Japan. We have already moved forward on taking action and received a positive response. There has also been an example of using TIMELESS® to preserve the freshness of fruit and vegetables, so we expect to contribute to the reduction of food loss through this market.



Polymer Global Account Business

Business Opportunities

- Advantageous position as customers diversify production bases and duties are increasingly divided internationally due to various factors such as geopolitical problems, the pandemic and climate change.

Business Risks

- From a sustainability standpoint, ensuring traceability in such ways as through a chemical information network

Strengths

- Sound supplier and customer base, technical expertise and information as well as know-how, and a supply chain network in the Asia-Pacific area

Medium-Term Issues

- Review of portfolio aimed at improving business profitability

Ensure a competitive position by leveraging the supply chain network capabilities



Koji Yoshida
GM, Polymer Global Account Business

The department's strength, established over many years of resin sales, is a business network in a supply chain connecting chemical manufacturers, process manufacturers and brand owners. Customers are diversifying production bases and moving ahead on dividing duties internationally to address business continuity in the wake of various factors such as the U.S.-China trade friction, the COVID-19 pandemic, war in Ukraine and irregular weather, but NAGASE can provide the same sales service throughout the Asia-Pacific area and, by incorporating some of the functions of chemical manufacturers in domains that they specialize in, is strengthening its presence in the supply chain.

Under **ACE 2.0**, we will leverage this network capability in a plan to conduct a demonstration test to calculate customers' carbon footprint, which will ensure the traceability of chemical manufacturers from shipment onward and secure their competitive edge in the supply chain. We have also opened to all companies our platform to survey substances creating an impact on the environment. In this way, from a sustainability perspective as well, we believe that we are able to gather various types of information from the upstream (chemicals manufacturers) to the downstream (consumers), in addition to building a business model that can add extras to the buying-and-selling business which is based on friendly relationships within the supply chain with an industry foundation of the existing business.

Sustainability Topic

Expanding the Communication Platform, plaplat™

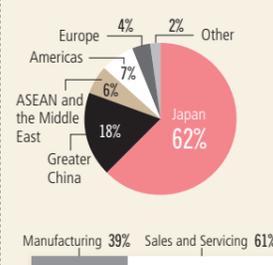
plaplat™, a platform to survey the environmental impact of substances that started operating in 2021, is, thanks to peoples' support, being used by over 300 client companies in Japan. This fiscal year we will strengthen its functionality and enhance its convenience as well as aim to elevate the platform into becoming one that attracts even more customers by communicating information linked to the “sustainability of plastic” and by enhancing online content.



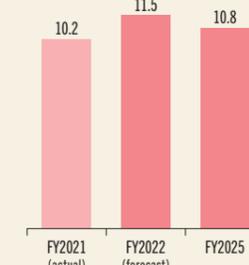


Electronics & Energy Segment

Gross Profit by Region and Field



Operating Income Target (Billions of yen)



Main Manufacturing Bases (Includes equity affiliates)



Electronics Business

Business Opportunities

- Utilize an extensive global network in the electronics industry supply chain
- Market development responding to customer needs and trends

Business Risks

- Generalization of existing technologies and products
- Shift to development envisaging recycling and reuse

Strengths

- Customer-oriented sales structure, search and proposal of products accurately reflecting customer needs, market development support for suppliers and technical reliability

Medium-Term Issues

- Build a business model utilizing DX, develop new service businesses based on data and develop cutting edge materials

Providing new products and services for the future that are a further step ahead of the IoT society



Hironao Makise
GM, Electronics Department

The department is involved in the development and sales of display and semiconductor related materials used in various electronic products such as smartphones. Our customer-oriented sales system ascertains bottlenecks in the development process and the key standards and specifications, and searches for and proposes products that meet development needs. And by sharing customer needs and trends, we take charge of market development functions for suppliers.

In the first year of **ACE 2.0**, we increased strategic partners jointly involved in development to meet the needs of customers and markets, and are moving forward on enhancing the product lineup. We are expecting growth in materials for the semiconductor industry in China and in business importing Chinese silicon wafers to Japan.

Going forward, we expect a shift to a society where diverse data is analyzed and converted to knowledge and aims to energize industry and solve social issues. We will promote expanding sensing devices for compact, light, power-saving and safe mobile terminals connected to a variety of fields, as well as the functional materials and materials fields that support these devices. At the same time, we need to respond to development that incorporates recycling and reuse from the standpoint of sustainability. In addition, we also want to move ahead on considering new service businesses based on data in anticipation of the further development of the IoT society.

Sustainability Topic

Support Customers' Development through Marketing Sites

We launched Thermosetting Material Sommelier, a BtoB marketing site that allows searching physical conditions of materials from multiple manufacturers used for electric component encapsulation or adhesives in March 2022. In addition to expanding our product lineup, we are also enhancing the information required in terms of standards, specifications and environmental considerations to support customer development. Moreover, we are also focusing on expanding sales of the UV curable material and room temperature curable material, which need less energy to cure than thermosetting resins and also generate fewer CO₂ emissions.



Information & Communication · Energy Business

Business Opportunities

- Social moves to realizing a smart society and carbon neutrality

Business Risks

- Providing products and services that balance improving customer profitability with social contribution

Strengths

- Development and proposal of new materials leveraging Group manufacturing and development companies and laboratory functions
- Proposal of various types of services through collaboration with Group companies

Medium-Term Issues

- Collaboration with Group companies in the development of proprietary products for the 5G/6G markets

Developing various businesses to realize a smart society and to contribute to the global environment



Tetsu Iwanaga
GM, Information & Communication · Energy Office

The office was established by integrating two organizations involved in next-generation information and communication and the energy business, and has the objective of providing various services needed for a smart society.

In the first year of **ACE 2.0**, we built strategies to contribute to a smart society, and proactively invested in promising companies and formed business alliances to solidify a foothold to build NAGASE-led businesses. We have an eye on commercializing the augmented reality (AR) glasses market, which is expected to expand in the future, and invested in Cellid, Inc., which is engaged in both hardware and software development for AR glasses.

In the next-generation information and communication business, we promote businesses that contribute to society by proposing materials and technological development for 5G/6G infrastructure, we well as solutions. In the energy business, as a contribution to carbon neutrality, we are working on on-site and off-site PPA* and commercialization of lithium-ion batteries for the power grid, while also tackling the reuse of used batteries in the EV market in consideration of the SDGs, centered around lithium-ion batteries from Group company, CAPTEX CO., LTD. The latter endeavor will commercialize EV battery residual value evaluation services and aims to launch the service within fiscal 2022.

* Power Purchase Agreement

Sustainability Topic

Advance the Commercialization of the Used Lithium-Ion Battery Diagnostic Service Business

To spread the use of safe and high-quality reused lithium-ion battery products, quantitative evaluation of the residual value of used lithium-ion batteries through a diagnosis of their deterioration and management of information on lithium-ion batteries and their usage history are indispensable. However, a technology or structure to do this quickly and with a high degree of generalization has not yet been established. We are a member, mainly through Guangzhou Nagase Trading Co. Ltd., of a consortium established by The Japan Research Institute, Limited that promotes the verification of a diagnostic service business for used lithium-ion batteries, and aims to start services from FY2022.



Source: Green Investment Promotion Organization



Electronics & Energy Segment

Functional Resin Business

Business Opportunities

- Needs for environmentally friendly products that contribute to addressing climate change and improvements
- Moves toward safe, secure, stable and highly convenient network foundations

Business Risks

- Reduced communication and productivity due to the COVID-19 pandemic
- Reduced information gap due to DX, change in customers' material searches and conversions in the environment and energy fields

Strengths

- Integrated production and sales system that combines trading company functions and manufacturer functions
- Providing solutions backed by technological and development capabilities as a manufacturer

Medium-Term Issues

- Shrinking needs for formulated epoxy resins, and the issue of differentiating in a business with low barriers to entry

Aim to build a unique role model integrated trading company and manufacturer functions



Takayuki Hashimoto
GM, Functional Resin Department

Our department aims to build a unique role model that integrates trading company and manufacturer functions through market development based on the Group's technology, under the integrated manufacturing and sales structure of the functional resin businesses of both NAGASE & CO., LTD. and Nagase ChemteX Corporation.

In the first year of **ACE 2.0**, the department defined an overall strategy and key measures. For improvement of quality, we will: 1) completely optimize Nagase ChemteX Corporation's core businesses; 2) promote the development of de facto standard or No. 1 products; and 3) accelerate overseas development in the electrical structures field, all while centered on organic growth in the business of formulated epoxy resins, which are used in a wide range of industries including mobility, communications (ICT, telecommunications), semiconductors, heavy electrical machinery, environment and energy. For innovation, we will create new and sustainable businesses by developing materials and solutions other than formulated epoxy resins. We will also consider moving ahead on collaborations with other companies or research institutes, or M&A, to target the semiconductor field to accelerate the achievement of customer success.

We have reviewed our organizational structure to create a system that enables rapid decision-making to be able to implement this overall strategy and key measures. We are also focusing on DX initiatives, such as started activities toward building new digital marketing, as one method of implementing the overall strategy.

Sustainability Topic

Aim to Develop Environmentally Friendly Functional Resins through the Group's Comprehensive Capabilities

We provide solutions to environmental issues mainly by indirectly contributing to the fields of environmentally friendly vehicles, energy and telecommunications data processing by providing formulated epoxy resins. Going forward, we will promote a lineup of environmentally friendly functional resins by utilizing the Group's capabilities and developing environmentally friendly cutting-edge materials. We aim to contribute to addressing social and environmental challenges by providing solutions responding to the 3Rs.



Source: Toyota Motor Corporation website

Precision Process Materials Business

Business Opportunities

- Create new businesses due to the rising awareness of sustainability

Business Risks

- A shrinking market for LCD displays, difficulty in procuring raw materials, high costs, sudden fluctuations in exchange rates and emergence of local manufacturers in China and elsewhere

Strengths

- Total solution capability by combining NAGASE's technologies and products with complementary products

Medium-Term Issues

- Development of new industrial fields and value provided making full use of advanced technology accumulated to date

Provide value through total solutions using sales, manufacturing and development functions



Takashi Takeda
GM, Precision Process Materials Department

Our department was established by integrating the sales functions in the photolithography business at NAGASE & CO., LTD. and the manufacturing and research and development functions of Nagase ChemteX Corporation, while adding new businesses. In addition to the wide array of product lineups, experience, expertise and supply chain network of NAGASE & CO., LTD. we could combine Nagase ChemteX Corporation's technical expertise cultivated over many years and customer process problem resolution capabilities to provide total solutions.

In the first year of **ACE 2.0**, we made greater than expected progress in developing new products and entering new markets through initiatives conducted under multiple themes toward converting the business portfolio from its bias toward process materials for the flat panel display (FDP) industry. In the 3D printing business, which is progressing with commercialization as a materials business that leads to manufacturing innovation, we are creating a system to be able to provide total solutions, including process proposals, for customers introducing new manufacturing processes, in addition to achieving breakthrough evolution of material functions.

We feel the rising needs for sustainability will be a major tailwind for new businesses, and are actually seeing the expansion of circular economy businesses and progress in research and development activities for businesses that can contribute to energy efficiency use.

Sustainability Topic

Separation Membrane Process Development Aimed at Reducing Energy during Chemical Recycling Selected for a NEDO Subsidy

Nagase ChemteX Corporation's Sakai Plant is taking a central role in implementing the 3Rs in liquid crystal process chemicals. A plan is underway to further develop regeneration and refining technologies to expand the range of target substances and applications. As one aspect of that, development of a solvent-resistant separation membrane process aimed at reducing energy costs in organic solvent collection that was jointly proposed with Unitika Ltd. (and jointly researched with Kobe University) was selected for a subsidy from the New Energy and Industrial Technology Development Organization (NEDO).



Solvent-resistant separation membrane process test equipment

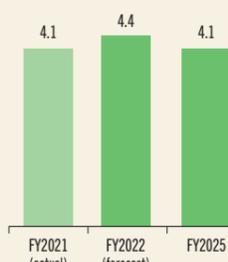


Mobility Segment

Gross Profit by Region and Field



Operating Income Target (Billions of yen)



Main Manufacturing Bases (Includes equity affiliates)



Mobility Solutions Business

Business Opportunities

- Expansion of EV on the back of carbon neutrality and the spread of CASE*1, emergences of new mobility and MaaS

Business Risks

- Dramatic changes in the mobility industry and the possibility of significant changes in industry players

Strengths

- Ability to discover a wide range of product lineups, products and technologies, and the ability to build global supply chains
- Strong relationships with suppliers built on trust

Medium-Term Issues

- Stagnant domestic market and strengthening the system to expand in overseas markets

Strengthen response to EV and take on the challenge of new mobility



Daiji Matsuoka
GM, Mobility Solutions Department

Production of EV*2 will undoubtedly increase going forward due to the global trend toward carbon neutrality and acceleration of electrification due to the spread of CASE. Our department has traditionally sold various materials, including for internal combustion, to Japanese auto-makers, but to expand the business portfolio in line with societal trends, under **ACE 2.0** will look to expanding business with global automakers, including emerging EV manufacturers. We have built a worldwide spec-in and supply system for major EV manufacturers in Europe and the U.S., in particular, and forecast further growth going forward.

We believe our department will be able to find new business opportunities for EV, even as EV technology innovations continue to move ahead and the business environment changes dramatically and the industry players are changing with them. We will not just sell materials for automobiles, but also want to take on the challenge of expanding business opportunities in the new mobility field, such as with drones, MaaS and automated driving. We will continue our efforts to provide global solutions that consider the environment, safety and comfort in the next-generation mobility society, where people, goods and data come and go as part of "Ideal NAGASE."

*1 CASE: An acronym for Connected, Autonomous, Shared & Services, and Electric.
*2 EV: Electric vehicles, a comprehensive term encompassing hybrid vehicles (HEV or HV), plug-in hybrid vehicles) PHEV or PHV) and fuel cell vehicles (FCEV or FCV).



Anticipate the tide of change and contribute to the evolution of mobility

The mobility industry is facing a "once-in-a-century revolution." Moves such as major global companies newly entering the market and the appearance of new automakers in Japan stand out. With the recovery of automobile production, demand for NAGASE Group products has also increased in Japan and overseas, mainly in ASEAN countries. Furthermore, soaring market prices have improved profitability. In mobility, a growth field, the NAGASE Group will create new value by achieving both safety and environmental friendliness and comfort.

Sustainability Topic 1

Aim to Eliminate Labor Shortages in the Transport Industry with Compact EV as the Key

Since FY2020, we have been working on last mile logistics using compact EV for the purpose of eliminating the shortage of delivery personnel in the logistics industry. We are considering a MaaS business where compact EV can be used for deliveries by people who have time available. We are moving ahead on building the business while working together with automobile-related manufacturers, delivery companies and others to contribute to the department's goal of N-Sustainable businesses accounting for 25% of gross profit by 2025.

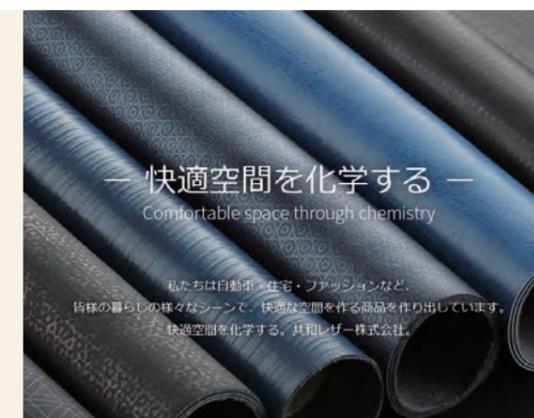


Sustainability Topic 2

Global Development of Synthetic Leather Supporting the Evolution of EV Interiors

The department proposes and creates stylish EV interiors through product development by KYOWA LEATHER CLOTH CO., LTD., which is involved in development, manufacture and sales of synthetic leather. We provide ideal synthetic leather globally by proposing a variety of colors and embossed finishes* and combining materials, taking into consideration texture, feel, function and design. Synthetic leather, which contributes to improved electrical cost performance, also contributes to reducing energy required for transport as it is comparatively lighter than authentic leather.

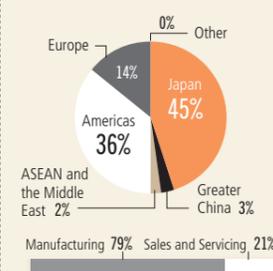
* A process adding a surface embossed with a pattern





Life & Healthcare Segment

Gross Profit by Region and Field



Operating Income Target (Billions of yen)



Main Manufacturing Bases (Includes equity affiliates)



Life & Healthcare Products Business

Business Opportunities

- Business environment where we can proactively take on challenges of new business creation with liberal ideas.

Business Risks

- Changes in the business environment outpacing the speed of structural reforms

Strengths

- Industry-leading customer base, global business foundation
- R&D functions and manufacturing technologies within the group
- Human resources with advanced specialist knowledge
- Planning and proposal abilities with optimal combination of the materials within and outside the Group

Medium-Term Issues

- Materialization of our vision, 'Grow your happiness'

Fully engaging in challenges of new business creation to contribute to people's well-being



Bunji Ono

GM, Life & Healthcare Products Department

In the first year of **ACE 2.0**, we aggressively invested in the fields of biopharmaceuticals, flow-synthesis technology, AI for drug discovery, medical imaging software, and health-tech while steadily improving efficiency in the core business. We also contributed to new business creation in biotechnology and sustainability fields collaborating with NAGASE Biotech Office.

In health-tech field, we invested in S'UIMIN, which provides high-precision sleep monitoring service utilizing unique wearable device and AI.

This is an attempt to try to create new business opportunities not being bound by the current area of activities, and going forward, we intend to firmly embed the corporate culture that takes on new challenges fueled by creativity and imagination beyond organizational constraint.

Our business domain is composed of pharmaceutical & medical business and cosmetic business which directly affect people's quality of life. We have set our future (ideal) vision as "Grow your happiness" and aim at the status that every employee can work with high aspiration and pride being aware that the expansion of our activity will contribute to human's well-being. Although the external environment changes severely and is hard to predict, we will identify the essential issues we should aim to resolve over the medium- to long-term, and provide insightful solutions which even exceed our clients' expectation grasping the essence of their issues.

Sustainability Topic

Engaging in New Business in the Medical and Cosmetic Businesses, Including the Development of New Technologies and Introduction of AI

We pursue various kinds of initiatives to solve social issues related to human's health and welfare such as new manufacturing technologies for biopharmaceuticals which can lead to significant cost reduction, AI for drug discovery, medical imaging technologies which address diversified needs of medical workers, and so on. Furthermore, we are at the planning stage of a unique platform business targeted beauty salons to create new value in our cosmetic business.



Food Ingredients Business

Business Opportunities

- Significant changes in eating habits in response to growing consciousness about sustainability and health

Business Risks

- Bias in distribution of ingredients production bases and food materials manufacturing bases

Strengths

- Procurement capabilities of Prinova Group LLC, sales network in Europe and the U.S. and high-value-added business
- NAGASE Group's overseas network
- In-house ingredients and application proposal capabilities at Hayashibara Co., Ltd. and Nagase ChemteX Corporation

Medium-Term Issues

- Creating synergies between Group companies in response to portfolio changes resulting from the acquisition of the Prinova Group LLC

Expanding the Prinova Group's procurement and supply capabilities and high-value-added businesses that the Prinova Group LLC possesses



Koichiro Kojima

GM, Food Ingredients Department

In 2019, the Group welcomed Prinova Group LLC, with its strengths in handling vitamins and amino acids and expertise in formulations. In the first year of **ACE 2.0**, we made progress in working together with the Prinova Group LLC and started creating a track record, particularly in Japan and Southeast Asia. A significant strength of the department is leveraging the Prinova Group LLC's procurement capabilities and its global supply capabilities. We provide a stable global supply of nutrition to meet the health-conscious needs of customers, not just with single ingredients, but by blending to meet customer requirements and provide greater value. We also foresee further synergies through the expansion of applications for in-house ingredients at Hayashibara Co., Ltd. and Nagase ChemteX Corporation.

From the standpoint of medium- to long-term business expansion, we have great expectations for the global expansion of high-value-added businesses, at which the Prinova Group LLC excels. Firstly, we will expand business in Europe and the U.S., then invest in places such as the rest of Asia and South America, taking into account the circumstances in the region. With the participation of the Prinova Group LLC we have expanded our portfolio so that it matches the growing awareness of sustainability, and we aim to raise our proposal capabilities for food in the future and achieve health for people and a poverty-free world through the business of ingredients.

Sustainability Topic

Contributing to Sustainable Food, Establishing an Application Development Base in North America

- 1) The Group is displaying its comprehensive capabilities to develop applications based on the key terms of "alternative proteins" and "plant-based." We will contribute to the realization of a sustainable world through food.
- 2) We will establish an application lab in North America and build a global sales structure to globally develop the application proposal capabilities of Hayashibara Co., Ltd. together with Prinova Group LLC.



Regional Strategy

Note: Employees in the consolidated group (as of March 31, 2022)

Built on a foundation of chemistry, the NAGASE Group is engaged in global business across a wide spectrum of industries. Utilizing the wide-ranging expertise accumulated through that network and experience, we provide a fine-tuned response to the needs of each country and region.

Greater China

Base established: 1971/Number of employees: 874

Quickly Responding to Technological Advances in the Industry through Bold Localization

As China's domestic industrial structure and technology level are rapidly becoming more advanced, we established Nagase (China) Co., Ltd., which is a regional headquarters, in 2019 to enhance the expertise of local human resources and promote the creation of business developed in China. We shifted operation from the previous region-centered sales structure to one centered on businesses, and consolidated the reporting lines of all our bases with the general managers of each business in Greater China. Leveraging our information gathering expertise and local networking resources, we are quickly responding to the technological advances in the industries of Semiconductor, Mobility, Electronics, Life & Healthcare, Chemicals, and Advanced Materials & Processing, and providing value-added products and services.

- Main Businesses**
- **Semiconductors** We will strengthen the expansion of products and services throughout the entire supply chain, industry branding, and support for companies' overseas advancement and local manufacturing.
 - **Mobility** We will expand sales to include Chinese, European and U.S. brands, and enhance products for new energy vehicles.
 - **Electronics** We will expand sales of components for next-generation displays including OLED and Micro-LED, and increase business for new applications such as AR/VR and sensors utilizing 5G/6G infrastructure.

Topics We are concentrating on food ingredients, perfumery, and pharmaceutical-related businesses as developing businesses. In food ingredients, we are making progress in expanding raw materials for health food products, digital marketing using the NAGASE Food Ingredients Food Development Center (Xiamen) where we develop applications, and collaboration with the Prinova Group LLC. In perfumery, we will respond to the manufacturers of Chinese-developed cosmetics and establish a system to expand sales of Hayashibara Co. Ltd.'s AA2G™ (a stabilized ascorbic acid derived from Vitamin C and starch), while in pharmaceuticals, we will work to expand sales of TREHA™ SG. We will make advances in bold localization and meet the needs of customers while learning the diverse values of local human resources.

ASEAN and the Middle East

Base established: 1975/Number of employees: 734

Creating Regional Businesses and Introducing Regional Management Policies to Support Them

We are continuously maintaining strong relationships with suppliers in the resin business and deeper involvement in the automotive industry, which has been a strength for a long time. In addition, we are strengthening our effort on transfer business from China supported by personnel from Greater China affiliates. Going forward, we will also aim to create businesses through tie-ups with regional brand owners as well as the development and commercialization of businesses that are close to consumers in anticipation of demographic changes and economic development. We believe that, in addition to the management of each regional subsidiary on a standalone basis, we must introduce regional management policies to promote these businesses organically within the region.

- Main Businesses**
- **Food Ingredients** We will accelerate business expansion through action guidance for regional food businesses, and reform of the structure to take accountability for profit and loss.
 - **Resin** We will maintain strong relationships with suppliers.
 - **Automobiles** We will strengthen and deeply intensify our approach to customers from Japanese-owned companies

Topics In Indonesia, we launched a fleet management business which analyzes transport data and provides solutions, and aim to help solve environmental issues by making transport more efficient. Through the initiatives of Zeroboard Inc. in the industrial areas of Thailand as well, we support regional business management by reducing carbon emissions and through initiatives for decarbonization.

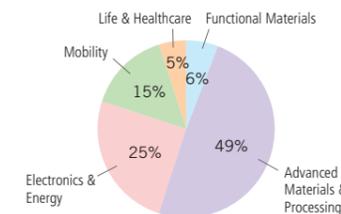


Masatoshi Kamada

Director, Executive Officer and Greater China CEO

Gross Profit/21.8 billion yen (FY2021)

Breakdown

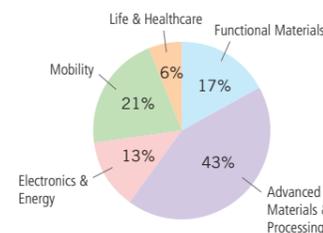


Eiroku Oki

Executive Officer and ASEAN and India CEO Regional Operating Centre Leader

Gross Profit/12.7 billion yen (FY2021)

Breakdown



Europe

Base established: 1980/Number of employees: 268

Focusing on Export Business Related to Pharmaceuticals and Expanding Sales of Chemicals Including Biodegradable Materials

In Europe, the amount of pharmaceutical-related exports is growing rapidly alongside increased demand for in-vitro diagnostic drugs and drug substances. We continue to focus on expanding sales of Hayashibara Co., Ltd. products within Europe and on exporting generic APIs* to Japan, while actively considering collaboration with contract manufacturing organizations (CMOs) to expand business.

Meanwhile, production stagnation in supply chains and regional procurement affected by geopolitical risks are becoming critical issues, and there is strong demand for product development that does not rely on difficult-to-procure raw materials. In order to meet the demands for changeover to raw materials with limited environmental impact and recycling, we will enhance the sales expansion of products that use biodegradable raw materials and biomaterials, among others.

In the short term, we believe it is important to maintain customers' supply chains. In the medium to long term, we will roll out new products that have reduced impact on the environment and advance regional procurement.

* Active pharmaceutical ingredients

- Main Businesses**
- **Pharmaceuticals** We will increase profitability through the sales expansion of our own (Hayashibara) products and others in line with demand for in-vitro diagnostic drugs and drug substances.
 - **Mobility** Due to an increase of manufacturing and recycling in the automobile industry, we will focus on lithium and bio-based batteries.
 - **Chemicals** We will expand sales of biodegradable raw materials for the resin and papermaking industries.

Topics Currently, we are actively considering collaboration with CMOs and responding to opportunities for business expansion. Meanwhile, in regard to the repercussions of production stagnation in supply chains caused by the spread of COVID-19 and other factors, we will advance initiatives in fields that reduce the impact of supply chains, including pharmaceutical intermediates and processing materials, enzymes for industrial use, and petrochemicals based on green hydrogen.

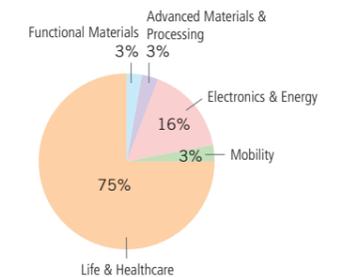


Hiroyuki Ueshima

Director, Executive Officer and Europe CEO

Gross Profit/8.4 billion yen (FY2021)

Breakdown



Americas

Base established: 1971/Number of employees: 1,404

Continuing Investment in the Rapidly Growing Food Ingredients Market and in New Technologies

For the last two and a half years, we have experienced regular supply chain disruptions as an unintended consequence of the global pandemic. Now we also have the additional specter of expanding geopolitical conflicts which pose additional risks to business continuity. We provide alternative solutions to our customer's challenges through our manufacturing, application development, and research capabilities in the region.

The largest business in the region is in the nutritional and food ingredients market. The nutritional ingredients market is predicted to continue to grow at a rapid pace in our region, at a CAGR of roughly 8–9%. Leveraging our already strong position in our core areas and adding to it our continued expansion into downstream, value-added markets represents our key strategic initiatives for the nutritional and food ingredients markets in the Americas. Our growth plan for our core distribution business will be to pursue investment opportunities in adjacent product areas or in new geographic markets.

Keeping up with the needs of our customer and the markets we serve and by making the requisite investments in new technologies such as AI/ML, additive manufacturing, and biotechnology, NAGASE Group will continue to provide value.

* A manufacturing method that utilizes additive manufacturing technologies such as 3D printing

- Main Businesses**
- **Food Ingredients** To respond to strong demand, we will continue to invest in downstream areas and expansion of capacity.
 - **3D Printing** Through the new service, Empowr3D, we provide a comprehensive support for 3D printing, from ideation to material development and commercialization, by providing the best solution for customers.

Topics The commercialization of bio-based chemicals will continue to be an important area of focus. In addition to this, we are leveraging existing technology platforms, brought through the IFC acquisition, that utilize post-consumer recycled plastics to produce composite products for use in a variety of application spaces. We will look to leverage IFC's know-how to expand our presence in the circular economy through the development of new applications utilizing recycled plastic inputs.

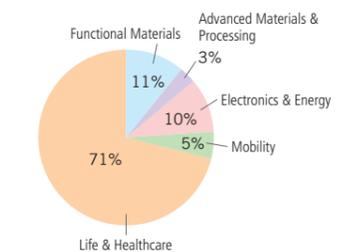


Bradley Hilborn

Americas CEO and Nagase Holdings America Corporation CEO

Gross Profit/23.8 billion yen (FY2021)

Breakdown



Our Board

(As of July 1, 2022)

Note: Number of shares held based on available information on April 30, 2022. Shares held by board members include those held in the name of NAGASE & CO., LTD. Officer's Shareholding Association and Own Share Investment Association.

Directors

Representative Director and Chairman



Hiroshi Nagase
Number of shares held: 1,358,794

Representative Director and Managing Executive Officer
In Charge of Overall Administration, Affiliated Companies and Americas



Masaya Ikemoto
Number of shares held: 10,159

Outside Director



Takahiko Ijichi
Number of shares held: 2,351

1976 Joined Toyota Motor Co., Ltd. (currently Toyota Motor Corporation)
2004 Managing Officer of Toyota Motor Corporation
2008 Senior Managing Director of Toyota Motor Corporation
2011 Director and Senior Managing Officer of Toyota Motor Corporation
2013 President of Towa Real Estate Co., Ltd.
2015 Executive Vice President and Member of the Board of Directors of Toyota Motor Corporation
2016 Retired Advisor of Towa Real Estate Co., Ltd.
2017 Senior Adviser of Toyota Motor Corporation
2018 Retired Senior Adviser of Toyota Motor Corporation
2019 Retired Representative Director and Chairman of the Board of Aioi Nissay Dowa Insurance Co., Ltd.
2020– Director, NAGASE & CO., LTD.

Director and Vice Chairman



Reiji Nagase
Number of shares held: 96,956

Director and Executive Officer
In Charge of Overall Sales and Asia Greater China CEO



Masatoshi Kamada
Number of shares held: 13,252

Outside Director



Ritsuko Nonomiya
Number of shares held: 1,175

1987 Joined Peat, Marwick, Mitchell & Company (currently KPMG LLP)
1997 Partner of KPMG Corporate Finance K.K.
2000 Joined UBS Warburg Japan (currently UBS Securities Japan Co., Ltd.)
2005 M&A Advisor and Managing Director of UBS Warburg Japan
2008 Senior Vice President and Business Development Leader of GE Capital Asia Pacific Ltd.
2013 Senior Executive Officer and Business Development Leader of GE Capital Japan, GE Japan Inc.
2013 Managing Director, GCA Savian Corporation (currently GCA Corporation)
2017– Director, GCA Corporation
2020– Director, NAGASE & CO., LTD.
2022– Representative Director and CEO, Houlihan Lokey Japan Co., Ltd.

Representative Director, President and CEO



Kenji Asakura
Number of shares held: 26,329

Director and Executive Officer
In Charge of Development and Europe Europe CEO



Hiroyuki Ueshima
Number of shares held: 21,592

Outside Director



Noriaki Horikiri
Number of shares held: 0

1974 Joined Kikkoman Shoyu Co., Ltd. (currently Kikkoman Corporation)
2003 Corporate Officer, Kikkoman Corporation
2006 Executive Corporate Officer, Kikkoman Corporation
2008 Director and Executive Corporate Officer, Kikkoman Corporation
2011 Representative Director and Senior Executive Corporate Officer, Kikkoman Corporation
2013 Representative Director, President and CEO, Kikkoman Corporation
2021 Representative Director, Chairman and CEO, Kikkoman Corporation
2022– Director, NAGASE & CO., LTD.

Note: Number of shares held based on available information on April 30, 2022. Shares held by board members include those held in the name of NAGASE & CO., LTD. Officer's Shareholding Association.

Audit & Supervisory Board Members

Outside Audit & Supervisory Board Member



Nobuyuki Shirafuji
Number of shares held: 2,008
1984 Joined The Sumitomo Bank, Ltd. (currently Sumitomo Mitsui Banking Corporation)
2003 Deputy General Manager of Global Corporate Investment Dept. (London), Sumitomo Mitsui Banking Corporation and Sumitomo Mitsui Banking Corporation Europe Limited
2006 General Manager of Credit Dept., Europe, Middle East and Africa Division (London), Sumitomo Mitsui Banking Corporation and Sumitomo Mitsui Banking Corporation Europe Limited
2013 General Manager of Credit Review Dept. of Sumitomo Mitsui Banking Corporation
2016– Retired from Sumitomo Mitsui Banking Corporation Audit & Supervisory Board Member, NAGASE & CO., LTD.

Audit & Supervisory Board Member



Masanori Furukawa
Number of shares held: 8,605

Audit & Supervisory Board Member



Mitsuru Kanno
Number of shares held: 9,000

Outside Audit & Supervisory Board Member



Gan Matsui
Number of shares held: 2,270
1980 Prosecutor, Tokyo District Public Prosecutors Office
1990 Prosecutor, Tokyo District Public Prosecutors Office (Special Investigative Squad)
2005 Director, Special Trial Department, Tokyo District Public Prosecutors Office
2010 Assistant Public Prosecutor, Osaka High Public Prosecutors Office
2012 Chief, Criminal Investigations, Supreme Public Prosecutors Office
2014 Chief Prosecutor, Yokohama District Public Prosecutors Office
2015 Superintending Prosecutor, Fukuoka High Public Prosecutors Office
2016 Japan Federation of Bar Associations (Member, Tokyo Bar Association)
Yaesu Sogo Law Office
2018– Audit & Supervisory Board Member, NAGASE & CO., LTD.

Board of Directors and Audit & Supervisory Board Skill Matrix

For well-balanced decision-making about important functions for business execution, and appropriate supervisory and auditing functions for business execution, we have determined the knowledge and experience that are considered important for the Board of Directors at this point in time, and nominate individuals who adequately possess this knowledge and experience as candidates for board members. We will make suitable reevaluations based on the external environment and the status of the company.

Position in the Company	Name	Corporate Management/ Management Strategy	Global Management	Sustainability	Marketing/ Sales	DX	Manufacturing/ R&D	Finance and Accounting	Legal Affairs/Risk Management	Human Resources/ Labor Affairs
Representative Director and Chairman	Hiroshi Nagase	●	●	●	●					●
Director and Vice Chairman	Reiji Nagase	●	●	●	●		●			●
Representative Director and President	Kenji Asakura	●	●	●	●	●				●
Represent Director	Masaya Ikemoto	●	●	●	●			●	●	●
Director	Masatoshi Kamada	●	●	●	●	●				
Director	Hiroyuki Ueshima	●	●	●	●	●	●			
Outside Director	Takahiko Ijichi	●	●	●	●			●	●	●
Outside Director	Ritsuko Nonomiya	●	●	●	●			●	●	●
Outside Director	Noriaki Horikiri	●	●	●	●		●		●	●
Outside Audit & Supervisory Board Member	Nobuyuki Shirafuji		●	●	●				●	
Audit & Supervisory Board Member	Masanori Furukawa		●	●	●			●	●	
Audit & Supervisory Board Member	Mitsuru Kanno		●	●	●				●	
Outside Audit & Supervisory Board Member	Gan Matsui		●	●	●				●	●

Executive Officers

Naoki Yasuba Managing Executive Officer Hayashibara Co., Ltd.	Takanori Yamauchi Managing Executive Officer Nagase Business Expert Co., Ltd.	Satoru Fujii Managing Executive Officer Nagase ChemteX Corporation	Donald K. Thorp Managing Executive Officer Prinova Group LLC, Food Business	Kusuo Ota Executive Officer Totaku Industries, Inc.	Koichi Sagawa Executive Officer GM, Corporate Sustainability Department
Akira Takami Executive Officer GM, Audit Office	Yasumitsu Orii Executive Officer GM, New Value Creation Office	Ryuichi Uchida Executive Officer GM, Marketing Promotion Department	Takeshi Takada Executive Officer Manager, Nagoya Branch Office	Noriaki Arashima Executive Officer GM, Specialty Chemicals Department	Noriyoshi Yamaoka Executive Officer GM, Human Resources & General Affairs Division
Yoshihisa Shimizu Executive Officer GM, Corporate Management Department	Xiaoli Liu Executive Officer GM, Nagase Bio-Innovation Center	Eiroku Oki Executive Officer ASEAN and India CEO, Regional Operating Centre Leader	Toru Araki Executive Officer GM, Risk Management Department		

11-Year Financial Highlights

NAGASE & CO., LTD. and Consolidated Subsidiaries (Years ended March 31)

	2012/3	2013/3	2014/3	2015/3	2016/3	2017/3	2018/3	2019/3	2020/3	2021/3	2022/3
Medium-Term Management Plan	“CHANGE” 11		Change-S2014			ACE-2020			ACE 2.0		
	Investment Amount: ¥107.4 billion		Investment Amount: ¥41.1 billion			Investment Amount: ¥13.7 billion			Investment Amount: ¥129.1 billion		
Performance (Accounting Fiscal Year):	(Millions of yen)										
Net Sales	¥ 631,854	¥ 666,272	¥ 723,212	¥ 759,713	¥ 742,194	¥ 722,384	¥ 783,933	¥ 807,755	¥ 799,559	¥ 625,245	¥ 780,557
Segments											
Functional Materials (formerly Chemicals)	177,126	167,017	169,973	168,238	157,149	153,546	174,922	179,627	169,318	75,294	99,874
Advanced Materials & Processing (formerly Plastics)	217,929	214,214	239,224	254,165	255,505	242,609	262,831	275,203	267,078	209,715	257,283
Electronics & Energy (formerly Electronics)	110,495	125,014	137,026	149,947	127,926	127,722	129,324	122,319	115,123	110,770	128,131
Mobility (formerly Mobility & Energy)	76,113	83,068	99,441	109,851	115,351	112,956	129,708	139,235	126,000	78,783	103,389
Life & Healthcare (formerly Life Sciences)	49,170	76,116	76,810	76,609	85,571	84,904	86,517	90,794	121,545	150,331	191,634
Others	1,018	841	737	900	689	644	629	574	492	349	244
Region											
Domestic	366,369	361,971	372,939	374,208	363,038	369,365	395,428	412,617	402,390	221,737	250,360
Overseas	265,484	304,301	350,272	385,505	379,155	353,019	388,504	395,137	397,169	403,507	530,196
Gross Profit	71,628	82,583	88,936	91,991	91,663	91,503	102,675	105,441	104,901	114,600	139,494
Operating Income	13,427	15,578	15,789	18,153	18,024	15,030	24,118	25,226	19,167	21,916	35,263
Profit Attributable to Owners of the Parent	8,570	14,182	11,663	11,318	12,316	10,331	17,175	20,136	15,144	18,829	25,939
Financial Condition:	(Millions of yen)										
Total Assets	¥ 450,842	¥ 486,747	¥ 498,141	¥ 546,525	¥ 512,081	¥ 530,775	¥ 569,456	¥ 567,346	¥ 611,477	¥ 640,587	¥ 739,720
Equity Capital	204,706	228,505	246,723	281,398	273,963	290,217	303,636	307,674	305,322	329,687	344,261
Interest-Bearing Debt	88,710	98,425	92,828	98,493	87,560	82,046	86,173	85,620	135,974	118,947	166,530
Per Share Data:	(Yen)										
Net Income (Basic)	¥ 66.69	¥ 111.31	¥ 91.86	¥ 89.10	¥ 96.96	¥ 81.65	¥ 136.34	¥ 161.30	¥ 122.12	¥ 151.91	¥ 213.46
Net Assets	1,592.87	1,803.31	1,942.20	2,215.18	2,156.67	2,301.10	2,424.97	2,481.01	2,462.04	2,670.09	2,868.22
Cash Dividends	24	26	28	30	32	33	40	42	44	46	54
Payout Ratio (%)	36.0	23.4	30.5	33.7	33.0	40.4	29.3	26.0	36.0	30.3	25.1
Ratios:	(%)										
Overseas Sales to Net Sales	42.0	45.7	48.4	50.7	51.1	48.9	49.6	48.9	49.7	64.5	67.9
Manufacturing Ratio (Operating Income)	31.3	37.3	23.5	27.8	24.3	39.5	34.2	33.5	40.8	29.8	32.6
Operating Margin (Operating Income/Net Sales)	2.1	2.3	2.2	2.4	2.4	2.1	3.1	3.1	2.4	3.5	4.5
Return on Equity (ROE)	4.2	6.5	4.9	4.3	4.4	3.7	5.8	6.6	4.9	5.9	7.7
Shareholders' Equity Ratio	45.4	46.9	49.5	51.5	53.5	54.7	53.3	54.2	49.9	51.5	46.5
Net DE Ratio (Times)	0.3	0.2	0.2	0.2	0.2	0.1	0.1	0.1	0.3	0.2	0.3
Total Return Ratio	36.0	34.9	30.5	33.7	33.0	51.0	39.5	35.6	36.0	35.2	48.3
Shareholders' Equity Dividend Rate	1.52	1.52	1.50	1.44	1.46	1.48	1.69	1.71	1.78	1.79	1.93

(Note 1) At the beginning of the fiscal year ended March 31, 2013, the NAGASE Group reorganized its then existing four product-based business segments into five business segments (Functional Materials, Advanced Materials & Processing, Electronics, Automotive & Energy, and Life & Healthcare) to more fully reflect the respective positions of each business in the value chain. For comparative purposes, figures for the fiscal year ended March 31, 2012 have been calculated using the new business segments. The Colors & Imaging Department formerly under the Chemicals segment has been moved under the Advanced Materials & Processing segment. The Automotive & Energy segment was organized out of the Automotive Solutions Department (belonging to the Plastics segment) and the Energy Business Office, which was launched as an integrated entity from the Environment & Energy Office (under Others) and the Energy Device Office.

(Note 2) At the beginning of the fiscal year ended March 31, 2014, abrasives sales business for semiconductors and HDDs was moved to the Electronics segment from the Functional Materials segment, and the raw materials sales business for the cosmetics industry were moved from the Functional Materials segment to the Life & Healthcare segment. Actual results for the fiscal year ended March 31, 2013 have been adjusted to enable comparison with the fiscal year ended March 2014.

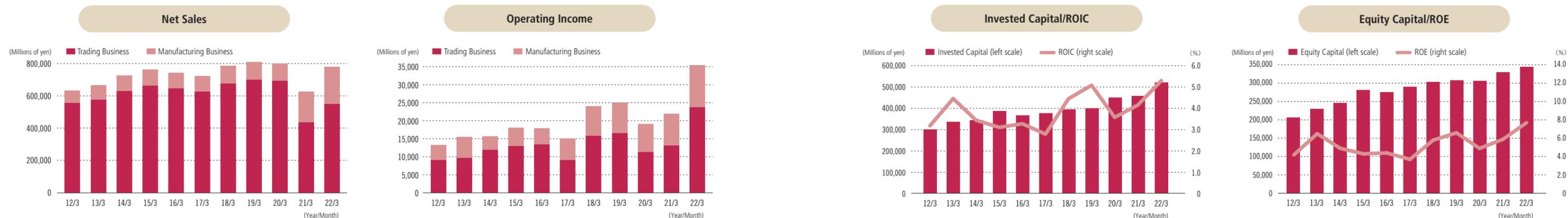
(Note 3) The Partial Amendments to Accounting Standard for Tax Effect Accounting (ASBJ Statement No. 28 issued February 16, 2018) were applied from the beginning of the fiscal year ended March 31, 2019. Following this change, deferred tax assets are now presented under "Investments and other assets," and deferred tax liabilities are presented under "Long-term liabilities."

(Note 4) From April 1, 2019, the name of the Automotive & Energy segment has been changed to the Mobility & Energy segment.

(Note 5) From April 2021, the name of the Electronics segment has been changed to the Electronics & Energy segment, and the Mobility & Energy segment to the Mobility segment.

(Note 6) The Company has applied "Accounting Standard for Revenue Recognition" (ASBJ Statement No. 29, issued on March 31, 2020) since the start of FY2021 (the fiscal year ended March 31, 2022), and retroactively applied it figures from FY2020 (the fiscal year ended March 31, 2021).

(Note 7) Starting from the fiscal year ended March 31, 2022, overseas sales will change from the original method of total by destination to total by location of consolidated subsidiary. Figures for the fiscal year ended March 31, 2022 and the fiscal year ended March 31, 2021 are totaled according to location, while prior figures are based on totals by destination.

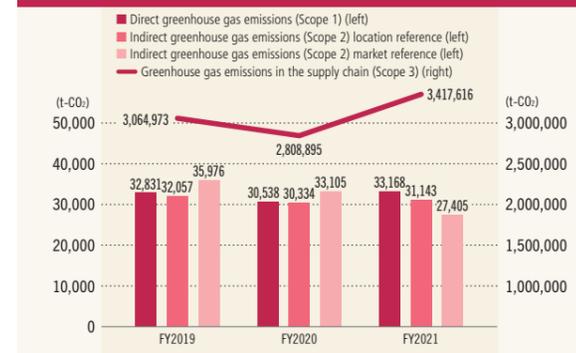


Non-Financial Highlights

Environment

We share environmental data, including greenhouse gas (GHG) emissions as established in the NAGASE Group Carbon Neutral Declaration from trading and manufacturing business, and promote business while giving consideration toward the environment.

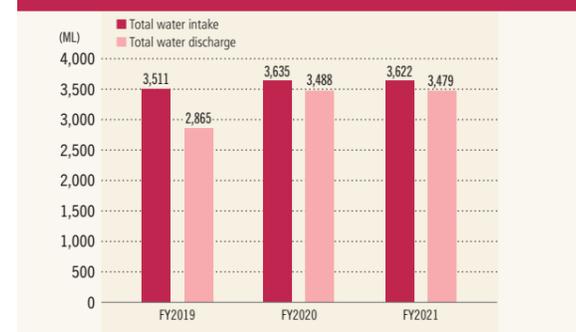
[Group] Greenhouse gas emissions in our business activities



[Group] Energy use



[Group] Use of water resources



[Group] Amount of waste



Endorsed Initiatives

United Nations Global Compact

The NAGASE Group is a signatory to the United Nations Global Compact and promotes sustainability activities based on 10 principles in the four areas of human rights, labor, the environment, and anti-corruption.

TCFD (Task Force on Climate-related Financial Disclosures)

The NAGASE Group has expressed its support for TCFD (Task Force on Climate-related Financial Disclosures).

Japan Climate Initiative

The NAGASE Group is a member of the Japan Climate Initiative.

Zero-Emission Challenge

NAGASE & CO., LTD. is participating in a project to develop production technology for bio-based products that will accelerate carbon recycling as part of the Zero-Emission Challenge sponsored by the Ministry of Economy, Trade and Industry to realize carbon neutrality by 2050.

RSPO (Roundtable on Sustainable Palm Oil) Certification

NAGASE & CO., LTD. has been certified by the RSPO (Roundtable on Sustainable Palm Oil).

Sedex

In 2019, NAGASE & CO., LTD. joined Sedex, which promotes the creation of ethical supply chains.

Initiatives for responsible care

NAGASE & CO., LTD. participates in the Responsible Care (RC) Committee, an operational committee of the Japan Chemical Industry Association.

Certified as a DX certified business by the Ministry of Economy, Trade and Industry

In January 2022, NAGASE & CO., LTD. was certified as a DX certified business operator under the Ministry of Economy, Trade and Industry's DX Certification System.

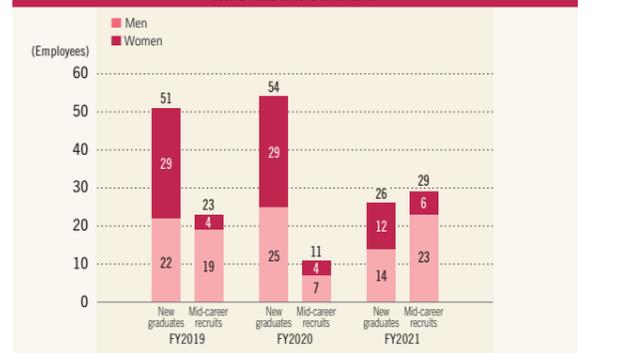
Society

The NAGASE Group sets "Improve Employee Engagement" as a main KPI, and discloses data related to labor practices, human resource development, occupational health and safety, and health and productivity management, etc., and strives for the continual growth and development of employees and companies.

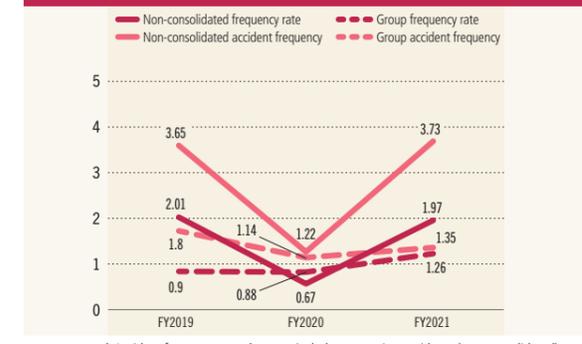
[Consolidated] Number of employees



[Non-consolidated] Number of new graduates and mid-career recruits

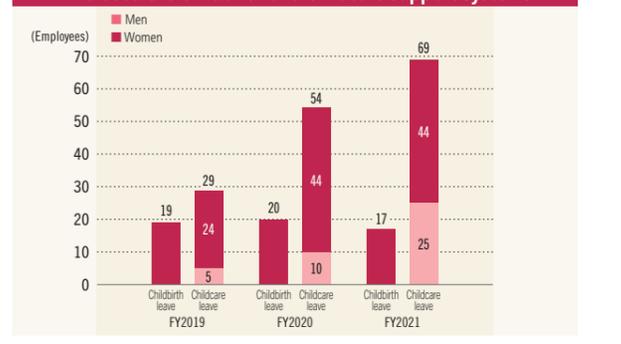


[Non-consolidated/Group] Occupational health and safety



* Accident frequency rate does not include commuting accidents (non-consolidated).

[Non-consolidated] Number of employees who used the childbirth and childcare support systems



External Evaluation (As of September 2022)

GPIF (Government Pension Investment Fund) ESG Index

Category	Rating
Comprehensive	A
According to theme	S
General	G

Other External Evaluation

Organization	Category	Rating
FTSE4Good	Climate change	B
FTSE4Good	Water	A-
FTSE4Good	Forests	C
FTSE4Good	Supplier Engagement	B
CDP	Climate change	B
CDP	Water	A-
CDP	Forests	C
CDP	Supplier Engagement	B
FTSE Blossom Japan	Health and productivity	2022
FTSE Blossom Japan	Health and productivity	2021
Sampo Sustainability Index	Health and productivity	2022
Sampo Sustainability Index	Health and productivity	2021
SUSTAINALYTICS	Health and productivity	RATED
SUSTAINALYTICS	Health and productivity	RATED
The ESG Risk Rating	Health and productivity	24.1
The ESG Risk Rating	Health and productivity	24.1

As a result of third-party evaluation, FTSE Russell (a registered trademark of FTSE International Limited and Frank Russell Company) hereby certifies that NAGASE & CO., LTD. has met the criteria for incorporation in the FTSE Blossom Japan Sector Relative Index, making it a constituent stock of the index. The FTSE Blossom Japan Sector Relative Index is widely used to create and evaluate sustainable investment funds and other financial products. The incorporation of NAGASE & CO., LTD. into the MSCI Index and the use of the MSCI logo, trademark, service mark or index name in this article do not constitute sponsorship, endorsement or promotion of NAGASE & CO., LTD. by MSCI or its affiliates. The MSCI Index is the exclusive property of MSCI. MSCI Index names and logos are trademarks or service marks of MSCI or its affiliates.

Six-Year Summary

NAGASE & CO., LTD. and Consolidated Subsidiaries (Fiscal years ended March 31, 2017–2022)

	(Millions of yen)					Thousands of U.S. Dollars (Note 1)	
	2017	2018	2019	2020	2021	2022	2022
For the Fiscal Year:							
Net Sales	¥ 722,384	¥ 783,933	¥ 807,755	¥ 799,559	¥ 625,245	¥ 780,557	\$ 6,377,621
Domestic	369,365	395,428	412,617	402,390	221,737	250,360	2,045,592
Overseas	353,019	388,504	395,137	397,168	403,507	530,197	4,332,029
Gross Profit	91,503	102,675	105,441	104,901	114,600	139,494	1,139,750
Operating Income	15,030	24,118	25,226	19,167	21,916	35,263	288,120
Income before Income Taxes and Non-Controlling Interests	16,100	24,049	28,204	24,200	29,272	39,557	323,205
Profit Attributable to Owners of the Parent	10,331	17,175	20,136	15,144	18,829	25,939	211,937
As of the Fiscal Year-End:							
Total Assets	¥ 530,775	¥ 569,456	¥ 567,346	¥ 611,477	¥ 640,587	¥ 739,720	\$ 6,043,958
Net Assets	295,198	308,804	312,609	313,243	338,431	355,092	2,901,315
Interest-Bearing Debt	82,046	86,173	85,620	135,974	118,947	166,530	1,360,650
Share Price (Yen/Dollars)	1,551	1,805	1,589	1,279	1,729	1,821	14,879
Market Value	197,610	229,971	202,451	165,955	215,101	220,173	1,798,946
Number of Shares Issued and Outstanding (Thousands of Shares)	127,408	127,408	127,408	127,408	124,408	120,908	—
Number of Shareholders	10,394	11,357	12,788	22,306	25,934	23,382	—
Number of Employees	6,241	6,312	6,143	7,207	6,940	7,113	—

	(Yen)					U.S. Dollars (Note 1)	
	2017	2018	2019	2020	2021	2022	2022
Per Share Data							
Profit Attributable to Owners of the Parent	¥ 81.65	¥ 136.34	¥ 161.30	¥ 122.12	¥ 151.91	¥ 213.46	\$ 1.74
Net Assets	2,301.10	2,424.97	2,481.01	2,462.04	2,670.09	2,868.22	23.44
Cash Dividends	33.00	40.00	42.00	44.00	46.00	54.00	0.44

	2017	2018	2019	2020	2021	2022	2022
Ratios							
Operating Margin (Operating Income/Net Sales) (%)	2.1	3.1	3.1	2.4	3.5	4.5	—
Ratio of Profit before Income Taxes and Non-Controlling Interests to Net Sales (%)	2.2	3.1	3.5	3.0	4.7	5.1	—
Return on Sales (ROS) (%)	1.4	2.2	2.5	1.9	3.0	4.7	—
Total Assets Turnover (Times)	1.4	1.4	1.4	1.3	1.0	1.1	—
Return on Assets (ROA) (%)	2.0	3.1	3.5	2.6	3.0	3.8	—
Return on Equity (ROE) (%)	3.7	5.8	6.6	4.9	5.9	7.7	—
Shareholders' Equity Ratio (%)	54.7	53.3	54.2	49.9	51.5	46.5	—
Net DE Ratio (Times)	0.1	0.1	0.1	0.3	0.2	0.3	—
Current Ratio (%)	192.9	183.1	181.2	189.3	194.9	167.1	—
Interest Coverage Ratio (Times) (Note: 2)	16.3	20.0	16.0	15.9	21.8	31.3	—

Note: 1. U.S. dollar amounts have been translated from yen, for convenience only, at the rate of ¥122.39 = U.S.\$1.00, the approximate rate of exchange prevailing on March 31, 2022.

Note: 2. Interest coverage ratio is calculated as (operating income + interest income + dividend income) / interest expense.

Management's Discussion and Analysis of Operations and Finances

Business Lines and Scope of Consolidation

The NAGASE Group is led by NAGASE & CO., LTD. (the "Company" or "NAGASE"). The Company and its consolidated subsidiaries (collectively, the "NAGASE Group") imports and exports a diverse array of products and engages in domestic transactions. In addition, the NAGASE Group manufactures and sells products and provides services. These businesses are conducted by 114 affiliated companies consisting of 86 subsidiaries and 28 affiliates. The NAGASE scope of consolidation includes 78 companies, as well as 23 affiliates accounted for by the equity method.

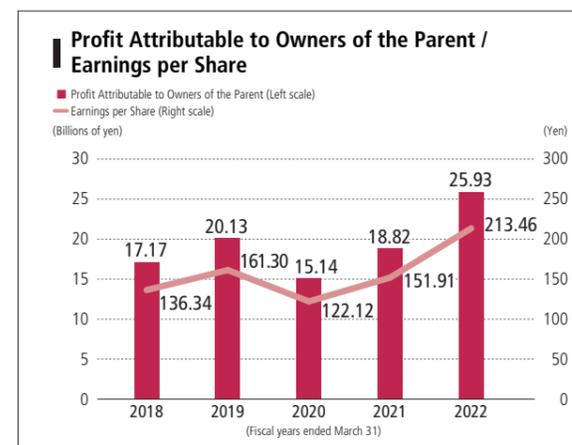
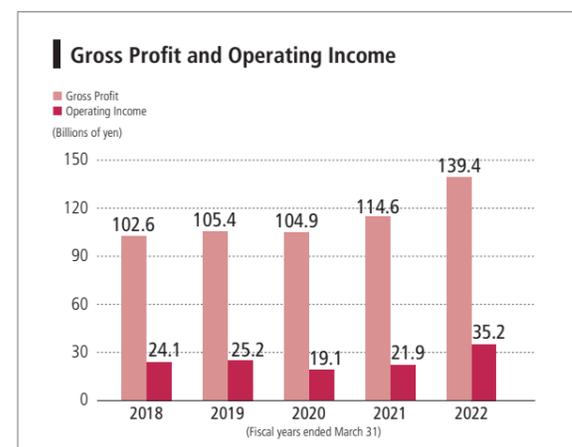
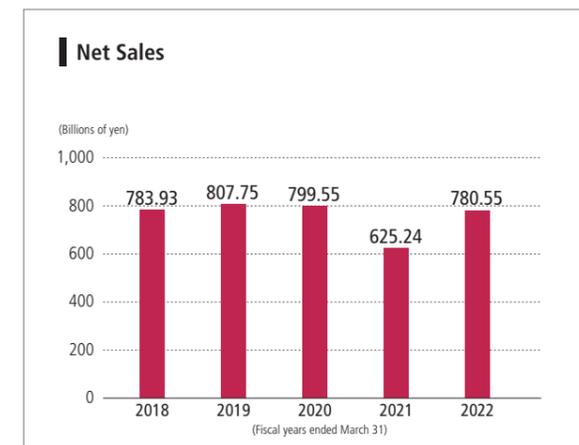
Overview of Consolidated Results

Net sales

The global economy during the consolidated fiscal year under review experienced a general recovery in economic activities that had been stagnant due to the spread of COVID-19, as restrictions were eliminated or eased in response to the progress of a third round of vaccinations across various countries. Throughout the year, uncertainty intensified due to soaring raw materials prices, the impact of semiconductor shortages, ongoing logistics disruptions, and the escalation of the situation in Ukraine. However, it was also a year in which many felt we were entering an era of the new normal.

Among the regions where the NAGASE Group operates, economic activity remained strong particularly in Greater China, which demonstrated a significant recovery. In North America, recovery in employment and expansion of personal consumption resulted in overall economic activity remaining firm. In Japan, corporate earnings improved; however, measures to prevent infections had a limiting effect on personal consumption and failed to generate a significant economic recovery.

In this environment, the NAGASE Group contributed to the maintenance of supply chains in related industries and experienced earnings growth. As a result, the NAGASE Group recorded domestic net sales of ¥250.36 billion (+12.9% year on year), overseas net sales of ¥530.19 billion, (+31.3%) and in total recorded ¥780.55 billion in net sales (+24.8%).



Gross Profit and Profit Attributable to Owners of the Parent

From a profit aspect, all segments increased profits, with particularly strong performances in the automobile, resin and electronics-related businesses, as well as the nutrition-related business of the Prinova Group, LLC. Gross profit was ¥139.49 billion (+21.7%) and higher profit in all segments resulted in all stages of profit below gross profit reaching record highs. Operating income was ¥35.26 billion (+60.9%), ordinary income was ¥36.49 billion (+59.7%) and profit attributable to owners of the parent was ¥25.93 billion (+37.8%).

Earnings per share was ¥213.46, compared to ¥151.91 in the previous fiscal year.

Results by Business Segment

Functional Materials

Fiscal years ended March 31	(Millions of yen)	
	2021	2022
Net Sales	¥75,294	¥99,874
Segment Income	4,712	7,823
Segment Assets	79,048	83,793
Depreciation and Amortization	472	465
Amortization of Goodwill	105	111
Goodwill	1,787	1,853
Investments in Equity Affiliates	1,981	1,300
Increase in Property, Plant, and Equipment and Intangible Fixed Assets	399	562

The Functional Materials Segment recorded increased sales compared to the previous fiscal year, when the impact of COVID-19 had been significant, mainly in the automobile-related business. Sales increased domestically and in all overseas areas, including ASEAN countries.

Raw materials sales recovered for coating and urethane raw materials as well as those related to processing industrial oil solutions and plastic materials, driven by a recovery in automobile production.

Sales trended strong in areas like electronics chemicals for the electronics industry, such as for semiconductor-related products.

As a result, the Functional Materials Segment recorded sales of ¥99.87 billion, an increase of ¥24.58 billion (+32.6%) compared to the previous fiscal year. Operating income was ¥7.82 billion, an increase of ¥3.11 billion (+66.0%) compared to the previous fiscal year.

Advanced Materials & Processing

Fiscal years ended March 31	(Millions of yen)	
	2021	2022
Net Sales	¥209,715	¥257,283
Segment Income	7,311	10,858
Segment Assets	144,135	164,249
Depreciation and Amortization	1,040	1,447
Amortization of Goodwill	89	178
Goodwill	720	—
Investments in Equity Affiliates	1,728	1,828
Increase in Property, Plant, and Equipment and Intangible Fixed Assets	1,974	1,742

The Advanced Materials & Processing Segment recorded higher sales overall as domestic and overseas sales outside of Europe increased despite a slight decrease in sales in Europe.

- Sales increased for resins were strong mainly in the office equipment and video game device markets due in part to soaring market prices.
- Sales decreased for digital print processing materials due to factors such as sluggish market prices from the second half of the previous fiscal year.
- Profits increased significantly year on year due to strong sales of resins domestically and overseas and profitability improved due to soaring market prices.

As a result, the Advanced Materials & Processing Segment recorded sales of ¥257.28 billion, an increase of ¥47.56 billion (+22.7%) compared to the previous fiscal year. Operating income, which increased due to an increase in gross profit, was ¥10.85 billion, an increase of ¥3.54 billion (+48.5%), compared to the previous fiscal year.

Electronics & Energy

Fiscal years ended March 31	(Millions of yen)	
	2021	2022
Net Sales	¥110,770	¥128,131
Segment Income	8,408	10,278
Segment Assets	69,326	77,163
Depreciation and Amortization	1,496	1,479
Amortization of Goodwill	40	42
Goodwill	451	452
Investments in Equity Affiliates	3,170	2,761
Increase in Property, Plant, and Equipment and Intangible Fixed Assets	1,222	1,610

In the Electronics & Energy Segment, sales increased for display materials and related to precision processing materials for semiconductors.

- Sales related to formulated epoxy resins increased, primarily for mobile devices and semiconductors.
- We established a structure for the next-generation communications-related business, aiming for medium- to long-term growth despite up-front development costs.

As a result, the Electronics & Energy Segment recorded sales of ¥128.13 billion, an increase of ¥17.36 billion (+15.7%) compared to the previous fiscal year. Operating income, which increased due to an increase in gross profit, was ¥10.27 billion, an increase of ¥1.87 billion (+22.2%), compared to the previous fiscal year.

Mobility

Fiscal years ended March 31	(Millions of yen)	
	2021	2022
Net Sales	¥78,783	¥103,389
Segment Income	1,851	4,131
Segment Assets	53,659	68,492
Depreciation and Amortization	280	342
Amortization of Goodwill	—	—
Goodwill	—	—
Investments in Equity Affiliates	1,237	1,403
Increase in Property, Plant, and Equipment and Intangible Fixed Assets	242	558

In the Mobility Segment, sales increased for functional materials and functional products for interior/exterior components and electrification applications for electric vehicles (EV).

- Profit increased significantly compared to the previous fiscal year due to the recovery in automobile production in addition to the impact of soaring market conditions.
- Profitability improved due to increased sales of high-function products and progress on transforming the business portfolio.

As a result, the Mobility Segment recorded sales of ¥103.38 billion, an increase of ¥24.60 billion (+31.2%) compared to the previous fiscal year. Operating income was ¥4.13 billion, an increase of ¥2.28 billion (+123.2%), compared to the previous fiscal year.

Life & Healthcare

Fiscal years ended March 31	(Millions of yen)	
	2021	2022
Net Sales	¥150,331	¥191,634
Segment Income	6,512	9,429
Segment Assets	165,934	218,060
Depreciation and Amortization	5,788	5,959
Amortization of Goodwill	2,108	2,145
Goodwill	27,257	27,186
Investments in Equity Affiliates	2,995	3,139
Increase in Property, Plant, and Equipment and Intangible Fixed Assets	5,744	2,435

In the Life & Healthcare Segment, materials sales, manufacturing, and processing all trended strongly in the nutrition-related business, centered on the Prinova Group, LLC.

- Sales increased related to food materials, primarily TREHA™, and in perfumery materials, primarily AA2G™.
- Profit increased significantly compared to the previous fiscal year which had felt the impact of COVID-19, particularly in food ingredients and perfumery materials.

As a result, the Life & Healthcare Segment recorded sales of ¥191.63 billion, an increase of ¥41.30 billion (+27.5%) compared to the previous fiscal year. Operating income was ¥9.42 billion, an increase of ¥2.91 billion (+44.8%), compared to the previous fiscal year.

Others

No special matters to disclose.

Financial Condition

Summary of Consolidated Cash Flows

As of March 31, 2022, cash and cash equivalents (hereinafter, "cash") increased ¥4.78 billion (+9.85%), compared to the end of the previous consolidated fiscal year, amounting to ¥53.33 billion. Cash used in operating activities was ¥17.77 billion, cash used in investing activities was ¥7.66 billion and cash provided by financing activities, taking into account exchange rate changes, was ¥27.28 billion.

■ Cash Flows from Operating Activities

As of March 31, 2022, net cash used in operating activities was ¥17.77 billion. This was mainly due to the increase in working capital due to strong business performance.

■ Cash Flows from Investing Activities

As of March 31, 2022, net cash used in investing activities was ¥7.66 billion. This was mainly due to the impact of purchases of property, plant and equipment and acquisition of shares of subsidiaries through a takeover, offset in part by proceeds from sales of investments in securities.

■ Cash Flows from Financing Activities

As of March 31, 2022, net cash provided by financing activities was ¥27.28 billion. This was mainly due to the net increase in short-term loans due to the increase in working capital, offset in part by payment of dividends and acquisition of treasury stock.

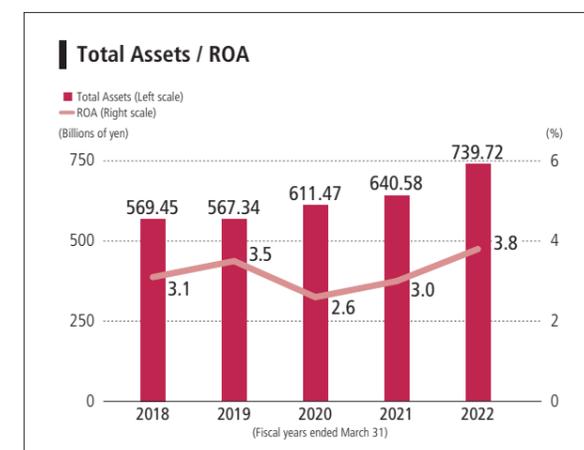
Cash Flow Summary

Fiscal years ended March 31	(Millions of yen)				
	2017	2018	2020	2021	2022
Cash Flows from Operating Activities	¥ 21,013	¥17,375	¥ 33,074	¥ 20,391	¥(17,776)
Cash Flows from Investing Activities	(14,442)	(7,325)	(49,208)	2,643	(7,664)
Cash Flows from Financing Activities	(3,161)	(8,909)	24,334	(25,866)	27,282

Summary of the Consolidated Balance Sheet

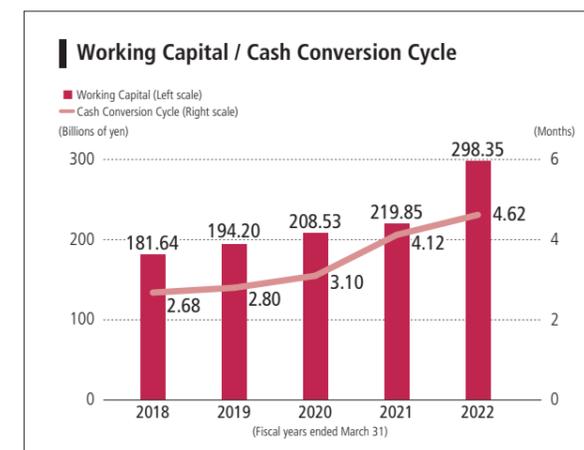
■ Assets

As of March 31, 2022, current assets amounted to ¥514.28 billion, an increase of ¥112.53 billion compared to the end of the previous consolidated fiscal year, mainly due to an increase in inventories and accounts receivable. Non-current assets amounted to ¥225.43 billion, a decrease of ¥13.4 billion from the end of the previous consolidated fiscal year due to a decline in fair values and sales of investments in securities. As a result, net assets amounted to ¥739.72 billion, an increase of ¥99.13 billion compared to the end of the previous consolidated fiscal year.



■ Liabilities

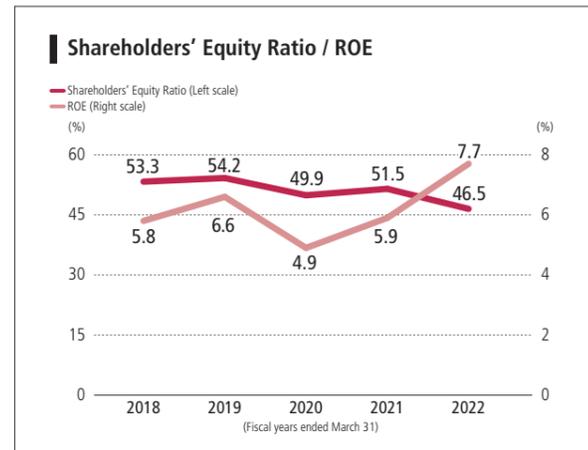
Liabilities amounted to ¥384.62 billion, an increase of ¥82.47 billion compared to the end of the previous consolidated fiscal year, mainly due to an increase in accounts payable and short-term loans.



■ Net Assets

Net assets amounted to ¥355.09 billion, an increase of ¥16.66 billion compared to the end of the previous consolidated fiscal year, mainly due to the recording of profit attributable to owners of the parent and an increase in translation adjustments, despite a decrease in unrealized gains on available for sale securities.

As a result, the Company recorded a shareholders' equity ratio of 46.5%, down 5.0 points compared to 51.5% from the end of the previous consolidated fiscal year.



Capital Investment

During the consolidated fiscal year ended March 31, 2022, the NAGASE Group recorded ¥10.72 billion in capital investment (including purchases of intangible fixed assets), centered on the Life & Healthcare segment. The NAGASE Group used cash on hand and funds procured from external sources for capital investments.

A breakdown of capital investment by segment is as follows.

Reportable Segments	(Millions of yen)
Functional Materials	¥ 562
Advanced Materials & Processing	1,742
Electronics & Energy	1,610
Mobility	558
Life & Healthcare	2,435
Others	3,816
Total	¥10,725

Research and Development Expenses

The NAGASE Group develops new technologies and products originating from our marketing activities. We also engage in research and development activities for the purpose of communicating technological information. These activities bring the comprehensive power of the NAGASE Group to bear in creating new businesses.

The New Value Creation (NVC) Office aims to build a new business structure that has never existed in the NAGASE Group by creating new value with an eye on medium- to long-term trends in AI, IoT and telecommunications technologies. It is promoting development such as the SaaS based materials informatics service TABRASA™, the Axonerve™ IP core that brings faster processing and low latency to 5G network infrastructure, portable sensors based on the five senses of humans, trading support systems using block chain technology, underlying technology for next-generation AI hardware and disease prevention technology using AI.

To realize a sustainable society, the Nagase Bio-Innovation Center leverages unique core technologies (actinomycete breeding and fermentation technology, NSTePP™ (See Note)) and fundamental technologies for highly efficient production of rare animal-derived useful substances and plants that

are currently difficult to synthesize in the aim for process innovation (=unavailable made available). Fermentation methods have the feature of being safe, secure and kinder on the environment compared to conventional extraction and chemosynthesis methods. We are currently pressing forward with examination of fermentation production using UV-absorbing substances derived from algae (mycosporine-like amino acids), rare antioxidant amino acids (ergothioneine) contained in mushrooms and barley, and functional substances from bio-dyes peculiar to actinomycetes. We are moving forward on development in the hope these useful substances may be widely used as functional foods, cosmetics, and industrial products. Each year, we apply for and register many patents related to fundamental and peripheral technologies. Moreover, the Group is also promoting themes for innovation creation by utilizing our collective capabilities in biotech. In this way, the Nagase Bio-Innovation Center will leverage unique technologies and make its mission leading the NAGASE Group's future business and generating the budding of new businesses.

Note: Abbreviation of Nagase Streptomyces Technology for Protein/Precious Products, a NAGASE registered trademark in Japan.

The Nagase Application Workshop (NAW) houses highly specialized technical staff and equipment for the evaluation and analysis of raw materials within the fields of plastics and coating materials, the development of applications, and the development of formulas composed of these raw materials to be used in end products. NAW combines the materials and processing techniques possessed by our partners and NAGASE Group manufacturing companies and proposes solutions in response to market needs captured via our marketing function, which leverages the NAGASE Group's network. NAW assists customers in solving such issues as CMF (See Note), improving functionality and development of green materials by identifying new materials and technologies and developing methods that satisfy required functions for end-use applications. Through these activities, NAW supports the NAGASE Group's unique trading differentiation strategy and takes action with the aim of exercising its free thinking only capable in a laboratory operated by a trading company to contribute to development of sustainable new business.

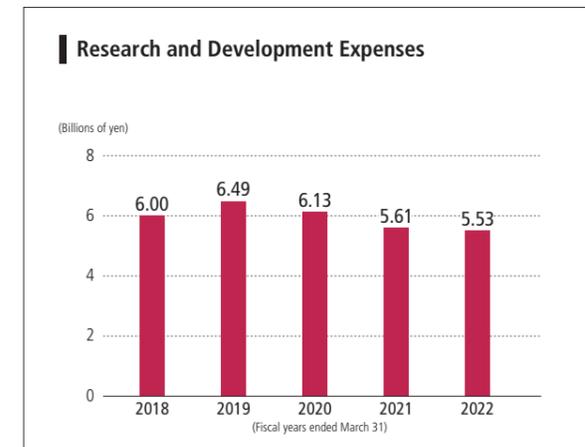
Note: An acronym of color, material and finish that is used to describe an item's surface.

Nagase ChemteX Corporation (NCX) is focusing on cultivating new business in the biomaterials field. NCX is diligently moving forward on business development utilizing original endotoxin removal and reduction technologies in response to surging needs in the medical materials and medical device fields. Up until now, NCX has released a series of materials such as low-endotoxin PULLULAN, gelatin and sodium alginate as part of the Arcofeliz series, and continues development to further expand the product lineup. Moreover, in addition to materials from which endotoxins have already been removed or reduced, NCX will also move ahead on creation of new businesses from items that remove or reduce endotoxins (mini-columns for endotoxin removal or reduction) and methods for removing and reducing endotoxins (endotoxin removal and reduction services).

INKRON Oy develops and manufactures functional materials for optical devices and electrical devices using its unique siloxane synthesis technology. It has made particular progress on development of optical components for next-generation augmented reality (AR) and mixed reality (MR) devices for wearable displays and formed a partnership with a glass substrate manufacturer, nanoimprint (NIL) device manufacturer and diffraction waveguide design company to provide innovative solutions using NIL construction methods. Through nanoparticle dispersion technology accumulated over many years at Nagase ChemteX, mass production technology, a quality control system and complementary synergies, INKRON Oy contributes to customer innovation by providing a global supply of advanced materials used for next-generation devices.

Hayashibara Co., Ltd. is conducting research and development activities in a wide variety of areas encompassing fields such as foods, cosmetics, pharmaceuticals and medical treatment through to agriculture and industry in the belief that saccharides including TREHA™ and PULLULAN should be widely used. Focus products Fibryxa™ and Hayashibara Hesperidin S are gaining increasing recognition among consumers and we are bolstering their deployment among more foods with functional claims and engaging in development activities for new applications. In regard to new materials, TetraRing®, a water-soluble dietary fiber syrup, and Lissenare™, a new ingredient for hair-care and styling products, were launched. Furthermore, in order to develop new materials as main next-generation products, we are considering production methods involving new materials and advancing activities such as market analysis, proposing potential use methods, applications and development, while taking into consideration patent and intellectual property strategies. As research and development activities in functional dyes, we are leveraging our abundant functional dye library and continuing development activities focused on applied development through improvements to dye durability and the growing pharmaceutical and in-vitro diagnostics in the life sciences field in addition to the commercial field of photo and printing plates.

The total amount spent on R&D in the consolidated fiscal year under review was ¥5.53 billion.



Outlook for the Year Ending March 31, 2023

We project that the environment surrounding the NAGASE Group in the fiscal year ending March 31, 2023 will see limited restrictions on economic activities due to COVID-19 and that economic activities will advance under an assumption of the new normal. Although the situation in Ukraine does not have a significant impact on our business, since we have few direct transactions with either Russia or Ukraine, we expect indirect impact in the form of fluctuations in the market for raw materials due to the rise of crude oil prices and an increase in logistics costs due to the sharp rise in ocean freight rates. Accordingly, we must steer our business with greater consideration for geopolitical risks than ever before. In addition, there are concerns that sharp fluctuations in exchange rates and interest rates, as well as global inflation, will affect consumer spending and corporate earnings.

In this environment, we expect many of the business fields related to the NAGASE Group to continue to perform well, and we have formulated the following assumptions for the fiscal year ending March 31, 2023.

In the food-related business, which we identified as a focus area under the ACE 2.0 Medium-term Management Plan, we expect Prinova Group, LLC sales to increase due to expanding consumer activity and rising health

consciousness in Europe and the Americas. In addition, we expect the supply of high-end models for electronic devices in the semiconductor-related products business to recover and remain strong. With respect to our automobile-related business, which we identify as a base business, the impact of ongoing shortages of general-purpose semiconductors on production volume is an issue. However, we expect soaring resin market prices continuing from the previous fiscal year to contribute to steady sales.

As we advance various measures, including investments in research and development and investments related to DX, we will engage in Company-wide business replacements and reallocations of resources, improving profitability and efficiency to secure a certain level of profit increase.

Regarding the outlook for the fiscal year ending March 31, 2023, we have calculated figures based on certain assumptions made on the latest information available and through rational judgment, but actual results may differ significantly depending on various factors, economic trends domestically and overseas or exchange rate movements.

(Announced on May 10, 2022) (Millions of yen)

	Gross profit	Operating income	Ordinary income	Profit attributable to owners of the parent
Year ending March 31, 2023 (Projected)	¥159,000	¥38,000	¥39,000	¥28,500
Year ended March 31, 2022 (Actual)	139,494	35,263	36,497	25,939
Change	14.0%	7.8%	6.9%	9.9%

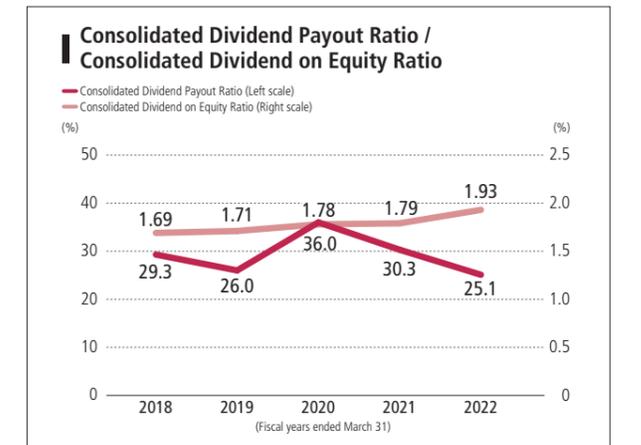
Profit Sharing Policy

Dividend Policy

Our basic policy is to continue paying higher dividends in line with our consolidated results and financial structure, while improving profitability and strengthening our management structure. To this end, we also take into account consolidated cash flows and investment status. In addition, we will consider flexibly executing share buybacks with an eye to efficiency.

We announced a year-end dividend of ¥30 per share for the fiscal year ended March 31, 2022. As a result, the scheduled full-year cash dividend amounted to ¥54 per share, including an interim dividend.

The Company's Articles of Incorporation stipulate that an interim dividend can be paid in accordance with Article 454, Paragraph 5 of the Companies Act. As a result, we pay a dividend twice each fiscal year, comprising an interim dividend based on a resolution by the Board of Directors and a year-end dividend based on a resolution of the General Shareholders' Meeting.



Operating and Other Risks

The NAGASE Group is engaged in trading, marketing, research and development, manufacturing and processing in a multifaceted manner in six business segments across the world: Functional Materials, Advanced Materials & Processing, Electronics & Energy, Mobility, Life & Healthcare, and Others. The nature of these businesses entails various risks that may have a material effect on investment decisions. We provide a discussion of the major risks below.

Any forward-looking statements are based on management decisions as of the end of the consolidated fiscal year under review.

(1) Risk of Changes in the Macroeconomic Environment

The NAGASE Group is engaged in activities that rely on the use of chemicals across a wide spectrum of products and services through our Functional Materials, Advanced Materials & Processing, Electronics & Energy, Mobility and Life & Healthcare businesses. These products and services include dyes/pigments, coating materials/inks, surfactants, OA, electrical equipment, home electronics, automobiles, displays, semiconductors, and pharmaceutical/medical applications. Accordingly, changes in the domestic or international macroeconomic environment, particularly significant changes in chemical industry trends in general, may cause a decrease in demand for our products and services, a drop in market prices, or other factors that could affect the NAGASE Group's earnings and financial condition.

(2) Risk Related to Fluctuations in Commodity Markets

The NAGASE Group handles extensive petrochemicals manufactured from naphtha in our Functional Materials, Advanced Materials & Processing and Mobility segments. Raw materials markets and demand-supply balance are two factors that result in unique market circumstances for each of our petrochemical products. We minimize risk in direct shipping transactions by linking purchases and sales. For inventory transactions, we strive to ensure that customers are guaranteed to collect their inventories and to optimize inventory levels based on forecasting demand based on many years of experience in trading in the relevant market. However, there is a possibility that price fluctuations may have some impact on sales and profits of the applicable transaction. Also, some products manufactured by the NAGASE Group use raw materials derived from grains. Raw materials costs fluctuate widely due to changes in grain market prices; we may not be able to pass on increased raw materials costs through higher sales prices, which could affect our profits in related product lines.

(3) Risk Related to Fluctuations in Foreign Currency Exchange Rates

The NAGASE Group conducts import/export as well as non-trade business transactions denominated in foreign currencies. Fluctuations in currency markets have a significant impact when prices are converted to yen. While the NAGASE Group executes exchange contract hedges for these transactions to minimize exchange rate risk to the greatest extent possible, currency exchange rate fluctuations could have a significant impact on NAGASE Group earnings and financial conditions. The NAGASE Group owns foreign-domiciled corporations whose financial statements are prepared using local currencies (mainly U.S. dollars and Chinese Yuan). The conversion of these currencies to Japanese yen for consolidated reporting purposes entails currency conversion risk due to fluctuating exchange rates.

(4) Risk Related to Fluctuations in Interest Rates

The NAGASE Group obtains funds for operating and investing activities through loans from financial institutions; some of these loans are interest-bearing debt including variable interest terms. The NAGASE Group reduces interest rate fluctuation risk related to variable interest loans by utilizing interest-rate swap contracts. NAGASE Group earnings and financial conditions may be affected by future interest rate trends.

Interest rate fluctuations cause variations in discount rates used for retirement benefit obligations and plan asset investment income, having an impact on NAGASE Group business performance and financial position.

(5) Country Risk

A significant and increasing percentage of NAGASE Group sales and production takes place overseas in locations such as Greater China, ASEAN, the Americas, and Europe. While unforeseen events stemming from local government regulations, business customs, or other influences could have an impact on NAGASE Group business performance and financial condition. In particular, changes in international conditions, such as symbolized by trade friction between the U.S. and China and regional conflicts, may lead to the strengthening of policies prioritizing a country's own products, such as tighter export controls, technology transfer restrictions and higher tariffs, which may have an impact on the NAGASE Group's business activities, including partial restrictions. The NAGASE Group strives to reduce risk by ascertaining global political and economic conditions and trends in laws and regulations, and by reviewing and revising its transaction formats and supply chains as needed.

(6) Risk Related to Fluctuations in Stock Prices

The NAGASE Group maintains a portfolio of marketable securities, primarily equity shares of companies doing business with the NAGASE Group. These equity investments are subject to share price fluctuation risks. The rationale for shareholdings is based on a close examination of whether the income from related transaction gains and dividends received are commensurate with the internal hurdle rate based on the cost of capital, prospects for business expansion and synergies, or ability to secure stable access to services essential to the NAGASE Group's corporate activities. If the holdings are recognized as unreasonable, the shares will be sold in stages, taking into account various circumstances, and the number of shares held will be reduced proactively. However, changes in share prices could have an impact on NAGASE Group earnings and financial condition. A decline in share prices could damage the value of pension plan assets managed by the Group, increasing retirement benefit costs and thereby reducing Group profits.

(7) Counterparty Credit Risk

The NAGASE Group extends credit to domestic and overseas purchasers in connection with various transactions. As a matter of policy, the NAGASE Group reduces credit risk by obtaining guarantees, collateral, and insurance, etc. according to the financial condition of the purchaser. To reduce these credit risks, credit limits are set for each customer and measures such as obtaining collateral, guarantees, insurance, etc., are taken as necessary. Although the NAGASE Group strives to ensure stable, uninterrupted product procurement, financial weakness or bankruptcies among suppliers or others could damage the Group's ability to procure goods. Such circumstances could have an impact on the Group's earnings and financial condition.

(8) Risk of Investments

The NAGASE Group engages in investment activities to establish new companies, to invest in equipment at manufacturing subsidiaries, and to acquire other business entities. These types of investment activities involve certain risks, including the risk of failing to recover investments in cases where the Company is not able to record profits at initially planned levels, the risk that

additional funding may be required, and the risk that the NAGASE Group will not be able to withdraw from investments according to the desired timing and method. For new investments, the Group prepares investment checklists and investment return tables in accordance with investment guidelines, evaluates and analyzes various factors such as strategic compatibility, market size and growth potential, barriers to entry, competitiveness, business operation risk, business continuity risk, financing and withdrawal conditions, as well as business profitability from a broad perspective, and makes decisions based on quantitative criteria and qualitative evaluation. After implementing investments, they are monitored periodically and, for cases that have not progressed as initially planned, a rebuilding plan is formulated and investment values are assessed and reviewed in an effort to minimize any loss. Although the NAGASE Group has a system related to the investment decision-making process and its monitoring in this way, and has established procedures, even these management initiatives cannot completely negate potential investment risk such as inability to recover invested funds or additional losses in case of withdrawal, and such risk may have an impact on NAGASE Group earnings and financial condition.

(9) Risk of Asset Impairment

The NAGASE Group owns non-current assets such as business assets in manufacturing subsidiaries and goodwill. When there are signs of an impairment recognized in these assets, the recoverable amount of the asset is calculated as whichever is the highest of net realizable value or value in use, whichever is highest, and book value is reduced to the recoverable amount and the amount of such decrease is recognized as an impairment loss. However, even greater impairment losses may be incurred as a result of deteriorating business profits or other factors in the future, which may have an impact on NAGASE Group business performance and financial condition.

(10) Product Quality Risk

The NAGASE Group has manufacturing subsidiaries such as NCX and Hayashibara Co., Ltd. and research and development bases such as the Nagase Bio-Innovation Center to offer high-value-added products to our customers. We pay detailed attention to the quality of the technologies and products that bear the name of NAGASE and our affiliates. We also bear manufacturers' liability for imported products, products manufactured on a contract basis, etc. Accordingly, the NAGASE Group treats these products with the same attention to detail and quality as if they were made in our own facilities. The NAGASE Group considers product safety and quality control a major social responsibility in order to provide customers with safe products and build a safe and secure society. According to the NAGASE Group Product Safety Principles, we strive to ensure the safety of products through Group-wide policies and education. In addition, the Group Manufacturers' Collaboration Committee (MCC) shares and utilizes non-financial information on safety, quality, the environment and other matters, and works together to resolve various issues with the objective of strengthening the foundation as a manufacturer among Group manufacturing companies. However, product defects could result in cessation of sales and/or product recalls, exposing the NAGASE Group to liability for damages, which could have an impact on NAGASE Group earnings and financial conditions.

(11) Risks Related to Laws, Regulations, etc.

The NAGASE Group conducts a wide array of businesses in Japan and overseas. In every country and region in which the Company does business, we comply with all applicable rules and regulations as stipulated under the Basic Compliance Policy and the NAGASE Group Compliance Code of Conduct, and we conduct corporate activities based on social norms and common sense, and raise awareness of these within the Group. In particular, the Group imports, exports, and sells domestically mainly chemicals and other products for a broad range of uses. To maintain international peace and safety, the chemicals

and other items we export are subject to different laws, including the Foreign Exchange and Foreign Trade Control Law and the Export Trade Control Order. Imports and domestic sales are subject to the Chemical Substances Control Law and other related statutes, as well as similar regulations in foreign jurisdictions. To ensure compliance, the NAGASE Group has established internal Security Trade Control Regulations and Chemical/Product Control Regulations. However, a violation of such laws and statutes could result in restrictions on NAGASE Group business activities, having an impact on NAGASE Group earnings and financial condition.

(12) Risks Related to Information Systems and Information Security

The NAGASE Group recognizes the importance of ensuring robust information system safety and information security as it fulfils an important role in customers' supply chains. Accordingly, we have established relevant rules and mechanisms as part of a variety of ongoing measures to ensure stable information system operations and enhance information security. Even by taking such countermeasures, however, we cannot completely eliminate risks such as serious problems with information system infrastructure or communication lines, or information leakage, manipulation, or destruction as a result of computer viruses or unauthorized access due to cyberattacks. Such events could have an impact on NAGASE Group earnings and financial conditions by causing the temporary suspension of or otherwise significantly affecting the Group's business activities.

(13) Risks of Natural Disasters

The NAGASE Group has put emergency response systems in place, including the creation of a business contingency plan, the adoption of safety confirmation systems, setting up infrastructure to work from home, the creation of a disaster-response manual, earthquake-response measures, disaster-response training, and other measures to deal with natural disasters. However, as we conduct business across a great number of countries and regions, we are exposed to the risk of major natural disasters, COVID-19, H1N1 influenza and other communicable diseases, and other emergencies that could disrupt our supply chain. Such disruptions could prevent us from selling our products or damage the manufacturing capabilities of important NAGASE Group facilities. Such interruptions would result in opportunity loss, and could have a significant impact on NAGASE Group earnings and financial condition.

(14) Risk Related to Climate Change

The NAGASE Group acknowledges that continuing corporate activities that contribute to the solution for social and environmental issues enables sustainable growth, and thus we act proactively by developing the Sustainability Basic Policy for sustainability activities. We also established the Sustainability Committee, chaired by the Representative Director and President, for the objective of acting based on this basic policy. The NAGASE Group has also formulated the NAGASE Group Carbon Neutral Declaration as a policy toward achieving carbon neutrality by 2050, and we have expressed our endorsement of the Task Force on Climate-related Financial Disclosures (TCFD) (See "1 Management Policy, Business Environment, and Issues to be Addressed (2) Medium-Term Management Plan ACE 2.0" for details). However, if climate change causes more irregular weather, including more severe natural disasters, or if physical risks emerge, such as rising sea levels due to global warming, it could have a significant impact on the NAGASE Group's business activities and could affect our business performance and financial position.

Consolidated Balance Sheet

NAGASE & CO., LTD. and Consolidated Subsidiaries (March 31, 2022 and 2021)

ASSETS	Millions of yen		Thousands of U.S. dollars (Note 1)
	2022	2021	2022
Current assets:			
Cash and time deposits (Notes 18 and 24)	¥ 54,211	¥ 49,254	\$ 442,937
Notes and accounts receivable (Note 18)	289,862	242,558	2,368,347
Inventories (Notes 6 and 7)	157,525	97,242	1,287,074
Other current assets	13,935	13,259	113,857
Less allowance for doubtful accounts	(1,248)	(563)	(10,197)
Total current assets	514,286	401,751	4,202,026
Non-current assets:			
Property, plant and equipment, at cost (Notes 8 and 9):			
Land	20,398	20,054	166,664
Buildings and structures	61,430	59,327	501,920
Machinery, equipment and vehicles	90,748	89,052	741,466
Leased assets	2,337	1,680	19,095
Construction in progress	2,027	2,298	16,562
	176,942	172,413	1,445,723
Less accumulated depreciation	(104,387)	(101,516)	(852,905)
Property, plant and equipment, net (Note 25)	72,554	70,896	592,810
Investments and other assets:			
Investments in securities (Notes 10 and 18):			
Unconsolidated subsidiaries and affiliates	9,017	8,997	73,674
Other	66,583	84,721	544,023
	75,600	93,719	617,698
Long-term loans receivable	24	211	196
Goodwill (Note 25)	29,492	30,216	240,967
Technology-based assets	5,912	7,488	48,305
Retirement benefit asset (Note 13)	3,139	2,929	25,648
Deferred tax assets (Note 14)	3,572	1,903	29,185
Other assets (Note 9)	35,248	31,582	287,997
Less allowance for doubtful accounts	(112)	(112)	(915)
Total investments and other assets	152,879	167,938	1,249,113
Total non-current assets	225,434	238,835	1,841,932
Total assets (Note 25)	¥ 739,720	¥ 640,587	\$ 6,043,958

LIABILITIES AND NET ASSETS	Millions of yen		Thousands of U.S. dollars (Note 1)
	2022	2021	2022
Current liabilities:			
Notes and accounts payable (Note 18)	¥149,036	¥119,941	\$1,217,714
Short-term loans (Notes 11 and 18)	73,121	33,050	597,443
Current portion of long-term loans and finance lease obligations (Notes 11 and 18)	9,152	12,089	74,777
Commercial papers (Notes 11 and 18)	25,000	8,000	204,265
Current portion of bonds payable (Notes 11)	10,000	—	81,706
Accrued income taxes (Note 14)	7,100	3,565	58,011
Accrued expenses	6,479	6,317	52,937
Accrued bonuses for employees	7,648	6,042	62,489
Accrued bonuses for directors and executive officers	497	203	4,061
Other current liabilities	19,799	16,928	161,770
Total current liabilities	307,836	206,139	2,515,205
Long-term liabilities:			
Bonds (Notes 11 and 18)	20,000	30,000	163,412
Long-term loans and finance lease obligations (Notes 11 and 18)	29,256	35,807	239,039
Deferred tax liabilities (Note 14)	12,310	16,077	100,580
Retirement benefit liability (Note 13)	13,238	13,292	108,162
Other long-term liabilities	1,987	838	16,235
Total long-term liabilities	76,791	96,016	627,429
Contingent liabilities (Note 22)			
Net assets:			
Shareholders' equity (Note 16):			
Common stock:			
Authorized — 346,980,000 shares			
Issued — 120,908,285 shares in 2022 and 124,408,285 shares in 2021	9,699	9,699	79,247
Capital surplus	10,639	10,646	86,927
Retained earnings (Notes 23 and 27)	280,015	265,920	2,287,891
Treasury stock, at cost (Note 17) — 881,767 shares in 2022 and 933,995 shares in 2021	(1,534)	(1,503)	(12,534)
Total shareholders' equity	298,820	284,763	2,441,539
Accumulated other comprehensive income:			
Net unrealized holding gain on securities (Note 10)	31,732	43,576	259,270
Deferred gain on hedges (Note 19)	178	72	1,454
Translation adjustments	13,690	1,006	111,856
Retirement benefit liability adjustments (Note 13)	(161)	268	(1,315)
Total accumulated other comprehensive income	45,441	44,924	371,280
Non-controlling interests	10,830	8,743	88,488
Total net assets	355,092	338,431	2,901,315
Total liabilities and net assets	¥739,720	¥640,587	\$ 6,043,958

See notes to consolidated financial statements.

Consolidated Statement of Income

NAGASE & CO., LTD. and Consolidated Subsidiaries (Years ended March 31, 2022 and 2021)

	Millions of yen		Thousands of U.S. dollars (Note 1)
	2022	2021	2022
Net sales (Note 25)	¥780,557	¥625,245	\$6,377,621
Cost of sales (Note 7)	641,062	510,645	5,237,863
Gross profit	139,494	114,600	1,139,750
Selling, general and administrative expenses (Notes 20 and 21)	104,231	92,683	851,630
Operating income (Note 25)	35,263	21,916	288,120
Other income (expenses):			
Interest and dividend income	1,551	1,312	12,673
Interest expense	(1,176)	(1,064)	(9,609)
Equity in losses of affiliates	(1,031)	(327)	(8,424)
Gain on sales of shares of subsidiaries and affiliates	—	2,657	—
Gain on sales of investments in securities (Note 10)	7,037	5,774	57,497
Loss on sales of shares of subsidiaries and affiliates	59	1	482
Gain on sales of investments in capital of subsidiaries and affiliates	314	—	2,566
Loss on devaluation of investments in securities (Note 10)	(1,436)	(155)	(11,733)
Gain on sales of property, plant and equipment	16	86	131
Gain on donation of property, plant and equipment	719	—	5,875
Loss on sales of property, plant and equipment	(177)	(23)	(1,446)
Loss on disposal of property, plant and equipment	(453)	(92)	(3,701)
Loss on impairment of fixed assets (Notes 9 and 25)	(2,974)	(1,824)	(24,299)
Subsidy income	75	163	613
Other, net	1,770	846	14,462
Profit before income taxes	39,557	29,272	323,205
Income taxes (Note 14):			
Current	12,826	7,851	104,796
Deferred	(141)	1,775	(1,152)
Profit	26,872	19,646	219,560
Profit attributable to:			
Non-controlling interests	(932)	(816)	(7,615)
Owners of parent	¥ 25,939	¥ 18,829	\$ 211,937

See notes to consolidated financial statements.

Consolidated Statement of Comprehensive Income

NAGASE & CO., LTD. and Consolidated Subsidiaries (Years ended March 31, 2022 and 2021)

	Millions of yen		Thousands of U.S. dollars (Note 1)
	2022	2021	2022
Profit	¥ 26,872	¥19,646	\$219,560
Other comprehensive income (Note 12):			
Net unrealized holding (loss) gain on securities	(11,844)	10,945	(96,773)
Deferred gain on hedges	106	69	866
Translation adjustments	13,623	7	111,308
Retirement benefit liability adjustments	(430)	963	(3,513)
Share of other comprehensive income of affiliates accounted for by the equity method	282	254	2,304
	1,736	12,241	14,184
Comprehensive income	¥ 28,608	¥31,887	\$233,745
Total comprehensive income attributable to:			
Owners of parent	¥ 26,482	¥30,774	\$216,374
Non-controlling interests	¥ 2,126	¥ 1,112	\$ 17,371

See notes to consolidated financial statements.

Consolidated Statement of Changes in Net Assets

NAGASE & CO., LTD. and Consolidated Subsidiaries (Years ended March 31, 2022 and 2021)

	Millions of yen											
	Common stock	Capital surplus	Retained earnings	Treasury stock, at cost	Total shareholders' equity	Net unrealized holding gain on securities	Deferred gain on hedges	Translation adjustments	Retirement benefit liability adjustments (Note 13)	Total accumulated other comprehensive income	Non-controlling interests	Total net assets
Balance at April 1, 2020	¥ 9,699	¥ 10,646	¥ 257,067	¥ (5,071)	¥ 272,342	¥ 32,618	¥ 3	¥ 1,051	¥ (694)	¥ 32,979	¥ 7,921	¥ 313,243
Profit attributable to owners of parent	—	—	18,829	—	18,829	—	—	—	—	—	—	18,829
Cash dividends	—	—	(5,456)	—	(5,456)	—	—	—	—	—	—	(5,456)
Purchases of treasury stock	—	—	—	(952)	(952)	—	—	—	—	—	—	(952)
Disposition of treasury stock	—	0	—	0	0	—	—	—	—	—	—	0
Retirement of treasury stock	—	(0)	(4,520)	4,520	—	—	—	—	—	—	—	—
Changes in parent's ownership interest due to transactions with non-controlling interests	—	(0)	—	—	(0)	—	—	—	—	—	—	(0)
Other changes	—	—	—	—	—	10,957	69	(45)	963	11,944	822	12,767
Balance at April 1, 2021	9,699	10,646	265,920	(1,503)	284,763	43,576	72	1,006	268	44,924	8,743	338,431
Profit attributable to owners of parent	—	—	25,939	—	25,939	—	—	—	—	—	—	25,939
Cash dividends	—	—	(5,876)	—	(5,876)	—	—	—	—	—	—	(5,876)
Purchases of treasury stock	—	—	—	(6,006)	(6,006)	—	—	—	—	—	—	(6,006)
Disposition of treasury stock	—	0	—	0	0	—	—	—	—	—	—	0
Retirement of treasury stock	—	(0)	(5,975)	5,975	—	—	—	—	—	—	—	—
Changes in parent's ownership interest due to transactions with non-controlling interests	—	(0)	—	—	(0)	—	—	—	—	—	—	(0)
Decrease in retained earnings resulting from changes in scope of consolidation	—	(6)	—	—	(6)	—	—	—	—	—	—	(6)
Increase in retained earnings resulting from changes in scope of equity method	—	—	7	—	7	—	—	—	—	—	—	7
Other changes	—	—	—	—	—	(11,843)	106	12,684	(430)	516	2,086	2,603
Balance at March 31, 2022	¥9,699	¥10,639	¥280,015	¥(1,534)	¥298,820	¥ 31,732	¥178	¥13,690	¥(161)	¥45,441	¥10,830	¥355,092

	Thousands of U.S. dollars (Note 1)											
	Common stock	Capital surplus	Retained earnings	Treasury stock, at cost	Total shareholders' equity	Net unrealized holding gain on securities	Deferred gain on hedges	Translation adjustments	Retirement benefit liability adjustments (Note 13)	Total accumulated other comprehensive income	Non-controlling interests	Total net assets
Balance at April 1, 2021	\$79,247	\$86,984	\$2,172,727	\$(12,280)	\$2,326,685	\$356,042	\$ 588	\$ 8,220	\$ 2,190	\$367,056	\$71,436	\$2,765,185
Profit attributable to owners of parent	—	—	211,937	—	211,937	—	—	—	—	—	—	211,937
Cash dividends	—	—	(48,010)	—	(48,010)	—	—	—	—	—	—	(48,010)
Purchases of treasury stock	—	—	—	(49,073)	(49,073)	—	—	—	—	—	—	(49,073)
Disposition of treasury stock	—	0	—	0	0	—	—	—	—	—	—	0
Retirement of treasury stock	—	(0)	(48,819)	48,819	—	—	—	—	—	—	—	—
Changes in parent's ownership interest due to transactions with non-controlling interests	—	(0)	—	—	(0)	—	—	—	—	—	—	(0)
Decrease in retained earnings resulting from changes in scope of consolidation	—	(49)	—	—	(49)	—	—	—	—	—	—	(49)
Increase in retained earnings resulting from changes in scope of equity method	—	—	57	—	57	—	—	—	—	—	—	57
Other changes	—	—	—	—	—	(96,764)	866	103,636	(3,513)	4,216	17,044	21,268
Balance at March 31, 2022	\$79,247	\$86,927	\$2,287,891	\$(12,534)	\$2,441,539	\$259,270	\$1,454	\$111,856	\$(1,315)	\$371,280	\$88,488	\$2,901,315

See notes to consolidated financial statements.

Consolidated Statement of Cash Flows

NAGASE & CO., LTD. and Consolidated Subsidiaries (Years ended March 31, 2022 and 2021)

	Millions of yen		Thousands of U.S. dollars (Note 1)
	2022	2021	2022
Operating activities:			
Profit before income taxes	¥ 39,557	¥ 29,272	\$ 323,205
Adjustments to reconcile profit before income taxes to net cash provided by operating activities:			
Depreciation and amortization other than amortization of goodwill	11,216	11,008	91,641
Loss on impairment of fixed assets	2,974	1,824	24,299
Amortization of goodwill	2,478	2,344	20,247
Subsidy income	(75)	(163)	(613)
Share of loss of entities accounted for using equity method	1,031	327	8,424
(Decrease) increase in retirement benefit liability	(599)	1,395	(4,894)
Increase in retirement benefit asset	(869)	(1,174)	(7,100)
Interest and dividend income	(1,551)	(1,312)	(12,673)
Interest expense	1,176	1,064	9,609
Exchange gain, net	(778)	(24)	(6,367)
Gain on sales of investments in securities	(7,285)	(8,419)	(59,523)
Loss on valuation of investment securities	1,436	155	11,733
Changes in operating assets and liabilities:			
Notes and accounts receivable	(34,234)	(17,641)	(279,712)
Inventories	(49,346)	(1,034)	(403,187)
Notes and accounts payable	20,465	8,623	167,211
Other, net	4,859	2,554	39,701
Subtotal	(9,544)	28,797	(77,980)
Interest and dividends received	1,926	1,950	15,737
Interest paid	(1,202)	(1,067)	(9,821)
Income taxes paid	(8,956)	(9,288)	(73,176)
Net cash (used in) provided by operating activities	(17,776)	20,391	(145,241)
Investing activities:			
Purchases of property, plant and equipment	(8,830)	(8,864)	(72,146)
Proceeds from sales of property, plant and equipment	326	448	2,664
Purchases of intangible fixed assets included in other assets	(1,624)	(704)	(13,269)
Purchases of investments in securities	(1,317)	(3,260)	(10,761)
Proceeds from sales of investments in securities	7,736	6,027	63,208
Purchases of investments in capital	—	(47)	—
Proceeds from sales of investments in capital	890	57	7,272
Purchase of shares of subsidiaries resulting in change in scope of consolidation	(3,848)	—	(31,440)
Proceeds from sales of shares of subsidiaries resulting in change in scope of consolidation	587	8,010	4,796
(Increase) decrease in short-term loans receivable included in other current assets, net	(83)	319	(678)
(Increase) decrease in time deposits, net	(137)	290	(1,119)
Subsidy income	75	163	613
Payments of leasehold and guarantee deposits	(1,352)	—	(11,047)
Other, net	(86)	202	(703)
Net cash (used in) provided by investing activities	(7,664)	2,643	(62,619)
Financing activities:			
Increase in short-term loans, net	33,325	658	272,285
Increase (decrease) in commercial papers, net	17,000	(22,000)	138,900
Proceeds from long-term loans	1,900	4,350	15,524
Repayments of long-term loans	(12,039)	(1,891)	(98,366)
Purchase of treasury stock	(6,006)	(952)	(49,073)
Cash dividends paid	(5,876)	(5,456)	(48,010)
Cash dividends paid to non-controlling interests	(543)	(290)	(4,437)
Other, net	(477)	(285)	(3,897)
Net cash provided by (used in) financing activities	27,282	(25,866)	222,910
Effects of exchange rate changes on cash and cash equivalents	2,942	913	24,038
Net increase (decrease) in cash and cash equivalents	4,783	(1,918)	39,080
Cash and cash equivalents at beginning of the year	48,553	50,471	396,707
Cash and cash equivalents at end of the year (Note 24)	¥ 53,336	¥ 48,553	\$ 435,787

See notes to consolidated financial statements.

Notes to Consolidated Financial Statements

NAGASE & CO., LTD. and Consolidated Subsidiaries (March 31, 2022)

1. BASIS OF PREPARATION

The accompanying consolidated financial statements of NAGASE & CO., LTD. (the "Company") and consolidated subsidiaries are prepared on the basis of accounting principles generally accepted in Japan, which are different in certain respects as to the application and disclosure requirements of International Financial Reporting Standards, and have been compiled from the consolidated financial statements prepared by the Company as required by the Financial Instruments and Exchange Act of Japan.

In preparing the accompanying consolidated financial statements, certain reclassifications and rearrangements have been made to the consolidated financial statements issued domestically in order to present them in a format which is more familiar to readers outside Japan.

Certain amounts in the prior year's consolidated financial statements have been reclassified to conform to the current year's presentation. Such

reclassifications had no effect on consolidated profit or net assets.

The U.S. dollar amounts in the accompanying consolidated financial statements have been translated from yen amounts solely for the convenience of the reader, as a matter of arithmetic computation only, at ¥122.39 = U.S.\$1.00, the rate of exchange prevailing on March 31, 2022. This translation should not be construed as a representation that the yen amounts have been, could have been, or could in the future be, converted into U.S. dollars at the above or any other rate.

As permitted by the Financial Instruments and Exchange Act of Japan, amounts of less than one million yen have been omitted. Consequently, the totals shown in the accompanying consolidated financial statements (both in yen and in U.S. dollars) do not necessarily agree with the sum of the individual amounts.

2. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

(a) Principles of Consolidation

The accompanying consolidated financial statements include the accounts of the Company and companies that it controls directly or indirectly. Affiliates over which the Company exercises significant influence in terms of their operating and financial policies have been accounted for by the equity method. All significant intercompany balances and transactions have been eliminated in consolidation.

Certain subsidiaries were excluded from the scope of consolidation because the effect of their sales, net profit or loss, total assets and retained earnings on the accompanying consolidated financial statements was immaterial. The unconsolidated subsidiaries and affiliates not accounted for by the equity method were excluded from the scope of application of the equity method, because their profit or loss and retained earnings attributable to the Company's interest were not material to the consolidated financial statements.

Of the Company's subsidiaries, 34 have a December 31 year end, which is different from that of the Company. The financial statements of 11 subsidiaries have been included in consolidation based on a provisional statement of accounts for a full fiscal year ending March 31. As for the other 23 subsidiaries, adjustments have been made for any significant intercompany transactions that took place during the period between the year end of these subsidiaries and the year end of the Company.

Unrealized intercompany gains among the Company and the consolidated subsidiaries have been entirely eliminated and the portion attributable to non-controlling interests has been charged to non-controlling interests.

(b) Foreign Currency Translation

All monetary assets and liabilities denominated in foreign currencies are translated into yen at the rates of exchange in effect at the balance sheet date, except that receivables and payables hedged by qualified foreign currency forward exchange contracts are translated at the corresponding contract rates. All other assets and liabilities denominated in foreign currencies are translated at their historical rates. Gain or loss on each translation is credited or charged to income.

Revenue and expense items arising from transactions denominated in foreign currencies are generally translated into yen at the rates in effect at the respective transaction dates. Foreign exchange gain or loss is credited or charged to income in the period in which such gain or loss is recognized for financial reporting purposes.

The balance sheet accounts of the overseas consolidated subsidiaries are translated into yen at the rates of exchange in effect at the balance sheet date, except that the components of net assets excluding non-controlling interests, net unrealized holding gain on securities, and deferred gain or loss on hedges are translated at their historical exchange rates. Revenue and

expense accounts are translated at the average rates of exchange in effect during the year. Adjustments resulting from translating financial statements whose accounts are denominated in foreign currencies are not included in the determination of net income but are reported as "Translation adjustments" as a component of accumulated other comprehensive income or loss in the accompanying consolidated balance sheets.

(c) Cash and Cash Equivalents

Cash and cash equivalents consist of cash on hand, demand deposits, and short-term investments which are readily convertible to cash and subject to an insignificant risk of any change in their value, which were purchased with an original maturity of three months or less.

(d) Inventories

Inventories are stated at the lower of cost or the net selling value, cost being determined primarily by the moving-average method.

(e) Investments in Securities

Securities are classified into three categories: trading securities, held-to-maturity debt securities or other securities. Trading securities, consisting of debt and marketable equity securities, are stated at fair value. Gain and loss, both realized and unrealized, are credited or charged to income. Held-to-maturity debt securities are stated at their amortized cost. Marketable securities classified as other securities are carried at fair value with any changes in unrealized holding gain or loss, net of the applicable income taxes, reported as a separate component of accumulated other comprehensive income or loss. Non-marketable securities classified as other securities are carried at cost determined by the moving-average method.

(f) Property, Plant and Equipment and Depreciation (except for leased assets)

Property, plant and equipment are stated at cost.

Depreciation of property, plant and equipment is calculated by the straight-line method based on the estimated useful lives of the respective assets.

The estimated useful lives of the principal assets are as follows:

Buildings (other than structures attached to the buildings) 15 to 50 years
Machinery and equipment 2 to 20 years

(g) Intangible Assets (except for leased assets)

Technology-based assets recognized upon acquisition are amortized on a straight-line basis over 13 to 17 years.

Costs incurred for computer software obtained for internal use are capitalized and amortized on a straight-line basis over an estimated useful life of 5 years.

(h) Goodwill

Goodwill is amortized over a period not exceeding 20 years on a straight-line basis. When immaterial, goodwill is charged to income as incurred.

(i) Leased Assets

Leased assets under finance lease contracts which do not transfer ownership to the lessee are depreciated to a residual value of zero by the straight-line method over the respective lease terms.

(j) Allowance for Doubtful Accounts

The Company and its consolidated subsidiaries provide allowances for doubtful accounts based on their historical experience of bad debts on ordinary receivables plus an additional estimate of probable specific doubtful accounts from customers experiencing financial difficulties.

(k) Income Taxes

Income taxes are calculated based on taxable income and charged to income on an accrual basis. Deferred tax assets and liabilities are computed based on the temporary differences between the financial reporting and the tax bases of the assets and liabilities that will result in taxable or deductible amounts in the future. Computations of deferred tax assets and liabilities are based on the tax rates which have been enacted as of the balance sheet date. The Company and certain domestic consolidated subsidiaries have adopted the consolidated taxation system (the Company is the taxable entity), which allows companies to make tax payments on the combined profits of the parent company and its wholly owned domestic subsidiaries.

(l) Accrued Bonuses for Employees

Accrued bonuses for employees are provided based on the estimated amount of bonuses to be paid to employees in the following fiscal year which is attributable to the current fiscal year.

(m) Accrued Bonuses for Directors and Executive Officers

Accrued bonuses for directors and executive officers are provided based on the estimated amount of bonuses to be paid to directors and executive officers in the following fiscal year which is attributable to the current fiscal year.

(n) Retirement Benefit Liability

Retirement benefit liability is provided based on the amount of the retirement benefit obligation less estimated pension plan assets at the end of the fiscal year. The estimated benefit is attributed to each period based on the plan's benefit formula.

Prior service cost is charged to income in the fiscal year in which such cost is recognized for financial reporting purposes. Actuarial differences are principally credited or charged to income in the fiscal year following the fiscal year in which such differences are recognized for financial reporting purposes.

(o) Accounting for Significant Revenues and Expenses

The following is a description of the principal performance obligations of the Company and its consolidated subsidiaries' principal businesses relating to revenue from contracts with customers and the usual timing at which point such performance obligations are satisfied (the usual time at which revenue is recognized).

Sales of merchandise and products are classified based on the reportable segments and revenue is recognized primarily at the time the merchandise and products are delivered to the customer, since the risks and economic value of ownership of the products are transferred and the right to receive payment is established at that time. In addition, the Group may act as an

3. ACCOUNTING CHANGES**(a) Application of Accounting Standards for Revenue Recognition**

At the beginning of the current fiscal year, the Company adopted the Accounting Standard for Revenue Recognition (ASBJ Statement No. 29, March 31, 2020). As a result, revenue is now recognized as the amount expected to be received in exchange for promised goods or services at the time of the transfer of their control to the customer.

As a result, in transactions for which the Company's performance obligations in its contracts with customers are determined to be services as an agent

in certain transactions. The consideration from the customer is received primarily within one year of satisfying the performance obligation and does not include a significant financing component.

When the Group is acting as a principal in a transaction, revenue is recognized at a gross amount of consideration received from the customer, and when the Group is acting as an agent for a third party, revenue is presented in a net amount of fees received, which is the gross amount of consideration received from the customer less the amount collected for the third party.

(p) Derivatives and Hedging Activities

Derivatives positions are carried at fair value with any changes in unrealized gain or loss charged or credited to income, except for those which meet the criteria for deferral hedge accounting under which unrealized gain or loss is deferred as a component of net assets. Foreign currency receivables and payables hedged by qualified foreign currency forward exchange contracts are translated at the corresponding foreign exchange contract rates ("allocation method"). Interest-rate swaps which meet certain conditions are accounted for as if the interest rates applied to the swaps had originally applied to the underlying loans.

Derivative financial instruments are utilized principally in order to manage the risk arising from adverse fluctuation in foreign currency exchange rates and interest-rate swaps are also utilized to mitigate the risk of fluctuation in interest rates on loans. Hedging instruments are foreign currency forward exchange contracts, foreign currency deposits, foreign currency loans and interest-rate swaps. Hedged items are foreign currency receivables and payables, forecast transactions and interest rates on loans from financial institutions.

The Company and its consolidated subsidiaries (collectively, the "Group") manage derivative transactions in accordance with internal management rules. Under these rules, the Group conducts foreign currency forward exchange contracts within a range of actual demand of accounts receivable, accounts payable and actual transactions in foreign currencies. Execution and management of interest-rate swaps are based on internal management rules and hedged items of interest-rate swaps are identified by individual contracts.

The Company and certain consolidated subsidiaries assess the effectiveness of the hedging activities based on a comparison of the accumulated fluctuations of the hedged items and those of the hedging instruments in the period from the start of the hedging activities to the assessment date. However, with regard to interest-rate swaps which meet certain conditions, the evaluation of effectiveness is omitted.

(q) Research and Development Costs

Research and development costs are charged to income when incurred.

(r) Distributions of Retained Earnings

Dividends and other distributions of retained earnings are approved by the shareholders at a meeting held subsequent to the end of the fiscal year to which such distributions are applicable. The accompanying consolidated financial statements do not, however, reflect the applicable distributions of retained earnings as approved by the shareholders subsequent to the fiscal year end. (Refer to Note 27.)

in arranging the provision of goods or services by another party, such sales to customers previously recorded on a gross basis shall be offset by the corresponding cost of sales, and revenue shall be stated on a net basis.

As a result, net sales and cost of sales each for the years ended March 31, 2022 and 2021 decreased by ¥244,835 million (\$2,000,449 thousand) and ¥204,995 million (\$1,851,639 thousand), respectively. Please note that this change has no impact on profit or loss for the current fiscal year, nor on the amount of net assets.

(b) Application of Accounting Standard for Fair Value Measurement

As of the beginning of the current fiscal year, the Company has applied the Accounting Standard for Fair Value Measurement (ASBJ Statement No. 30, July 4, 2019). In accordance with the transitional treatment prescribed in paragraph 19 of the Accounting Standard for Fair Value Measurement and paragraph 44-2 of Accounting Standard for Financial Instruments (ASBJ Statement No. 10, July

4, 2019), new accounting policies prescribed by the Accounting Standard for Fair Value Measurement have been adopted prospectively. This change had no impact on the consolidated financial statements.

Further, information in the notes relating to the breakdown, etc. by appropriate fair value classification of financial instruments is presented in Note 18 "FINANCIAL INSTRUMENTS."

4. SIGNIFICANT ACCOUNTING ESTIMATES**Assessment of impairment of property, plant and equipment and intangible fixed assets****(a) Amounts recorded in the consolidated financial statements as of March 31, 2022 and 2021, and for the years then ended are as follows:**

	Millions of yen		Thousands of U.S. dollars
	2022	2021	2022
Property, plant and equipment	¥72,554	¥70,896	\$592,810
Intangible fixed assets	65,070	64,598	531,661
Impairment losses	2,974	1,824	24,299

(b) Information about significant accounting estimates pertaining to identified items**(i) Method of calculation**

Non-current assets are grouped into the smallest units that generate cash flows, and are measured for impairment if any indication of impairment exists and, if so, whether an impairment loss should be recognized.

For the grouping of non-current assets, idle assets are grouped individually, and business assets are grouped mainly by company or plant. Goodwill is principally allocated to larger unit that includes related business-use assets.

Undiscounted future cash flows used to determine whether impairment losses need to be recognized are calculated in consideration of main assets' economic useful lives, etc., based on future business plans.

Impairment losses are measured by calculating the recoverable amount of the relevant asset or asset group as the higher of net

realizable value or the value in use, and the difference between the book value and the recoverable amount is recorded as an impairment loss for the current fiscal year. The discount rate used for the calculation of the value in use is basically determined using the time value of money taking into account the risk related to the business.

(ii) Key assumptions used in the calculation

The key assumptions are the projected sales and costs of sales included in future business plans, and the discount rate used to calculate the value in use.

(iii) Effects on consolidated financial statements for the next fiscal year

If the actual profit or loss of each asset or asset group falls below the business plan, or if there is a significant change in the assumptions on which future business plans are based, the recoverable amount may fall below the book value and an impairment loss may be recognized in the next fiscal year.

5. ACCOUNTING STANDARDS ISSUED BUT NOT YET EFFECTIVE**Accounting Standards for Fair Value Measurement, etc.**

"Implementation Guidance on Accounting Standard for Fair Value Measurement" (ASBJ Guidance No. 31, issued on June 17, 2021)

(a) Overview

The revised "Guidance on Accounting Standard for Measurement of Fair Value" (ASBJ Guidance No. 31 issued on June 17, 2021) is a revision of the previous July 4, 2019 guidance. As consultations with related parties and other studies on "calculation of the market value of investment trusts" were considered to take a certain period of time and also certain considerations were required for notes on the fair value of "investments in partnerships, etc.,

recorded on the balance sheet at the net amount of the equity interest," the guidance had been scheduled to be evaluated for about a year after the original version was issued.

(b) Scheduled date of adoption

The Company expects to adopt the implementation guidance from the beginning of the fiscal year ending March 31, 2023.

(c) Impact of adoption

The Company is currently evaluating the effect of the adoption of the "Implementation Guidance on Accounting Standard for Fair Value Measurement."

6. INVENTORIES

Inventories at March 31, 2022 and 2021 are summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2022	2021	2022
Merchandise and finished goods	¥142,590	¥88,130	\$1,165,046
Work in process	2,401	1,654	19,618
Raw materials and supplies	12,533	7,457	102,402
Total	¥157,525	¥97,242	\$1,287,074

7. LOSS ON DEVALUATION OF INVENTORIES INCLUDED IN COST OF SALES

The balance of inventories at the end of the year is the amount after writing down book values due to decline in profitability and following loss on devaluation of inventories is included in cost of sales for the year ended March 31, 2022 and 2021:

	Millions of yen		Thousands of U.S. dollars
	2022	2021	2022
Loss on devaluation of inventories included in cost of sales	¥622	¥1,829	\$5,082

8. REDUCTIONS IN ACQUISITION COSTS DUE TO SUBSIDIES

The amounts of subsidies received from the Japanese national government and deducted from the acquisition costs of property, plant and equipment at March 31, 2022 and 2021 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2022	2021	2022
Buildings and structures	¥ 433	¥ 401	\$ 3,538
Machinery, equipment and vehicles	774	726	6,324
Land	190	190	1,552
Total	¥1,398	¥1,318	\$11,423

9. LOSS ON IMPAIRMENT OF FIXED ASSETS

Loss on impairment of fixed assets for the years ended March 31, 2022 and 2021 was as follows:

Major use	Classification	Area	Millions of yen		Thousands of U.S. dollars
			2022	2021	2022
Goodwill, business-use assets for product and manufacturing process development in the resin field	Goodwill, machinery, equipment and vehicles, and other	Wisconsin, USA	¥2,911		\$23,785
Goodwill related to water soluble support materials for 3D printing production and development business	Goodwill	Wisconsin, USA	63		515
Total			¥2,974		\$24,299

Major use	Classification	Area	Millions of yen	
			2021	2022
Business-use assets for manufacturing and selling of color formers	Buildings and structures, machinery, equipment and vehicles and other	Hokuriku	¥ 632	
Business-use assets for manufacturing and selling of color formers	Buildings and structures, machinery, equipment and vehicles and other	Tennessee, USA	211	
Business-use assets for polyimide film glass bonding business	Machinery, equipment and vehicles and other	Taipei, Taiwan	951	
Business-use assets for manufacturing and selling of rechargeable battery systems	Buildings and structures, machinery, equipment and vehicles, and other	Tokai	18	
Business-use assets for processing of thin glass panels	Buildings and structures, machinery, equipment and vehicles, and other	Fujian, China	2	
Idle assets	Land	Tokai etc.	7	
Total			¥1,824	

The Company and its consolidated subsidiaries group fixed assets for business use principally based on business management segments. Fixed assets to be disposed of and idle assets are grouped individually as the smallest cash-generating units.

For the year ended March 31, 2021, due to decreasing profitability, the carrying values of certain fixed assets for business use were reduced to their recoverable amounts. As for idle assets, due to a declining fair value, the carrying fair values were reduced to their recoverable amounts.

The recoverable amounts were measured at the net selling value or the value in use. The recoverable amounts for business-use assets for the color former manufacturing and polyimide film and glass lamination were measured at the net selling value. The net selling value was calculated based on the

appraisal value published by the tax authorities or the real estate appraisers, or estimated sales value.

For the year ended March 31, 2022, the book value was reduced to the recoverable amount because the Company no longer expects to generate the initially anticipated earnings.

The recoverable amounts were measured at the net selling value or the value in use. Net selling value is based on the assessed value for property tax purposes or the appraised value of real estate. Goodwill related to the product and manufacturing process development business in the resin segment was measured based in the value in use.

The future cash flows are discounted at a rate of 19.0%.

10. INVESTMENTS IN SECURITIES

(a) Marketable securities classified as other securities at March 31, 2022 and 2021 are summarized as follows:

	Millions of yen					
	2022			2021		
	Carrying value	Acquisition costs	Unrealized gain (loss)	Carrying value	Acquisition costs	Unrealized gain (loss)
Securities whose carrying value exceeds their acquisition costs:						
Equity securities	¥57,951	¥13,108	¥44,842	¥77,661	¥15,838	¥61,822
Securities whose carrying value does not exceed their acquisition costs:						
Equity securities	2,560	2,810	(249)	835	1,010	(174)
Total	¥60,511	¥15,918	¥44,592	¥78,496	¥16,848	¥61,648

	Thousands of U.S. dollars		
	2022		
	Carrying value	Acquisition costs	Unrealized gain (loss)
Securities whose carrying value exceeds their acquisition costs:			
Equity securities	\$473,495	\$107,100	\$366,386
Securities whose carrying value does not exceed their acquisition costs:			
Equity securities	20,917	22,959	(2,034)
Total	\$494,411	\$130,060	\$364,343

"Acquisition costs" in the above table represent the carrying value after recognizing impairment losses.

(b) Securities classified as other securities whose market value is not available and not included in the table (a) at March 31, 2022 and 2021 are summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2022	2021	2022
	Carrying value	Carrying value	Carrying value
Market value not determinable:			
Unlisted equity securities	¥6,071	¥6,225	\$49,604
Total	¥6,071	¥6,225	\$49,604

(c) Proceeds from sales of, and gross realized gain and loss on, other securities for the years ended March 31, 2022 and 2021 are summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2022	2021	2022
Proceeds from sales	¥7,736	¥6,217	\$63,208
Gain on sales	7,037	5,774	57,497
Loss on sales	6	10	49

(d) A breakdown of loss on devaluation of investments in securities for the years ended March 31, 2022 and 2021 is summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2022	2021	2022
Loss on devaluation of investments in securities*			
Securities classified as other securities	¥1,436	¥155	\$11,733
Total loss on devaluation of investments in securities	¥1,436	¥155	\$11,733

* Loss on devaluation of investments in securities is recorded on securities with market value whose market value at the end of the fiscal year has declined by 50% or more from its acquisition cost, or whose market value has declined by 30% or more but less than 50% based on the amount deemed unrecoverable.

In addition, loss on devaluation of investments in securities is recorded on securities whose market value is not available by writing down the carrying value to fair value when the decline in fair value is deemed to be unrecoverable considering the financial position of the issuers, etc., of the securities.

11. SHORT-TERM LOANS, BONDS, LONG-TERM LOANS, COMMERCIAL PAPERS AND FINANCE LEASE OBLIGATIONS

Short-term loans at March 31, 2022 and 2021 principally represented loans and commercial papers in the form of deeds at weighted-average annual interest rates of 1.14% and 1.33% per annum, respectively.

Long-term loans, bonds and finance lease obligations at March 31, 2022 and 2021 consisted of the following:

	Millions of yen		Thousands of U.S. dollars
	2022	2021	2022
Unsecured loans from banks and insurance companies, payable in Yen, U.S. dollars, and Euros due through 2032, at rates from 0.15% to 10.00%	¥ 36,997	¥ 46,539	\$ 302,288
Unsecured bonds in Yen, due 2022, at a rate of 0.539%	10,000	10,000	81,706
Unsecured bonds in Yen, due 2024, at a rate of 0.150%	10,000	10,000	81,706
Unsecured bonds in Yen, due 2029, at a rate of 0.290%	10,000	10,000	81,706
Lease obligations	1,411	1,357	11,529
	68,408	77,896	558,935
Less current portion	(19,152)	(12,089)	(156,483)
Total	¥ 49,256	¥ 65,807	\$ 402,451

The aggregate annual maturities of bonds, long-term loans and finance lease obligations subsequent to March 31, 2022 are summarized as follows:

Years ending March 31,	Millions of yen	Thousands of U.S. dollars
2023	¥19,152	\$156,483
2024	1,627	13,294
2025	17,238	140,845
2026	5,061	41,351
2027	15,041	122,894
2028 and thereafter	10,286	84,043
Total	¥68,408	\$558,935

In order to achieve more efficient and flexible financing, the Company has concluded line-of-credit agreements with certain financial institutions. The status of these lines of credit at March 31, 2022 and 2021 is as follows:

	Millions of yen		Thousands of U.S. dollars
	2022	2021	2022
Lines of credit	¥20,000	¥20,000	\$163,412
Credit utilized	—	—	—

12. OTHER COMPREHENSIVE INCOME (LOSS)

Reclassification adjustments and tax effects allocated to each component of other comprehensive income (loss) for the years ended March 31, 2022 and 2021 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2022	2021	2022
Net unrealized holding (loss) gain on securities:			
Amount arising during the year	¥(10,058)	¥20,245	\$ (82,180)
Reclassification adjustments for gains and losses realized in the statement of income	(6,800)	(4,767)	(55,560)
Amount before tax effect	(16,858)	15,477	(137,740)
Tax effect	5,013	(4,532)	40,959
Net unrealized holding (loss) gain on securities	(11,844)	10,945	(96,773)
Deferred gain on hedges:			
Amount arising during the year	125	92	1,021
Reclassification adjustments for gains and losses realized in the statement of income	27	7	221
Amount before tax effect	152	99	1,242
Tax effect	(46)	(30)	(376)
Deferred gain on hedges	106	69	866
Translation adjustments:			
Amount arising during the year	13,623	7	111,308
Reclassification adjustments for gains and losses realized in the statement of income	—	—	—
Amount before tax effect	13,623	7	111,308
Tax effect	—	—	—
Translation adjustments	13,623	7	111,308
Retirement benefit liability adjustments:			
Amount arising during the year	(218)	594	(1,781)
Reclassification adjustments for gains and losses realized in the statement of income	(396)	796	(3,236)
Amount before tax effect	(614)	1,390	(5,017)
Tax effect	184	(427)	1,503
Retirement benefit liability adjustments	(430)	963	(3,513)
Share of other comprehensive income of affiliates accounted for by the equity method:			
Amount arising during the year	282	254	2,304
Total other comprehensive loss	¥ 1,736	¥12,241	\$ 14,184

13. RETIREMENT BENEFIT PLANS

(a) Outline of retirement benefit plans for employees

The Company and its domestic consolidated subsidiaries have defined benefit plans, i.e., defined benefit pension plans and lump-sum payment plans. Certain overseas consolidated subsidiaries also have defined benefit plans. Also, the Company and certain consolidated subsidiaries have defined contribution pension plans. In addition to the retirement benefit plans described above, the Company and its consolidated subsidiaries pay additional retirement benefits under certain conditions.

(b) Defined benefit plans

The changes in the retirement benefit obligation for the years ended March 31, 2022 and 2021 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2022	2021	2022
Balance at the beginning of the year	¥34,457	¥34,228	\$281,534
Service cost	1,299	1,288	10,614
Interest cost	257	245	2,100
Actuarial differences	20	340	163
Retirement benefits paid	(1,750)	(1,270)	(14,299)
Changes in scope of consolidation	(94)	(408)	(768)
Other	28	33	229
Balance at the end of the year	¥34,218	¥34,457	\$279,582

The changes in plan assets for the years ended March 31, 2022 and 2021 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2022	2021	2022
Balance at the beginning of the year	¥24,093	¥22,305	\$196,854
Expected return on plan assets	484	452	3,955
Actuarial differences	(198)	934	(1,618)
Contributions by the Company and its consolidated subsidiaries	761	1,070	6,218
Retirement benefits paid	(1,043)	(684)	(8,522)
Other	21	15	172
Balance at the end of the year	¥24,119	¥24,093	\$197,067

The following table sets forth the funded status of the plans and the amounts recognized in the consolidated balance sheets as of March 31, 2022 and 2021 for the Company's and the consolidated subsidiaries' defined benefit plans:

	Millions of yen		Thousands of U.S. dollars
	2022	2021	2022
Funded retirement benefit obligation	¥ 21,481	¥ 21,671	\$ 175,513
Plan assets at fair value	(24,119)	(24,093)	(197,067)
	(2,637)	(2,422)	(21,546)
Unfunded retirement benefit obligation	12,736	12,786	104,061
Net retirement benefit liability in the balance sheet	10,098	10,363	82,507
Retirement benefit liability	13,238	13,292	108,162
Retirement benefit asset	(3,139)	(2,929)	(25,648)
Net retirement benefit liability in the balance sheet	¥ 10,098	¥ 10,363	\$ 82,507

The components of retirement benefit expenses for the years ended March 31, 2022 and 2021 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2022	2021	2022
Service cost	¥1,299	¥1,288	\$10,641
Interest cost	257	245	2,100
Expected return on plan assets	(484)	(452)	(3,955)
Amortization of actuarial differences	(396)	796	(3,236)
Retirement benefit expense	¥ 676	¥1,877	\$ 5,523

Actuarial differences included in other comprehensive income (loss) (before tax effect) for the years ended March 31, 2022 and 2021 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2022	2021	2022
Actuarial differences	¥(614)	¥1,390	\$(5,017)

Unrecognized actuarial differences included in accumulated other comprehensive income (before tax effect) as of March 31, 2022 and 2021 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2022	2021	2022
Unrecognized actuarial differences	¥(218)	¥400	\$(1,781)

The allocation of plan assets, by major category, as a percentage of total plan assets at fair value as of March 31, 2022 and 2021 is as follows:

	2022	2021
Bonds	59%	59%
Equity securities	23	23
Alternative investments*	16	9
Other	2	9
Total	100%	100%

* "Alternative investments" consist of insurance-linked securities and private REITs.

The expected long-term rate of return on plan assets is determined as a result of consideration of both the portfolio allocation at present and in the future, and expected long-term rate of return from multiple plan assets at present and in the future.

The assumptions used in accounting for the above plans were as follows:

	2022	2021
Discount rate	0.8%	0.8%
Expected long-term rate of return on plan assets	2.0%	2.0%

(c) Defined contribution plans

	Millions of yen		Thousands of U.S. dollars
	2022	2021	2022
Contributions to defined contribution plans by the Company and its consolidated subsidiaries	¥592	¥494	\$4,837

14. INCOME TAXES

Income taxes applicable to the Company and its domestic consolidated subsidiaries consist of corporation, inhabitants' and enterprise taxes, which, in the aggregate, resulted in statutory tax rates of approximately 30.6% for the years ended March 31, 2022 and 2021.

The effective tax rates reflected in the accompanying consolidated statements of income for the years ended March 31, 2022 and 2021 differ from the statutory tax rates for the following reasons:

	2022	2021
Statutory tax rates	30.6%	30.6%
Adjustments for:		
Expenses not deductible for income tax purposes	1.7	1.2
Dividends and other income deductible for income tax purposes	(5.5)	(8.9)
Net adjustment resulting from elimination of dividend income upon consolidation	5.5	8.6
Different tax rates applied at overseas subsidiaries	(3.8)	(3.2)
Tax credit	(1.1)	(1.1)
Amortization of goodwill	1.9	2.5
Loss on impairment of goodwill	0.8	—
Adjustment of book value of shares of subsidiaries for consolidated taxation system	(0.1)	2.7
Equity in losses of affiliates	0.8	0.3
Valuation allowance	0.8	0.8
Other, net	0.5	(0.6)
Effective tax rates	32.1%	32.9%

The significant components of the Company's and its consolidated subsidiaries' deferred tax assets and liabilities at March 31, 2022 and 2021 are summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2022	2021	2022
Deferred tax assets:			
Accrued bonuses for employees	¥ 1,888	¥ 1,492	\$ 15,426
Allowance for doubtful accounts	110	194	899
Unrealized gain on inventories	728	609	5,948
Accrued enterprise taxes	345	265	2,819
Tax loss carryforwards	3,034	3,158	24,790
Retirement benefit liability	3,018	3,069	24,659
Investments in securities	2,298	1,274	18,776
Loss on impairment of fixed assets	941	1,027	7,689
Other	3,731	3,827	30,485
Gross deferred tax assets	16,098	14,919	131,530
Valuation allowance	(6,370)	(4,867)	(52,047)
Total deferred tax assets	9,727	10,052	79,475
Deferred tax liabilities:			
Technology-based assets	(1,801)	(2,280)	(14,715)
Deferred capital gain on property	(1,055)	(1,139)	(8,620)
Reserve for special depreciation	(99)	(150)	(809)
Undistributed earnings of subsidiaries and affiliates	(406)	(610)	(3,317)
Revaluation of land	(291)	(290)	(2,378)
Net unrealized holding gain on securities	(13,276)	(18,292)	(108,473)
Other	(1,534)	(1,462)	(12,534)
Total deferred tax liabilities	(18,464)	(24,226)	(150,862)
Net deferred tax liabilities	¥ (8,737)	¥(14,174)	\$ (71,387)

(Accounting for corporate and local income taxes or tax effect accounting related to these taxes)

The Company and some of its consolidated subsidiaries had previously applied the consolidated taxation system, but due to the submission of a notification of non-application of the group tax sharing system during the current fiscal year, the Company will shift to the non-consolidated taxation system from the following fiscal year. Accordingly, based on "Practical Solution on Accounting and Disclosure Under the Group Tax Sharing System" (Practical Solution No. 42, August 12, 2021), accounting and disclosure for tax effect accounting

related to corporate and local income taxes are based on the assumption that the non-consolidated taxation system will be applied from the next fiscal year.

Accounting and disclosure regarding corporate and local income taxes are in accordance with "Tentative Treatment of Tax Effect Accounting Under Consolidated Taxation System (Part 1)" (PITF No. 5, February 16, 2018) and "Tentative Treatment of Tax Effect Accounting Under Consolidated Taxation System (Part 2)" (PITF No. 7, February 16, 2018) since the consolidated taxation system was applied in the current fiscal year.

15. REVENUE RECOGNITION

(a) Information on disaggregation of revenue from contracts with customers

Information on disaggregation of revenue from contracts with customers is presented in the Segment Information. (Refer to Note 25.)

(b) Information that forms the basis for understanding revenues from contracts with customers

The information that forms the basis for understanding revenues is presented in the Summary of significant accounting policies. (Refer to Note 2(o).)

(c) Information about the relationship between the fulfillment of performance obligations based on the contract with the customer and the cash flow generated from the contract, and the amount and recognition timing of revenue from the contract with the customer existing at the end of the current consolidated fiscal year expected to be recognized in the following consolidated fiscal year

(i) Contract balances

The following is a breakdown of contract balances of the Company and its consolidated subsidiaries for the current fiscal year. In the consolidated balance sheets, receivables from contracts with customers are included in "Notes and accounts receivable" and contract liabilities are included in "Other current liabilities." At the end of the previous consolidated fiscal year and the end of the current consolidated fiscal year, the beginning balance of contract liabilities were transferred to revenue by the end of the fiscal year, and the amount carried forward from the next consolidated fiscal year onward is not significant.

	Millions of yen		Thousands of U.S. dollars
	2022	2021	2022
Receivables from contracts with customers	¥289,862	¥242,558	\$2,368,347
Contract liabilities	3,789	3,041	30,958

As at March 31, 2022, Accounts receivable and Notes receivable from contracts with customers included in the table above are ¥253,120 million (\$2,068,143 thousand) and ¥36,742 million (\$300,204 thousand), respectively.

(ii) Transaction price allocated to remaining performance obligations

Since there are no transactions with individual expected contract terms exceeding one year, the practical expedient method is applied and information on remaining performance obligations is omitted. There is no material consideration with respect to contracts with customers that is not included in the transaction price.

16. SHAREHOLDERS' EQUITY

The Corporation Law of Japan (the "Law") provides that an amount equal to 10% of the amount to be disbursed as distributions of capital surplus (other than the capital reserve) and retained earnings (other than the legal reserve) be transferred to the capital reserve and the legal reserve, respectively, until the sum of the capital reserve and the legal reserve equals 25% of the capital stock account.

Such distributions can be made at any time by resolution of the shareholders, or by the Board of Directors if certain conditions are met.

The Company's capital reserve included in capital surplus at March 31,

2022 amounted to ¥9,634 million (\$78,716 thousand). In addition, the Company's legal reserve included in retained earnings at March 31, 2022 amounted to ¥2,424 million (\$19,806 thousand).

Under the Law, upon the issuance and sale of new shares of common stock, the entire amount of the proceeds is required to be accounted for as common stock, although a company may, by resolution of the Board of Directors, account for an amount not exceeding 50% of the proceeds of the sale of new shares as additional paid-in capital.

Movements in common stock during the years ended March 31, 2022 and 2021 are summarized as follows:

	Number of shares			
	2022			
	April 1, 2021	Increase	Decrease	March 31, 2022
Common stock	124,408,285	—	3,500,000	120,908,285
	2021			
	April 1, 2020	Increase	Decrease	March 31, 2021
Common stock	127,408,285	—	3,000,000	124,408,285

17. TREASURY STOCK

Movements in treasury stock during the years ended March 31, 2022 and 2021 are summarized as follows:

	Number of shares			
	2022			
	April 1, 2021	Increase	Decrease	March 31, 2022
Treasury stock	933,995	3,447,833	3,500,061	881,767
	2021			
	April 1, 2020	Increase	Decrease	March 31, 2021
Treasury stock	3,396,695	537,380	3,000,080	933,995

The increase in treasury stock includes 3,447,500 shares resulting from the purchases of treasury stock by resolution of the Board of Directors and 333 shares resulting from the purchase of shares less than one voting unit for the year ended March 31, 2022. The decrease in treasury stock includes 3,500,000 shares resulting from the retirement of treasury stock by resolution of the Board of Directors and 61 shares resulting from the disposition of shares less than one voting unit for the year ended March 31, 2022.

The increase in treasury stock includes 537,100 shares resulting from the purchases of treasury stock by resolution of the Board of Directors and 280 shares resulting from the purchase of shares less than one voting unit for the year ended March 31, 2021. The decrease in treasury stock includes 3,000,000 shares resulting from the retirement of treasury stock by resolution of the Board of Directors and 80 shares resulting from the disposition of shares less than one voting unit for the year ended March 31, 2021.

18. FINANCIAL INSTRUMENTS

(a) Policy for financial instruments

The Group invests excess funds in highly secure and short-term financial assets, whose principal is guaranteed to be recoverable. With regard to financing policy, short-term working funds are raised by bank borrowings or issuance of commercial papers and long-term funds are raised by bank borrowings and the issuance of bonds. The policy for derivative transactions is that those are utilized to mitigate the fluctuation risk related to foreign currency exchange rates arising from the receivables and payables denominated in foreign currencies, and fluctuation risk related to interest rates with respect to loans payable, and derivative transactions are not carried out for speculative purposes.

(b) Types of financial instruments, related risk and risk management for financial instruments

Receivables such as trade notes and accounts receivable are exposed to customers' credit risks. With regard to this risk, the Group manages the settlement date by each customer, and establishes credit limits by each customer based on the Group's internal credit rating policy and monitors outstanding balances. The Group establishes system under which the credit status by each customer is reviewed at least once a year and the sales limit amount updated as necessary.

In the cases of notes and accounts receivable or payable denominated in foreign currencies, foreign currency forward exchange contracts are used to hedge the risk of fluctuation. However, for foreign currency transactions denominated in the same currency involving either payables or receivables, foreign currency forward exchange contracts are used solely for the netted position.

Investments in securities are subject to market price fluctuation risk. However, these are mainly equity securities of other companies with which the Group has business relationships. The Group regularly monitors both their fair value and the financial condition of the issuer. The Group also reviews as needed the condition of its holdings with concern to the status of business and financial transactions.

Short-term loans are raised primarily in connection with business activities. Long-term loans and bonds are taken out principally for the purpose of

making capital spending, investments and financing. Loans with variable interest rates are subject to the risk of fluctuating interest rates. However, to reduce such risk, the Group utilizes derivatives (interest-rate swap transactions) as a hedging instrument.

Derivatives include foreign currency forward exchange contracts to manage fluctuation risk in foreign currency exchange rates and interest-rate swaps to manage fluctuation risk of interest rates related to the interest payments for bank loans.

In addition, notes and accounts payable and bank loans are exposed to liquidity risk. However, the Group manages such risk by monitoring the balance of inflow and outflow of cash and establishing liquidity on hand in excess of half of the amount of monthly net sales.

(c) Fair value of financial instruments

The carrying value of financial instruments on the consolidated balance sheets, fair value and the differences as of March 31, 2022 and 2021, are shown in the following table. Financial instruments for which fair value is deemed extremely difficult to determine are not included.

	Millions of yen		
	2022		
	Carrying value	Fair value	Difference
Assets:			
Notes and accounts receivable	¥289,862	¥289,862	¥ —
Investments in securities* ² :			
Other securities	60,511	60,511	—
Total assets	¥350,374	¥350,374	¥ —
Liabilities:			
Notes and accounts payable	¥149,036	¥149,036	¥ —
Bonds	20,000	19,820	(180)
Long-term loans	28,244	27,992	(251)
Total liabilities	¥197,280	¥196,849	¥(431)
Derivatives* ³ :			
Not subject to hedge accounting	¥ (150)	¥ (150)	¥ —
Subject to hedge accounting	341	341	—
Total derivative transactions	¥ 191	¥ 191	¥ —

	Millions of yen		
	2021		
	Carrying value	Fair value	Difference
Assets:			
Cash and time deposits	¥ 49,254	¥ 49,254	¥ —
Notes and accounts receivable	242,558	242,558	—
Investments in securities* ² :			
Other securities	78,496	78,496	—
Total assets	¥370,308	¥370,308	¥ —
Liabilities:			
Notes and accounts payable	¥119,941	¥119,941	¥ —
Short-term loans	33,050	33,050	—
Current portion of long-term loans	12,025	12,025	—
Commercial papers	8,000	8,000	—
Bonds	30,000	29,899	(101)
Long-term loans	34,514	34,528	13
Total liabilities	¥237,531	¥237,443	¥ (87)
Derivatives* ³ :			
Not subject to hedge accounting	¥ (594)	¥ (594)	¥ —
Subject to hedge accounting	56	56	—
Total derivative transactions	¥ (537)	¥ (537)	¥ —

Thousands of U.S. dollars

	2022		
	Carrying value	Fair value	Difference
Assets:			
Notes and accounts receivable	\$2,368,347	\$2,368,347	\$ —
Investments in securities* ² :			
Other securities	494,411	494,411	—
Total assets	\$2,862,767	\$2,862,767	\$ —
Liabilities:			
Notes and accounts payable	\$1,217,714	\$1,217,714	\$ —
Bonds	163,412	161,941	(1,471)
Long-term loans	230,770	228,711	(2,051)
Total liabilities	\$1,611,896	\$1,608,375	\$(3,522)
Derivatives* ³ :			
Not subject to hedge accounting	\$ (1,226)	\$ (1,226)	\$ —
Subject to hedge accounting	2,786	2,786	—
Total derivative transactions	\$ 1,561	\$ 1,561	\$ —

*1 Cash is omitted from the notes. Time deposits, short-term loans, current portion of long-term loans, commercial papers, and current portion of bonds are omitted from the notes because their fair values approximate their carrying amounts due to their short maturities.

*2 Stocks and other securities without market quotations are not included in "Investment securities*²". The carrying amount of such financial instruments on the consolidated balance sheet is as follows:

	Millions of yen		Thousands of U.S. dollars
	2022	2021	2022
Unlisted equity securities	¥ 6,071	¥ 6,225	\$ 49,604
Investments in unconsolidated subsidiaries and affiliates	9,017	8,997	73,674
Total	¥15,089	¥15,222	\$123,286

*3 Receivables and payables arising from derivative transactions are presented as a net value with the amount in parentheses representing a net liability position.

The redemption schedule for time deposits and notes and accounts receivable with maturity dates at March 31, 2022 is summarized as follows:

	Millions of yen	
	Within 1 year	Over 1 year and less than 5 years
Time deposits	¥ 50,111	¥—
Notes and accounts receivable	289,862	—
Total	¥339,974	¥—

	Thousands of U.S. dollars	
	Within 1 year	Over 1 year and less than 5 years
Time deposits	\$ 409,437	\$—
Notes and accounts receivable	2,368,347	—
Total	\$2,777,792	\$—

With respect to the redemption schedule of bonds, long-term loans and finance lease obligations, please refer to Note 11.

The fair value of financial instruments is classified into the following three levels based on the observability and materiality of the inputs used to determine fair value.

Level 1 fair value:

In the inputs related to the calculation of observable fair value, fair value is calculated based on quoted market prices for assets or liabilities whose fair value are formed in an active market.

Level 2 fair value

In the inputs related to the calculation of observable fair value, fair value is calculated by using inputs related to the calculation of fair value other than Level 1 input.

Level 3 fair value

Fair value is calculated using inputs related to the calculation of unobservable fair value.

When multiple inputs that have a significant effect on fair value are used, fair value is classified into the level with the lowest priority in the fair value calculation among the levels to which those inputs belong.

Financial instruments recorded on the consolidated balance sheet at fair value.

	Millions of yen			
	2022			
	Level 1	Level 2	Level 3	Total
Investments in securities:				
Other securities:				
Shares	¥60,511	¥ —	¥—	¥60,511
Derivatives:				
Forward exchange contracts	—	191	—	191
Total assets	¥60,511	¥191	¥—	¥60,703

	Thousands of U.S. dollars			
	2022			
	Level 1	Level 2	Level 3	Total
Investments in securities:				
Other securities:				
Shares	\$494,411	\$ —	\$—	\$494,411
Derivatives:				
Forward exchange contracts	—	1,561	—	1,561
Total assets	\$494,411	\$1,561	\$—	\$495,980

Financial instruments other than those recorded on the consolidated balance sheets at fair value

	Millions of yen			
	2022			
	Level 1	Level 2	Level 3	Total
Notes and accounts receivable	¥—	¥289,862	¥—	¥289,862
Total assets	¥—	¥289,862	¥—	¥289,862
Notes and accounts payable	¥—	¥149,036	¥—	¥149,036
Bonds	—	19,820	—	19,820
Long-term loans	—	27,992	—	27,992
Total liabilities	¥—	¥196,849	¥—	¥196,849

	Thousands of U.S. dollars			
	2022			
	Level 1	Level 2	Level 3	Total
Notes and accounts receivable	\$—	\$2,368,347	\$—	\$2,368,347
Total assets	\$—	\$2,368,347	\$—	\$2,368,347
Notes and accounts payable	\$—	\$1,217,714	\$—	\$1,217,714
Bonds	—	161,941	—	161,941
Long-term loans	—	228,711	—	228,711
Total liabilities	\$—	\$1,608,375	\$—	\$1,608,375

Explanation of valuation techniques used, and inputs related to the calculation of fair value.

- | | |
|--|--|
| <p>(i) Notes and accounts receivable
The fair value of notes and accounts receivable is calculated based on the present values classified by the certain period of times which are discounted respectively by the interest rate determined taking into account the remaining period to maturity and is classified as Level 2.</p> <p>(ii) Investment securities
Listed stocks are valued by using quoted market prices. Since listed stocks are traded in active markets, their fair value is classified as Level 1.</p> | <p>(iii) Derivative
Fair value is calculated based on prices, etc., provided by counterparty financial institutions and is classified as Level 2.
The fair value of foreign currency forward exchange contracts and other derivatives that applied the allocation method is included in the fair value of the underlying accounts receivable and payable.
The fair value of interest rate swaps that applied the exceptional accounting treatment is included in the long-term loans because it is accounted for as if the interest rates applied to the swaps had originally applied to the underlying long-term loans.</p> |
|--|--|

(iv) Notes and accounts payable

The fair value of notes and accounts payable is calculated based on the present values classified by the certain period of times which are discounted respectively by the interest rate determined taking into account the remaining period to maturity and is classified as Level 2.

(v) Bonds

The fair value of bonds issued by the Company is calculated based on quoted market prices and classified as Level 2.

(vi) Long-term loans

The fair value of long-term loans payable is calculated based on the present value of the total of principal and interest discounted by the incremental borrowing rate and is classified as Level 2.

19. DERIVATIVES AND HEDGING ACTIVITIES

The currency-related derivatives positions outstanding for which hedge accounting has not been applied at March 31, 2022 and 2021 are as follows:

Classification	Transaction	Millions of yen			
		2022			
		Contract value (notional principal amount)	Contract value (notional principal amount over one year)	Fair value	Valuation gain (loss)
	Foreign currency forward exchange contracts:				
	Selling:				
	U.S. dollars	¥13,772	¥—	¥(353)	¥(353)
	Yen	57,411	—	(64)	(64)
	Euro	13,206	—	298	298
	RMB	801	—	(45)	(45)
	Others	173	—	(11)	(11)
	Buying:				
	U.S. dollars	1,955	—	29	29
	Yen	2,310	—	(20)	(20)
	Euro	239	—	10	10
	Others	173	—	7	7
Total		¥90,043	¥—	¥(150)	¥(150)

Classification	Transaction	Millions of yen			
		2021			
		Contract value (notional principal amount)	Contract value (notional principal amount over one year)	Fair value	Valuation gain (loss)
	Foreign currency forward exchange contracts:				
	Selling:				
	U.S. dollars	¥ 6,980	¥—	¥(130)	¥(130)
	Yen	2,540	—	(38)	(38)
	Euro	9,977	—	(402)	(402)
	RMB	1,241	—	(48)	(48)
	Others	190	—	(5)	(5)
	Buying:				
	U.S. dollars	1,263	—	(14)	(14)
	Yen	1,616	—	19	19
	Euro	442	—	22	22
	Others	108	—	3	3
Total		¥24,362	¥—	¥(594)	¥(594)

		Thousands of U.S. dollars			
		2022			
Classification	Transaction	Contract value (notional principal amount)	Contract value (notional principal amount over one year)	Fair value	Valuation gain (loss)
Over-the-counter transactions	Foreign currency forward exchange contracts:				
	Selling:				
	U.S. dollars	\$112,526	\$—	\$(2,884)	\$(2,884)
	Yen	469,082	—	(523)	(523)
	Euro	107,901	—	2,435	2,435
	RMB	6,545	—	(368)	(368)
	Others	1,414	—	(90)	(90)
	Buying:				
	U.S. dollars	15,974	—	237	237
	Yen	18,874	—	(163)	(163)
Euro	1,953	—	82	82	
Others	1,414	—	57	57	
Total		\$735,706	\$—	\$(1,226)	\$(1,226)

The currency-related derivatives positions outstanding for which hedge accounting has been applied at March 31, 2022 and 2021 are as follows:

		Millions of yen			
		2022			
Method for hedge accounting	Transaction	Major hedged item	Contract value (notional principal amount)	Contract value (notional principal amount over one year)	Fair value
Deferral hedge accounting	Foreign currency forward exchange contracts:				
	Selling:				
	U.S. dollars		¥ —	¥—	¥ —
	Euro	Accounts receivable	359	—	(16)
	RMB		111	—	(6)
	Others		11	—	(0)
	Buying:				
	U.S. dollars		6,185	—	349
	Euro	Accounts payable	337	—	14
	RMB		7	—	0
Others		34	—	1	
Allocation method for foreign currency forward exchange contracts (Note 2(p))	Foreign currency forward exchange contracts:				
	Selling:				
	Euro	Accounts receivable	43	—	(*)
	Others		12	—	(*)
	Buying:				
	Euro		82	—	(*)
	THB	Accounts payable	81	—	(*)
	Others		7	—	(*)
	Total		¥7,276	¥—	¥341

		Millions of yen			
		2021			
Method for hedge accounting	Transaction	Major hedged item	Contract value (notional principal amount)	Contract value (notional principal amount over one year)	Fair value
Deferral hedge accounting	Foreign currency forward exchange contracts:				
	Selling:				
	U.S. dollars		¥ —	¥—	¥ —
	Euro	Accounts receivable	299	—	(6)
	RMB		447	—	(17)
	Others		41	—	(1)
	Buying:				
	U.S. dollars		1,423	—	78
	Euro	Accounts payable	149	—	2
	RMB		0	—	0
Others		118	—	1	
Allocation method for foreign currency forward exchange contracts (Note 2(p))	Foreign currency forward exchange contracts:				
	Selling:				
	Euro		10	—	(*)
	RMB	Accounts receivable	0	—	(*)
	Others		4	—	(*)
	Buying:				
	Euro		155	—	(*)
	THB	Accounts payable	116	—	(*)
	Others		62	—	(*)
	Total		¥2,829	¥—	¥ 56

		Thousands of U.S. dollars			
		2022			
Method for hedge accounting	Transaction	Major hedged item	Contract value (notional principal amount)	Contract value (notional principal amount over one year)	Fair value
Deferral hedge accounting	Foreign currency forward exchange contracts:				
	Selling:				
	U.S. dollars		\$ —	\$—	\$ —
	Euro	Accounts receivable	2,933	—	(131)
	RMB		907	—	(49)
	Others		90	—	(1)
	Buying:				
	U.S. dollars		50,535	—	2,852
	Euro	Accounts payable	2,753	—	114
	RMB		57	—	0
Others		278	—	8	
Allocation method for foreign currency forward exchange contracts (Note 2(p))	Foreign currency forward exchange contracts:				
	Selling:				
	Euro	Accounts receivable	351	—	(*)
	Others		98	—	(*)
	Buying:				
	Euro		670	—	(*)
	RMB	Accounts payable	662	—	(*)
	Others		57	—	(*)
	Total		\$59,449	\$—	\$2,786

(*): The fair value of foreign currency forward exchange contracts that qualify for the allocation method is included in the fair value of the underlying accounts receivable and payable.

The interest-related derivatives positions outstanding for which hedge accounting has been applied at March 31, 2022 and 2021 are as follows:

			Millions of yen		
			2022		
Method for hedge accounting	Transaction	Hedged item	Contract value (notional principal amount)	Contract value (notional principal amount over one year)	Fair value
Swap rates applied to underlying long-term loans	Interest-rate swap transactions (pay—fixed, receive—variable)	Long-term loans	¥4,000	¥—	(*)
			Millions of yen		
			2021		
Method for hedge accounting	Transaction	Hedged item	Contract value (notional principal amount)	Contract value (notional principal amount over one year)	Fair value
Swap rates applied to underlying long-term loans	Interest-rate swap transactions (pay—fixed, receive—variable)	Long-term loans	¥8,000	¥4,000	(*)
			Thousands of U.S. dollars		
			2022		
Method for hedge accounting	Transaction	Hedged item	Contract value (notional principal amount)	Contract value (notional principal amount over one year)	Fair value
Swap rates applied to underlying long-term loans	Interest-rate swap transactions (pay—fixed, receive—variable)	Long-term loans	\$32,682	\$—	(*)

(*): Since interest-rate swap agreements are accounted for as if the interest rates applied to the swaps had originally applied to the underlying long-term loans, their fair values were included in the fair value of the long-term loans.

20. RESEARCH AND DEVELOPMENT COSTS

Research and development costs included in selling, general and administrative expenses for the years ended March 31, 2022 and 2021 totaled ¥5,539 million (\$45,257 thousand) and ¥5,613 million, respectively.

21. OPERATING LEASES

Future minimum lease payments subsequent to March 31, 2022 under noncancelable operating leases are as follows:

Years ending March 31,	Millions of yen	Thousands of U.S. dollars
2023	¥1,309	\$10,695
2024 and thereafter	8,649	70,668
Total	¥9,958	\$81,363

22. CONTINGENT LIABILITIES

At March 31, 2022, the Company and its consolidated subsidiaries were contingently liable as guarantors of loans of customers and other in the aggregate amount of ¥111 million (\$907 thousand).

In addition, at March 31, 2022, the Company and its consolidated subsidiaries had contingent liabilities arising from notes discounted with banks in the amount of ¥125 million (\$1,021 thousand).

23. AMOUNTS PER SHARE

Amounts per share at March 31, 2022 and 2021 and for the years then ended are as follows:

	Yen		U.S. dollars
	2022	2021	2022
Profit attributable to owners of parent:			
Basic	¥ 213.46	¥151.91	\$ 1.74
Diluted	—	—	—
Net assets	2,868.22	2,670.09	23.44
Cash dividends applicable to the year	54.00	46.00	0.44

Basic profit attributable to owners of parent per share has been computed based on the profit attributable to owners of parent available for distribution to the shareholders of common stock and the weighted-average number of shares of common stock outstanding during the year.

Diluted profit attributable to owners of parent per share for the years ended March 31, 2022 and 2021 has not been presented because no potentially dilutive shares of common stock were outstanding.

Net assets per share have been computed based on the number of shares of common stock outstanding at the year end.

Cash dividends per share represent the cash dividends proposed by the Board of Directors as applicable to the respective years together with the interim cash dividends paid.

The financial data used in the computation of basic profit attributable to owners of parent per share for the years ended March 31, 2022 and 2021 are summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2022	2021	2022
Profit attributable to owners of parent	¥25,939	¥18,829	\$211,937
Profit available for distribution to shareholders of common stock	25,939	18,829	211,937
Weighted-average number of shares	121,522,286	123,955,784	

24. CASH AND TIME DEPOSITS

(a) A reconciliation of cash and time deposits in the accompanying consolidated balance sheets at March 31, 2022 and 2021 and cash and cash equivalents in the accompanying consolidated statements of cash flows for the years then ended is as follows:

	Millions of yen		Thousands of U.S. dollars
	2022	2021	2022
Cash and time deposits	¥54,211	¥49,254	\$442,937
Time deposits with maturities of more than three months	(874)	(701)	(7,141)
Cash and cash equivalents	¥53,336	¥48,553	\$435,787

(b) Summary of assets and liabilities of companies, which were excluded from the scope of consolidation as a result of sales of shares during the year ended March 31, 2021

1) Nagase Medicals Co., Ltd.

The following is the summary of assets and liabilities at the time of sales as well as the cost of selling the shares and income from the sales of shares associated with Nagase Medicals Co., Ltd. no longer being a consolidated subsidiary due to the sales of its shares for the year ended March 31, 2021.

	Millions of yen	Thousands of U.S. dollars
2021		
Current assets	¥ 2,434	\$ 21,985
Non-current assets	1,946	17,577
Current liabilities	(2,335)	(21,091)
Non-current liabilities	(3,010)	(27,188)
Gain on sales of shares	1,314	11,869
Selling price	350	3,161
Collection of loans to subsidiaries	4,014	36,257
Cash and cash equivalents	(0)	0
Proceeds from sales of shares of subsidiaries	¥ 4,364	¥ 39,418

2) Nagase Logistics Co., Ltd.

The following is the summary of assets and liabilities at the time of sales as well as the cost of selling the shares and income from the sales of shares associated with Nagase Logistics Co., Ltd. which became affiliates accounted for by the equity method due to the partial sales of its shares for the year ended March 31, 2021.

	Millions of yen	Thousands of U.S. dollars
	2021	
Current assets	¥ 859	\$ 7,759
Non-current assets	1,810	16,349
Current liabilities	(2,068)	(18,679)
Non-current liabilities	(51)	(461)
Investment account after sales of shares	(82)	(741)
Gain on sales of shares	1,342	12,122
Selling price	1,810	16,349
Proceeds from borrowings of subsidiaries	1,870	16,891
Cash and cash equivalents	(34)	(307)
Proceeds from sales of shares of subsidiaries	¥ 3,646	\$ 32,933

25. SEGMENT INFORMATION

(a) Overview of reportable segments

(Change in Business Segments)

Effective from the beginning of the current fiscal year, the Electronics Segment has been renamed the Electronics & Energy Segment, and the Mobility & Energy Segment has been renamed the Mobility Segment, in addition to changing the names of these segments, the following business categories were changed.

For the purpose of promoting development of new businesses, the Energy Business Office previously classified under the Mobility & Energy Segment, as well as the Advanced Information and Communications Project Team previously classified under the Others/Corporate category, have been unified in the newly established Information and Communication-Energy Office, classified under the Electronics & Energy Segment. In addition, for the purpose of expanding market share and improving synergies, the fluorine business in the Specialty Chemicals Division, which was previously classified under the Functional Materials Segment, has been moved to the Electronics & Energy Segment.

Segment information provided for the previous consolidated fiscal year is based on post-change classification methods.

The following describes the major products and services handled by each reportable segment.

The Functional Materials segment is engaged in the sales of materials for paints/inks, and adhesives, urethane materials and auxiliary materials, plastic materials, plastic additives, industrial oil solutions, water processing raw materials, surfactant raw materials, fluorochemicals, encapsulant materials, 5G materials, silicone materials, environmental solutions and environment-related commercial products, sintered metal filters, and more for the paints/inks, resins, urethane foam, organic synthesis, surfactants, electronics chemicals, communications equipment, water processing, metal processing, plastic and film processing, and other industries.

The Advanced Materials & Processing Segment is engaged in the sales of dyestuffs, pigments, functional pigments, digital print processing products, thermoplastic resins, thermosetting resins, automobile refinish paints, conductive coatings, synthetic rubber, inorganic materials, plastics products, resin molding tools/dies, and more for the dye/additive, digital print processing material, fiber processing, raw resin material, resin molding, functional film and sheet, appliance and office automation device, electronics, packaging material, construction material, and other industries.

The Electronics & Energy Segment is engaged in the sales of formulated epoxy resins, fluorine products, precision abrasives, semiconductor assembly materials and devices, adhesives and encapsulant materials, display panel components and devices, chemical management equipment for display manufacturing processes, low-temperature/vacuum equipment, liquid state analysis equipment, LEDs, 3D printing products, design and manufacture of storage battery systems, solar panels, optical wireless communication equipment, and other products for the semiconductor, electronic component, AR/VR, environmental energy, 3D printing, heavy electrical and light electrical, HDD, automotive and aircraft, display, touch panel, housing, lighting, storage battery, energy, renewable energy, security device, large-scale commercial facility, and other industries. Its main services include energy management system proposals, battery assessments, and health care services.

The Mobility Segment is engaged in the sales of plastic products in general, materials for secondary batteries, interior and exterior materials and components, materials for functional components, products for electrification, sensor components, in-vehicle electronics products, in-vehicle display-related components, self-driving-related products, and other products for the overall mobility industry and related industries.

The Life & Healthcare segment is engaged in the sale of pharmaceutical/agricultural chemicals and materials, research products, in vitro diagnostics, enzymes, food additives, food ingredients, sports nutrition products, nutrient premixes, additives for cosmetics, feeds, surfactants, and medical appliances for the pharmaceutical, food and beverage, cosmetics, agricultural, toiletries, and health care industries. The segment offers radiation measurement as one of its main services. In addition, this segment sells cosmetics, health foods, and beauty foods directly to consumers.

(Application of Accounting Standards for Revenue Recognition)

As described in (Accounting Changes), at the beginning of the current consolidated fiscal year, the Company adopted the Accounting Standard for Revenue Recognition (ASBJ Statement No. 29, March 31, 2020), changing its accounting method for revenue recognition. As a result, measurement methods have similarly been changed for business segment profit and loss.

Segment information provided for the previous consolidated fiscal year is based on the changed profit or loss measurement method.

(b) Calculation methods of net sales, income or loss, assets, and other items by reportable segments

The accounting policies of reportable segments are generally identical to those described in Note 2. Reportable segment income corresponds to operating income in the consolidated statements of income. Intersegment internal income and transfers are determined based on the values of transactions at actual market prices.

(c) Information on net sales, income or loss, assets and other items for each reportable segment

Information by reportable segments for the year ended March 31, 2022 and 2021 are as follows:

	Millions of yen										
	2022										
	Reportable Segments										
	Functional Materials	Advanced Materials & Processing	Electronics	Mobility & Energy	Life & Healthcare	Total	Others	Total	Corporate	Adjustments	Consolidated
Sales to customers	¥ 99,874	¥257,283	¥128,131	¥103,389	¥191,634	¥780,313	¥ 244	¥780,557	¥ —	¥ —	¥780,557
Intersegment sales and transfers	711	777	2,319	2,389	452	6,649	4,649	11,298	—	(11,298)	—
Net sales	100,585	258,060	130,450	105,778	192,087	786,962	4,893	791,856	—	(11,298)	780,557
Segment income	7,823	10,858	10,278	4,131	9,429	42,521	100	42,621	(7,690)	331	35,263
Segment assets	83,793	164,249	77,163	68,492	218,060	611,759	2,838	614,598	190,048	(64,926)	739,720
Other items:											
Depreciation and amortization other than amortization of goodwill	465	1,447	1,479	342	5,959	9,694	16	9,711	1,505	—	11,216
Amortization of goodwill	111	178	42	—	2,145	2,478	—	2,478	—	—	2,478
Unamortized balance of goodwill	1,853	—	452	—	27,186	29,492	—	29,492	—	—	29,492
Investments in affiliates accounted for by the equity method	1,300	1,828	2,761	1,403	3,139	10,432	95	10,528	—	(0)	10,528
Increase in property, plant and equipment, net and intangible assets	562	1,742	1,610	558	2,435	6,909	25	6,934	3,791	—	10,725

	Millions of yen										
	2021										
	Reportable Segments										
	Functional Materials	Advanced Materials & Processing	Electronics	Mobility & Energy	Life & Healthcare	Total	Others	Total	Corporate	Adjustments	Consolidated
Sales to customers	¥75,294	¥209,715	¥110,770	¥78,783	¥150,331	¥624,895	¥ 349	¥625,245	¥ —	¥ —	¥625,245
Intersegment sales and transfers	680	1,546	1,951	2,069	328	6,577	5,059	11,636	—	(11,636)	—
Net sales	75,974	211,262	112,722	80,853	150,659	631,472	5,408	636,881	—	(11,636)	625,245
Segment income	4,712	7,311	8,408	1,851	6,512	28,795	157	28,952	(7,479)	443	21,916
Segment assets	79,048	144,135	69,326	53,659	165,934	512,104	2,738	514,843	160,510	(34,766)	640,587
Other items:											
Depreciation and amortization other than amortization of goodwill	472	1,040	1,496	280	5,788	9,077	104	9,181	1,827	—	11,008
Amortization of goodwill	105	89	40	—	2,108	2,344	—	2,344	—	—	2,344
Unamortized balance of goodwill	1,787	720	451	—	27,257	30,216	—	30,216	—	—	30,216
Investments in affiliates accounted for by the equity method	1,981	1,728	3,170	1,237	2,995	11,113	82	11,196	—	(1)	11,195
Increase in property, plant and equipment, net and intangible assets	399	1,974	1,222	242	5,744	9,583	11	9,595	1,160	—	10,755

Thousands of U.S. dollars

2022											
Reportable Segments											
	Functional Materials	Advanced Materials & Processing	Electronics	Mobility & Energy	Life & Healthcare	Total	Others	Total	Corporate	Adjustments	Consolidated
Sales to customers	\$816,031	\$2,102,157	\$1,046,907	\$844,750	\$1,565,765	\$6,375,627	\$ 1,994	\$6,377,621	\$ —	\$ —	\$6,377,621
Intersegment sales and transfers	5,809	6,349	18,948	19,520	3,693	54,326	37,985	92,311	—	—	—
Net sales	821,840	2,108,506	1,065,855	864,270	1,569,466	6,429,953	39,979	6,469,940	—	—	6,377,621
Segment income	63,919	88,716	71,460	12,607	53,207	236,964	1,283	238,255	(63,428)	4,241	179,067
Segment assets	684,639	1,342,013	630,468	559,621	1,781,682	4,998,439	23,188	5,021,636	1,552,807	—	6,043,958
Other items:											
Depreciation and amortization other than amortization of goodwill	3,799	11,823	12,084	2,794	48,689	79,206	131	79,345	12,297	—	91,641
Amortization of goodwill	907	1,454	343	—	17,526	20,247	—	20,247	—	—	20,247
Unamortized balance of goodwill	15,140	—	3,693	—	222,126	240,967	—	240,967	—	—	240,967
Investments in affiliates accounted for by the equity method	10,622	14,936	22,559	11,463	25,648	85,236	776	86,020	—	—	86,020
Increase in property, plant and equipment, net and intangible assets	4,592	14,233	13,155	4,559	19,895	56,451	204	56,655	30,975	—	87,630

(d) Geographical information

Net sales by country or region for the years ended March 31, 2022 and 2021 are summarized as follows:

Millions of yen								
2022								
Reportable Segments								
	Functional Materials	Advanced Materials & Processing	Electronics & Energy	Mobility	Life & Healthcare	Others (Note) 3	Total	Composition (%)
Japan	¥40,971	¥ 69,123	¥ 50,640	¥ 31,555	¥ 57,825	¥244	¥250,360	32.1
Greater China	11,987	117,092	54,354	30,534	3,594	—	217,562	27.9
ASEAN	26,580	58,949	7,267	29,416	3,493	—	125,707	16.1
Americas	16,703	6,172	5,221	10,249	79,243	—	117,589	15.1
Europe	2,634	4,598	4,071	1,466	47,083	—	59,855	7.7
Other	996	1,347	6,575	167	394	—	9,481	1.1
Revenues from contracts with customers	99,874	257,283	128,131	103,389	191,634	244	780,557	100.0
Net sales to customers	99,874	257,283	128,131	103,389	191,634	244	780,557	100.0

Millions of yen								
2021								
Reportable Segments								
	Functional Materials	Advanced Materials & Processing	Electronics & Energy	Mobility	Life & Healthcare	Others (Note) 3	Total	Composition (%)
Japan	¥31,951	¥ 60,837	¥ 51,014	¥24,258	¥ 53,326	¥349	¥221,737	35.5
Greater China	9,741	93,581	40,298	25,771	2,677	—	172,071	27.5
ASEAN	19,132	45,756	7,158	20,692	2,887	—	95,626	15.3
Americas	12,331	3,760	4,834	6,877	58,401	—	86,204	13.8
Europe	1,600	4,622	2,870	1,043	32,722	—	42,859	6.9
Other	537	1,156	4,595	139	316	—	6,745	1.0
Revenues from contracts with customers	75,294	209,715	110,770	78,783	150,331	349	625,245	100.0
Net sales to customers	75,294	209,715	110,770	78,783	150,331	349	625,245	100.0

Thousands of U.S. dollars

2022								
Reportable Segments								
	Functional Materials	Advanced Materials & Processing	Electronics & Energy	Mobility	Life & Healthcare	Others (Note) 3	Total	Composition (%)
Japan	\$334,758	\$ 564,777	\$ 413,759	\$257,823	\$ 472,465	\$1,994	\$2,045,592	32.1
Greater China	97,941	956,712	444,105	249,481	29,365	—	1,777,613	27.9
ASEAN	217,175	481,649	59,376	240,346	28,540	—	1,027,102	16.1
Americas	136,474	50,429	42,659	83,741	647,463	—	960,773	15.1
Europe	21,521	37,568	33,263	11,978	384,696	—	489,051	7.7
Other	8,138	11,006	53,722	1,364	3,219	—	77,465	1.1
Revenues from contracts with customers	816,031	2,102,157	1,046,907	844,750	1,565,765	1,994	6,377,621	100.0
Net sales to customers	816,031	2,102,157	1,046,907	844,750	1,565,765	1,994	6,377,621	100.0

Notes:

1. Net sales are categorized by country or region, according to the location of the customer.

2. Major countries and regions in each category other than Japan

(1) Greater China China, Hong Kong, Taiwan

(2) ASEAN Thailand, Vietnam, Singapore

(3) Americas U.S., Mexico

(4) Europe U.K., Germany

(5) Other Korea

3. "Others" is a business segment consisting of businesses not included in Reportable Segments, and includes information processing services, and professional service. Logistics services were also included in 2021.

Information of major customers not presented here, since no single customer accounts for 10% or more of consolidated net sales.

Property, plant and equipment by country or region as of March 31, 2022 and 2021 are summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2022	2021	2022
Japan	¥62,185	¥61,846	\$508,089
Other	10,369	9,050	84,721
Total	¥72,554	¥70,896	\$592,810

(e) Information on loss on impairment of fixed assets per reportable segments

Loss on impairment of fixed assets for the years ended March 31, 2022 and 2021 is as follows:

Millions of yen									
2022									
Reportable Segments									
	Functional Materials	Advanced Materials & Processing	Electronics & Energy	Mobility	Life & Healthcare	Total	Others	Eliminations or corporate	Total
Loss on impairment of fixed assets	¥—	¥2,974	¥—	¥—	¥—	¥2,974	¥—	¥—	¥2,974

The Company no longer expects the profitability originally anticipated for the product and manufacturing process development business related to resins in the Advanced Materials & Processing segment. Therefore, the Company has written down the book value of goodwill and other intangible fixed assets related to this business to their recoverable amounts, recording impairment losses in the amount of ¥2,911 million (\$23,785 thousand).

Millions of yen									
2021									
Reportable Segments									
	Functional Materials	Advanced Materials & Processing	Electronics & Energy	Mobility	Life & Healthcare	Total	Others	Eliminations or corporate	Total
Loss on impairment of fixed assets	¥—	¥843	¥973	¥—	¥—	¥1,817	¥—	¥7	¥1,824

Due to decreasing profitability, the carrying values of the assets for the color former manufacturing business in the Advanced Materials & Processing segment were reduced to their recoverable amounts and impairment losses of ¥843 million (\$7,614 thousand) were recognized.

With respect to the assets for polyimide film glass bonding business in the Electronics & Energy segment, which are held by a subsidiary in Taiwan, estimated future cash flows were less than their book values. As a result, the carrying values of these assets were reduced to their recoverable amounts and impairment losses of ¥951 million (\$8,590 thousand) were recognized.

Thousands of U.S. dollars									
2022									
Reportable Segments									
	Functional Materials	Advanced Materials & Processing	Electronics & Energy	Mobility	Life & Healthcare	Total	Others	Eliminations or corporate	Total
Loss on impairment of fixed assets	\$—	\$24,299	\$—	\$—	\$—	\$24,299	\$—	\$—	\$24,299

26. RELATED PARTY TRANSACTION

A consolidated subsidiary of the Company recorded the following transaction with a related party for the year ended March 31, 2022 and 2021:

Name of related party	Relationship with the related party	Description of the transaction	Account	Millions of yen		Thousands of U.S. dollars
				2022	2021	2022
315 Fullerton LLC* ¹	A director of a consolidated subsidiary of the Company owns a majority of the voting rights of the company.	Rental of real estate* ²	Rent payment for real estate	¥36	¥34	\$294
Total				¥36	¥34	\$294

*¹ Mr. Donald K. Thorp, a director of Prinova Group, LLC, which is a consolidated subsidiary of the Company, owns 77% of the voting rights.

*² Rent is determined taking the transactions in the neighboring area into consideration.

27. SUBSEQUENT EVENTS

The following distribution of retained earnings of the Company, which has not been reflected in the accompanying consolidated financial statements for the year ended March 31, 2022, was approved at a meeting of the shareholders held on June 20, 2022:

	Millions of yen	Thousands of U.S. dollars
Cash dividends (¥30.0 = U.S.\$0.25 per share)	¥3,600	\$29,414

Consolidated Subsidiaries, Affiliates and Offices

Category	Company name	Description of business	Location	Year of establishment
Japan				
Manufacturing and Processing				
●	Nagase ChemteX Corporation	Research, manufacture, and sale of enzymes, fermented products, pharmaceutical intermediates, disinfecting agents, functional polymers, epichlorohydrin derivatives, electronics materials, etc.	Osaka Pref.	1970
●	Hayashibara Co., Ltd.	Development, manufacture, and sale of food raw materials, pharmaceutical raw materials, cosmetics raw materials, health foods raw materials, functional dyes, etc.	Okayama Pref.	1932
●	Nagase Filter Co., Ltd.	Planning, production, processing, quality testing and sale of metal filters	Osaka Pref.	2006
●	Fukui Yamada Chemical Co., Ltd.	Manufacture of color former	Fukui Pref.	1985
●	Totaku Industries, Inc.	Manufacture and sale of plastic products	Osaka Pref.	1952
●	Setsunan Kasei Co., Ltd.	Coloring and sale of plastics	Osaka Pref.	1966
●	Nagase Techno-Engineering Co., Ltd.	Manufacture, sale and maintenance of low-temperature vacuum equipment, systems for chemical supply management and recycling processes, inspection systems, and the peripheral equipment for each of these	Tokyo Pref.	1989
●	CAPEX Co., Ltd.	Manufacture and development of battery power source controllers, battery power sources and power source peripheral equipment	Aichi Pref.	2004
●	Honshu Rheem Co., Ltd.	Manufacture and sale of fiber drums, import and sale of food processing machines and materials	Kanagawa Pref.	1968
●	eX. Grade Co., Ltd.	Development, manufacture and sale of components for electronic equipment	Osaka Pref.	2003
●	SN Tech Corporation	Manufacture of developer, recycling business	Osaka Pref.	2008
●	Xenomax-Japan Co., Ltd.	Manufacture and sales of high heat-resistant polyimide film XENOMAX®	Fukui Pref.	2018
●	Sun Delta Corporation	Development of applications for synthetic plastic products and manufacture and sale of processed products	Tokyo Pref.	2005
●	Nissei Technology Corporation	Design, development, and manufacture of ultra-precision plastic lenses and optical units; manufacture of precision mechanical components and units	Hyogo Pref.	1953
●	Toyo Beauty Supply Corporation	Contract manufacture of cosmetics and health foods	Tokyo Pref.	1964
●	SCREEN DecoraPrint Co., Ltd.	Contract manufacturer of decorative printing	Kyoto Pref.	2019
●	Aience Inc.	Development and construction of drainage and exhaust treatment systems	Osaka Pref.	2000
Sales and Servicing				
●	Nagase Chemical Co., Ltd.	Sale of dyestuffs, industrial chemicals, chemicals for manufacturing paper, plastics and machinery	Tokyo Pref.	1995
●	Nagase Chemspec Co., Ltd.	Sale and technical servicing of chemicals	Tokyo Pref.	1976
●	Nagase Plastics Co., Ltd.	Sale of raw materials for plastics and plastic products	Osaka Pref.	1975
●	Nagase Techno Service Co., Ltd.	Sales of kitting/logistics services, online catalog sales, recordable media, and RFID	Chiba Pref.	1991
●	Nagase Elex Co., Ltd.	Purchase and sale of thermosetting resins, silicone resins, fluororesins, inorganic and organic materials, etc.	Tokyo Pref.	1979
●	Nagase Abrasive Materials Co., Ltd.	Sale of abrasives, inorganic materials and related equipment	Osaka Pref.	1955
●	Nishinohon Nagase Co., Ltd.	Sale of dyestuffs, auxiliaries, industrial chemicals and plastics	Fukuoka Pref.	1969
●	Nagase Sanbio Co., Ltd.	Sales of medicine for agriculture and additives for fertilizers, feed and food	Tokyo Pref.	1987
●	Nagase Beauty Care Co., Ltd.	Sale of cosmetics and health foods	Tokyo Pref.	1991
●	Nagase Business Expert Co., Ltd.	Import/export and receivables/payables administration; shared services for receipts/disbursements	Tokyo Pref.	1996
●	Nagase Information Development, Ltd.	Software development and maintenance	Tokyo Pref.	1987
●	Senko Nagase Logistics co., Ltd.	Warehousing and distribution	Hyogo Pref.	1982
●	Nagase-OG Colors & Chemicals Co., Ltd.	Purchasing and information services related to dyes, industrial chemicals, etc.	Osaka Pref.	2012
●	Nagase Landauer, Ltd.	Radiation measuring services	Ibaraki Pref.	1974
●	Choko Co., Ltd.	Insurance agency	Osaka Pref.	1971

● Consolidated subsidiary ● Company accounted for under the equity method (As of October 2022)

Category	Company name	Description of business	Location	Year of establishment
Greater China and South Korea				
Manufacturing and Processing				
●	Nagase ChemteX (Wuxi) Corporation	Plastic manufacture and sale of adhesives and high-tech chemical products for electronics, technology services	China	2002
●	Nagase Engineering Service Korea Co., Ltd.	Equipment maintenance service and engineering	South Korea	1997
●	Prinova (Changzhou) Solutions Co., Ltd.	Manufacture and processing of premix products	China	2010
●	Toyo Quality One (Guangzhou) Co., Ltd.	Research and development, manufacturing, processing, sale, technology consulting, and after-sale service for major automotive parts	China	2004
●	Wuxi Chenghong Electronic Chemicals Co., Ltd.	Research, development, manufacture, and sales of electronics chemicals including semiconductors and flat panel displays (FPDs)	China	2013
●	Tokai Spring Mfg. (Foshan) Co., Ltd.	Development, manufacture, and sale of precision press products, spring, and standard molds	China	2005
●	Mianyang Chenghong Electronic Chemicals Co., Ltd.	Research/development, manufacture and sales of electronics chemicals including of semiconductors and flat panel displays (FPDs)	China	2017
●	Huizhou Sanli Three Synergy Precision Co., Ltd.	Manufacture of precision metal insert molding parts for automotive, new energy and power industries	China	2018
Sales and Servicing				
●	Nagase (China) Co., Ltd.	Investment, trade, import/export, processing, logistics, R&D, IT development, and various services	China	2019
●	Nagase (Hong Kong) Ltd.	Import/export, domestic sales, marketing	China	1971
●	Guangzhou Nagase Trading Co., Ltd.	Import/export, domestic sales, marketing	China	2002
	· Wuhan Branch Office/Chongqing Branch Office		China	
	· Zhengzhou Branch Office, Shenzhen Branch Office, Xiamen Branch Office		China	
●	Shanghai Nagase Trading Co., Ltd.	Import/export, domestic sales, marketing	China	1997
●	Tianjin Nagase International Trading Co., Ltd.	Import/export, domestic sales, marketing	China	2003
	· Dalian Branch Office, Qingdao Branch Office, Changchun Branch Office		China	
●	Nagase (Taiwan) Co., Ltd.	Import/export, domestic sales, marketing	Taiwan	1988
●	Nagase Korea Corporation	General import/export trading, retailing/wholesaling, import/export trade agency	South Korea	2001
	· Dongtan Office			
●	Nagase Wahlee Plastics Corporation	Sale of resins and related products	Taiwan	1990
	· Taichung Office, Kaohsiung Branch Office, Tainan Branch Office		Taiwan	
●	NWP International Trading (Shenzhen) Co., Ltd.	Sale of plastic products in South China	China	2004
	· Dongguan Branch Office, Guangzhou Branch Office, Xiamen Branch Office		China	
●	Shanghai Hua Chang Trading Co., Ltd.	Sale of resins and related products	China	1998
	· Suzhou Branch Office, Ningbo Branch Office		China	
	· Chengdu Branch Office, Chongqing Branch Office		China	
	· Nanjing Branch		China	
●	Prinova Solutions Asia Co., Limited	Invest and asset management	Hong Kong	2010
●	ON Colors & Chemicals (Shanghai) Co., Ltd.	Sales of textile-related products, dyeing processing agents, related equipment; export/import and technology consulting, technological development of dyeing processing	China	2002
●	NW Consultant Service (Shenzhen) Ltd.	Print quality management consultant	China	2008
●	Nagase C&G Technology (Shanghai) Co., Ltd.	Construction and maintenance of chemical supply and management equipment	China	2006
●	Nagase Watada (Hong Kong) Company Limited	Printing quality management consultant (design, development, technical consulting and technical services for printers, electronics products, household appliances, game consoles, instruction manuals, and presentations outside of product use)	China	2021

Consolidated Subsidiaries, Affiliates and Offices

Category	Company name	Description of business	Location	Year of establishment
ASEAN and the Middle East				
Manufacturing and Processing				
●	Pac Tech Asia Sdn. Bhd.	Manufacture and sale of semiconductor manufacturing equipment, semiconductor wafer bumping contract manufacturing	Malaysia	2006
●	PT. Toyo Quality One Indonesia	Manufacture of flame lamination products	Indonesia	2008
●	Dainichi Color Vietnam Co., Ltd.	Manufacture and sale of color masterbatch blend for plastic	Vietnam	2006
●	Automotive Mold Technology Co., Ltd.	Manufacture of automotive molds and dies	Thailand	2000
●	MINDA KYORAKU LTD.	Manufacture of blow-formed automobile components	India	2011
●	Nafuko Co., Ltd.	Manufacture, import/export, and sale of packaging materials and related equipment	Thailand	1996
Sales and Servicing				
●	Nagase Singapore (Pte) Ltd. · Australia Branch · Bangladesh Liaison Office · Middle East Representative Office · Turkey (Izmir) Branch Office · Vietnam Representative Office Branch	Import/export, domestic sales, marketing	Singapore Australia Bangladesh United Arab Emirates Turkey Vietnam	1975
●	Nagase (Thailand) Co., Ltd. · Eastern Office · Yangon Branch · Pakistan Liaison Office	Import/export, domestic sales, marketing	Thailand Thailand Myanmar Pakistan	1989
●	Nagase (Malaysia) Sdn. Bhd. · Johor Bahru Office · Penang Office	Import/export, domestic sales, marketing	Malaysia Malaysia Malaysia	1981
●	PT. Nagase Impor-Ekspor Indonesia · Surabaya Branch	Import/export, domestic sales, marketing	Indonesia Indonesia	1998
●	Nagase Philippines Corporation	Import/export, domestic sales, marketing	Philippines	1997
●	Nagase Philippines International Services Corporation · Makati Office · Cebu Office	Domestic sales, import/export	Philippines Philippines Philippines	2005
●	Nagase Vietnam Co., Ltd. · Ho Chi Minh City Branch · Danang Branch	Import/export, domestic sales, marketing	Vietnam Vietnam Vietnam	2008
●	Nagase India Private Ltd. · North India Branch (Gurgaon) · South India Branch (Chennai)	Import/export, domestic sales, marketing	India India India	2006
●	Prinova Gida ve Kimya Ticareti Limited Sirketi	Sales of functional food ingredients	Turkey	2013
●	Prinova Australia and New Zealand PTY LTD	Sales of functional food ingredients	Australia	2019
●	PT. Indonesia Mold Technology	Design changes and maintenance for large-scale plastic automobile component molds	Indonesia	2015

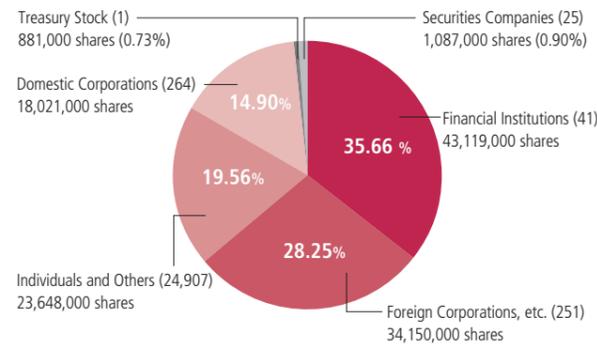
Category	Company name	Description of business	Location	Year of establishment
Americas				
Manufacturing and Processing				
●	Sofix LLC	Manufacture and sale of color formers	America	1990
●	Nagase ChemteX America LLC	Research and development, manufacture, and sales of materials for commercial adhesives, conductive adhesives	America	1993
●	Pac Tech USA-Packaging Technologies Inc.	Semiconductor wafer bumping, manufacture and sale of semiconductor manufacturing equipment	America	2001
●	Infinite Material Solutions, LLC	Development and manufacture of water-soluble support materials for 3D printing	America	2018
●	Interfacial Consultants LLC	Contract products, manufacturing process development, composite substrate, manufacturing of various masterbatches	America	2014
●	Prinova Solutions LLC	Manufacture and processing of premix products	America	2006
●	Armada Nutrition LLC	Contracted manufacture of sports nutrition products	America	2015
●	Prinova Flavors LLC	Custom formulate and manufacture of food and feed flavors	America	2009
●	Lakeshore Technologies, LLC	Processing technologies such as powder manufacturing, micronizing and blending, and outsourced processing services including repacking, sifting, metal detection and removal	America	1997
●	TQ-1 de MEXICO S.A. de C.V.	Manufacture and sale of urethane for automotive seat pads and automotive laminated frames and sale of automotive ethane foam	Mexico	2012
●	Cytech Products Inc.	Manufacture and sales of mold release agents for polyurethane resins, thermal paper additives and emulsion dispersing element	America	1988
●	3D Glass Solutions, Inc.	Development, manufacture, and sale of processed 3D glass products and contracting of 3D glass processing	America	2016
●	KN Plotech America Corporation	Manufacture and sale of blow-formed plastic molding components and products	America	2010
Sales and Servicing				
●	Nagase Holdings America Corporation	Regional management, investment and asset management, professional service provided	America	2019
●	Nagase America LLC · Michigan Branch · California Branch	Import/export, domestic sales, marketing	America America America	1971
●	Nagase Specialty Materials NA LLC	Sales of raw materials for paints, inks, adhesives, resin compounds, personal care products	America	1985
●	Nagase Enterprise Mexico S.A. de C.V.	Import/export sales, intermediate trade, market development, information collection	Mexico	2010
●	Prinova Group LLC	Management, invest and asset management, professional service provided	America	2002
●	Prinova US LLC	Sales of functional food ingredients	America	2002
●	Prinova Aroma Chemicals LLC	Sales of aroma chemicals and essential oils	America	2002
●	Prinova Canada LLC	Invest and asset management	America	2015
●	Prinova Nutra Corp.	Sales of functional food ingredients	Canada	2008
●	Prinova Mexico S. de R.L. de C.V.	Sales of functional food ingredients	Mexico	2008
●	Nagase do Brasil Comércio de Produtos Químicos Ltda.	Import/export sales, intermediate trade, market development, information collection	Brazil	2012
●	The Ingredient House, LLC	Sales of functional food ingredients	America	2006
Europe				
Manufacturing and Processing				
●	Pac Tech-Packaging Technologies GmbH	Semiconductor wafer bumping, manufacture and sale of semiconductor manufacturing equipment	Germany	1995
●	Inkron Oy	Development, manufacture of functional materials for semiconductors and electronic devices	Finland	2013
●	Prinova Solutions Europe Limited	Manufacture and processing of premix products	England	1999
Sales and Servicing				
●	Nagase (Europa) GmbH · Hungarian Branch · London Branch · Lyon Branch	Import/export, domestic sales, marketing	Germany Hungary England France	1980
●	Prinova Europe Limited	Sales of functional food ingredients	England	2002
●	Prinova Spain, S.L.	Sales of functional food ingredients	Spain	2011
●	Prinova Benelux and France N.V.	Sales of functional food ingredients	Belgium	2012
●	Prinova Germany GmbH	Sales of functional food ingredients	Germany	2021
●	Prinova Italy SRL	Sales and imports of functional food ingredients and provision of related products and management solutions	Italy	2021

Investor Information

(As of March 31, 2022)

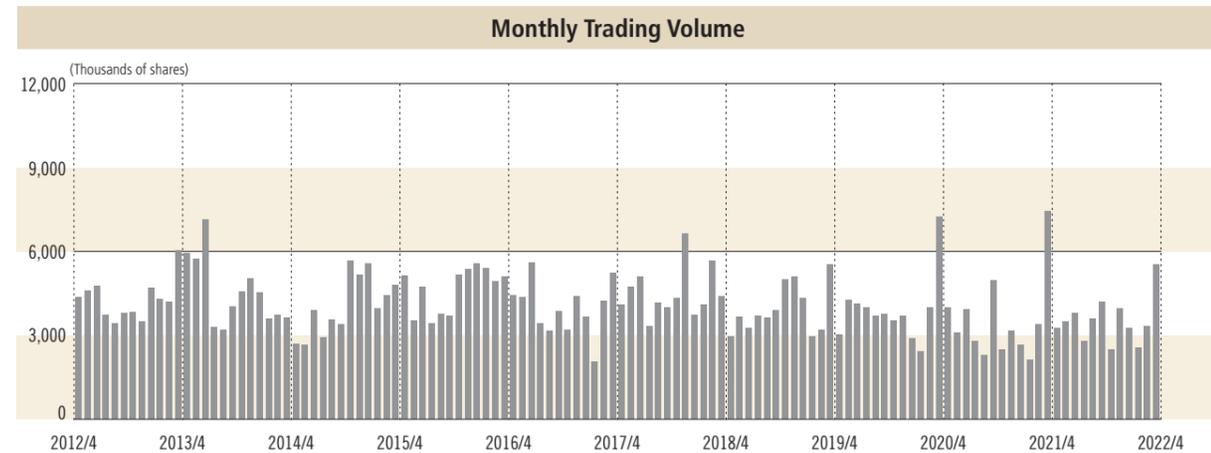
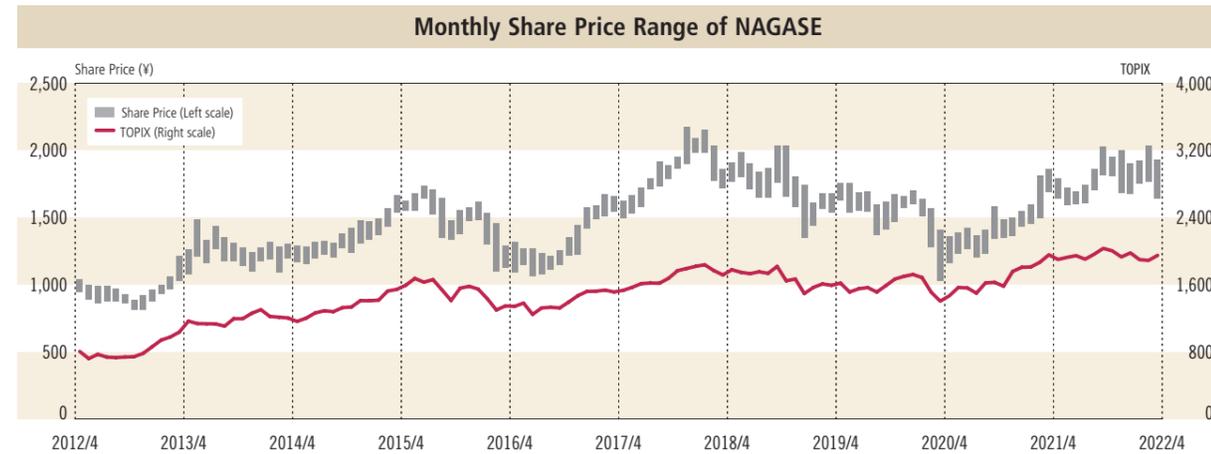
Stock Exchange	Tokyo (Prime Market)
Code	8012
Stock Status	Total number of shares issuable: 346,980,000 shares Issued number of shares: 120,908,285 shares
Number of Shareholders	25,489

Composition of Shareholders



Principal Shareholders		
Name	Number of Shares Held (Thousands)	Percentage of Total Shares Outstanding (%)
The Master Trust Bank of Japan, Ltd. (Trust Account)	16,143	13.45
Sumitomo Mitsui Trust Bank, Limited	5,776	4.81
NORTHERN TRUST CO. (AVFC) RE SILCHESTER INTERNATIONAL INVESTORS INTERNATIONAL VALUE EQUITY TRUST	5,291	4.41
Custody Bank of Japan, Ltd. (Trust Account)	4,593	3.83
Sumitomo Mitsui Banking Corporation	4,377	3.65
Nippon Life Insurance Company	3,589	2.99
Reiko Nagase	3,511	2.93
NAGASE & CO., LTD. Own Share Investment Association	3,173	2.64
Nagase Shunzo Co., Ltd.	2,688	2.24
NORTHERN TRUST CO. (AVFC) RE U.S. TAX EXEMPTED PENSION FUNDS	2,650	2.21

Note: Percentage of total shares outstanding was computed excluding treasury stock (881,767 shares).



Corporate Information

(As of March 31, 2022)

Overview

Company Name	NAGASE & CO., LTD.	
Founded	June 18, 1832	
Establishment	December 9, 1917	
Capital	¥9,699 million	
Employees	892 (Consolidated: 7,113)	
Main Business	Import/export and domestic sales of chemicals, plastics, electronics materials, cosmetics raw materials and food ingredients	
Main Banks	Sumitomo Mitsui Banking Corporation, MUFG Bank, Mizuho Bank, Ltd., Sumitomo Mitsui Trust Bank, Limited	
Osaka Head Office:	1-1-17, Shinmachi, Nishi-ku, Osaka City, Osaka 550-8668	Tel: (81) 6-6535-2114
Tokyo Head Office:	Tokiwabashi Tower, 2-6-4, Otemachi, Chiyoda-ku, Tokyo 100-8142	Tel: (81) 3-3665-3021
Nagoya Branch Office:	3-14-18, Marunouchi, Naka-ku, Nagoya City, Aichi 460-8560	Tel: (81) 52-963-5615
Nagase Bio-Innovation Center:	Kobe High Tech Park, 2-2-3, Murotani, Nishi-ku, Kobe City, Hyogo 651-2241	Tel: (81) 78-992-3162
Nagase Application Workshop:	2-4-45, Higashi Tsukaguchicho, Amagasaki City, Hyogo 661-0011	Tel: (81) 6-4961-6730



Organization

(As of April 2022)

