NAGASE
Nagase & Co., Ltd.

Osaka Head Office:

1-1-17, Shinmachi, Nishi-ku, Osaka City,
Osaka 550-8668, Japan
Tel: (81) 6-6535-2114

Tokyo Head Office:

Tokiwabashi Tower, 2-6-4 Otemachi, Chiyoda-ku,
Tokyo 100-8142, Japan
Tel: (81) 3-3665-3021

Nagoya Branch Office:

3-28-12, Meieki, Nakamura-ku, Nagoya City,
Aichi, 450-6430, Japan
Tel: (81) 52-963-5615

https://www.nagase.co.jp/english/

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Nagase & Co., Ltd. Integrated Report 2024

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Embracing Authenticity, Embracing Change

統合報告書 2024

Integrated Report 2024

NAGASE
Delivering next.

Approach to management Who is NAGASE?

A company who solves manufacturing issues with materials

On sustainability and future return

What is NAGASE looking toward?

= This earth is borrowed from future generations, and we must use corporate activity to return it in pristine condition.

For achieving that, we have the...

Medium-Term Management Plan

Supported by ...

Growth Strategy & ROIC = Reform of Our Profit Structure

Supported by ...

People & Framework = Reform of Our Corporate Culture

What drives it all is "dialogue"

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Editorial Policy

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:

- The International Integrated Reporting Framework developed by the International Integrated Reporting Council (IIRC)
- Ministry of Economy, Trade and Industry's Guidance for Collaborative Value Creation

Period Covered: April 2023 - March 2024 (FY2023)
Some information after March 2024 is also included.

Organizations Covered: Nagase & Co., Ltd. and the NAGASE Group

About the Front Cover

The fiscal 2024 corporate report was used for the cover. As we strive to reform and continuously grow amid changes, we feel that "things that don't change" and "things that change" are both important. So, "Embracing Authenticity, Embracing Change" That catch phrase summarizes our feelings. The illustration is an illustration by Ilya Kuvshinov, which we first used in a corporate advertisement in fiscal 2019 and has been decorated with a new color scheme. The striking red of the illustration alludes to the color of the safflower, the symbol used at NAGASE's founding.

NAGASE's Management Philosophy

Maintaining the highest standards of integrity

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.

Over a period of more than 190 years,
NAGASE has constantly maintained the highest standards of integrity, delivering the products and services that are needed by our customers, and by society as a whole.
What we have built up over that time is the trust that our partners and society place in us. Going forward, besides working to solve the problems of "today," the NAGASE Group will be delivering "next" by addressing the new problems affecting society and the whole of humanity through the provision of new materials.
"The Earth is borrowed from future generations."
To help realize a sustainable future society, NAGASE will continue working together with partners throughout the world to build a future where people can live with peace of mind.

NAGASE | Delivering next.

Founded 1832

▶NAGASE's History P.5

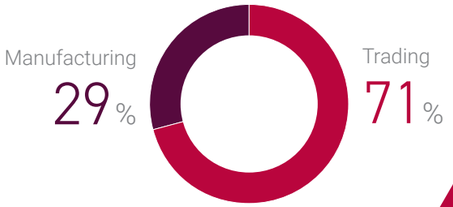
Consolidated net sales

900.1 billion yen

Overseas gross profit ratio

54.4 %

Operating income rate by industry



▶CFO Message P.19
▶11-Year Financial Highlights P.85

(As of end of March 2024)

Number of bases

25 countries and regions 106 companies

Number of partner corporations

Approx. 18,000 companies

Consolidated number of employees

7,528

▶NAGASE's Human Capital Management P.59

(As of end of March 2024)

Five business segments

We are developing our business broadly from upstream to downstream on supply chains in various industries.

▶List of Segments P.41

Functional Materials

Advanced Materials & Processing

Electronics & Energy

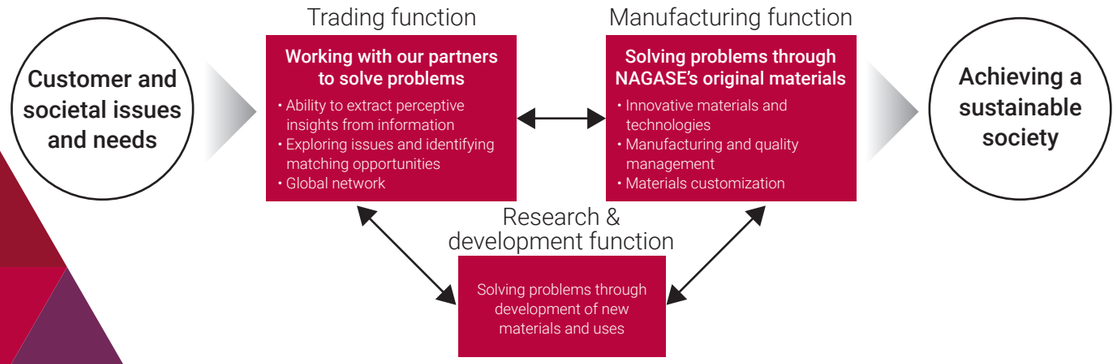
Mobility

Life & Healthcare

Added value born from unique functions

We are creating added value through masterful use of "manufacturing" and "R&D" functions in light of the needs of customers and society grasped through the information and networks gained through our "trading" function.

Providing materials and solutions that make full use of NAGASE's unique functions



NAGASE's History

1832–

Founding

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. This is beginning of NAGASE Group's history which continues to present day. Later on, we established a foothold in the chemical industry by starting to handle synthetic dyes in addition to natural dyes.

Founder Denbei Nagase

Through tumultuous times from its founding to present-day, NAGASE has a history of expanding business and continuous growth. "If only this existed, it would help solve customer and societal issues." That thought spurred us to action, and as we entered the 1900s, managers started looking overseas. When we found some "eureka" technology or product on site, we would negotiate tenaciously to bring it back to Japan, so that one day we could develop the technology to manufacture it ourselves, and deliver it to society. In addition to clearly apparent existing needs, we detected potential needs, and we kept our focus on things and technologies that could meet all of those needs. Furthermore, we had the ability to horizontally expand our business by leveraging the knowhow and network we built, which led to the diverse areas of business we engage in now.

Founding as a wholesaler

Commencing business with overseas manufacturers
Bringing manufacturing technology to Japan by importing foreign products

Strengthening manufacturing, processing and R&D functions
Successive establishment of plants with manufacturing functionality

Co-creating with partners
Full synergistic creation and global development by group expansion

Safflower - founding symbol

Expanding from natural dyes to synthetic dyes

Chemical

Establishing a foundation in the chemical industry
Becoming a group of experts with insight and experience in the chemical industry, domestically and overseas

Five business segments that undergird present-day NAGASE

Functional Materials

1901 Established branch office in Lyon, France

Forging ties with leading overseas manufacturers
At the time, there was demand for synthetic dyes not available in Japan, so after assiduous negotiations with Ciba in Switzerland, we began importing them. We brought back methods for use and technologies, and set up an internal laboratory.

Strengthening research & development function

Strengthening processing functions

Biotechnology

Expansion into biotechnology
Began import of industrial use enzymes from Europe for use in glue removal or de-gluing for textile products.

1939
Manufacturing enzymes
Put effort into domestic production of enzymes, succeeding in 1939 in production of a high-quality glue remover (enzyme) for staining which exceeded products from overseas. Expanded into manufacture of enzymes for industrial use and for food use.

1990 Established a biotechnology-related research and development center
(Presently "Nagase Bio-Innovation Center")

2012
Enhancement of biotechnology functions
Formed subsidiary Nagase Viita (at the time "Hayashibara")

Life & Healthcare

Food

2019
Formed subsidiary Prinova USA

Epoxy resin

Commencement of epoxy resin imports
Began import of epoxy resin, which was not widely distributed in Japan at the time, from Ciba Inc. Supported long-term, high-level economic growth of Japan with its diverse uses.

1970
Commencement of epoxy resin production
Nagase & Co., Ltd. established a joint venture with Ciba Inc. and began domestic production.

Electronic parts and semiconductor technologies that support development in every industry

Electronics & Energy

Movie film ➡ semiconductor

1926
Exclusive agency agreement with Eastman Kodak in America
Began import of movie film to help entertain Japan suffering from the Great Kanto Earthquake. Closer ties with Eastman Kodak Company.

Introduction of photoresist into Japan
Imported and sold photoresists from Eastman Kodak Company, which were used in the photolithography process in film development technology.
Deepened connections with domestic semiconductor-related corporations, and began NAGASE Microelectronics Seminar in 1974.

1982
Commencement of production of developer and stripping agent
Established a photoresist refining plant in former Nagase Chemicals. Also, began production of developer and release agent.

Plastics & Resin

1968
Sales agreement with GE
Began partnership with GE (General Electric Company).

1971
Shift to engineering plastics production and sales
Entered into a joint venture with GE to establish Engineering-Plastics Corporation.

1980s onwards
Enhancement of overseas networks
Dedicated efforts to export to and increased share in Asian countries.

Advanced Materials & Processing

Mobility

NAGASE's Cultivated Strengths

A key strength that the NAGASE Group has cultivated is the six types of capital that support the Group's sustainable growth and provide the foundation for its value creation: human capital, intellectual capital, manufactured capital, social and relationship capital, natural capital, and financial capital. By integrating these different types of capital, we are proceeding with business activities that help to solve various problems affecting society.

Management capital

Human capital
Business designers that integrate the NAGASE Group's diverse functions to solve problems

- **NAGASE's 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.
- **Consolidated Number of Employees** 7,528

➡ See P. 59-66 for initiatives in human capital management

Intellectual capital
Leveraging knowhow across a wide range of fields to create new business in collaboration with partners

- **Number of Group patent applications in the past 20 years: approx. 1,500 (base of domestic application number)**
- **Number of partners with whom we filed joint applications in the past 20 years (industry, government, academic): 200+**

[Main R&D function]
Nagase Bio-Innovation Center and Nagase Application Workshop
[Main business development function] Future Co-creation Office
[Examples of joint applications / development that featured integrated Group functions]
- Biodegradable superabsorbent polymers and ergothioneine (rare amino acid)

➡ See P. 38 for development details

Manufactured capital
Increasing value-added through enhanced productivity, technical innovation, and group synergy

- **A total of 43 manufacturing sites in 15 countries and regions**
- **Material development featuring integration of the Group's functions as a manufacturer, researcher, developer, and trader ➡ See P.33**
- **Built a system for strengthening the competitiveness of Group materials leveraging the latest evaluation technology**
  (Use of the NanoTerasu 3GeV high brightness light source facility at Tohoku University, etc.)

Social and relationship capital
Partnerships and supply-chains built on trust

- **Approximately 18,000 partner companies**
- **A global network of 106 business locations in 25 countries and regions**

Natural capital
Initiatives aimed at enhancing the sustainability of the global environment

- **Energy use 264,569 MWh** (Fiscal year ended March 31, 2024)
- **Total water intake 3,877 ML** (Fiscal year ended March 31, 2024)

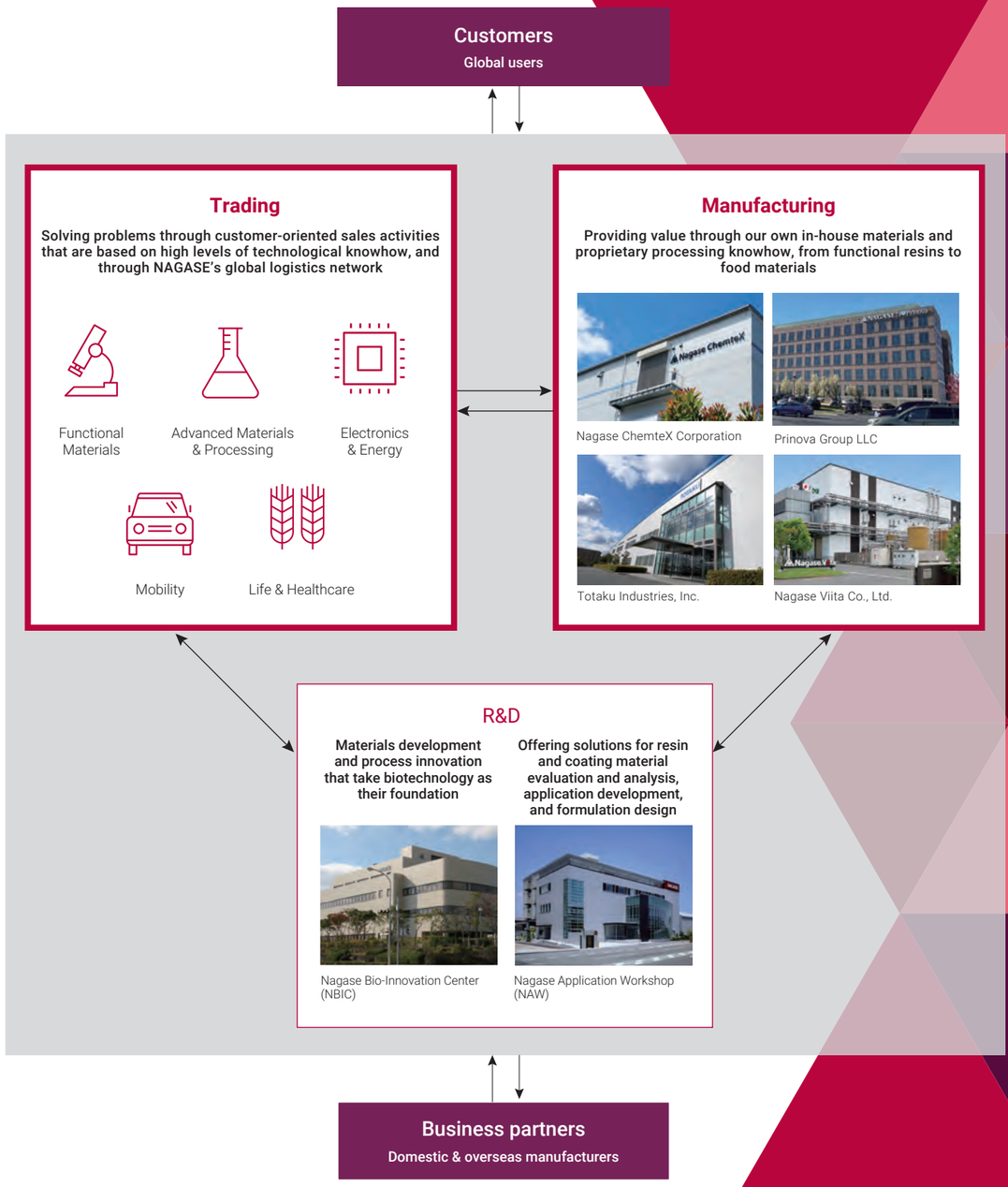
➡ See P. 87 for other non-financial highlights and external evaluations

Financial capital
Financial soundness and strict financial discipline

- Shareholders' equity ratio: 49.7% (Fiscal year ended March 31, 2024)
- Operating CF: 72.9 billion yen
- Rating: Rating & investment information center (R&I) long-term A short-term a-1
- **Sustainability link loan framework selected as a model example**
  (Formulated in collaboration with MUFG Bank)

NAGASE's Unique Functions

NAGASE offers a uniqueness only possible through their integration of the functions of "trading," "manufacturing," and "R&D."



Sustainable innovation achieved through the commitment of every individual employee

Building on the commitment that each individual employee has to playing a useful role in society, we are working to generate multi-faceted value through collaborations with our colleagues, by having faith in our potential.

Nagase & Co., Ltd.
Takaki Iizuka
Third Sales Section, Functional Materials Division,
Performance Chemicals Department, Functional Materials Segment

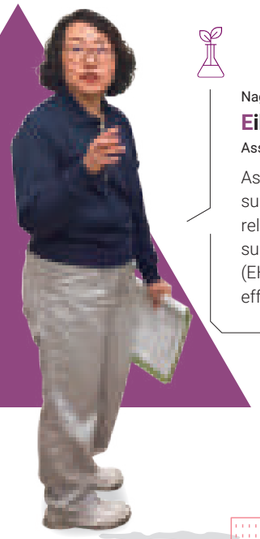
By utilizing previously unused bio-materials, we are aiming to build a future in which people can say "Plastics? People used to use those years ago, didn't they!"

Nagase Enterprise México S.A. de C.V.
Leader
Maria Elizabeth Gutierrez Perez
Mobility Team 1, Plastic Division
Mobility Department

We integrate to put our mark on caring for the environment, contributing to the reduction of the carbon footprint.

Nagase & Co., Ltd.
Juno Cox
PM Section and NVI Section, Product Management Division,
Life & Healthcare Products Department, Life & Healthcare Segment

We are expanding the use of bio-derived cosmetics materials throughout the world to enable everyone to enjoy safe, sustainable beauty!



Nagase & Co., Ltd.
Eiko Matsumoto
Assistant Director, Nagase Bio-Innovation Center

As a research-oriented generalist, I provide support for our rapidly-accelerating bio-related research, with the aim of promoting sustainable environmental, health and safety (EHS) management systems and promoting effective compliance.

Nagase ChemteX Corporation
Sou Mutobe
G Materials Section,
Product Development Division,
Performance Chemicals Department

By effectively utilizing the organic synthesis knowhow and technologies that we have cultivated over the years, we are taking on the challenge of developing "green" materials!

Nagase & Co., Ltd.
Blind runner
Shinya Wada
PR Section,
Corporate Relations Division,
Corporate Management Department

I will continue to keep running as long as I can to help realize a society that is barrier-free not just physically but also in people's hearts.

Nagase & Co., Ltd.
Guide runner
Takumi Hasebe
PR Section, Corporate Relations Division,
Corporate Management Department

By doing our utmost when running, we are aiming to help realize a society that is full of energy and vigor!

Nagase Viita Co., Ltd.
Unit Leader
Ooi Lia, Ph.D.
Plant Research Unit, Research, Technology & Value Creation Division

We pioneer the development of innovative biostimulants in contribution to combat climate change, promote sustainable agriculture, and eradicate world hunger.

Nagase & Co., Ltd.
Yuka Kono
MaaS Automated Driving Development Section,
Advanced Mobility Unit,
Mobility Solutions Department, Mobility Segment

While enjoying the way times are changing, I will be striving to realize personal growth by mastering a wide range of fields!

Our Approach to Value Creation

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Hiroyuki Ueshima
Representative Director, President and CEO
Nagase & Co., Ltd.

Developing a sustainable business in the global market while fostering our NAGASE people

In my first year, I focused on business restructuring to set a firm foundation for the Ideal NAGASE.

Fiscal 2023, my first year as president, was largely spent responding to changes in our business environment, which ranged from broadening geopolitical risk to persistently high raw material prices and widely fluctuating foreign exchange rates. In fact, 9 of our 10 business fields faced extremely harsh conditions during the year. The strongest impacts on our business performance came from the stagnant Chinese economy, downward price pressure on food ingredients and functional materials due to cut-rate prices at Chinese companies, and a spike in costs owing to delays installing automation equipment at the Prinova Group plant in Utah of the United States. The conditions forced us to lower our consolidated earnings forecast in November 2023 when we reported a profit decline for the second quarter, which was a direct reflection of shortcomings in our capabilities.

In that environment, we focused on laying the foundation for growth by continuing to advance the key measures of the Medium-Term Management Plan **ACE 2.0** and by implementing our QUICK WINS initiative to maximize and optimize the use of our core management resources of people, finances, and time as we develop our business and financial portfolios, enhance governance of management processes, and rebuild our human resources portfolio. These efforts, in fact, produced some positive results as, despite the decline in operating income for the year, strong performances by our highly profitable manufacturing subsidiaries helped lift gross profit to an all-time high. I view my first year as one in which we continued the **ACE 2.0** plan's core drive for the "Pursuit of Quality," progressed with our business restructuring, and laid the foundation to foster the mindset of the Ideal NAGASE.

In fiscal 2024, we will continue to strengthen ROIC management and address the factors that led to our profit decline while aiming to raise operating income to a record high. We will continue developing our businesses as we seek to fulfill the performance expectations of our shareholders and investors.

Using our trading, manufacturing, and R&D functions for the well-being of people and the planet

I spent a lot of time last year pondering the questions of who are we as NAGASE? and Why do we exist? The answer that came to me is that our purpose is to use materials to overcome challenges for manufacturers. Our business is founded on our ability to use our materials to provide solutions for our clients, which in turn provides solutions for issues being faced by industry and society. Therefore, the NAGASE Group's businesses reduce environmental impacts and support manufacturing activities that are directly connected to people's health, safety, and comfort. Although we have little direct contact with the end users, NAGASE is proud that our BtoB transactions provide materials that support the well-being of people and the planet.

During the year, when I met with the top executives of our business partners, I always asked, "What do you consider to be NAGASE's strengths?" Most of the answers boiled down to: NAGASE's strength is that it encompasses the three functions of a trading company, manufacturer, and an R&D company. This perception of NAGASE gave us the idea for recasting our framework, and last year we reorganized the four quadrants of the Group's growth strategy from being divided along business lines to being delineated by function. However, when we look at how the Group works internally, it seems that not many employees conduct their daily activities with an awareness of how unique and powerful it is to have the three functions of a trading company, manufacturer, and R&D. In addition, employees seem to underestimate their abilities. At every opportunity, I remind them that "The skills you use at the worksites and your ability to generate profits are greater than you think. We need to have more confidence in ourselves."

Of the three functions, the trading function is our greatest strength. As a trading house, we provide the materials and solutions that match our clients' needs, which become a key source of information for directions to create new businesses. The uncertain times we are living in are presenting a growing number and variety of risks, including risk of changes to environmental regulations and risk of supply chain disruption. Our business partners and society are facing a growing number of problems that will have to be overcome. For NAGASE, however, this is a business opportunity. We are perfectly positioned to use our direct dialogue with our business partners to quickly identify their issues and apply our three functions as trading company, manufacturer, and R&D to deliver a wide variety of value. What we ask of our employees is not to wade into a market that is already overrun with players but to look for little gems that the world has not found yet and where we can get excited about their uniqueness. We have an exceptional uniqueness and ability to win in the global market by providing manufacturers with the materials to overcome their challenges. I want to raise the quality of our management to a higher level so NAGASE is the company that companies turn to for solutions.

Fiscal 2024 growth strategies in the Foundation, Focus, and Development domains

I would now like to provide an overview of the growth strategy we are implementing in fiscal 2024. For our trading function, which we set as a foundation in the four quadrants, we are examining our business prospects in each country and will shift our global resource investment to countries and regions with the highest growth potential.

In the manufacturing function in specific areas, which are in the focus quadrant, we will advance the stages of planned investments in the food, semiconductor, and life sciences fields. In the semiconductor field, this will mean continuing our original plan for fiscal 2024 to start a wafer bumping business in Malaysia and a recovery and recycling business for photographic developer fluids used in the manufacturing process. In the development area, which includes our R&D function, we will accelerate development of businesses being groomed as future revenue sources, including preparing to commercialize businesses for the rare amino acid ergothioneine and for biodegradable superabsorbent polymers.

In the areas for improvement, we have a specific action plan that includes reviewing unprofitable businesses and subsidiaries and other steps to reduce losses to under ¥1 billion in fiscal 2025.

Laying the foundation for our transformation with QUICK WINS

I would also like to talk more about the QUICK WINS measures we launched in June 2023 to set a foundation for our transformation. QUICK WINS has specific measures aimed at the three objectives to develop our business and financial portfolios, enhance governance of management processes, and rebuild our human resources portfolio. As shown in the QUICK WINS status in fiscal 2023 diagram at the bottom of the right page, we track our progress with each measure using green markers on five levels. Within the Group, we also distribute our *Quarterly Paper* with its easy-to-understand summaries of only a few pages so all employees can apply the measures in their daily work. I bring copies of the *Quarterly Paper* with me when I visit business sites and Group companies in Japan and overseas so I can talk directly with employees about the measures.

The objective of developing our business and financial portfolios is to establish the optimal resource allocation and business structure to be resilient to changes in market conditions and the external environment. In this direction, we continued to consolidate unprofitable transactions and clarified our growth strategy by thoroughly applying ROIC management to each business unit. I believe the ROIC management is gaining traction as we are already seeing its effects, including better inventory turnover rates and improving gross profit margins. Another area where we are making steady progress is in introducing digital marketing in countries and regions with specific challenges for travel time, cost, and other conditions. The necessary digital technologies and infrastructure are now in place, and in the second half of fiscal 2024, the business units and DX department will begin using a fully integrated analysis platform of all Group data related to sales.

Our measures to enhance governance of our management processes include the major step of consolidating the number of business divisions from 11 to 7 in October 2023. The expanded divisional umbrellas covering more business units allow us to select and focus resources more quickly and delegate authority more effectively. We also reorganized the Group Management Committee and other management groups targeted at various issues to give us more opportunities to discuss and deliberate on agenda items related to important management decisions.

The first steps for rebuilding our human resources portfolio were to incorporate succession planning into the structure and create more opportunities and mechanisms for developing management talent. In fiscal 2024, we added liberal arts-type training to our management development programs. To maximize the value of our human capital, in April 2024 we introduced a performance-based evaluation system with a clear concept of fairness and transparency. As a result, for example, we now have younger employees in their 20s and 30s in supervisory positions. We are continuing to modify the system so it will provide visualization of the evaluation criteria and enable more dynamic promotion of employee talent. We are testing a new "15% rule" to promote employee development where we assess an individual's current abilities and set a goal of improving by 15% each year. At that pace, an employee will double their capabilities in five years. To support this new approach to employee development, we are modifying our personnel systems and mechanisms and creating an environment that encourages our employees' steady growth.

A growth strategy for the future

Reorganizing each of our business domains along the lines of our trading, manufacturing, and R&D functions

Foundation — Trading function

Generate the cash flow and data that will allow us to strengthen our manufacturing function in focus and development areas

Development — Future revenue sources

Pursue new challenges in areas that will be future sources of revenue

Focus — Manufacturing function in specific areas

Leverage our unique products and technologies to increase overall profitability

Improvement

Reduce operating losses, equity-method losses, impairment losses, and unprofitable transactions at operating subsidiaries

Potential investments for focus and development areas from FY2024 (approximately ¥80 billion)

Development — Future revenue sources
- R&D (biotechnologies)
- New businesses (new products, etc.)
- New regions (Global South)

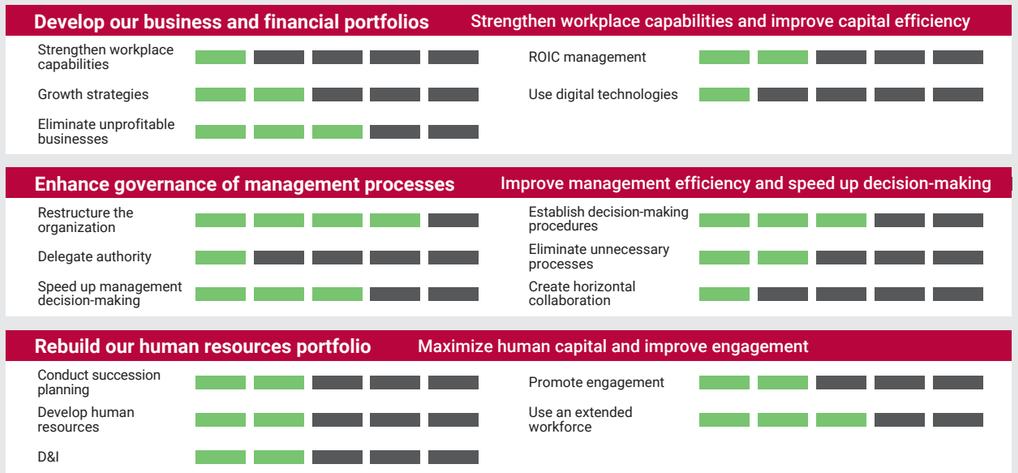
Focus — Manufacturing function in specific areas
- Food
- Semiconductors
- Life sciences

Improvement
- Unprofitable businesses
- Businesses at risk of impairment

Foundation — Trading function
- Semiconductors
- Electrical appliances
- Food
- Mobility
- Chemical industry
- Life sciences

QUICK WINS status in fiscal 2023

QUICK WINS is an initiative launched in June 2023 to maximize and optimize the use of our management resources of people, finances, and time as we develop our business and financial portfolios, enhance governance of management processes, and rebuild our human resources portfolio.



The NAGASE Group companies overseas enjoy workforces with a wide variety of nationalities, religions, and values. Unfortunately, we cannot say the same for the parent company, Nagase & Co., Ltd., in Japan. We are taking steps to improve diversity and inclusion (D&I) at the parent company, but we understand that progress will require changing our awareness of D&I concepts. One of our areas of weakness has been our management training programs, which are critical to advancing women's empowerment in the workplace. One step we took to address this weakness in fiscal 2023 was to invite Reiko Shiota, former member of the Japanese national badminton team and representative of the Woman's Ways organization promoting awareness of women's issues, to present a management seminar on physical and mental issues that affect women. The response to the seminar was tremendous. I look forward to hosting more events and introducing ideas that will spark changes in our way of thinking and consciousness.

Improving employee engagement is particularly crucial to increasing our human capital, and I intend to use the results of our regular employee surveys to increase and strengthen our engagement initiatives. We will create opportunities for executives and employees to share their perspectives and engage in small meeting discussions about ways to solve any issues. This will be the first step to creating an environment where executives and employees fully appreciate each other's perspectives and work together as equals for mutual improvement.

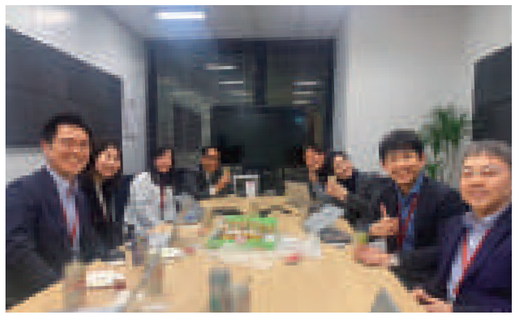
Cultivating younger employees through experiences and learning opportunities

Since becoming president, I have tried to create as much time as possible to talk with employees and outside directors. I regularly meet outside directors for lunch meetings where we engage in open discussions with a frankness that is at a different level than at Board of Directors meetings. I also make it a point to bring different young employees with me on each business trip overseas. When I myself first joined the Company, I was given many opportunities to listen to all types of discussions while sitting right beside the Company president. Hearing what managers think and how they approach things was eye-opening, and it greatly influenced me in both my life and how I set goals.

Around 1994, when I was in my twenties, I drafted an investment project proposal that was submitted to then-President Hideo Nagase for final approval. One day, I received a telephone call from the secretary's office calling my general manager and me to the president's office. The president surprised me by asking, "Mr. Ueshima, for this proposal, how much money would you have to lose before you stopped the project?" This was the exact opposite of the question I was expecting–"How much do you expect to make?" After taking a few seconds to think about it, I said, "If it loses ¥100 million, I'll stop it." He agreed and signed his approval right then. The lesson I learned that day was that managers are not looking just at profits; they're also considering business continuity. The time to decide when to exit a business is not when it starts drawing losses, it's when the business is started. At the time, exit strategies were not yet common in the business world, so it was a great learning experience. I want our younger employees to have as many experiences and learning opportunities as possible because they are invaluable to their growth.

Increasing our profitability and instilling management centered on the cost of capital and stock value

ACE 2.0 targets raising ROE to 8.0% by fiscal 2025, the plan's final year. Achieving that level will require that we continue improving our capital efficiency. As announced in May 2024, in addition to our current policy to consistently increase our dividend distribution, we decided to provide a total shareholder return ratio of 100% as a limited measure for two years.


Discussing the Quarterly Paper with employees

Talking and making connections with stakeholders

Currently, our ROE is below 8.0%; the price-to-book ratio (PBR) is less than 1x; and the ratio of strategic cross-shareholdings to net assets is above 15%. We recognize each of these as important issues for management to address and will continue to focus on increasing profitability, considering the cost of capital and the share price in management decisions, and enhancing corporate value.

We will also place more emphasis on dialogue with shareholders and investors. In fiscal 2024, we will increase the number of financial results briefings from two to four and hold more small meetings so we have more opportunities to hear investor opinions and recommendations. As president, it is my responsibility to present the Company so that our investors see that NAGASE is seeking further transformation and that they can expect further growth.

Throughout its 190-year history, NAGASE has expanded its business based on the philosophy of "We recognize our responsibility to society and offer beneficial products and services while maintaining the highest standards of integrity." Our efforts to fulfill this philosophy have accumulated into one of our biggest assets—stakeholder trust in our company. We comply with laws and regulations as a matter of course, and we have an ingrained culture of "doing the right thing, the right way" in accordance with the common sense and ethics of society. At the same time, laws and regulations are becoming increasingly complex, so we are constantly strengthening our structure for compliance monitoring. This structure includes an internal reporting (whistleblowing) system centered on the Compliance Consultation and Reporting Desk, where all Group executives and employees in Japan and overseas can seek counsel and report concerns anonymously and with strict confidentiality.

I often tell our employees that society sees more of what we do than we may realize. We always comply with the law, but we should also always be asking ourselves, "is it the right thing for NAGASE to be doing?" Keeping that in mind is how we can pass on the NAGASE Group philosophy and positive corporate culture to the next generation.

Steadily reforming our profit structure and corporate culture

The objective of the QUICK WINS initiative discussed above is to drive rapid progress in all measures toward four or five on the five-point scale shown on page 16. For the remainder of the **ACE 2.0** plan, we will continue reforming our profit structure and corporate culture while paying close attention to the rapidly changing external environment. We will also concentrate management resources in our core trading function, which is in the Foundation quadrant, and in the food, semiconductors, and life sciences, which are in the Focus quadrant, with the aim of generating momentum for continuing growth through fiscal 2026 and beyond.

I believe our business, using sustainable materials to solve client issues, contributes to the well-being of people and the planet and helps pass on a clean Earth to future generations. In April last year, we introduced "Delivering next." as the NAGASE Group slogan. Group companies, business divisions, and employees in Japan and around the world have each found their own "next" that they are pursuing to create a new future. NAGASE is using its three functions of trading company, manufacturing, and R&D to create new and unique materials that will open new possibilities for the future. We look forward to your support as we advance to our next challenge.

September 2024

Hiroyuki Ueshima

Representative Director, President and CEO
Nagase & Co., Ltd.

Lively meetings with employees at overseas companies

Joining a supervisor D&I training group

Masaya Ikemoto
Representative Director, Senior Managing Executive Officer, and CFO

Pursuing capital and financial strategies with dynamic growth scenarios

ACE 2.0 progress and management focused on capital efficiency

We are continuing to implement the medium-term management plan **ACE 2.0** centered on the core strategies to reform the profit structure and reform our corporate culture. We revised the strategies slightly in November 2023 to reflect the dramatic changes in the business environment and our business content since the plan was formulated. Part of the revision was to clarify the growth strategy by organizing the four quadrants of Foundation, Focus, Development, and Improvement on the three axes of our trading company, manufacturing, and R&D functions rather than into business sectors (page 31). Management now makes profit allocation decisions by considering where the cash and high value-added information generated by the trading function, which is the Foundation quadrant, should be best allocated in the Focus and Development quadrants.

We are also seeking to enhance the "quality" of our management by placing more emphasis on capital costs and returns, including applying return on invested capital (ROIC), to assess each business unit's investment efficiency. We have also set a target weighted average cost of capital (WACC) for each unit and set up a monitoring system. We are currently using the system as a basis for assessing if a business unit, based on its specific characteristics, is generating returns exceeding the cost of capital and for evaluating the level of return that would be required from a new business.

Our management team is currently discussing strategies to achieve the **ACE 2.0** target of 8.0% ROE, which is a management priority. For operating income, our first step is to establish a profit structure that will steadily deliver us to the key goal indicator (KGI) of ¥35 billion set in our medium-term management plan and then to explore measures that will strengthen our earning and growth potential to support ongoing growth into the future. Our aim is to raise ROE through this two-pronged approach of management focus on capital efficiency and an aggressive profit strategy.

To better ensure that we achieve our 8.0% ROE target, we have adopted a special limited-period shareholder return policy. In May 2024, we announced that we plan to improve our capital efficiency by optimizing shareholder equity, specifically through providing a total shareholder return ratio of 100% as a limited measure for two years until 2025, the final year of **ACE 2.0**.

Shareholders and investors have been very clear that they think our targets of 8.0% ROE and ¥35 billion operating income are too low. We are also very aware that these quantitative amounts are not the final goal. Our new business development, M&A, portfolio rebuilding, and the refinement of our existing businesses are all aimed at the longer-term goal of raising ROE above 10%. While these efforts are a start, I also think that the scale of our current measures is insufficient. The next medium-term management plan that will start in fiscal 2026 must envision a NAGASE capable of generating greater economic and social value and must mobilize a full-Group growth strategy to achieve that vision.

Fiscal 2023 performance review

I would like to present an overview of our business performance in the third year of the **ACE 2.0** plan. In fiscal 2023, we produced record-high gross profit on strong business at our highly profitable subsidiaries and with support from a weak yen.

Our performance in fiscal 2023 is largely the result of the effort we put in during the coronavirus pandemic in fiscal 2021 and 2022 when supply chains worldwide were disrupted and the global economy was in disarray. As a trading company with high market shares in the chemical and electronic materials fields, we consider it a top priority to ensure our supply chain is functioning so we can fulfill our responsibility to continue supplying clients. We strategically secured inventories for our supply chain that, I'm proud to say, enabled us to maintain our client base and even expand our market share during the pandemic. Those two outcomes were among the reasons that we were able to boost our revenue in fiscal 2023.

At the same time, operating income and other income categories declined, primarily owing to higher selling, general and administrative expenses, mainly from increased personnel costs in North America, and to our aggressive capital and business investments. High interest rates during the year in the real economy worldwide, including the high interest rate policy in the United States, also impacted profits. One of the central themes in our financial strategy for fiscal 2024 is how to turn our investments in business and human capital into cash.

Evolutionary midpoint for the business and financial portfolios

During the year, we also made progress developing our business and financial portfolios. As I mentioned above, the NAGASE Group is implementing measures to raise ROIC. One step we took in fiscal 2023 was to set WACC targets for each business unit. While this is an important step, we are still only getting started with what we will need to do. Raising ROIC will require the heads of each business unit to incorporate ROIC into making and executing their business decisions. Specific steps they can take will be to increase profit margins by lowering costs or to improve monthly inventory rates. I believe our efforts to raise ROIC awareness are beginning to take hold at our business sites, as evidenced by the discussions between sales and management departments about measures to improve ROIC.

In the four quadrants for improvement, we are continuing to eliminate unprofitable businesses and businesses at risk of impairment. Risk is inherent to taking on a challenge, and we will not stop pursuing a challenge just because concerns arise that a business is at risk of an asset impairment or if a loss actually occurs. Once a new business plan proposed by one of our employees is approved and set into action, I consider it management's mission to increase the probability of success by monitoring the business from the perspective of economic and social value and determining if more investment is warranted.

The focus area for allocating management resources are the manufacturing functions in the three fields of semiconductors, food, and life sciences. The semiconductor industry in Japan has been reviving in recent years, and the Group has been involved in a steadily growing number of projects. We are preparing to add the collection and recycling of photographic developer used in the semiconductor manufacturing process in fiscal 2024. We will be looking for ways to help our clients address various issues, such as a business that formulates raw material supply networks for Rapidus Corporation and other semiconductor clients in Japan. In the food and life sciences fields, Hayashibara Co., Ltd. made a new start by changing its name to Nagase Viita Co., Ltd. in April 2024. With the pandemic under control, the food ingredients, personal care, and other businesses are returning to a growth trajectory.

In the development areas, we strengthened our R&D capabilities to create future revenue sources by integrating the Nagase ChemteX Corporation's biochemicals business and Nagase Viita in April 2023. We are now preparing to further refine our product development and new business creation capabilities by integrating Nagase Viita's basic research functions and Nagase Bio-Innovation Center in 2027.

Capital investment in the focus and development areas will include M&A and will be aimed at further expanding our future earning potential.

We have a system for NAGASE Group companies to share their expertise and strengthen their collaborative efforts in the manufacturing industry, which accounts for roughly 30% of the Group's total operating income. The Group Manufacturers' Collaboration Committee, which comprises Group manufacturing divisions in Japan, shares non-financial information on safety, quality, and the environment and works together to address issues. The Group Manufacturing Management Innovation Office created in April 2022 provides a comprehensive overview

of the Group's production technology, R&D, quality control, investment evaluations, and other activities. The office identifies and coordinates technologies for synergy effects and makes efforts to fill in technological gaps with the aim of raising the Group's overall manufacturing capabilities.

Building a governance system for today's NAGASE

We raised our governance system to the next level during President Ueshima's first year by swiftly integrating our organization and changing our decision-making processes. While the previous processes had been generally working well, we revised them to better fit NAGASE as we are today by adjusting some details on regular meetings involving the sales and management departments to enable faster execution. These first steps shored up the governance foundation in Japan, and next, we will broaden the management structure overseas for faster decision-making and more effective governance. Overseas, we merged Nagase America and Nagase Specialty Materials in the United States in April 2024. As a single entity, they will be able to make decisions more quickly, manage more efficiently, and provide stronger governance.

100% total shareholder returns will bring us closer to lifting our PBR ratio above 1x

As of August 15, the Company's price-to-book ratio (PBR) stood at 0.85. A PBR below 1x has been a point of concern for our shareholders, and raising PBR is a high-priority issue for management. Our growth strategy aimed at increasing profits and improving profitability should help raise ROE. Additionally, we are advancing capital and financing strategies to raise the company's share price. In May 2024, we introduced a new shareholder return policy including the limited measure of providing a 100% total shareholder return ratio in fiscal 2024 and 2025. The new policy also eliminated the restriction in the previous policy that limited the amount of share buybacks to the amount of strategic cross-shareholdings sold. Our policy to continuously increase dividends has not changed, in principle. We recognize that raising the total shareholder return ratio itself does not directly bring us closer to rectifying the low PBR. However, shareholders and investors have responded positively to the move, which we believe puts us in a better position to raise PBR to an acceptable level.

We have been placing greater emphasis on dialogue with the capital markets in recent years. In addition to the regular financial results briefings and meetings with individual investors, we also hold small meetings at appropriate times with analysts and institutional investors to discuss our business and other matters. Until a few years ago, our investor relations activities mainly consisted of standard comments on management issues, but recently the focus has been on what will be NAGASE's next driver of business growth. I've noticed growing interest in and expectations for our three focus areas of semiconductors, food, and life sciences. This prompted us to hold our first small meeting dedicated to the semiconductor field in fiscal 2023, which was very well received.

Another clear change that I have felt when talking with shareholders and investors has been the growing interest in hearing how NAGASE will fulfill its responsibility to society. This tells me that they are looking very closely at a company's sustainability, and they want to be certain that our strategies will lead to continuous growth. Ensuring the sustainability of our business in the future requires not only creating economic value, but also using our business to help create a sustainable world. Shareholders and investors will only support us if we are benefiting society. We are constantly looking for ways to improve our management policies, strategies, and measures to ensure we are disclosing information understandable and acceptable from the perspective of creating social value.

Strengthening our earning power for sustainable growth, our pursuit of capital efficiency, and our new shareholder return policy are bringing us closer to the scenario of our PBR exceeding 1x. The financial and capital strategies in our next medium-term management plan will continue to focus on capital costs and our share price and will be designed to ensure lasting results. We intend to put forward strategies that will be even more impressive to our stakeholders.

Forecast for record-high operating income in fiscal 2024

Since the end of the pandemic, we have been decreasing inventories that we had strategically secured to ensure we could maintain our supply chain, and our level of working capital is coming down. In fiscal 2024, the central management theme will be to allocate the funds we accumulate to initiatives aimed at building profits in the focus and development areas. We expect improving financial efficiency from our ROIC management, a growing gross profit margin, and other positive trends to result in record-high operating income for the year.

We will first raise the quality of our trading functions in Japan and overseas while making our Foundation quadrant more solid. In the NAGASE growth driver fields of semiconductors, food, and life sciences, we will draw up dynamic growth scenarios that include M&A to show to shareholders and investors.

While carefully controlling the scale of our investments and maintaining our financial soundness, we will use the cash we generate for business investments, including M&A, and for shareholder returns. We will also use debt while keeping our net debt-to-equity ratio under 0.5 and maintaining our current credit rating.

The **ACE 2.0** business investments and M&A will be primed to fully blossom during the next medium-term management plan. We are ardent that in 2032, when we celebrate the Company's 200th anniversary, we want our stakeholders to be saying that NAGASE's management has evolved significantly in the past five years. We will continue enhancing our corporate value by providing solutions for social issues and establishing sustainable growth for the Group.

Management aware of cost of capital and the share price

Current Issue Recognition

- PBR has been below 1x since FY2007
- Cost of equity is more than 8.0% based on dialogue with investors
- Strategic cross-shareholdings of approx. 15% of net assets

Matters to be Addressed

Profitability and efficiency	Permeation of ROIC management: Improve gross profit margins and capital turnover Reduce unprofitable businesses and unprofitable transactions in business targeted for improvement Reduce strategic cross-shareholdings in phases
Capital Costs	Increase in shareholder returns: limited 100% total return ratio for two years Leverage debt in growth investments
Investor relations activities	Make active disclosures of and expand dialogue with investors

Increasing shareholder returns

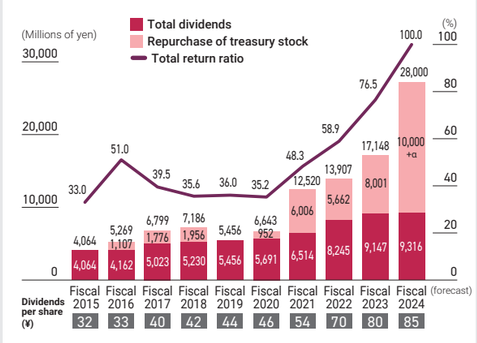
Previous Policy

Total return ratio	–
Dividend	In principle, continuously increase dividends
Repurchase of treasury stock	Implement flexibly with the repurchase amount limited to the amount of strategic cross-shareholdings sold

New Policy (for fiscal 2025)

Total return ratio	100%
Dividend	In principle, continuously increase dividends
Repurchase of treasury stock	Implement flexibly

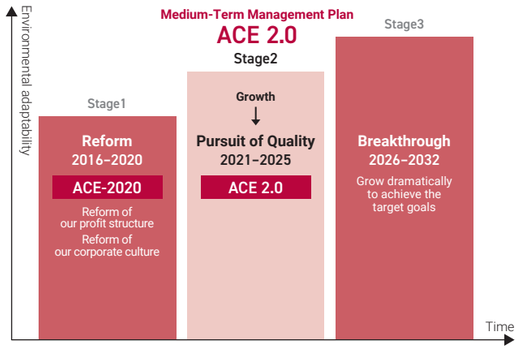
Dividends per share / Total dividends / Repurchase of treasury stock / Total return ratio



Medium-Term Management Plan

The "Transformational Period" from fiscal 2016 to fiscal 2020 was the first stage toward the "Ideal NAGASE" in 2032. During this time, we optimized our portfolio by steadily strengthening focus areas and planting seeds in development areas. However, reforms in profit structure that were dependent on external factors stagnated, leaving some issues unresolved.

Medium-Term Management Plan **ACE 2.0** is the second stage of our campaign toward achieving "Ideal NAGASE," and we have dedicated the five-year period it covers—from fiscal 2021 to fiscal 2025—to the pursuit of quality. To us, pursuit of quality means giving concrete form (in our business, our systems, and our corporate culture) to the expectations of our shareholders. We are aiming to achieve this, all while maintaining an ACE (Accountability, Commitment, and Efficiency) approach, in order to facilitate the NAGASE Group's sustainable growth.



Medium-Term Management Plan ACE 2.0 Basic Policies

Become a true "Business Designer"

ACE 2.0
"Pursuit of Quality"

With an ACE (Accountability, Commitment, and Efficiency) mindset and in order to facilitate the NAGASE Group's sustainable growth, **we are giving concrete form (in our business, our systems, and our corporate culture)** to **the consideration that our stakeholders expect from us**

(pursuit) (quality)

Reform of our profit structure

Create a profit base toward the "Ideal NAGASE"

1. **Pursuing profitability and efficiency**
   - Company-wide businesses replacement and reallocation of resources
2. **Strengthening existing businesses**
   - Expand our business opportunities through globalization
   - Increase value added through manufacturing productivity improvements and technical innovation
3. **Creating sustainable businesses**

Reform of our corporate culture

Mindset toward the "Ideal NAGASE"

1. **Pursuing economic and social value**
   - Cultivating sustainability-related mindsets and thoroughly monitoring financial and non-financial data
2. **Pursuing efficiency**
   - Deepen awareness of capital efficiency
   - Improve productivity of core operations
3. **Strengthening human resources to drive reform**

Functions supporting reforms

1. Accelerating digital transformation further
2. Promoting sustainability
3. Strengthening corporate functions

Maximizing the effective utilization of resources (people, money, and time), and responding to changes in the external environment

Launch of QUICK WINS
(April 2023 onwards)

- Developing our business and financial portfolio
- Enhancing governance of management processes
- Rebuilding our human resources portfolio

ACE 2.0 - Financial and non-financial objectives

To realize the "Pursuit of Quality" that is a goal of the **ACE 2.0** Medium-Term Management Plan, we have set financial and non-financial objectives, and we are working to achieve progress in relation to these objectives. As regards financial objectives, we have set Key Goal Indicators (KGIs) and also Key Performance Indicators (KPIs) in regard to profit structure reform, corporate culture reform and corporate functions supporting reforms. With regard to non-financial objectives, we have set improving employee engagement and realizing carbon neutrality as KPIs.

KPIs (key performance indicators) for the "Pursuit of Quality"

Measures	Indicators	FY2020	FY2025*
Improvement in capital efficiency	ROE	5.9%	8.0% or more
Increase profitability	Operating Income	21.9 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"

Reform / function	Measures	Indicators	FY2020	FY2025
Reform of our profit structure	Company-wide business replacement and reallocation of resources	Growth investments*1	–	150.0 billion yen*2
		Secure 10% of company-wide invested capital and reinvest in focus and development areas	–	At least 10%
	Create "sustainable businesses"	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	13.8 billion yen*5	20.0 billion yen or more
Reform of our corporate culture	Improve productivity of core operations	Ratio of general administrative expenses to gross profit*6	57.1%*7	52.1%
	Deepen awareness of capital efficiency	Net DE ratio	0.23 times	0.5 times or less
Functions supporting reforms	Accelerate digital transformation further	Invested capital (including expenses)*8	2.4 billion yen	10.0 billion*2

*1 Investment in sustainable businesses, 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 fiscal 2021. This new classification has been retroactively applied to performance figures for fiscal 2020. *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 Average figure for the five-year period from fiscal 2016 to fiscal 2020 *8 Five-year cumulative total of 10.0 billion yen in DX-related investments is included in growth investments of 150.0 billion yen

Non-financial KPIs

Topic	KPI		
Improve employee engagement*	Applies to	Group companies	Share of companies implementing regular engagement surveys: 100%
		Nagase & Co., Ltd. (only)	Engagement survey score: At least 60 points
Realizing carbon neutrality	Applies to	NAGASE Group (consolidated)	Reduction in Scope 1 + 2 emissions: At least 37% (compared to 2013)
			Reduction in emissions through generation or purchase of electricity generated using renewable energy: At least 35,000 tons (cumulative)
		Nagase & Co., Ltd.	Scope 2: Net zero emissions

* Applies to consolidated subsidiaries with the Prinova Group being treated as a single company for calculation purposes

Materiality and the process of defining it

In September 2024, the NAGASE Group revised part of our materiality, in line with the formulation of the **ACE 2.0** Medium-Term Management Plan that we are now implementing. Having undertaken a review in light of changes in the external environment, following discussion by the Sustainability Committee, in addition to the existing "Employee engagement improvement," "Realize a Decarbonization," and "Transparency in corporate governance," we added new materiality which it was felt needed to be recognized by NAGASE as constituting important issues: "Extend a healthy life expectancy," "Driving a Circular Economy," and "Achieve a Sustainable supply chain."

The NAGASE Group's materiality

Changes in the external environment having a major impact

- Diversity of human resources
- Demographic changes
- Climate change and resource shortages
- Food and water scarcity
- Globalization
- Depletion of natural resources
- Geopolitical risk
- Growing awareness of human rights

The NAGASE Group's materiality and related SDGs

- Employee engagement improvement
- Extend a healthy life expectancy
- Driving a Circular Economy
- Achieve a Sustainable supply chain
- Realize a Decarbonization
- Transparency in corporate governance

Promoting Sustainability

The NAGASE Group's sustainability

Yusuke Masui
Office supervisor, Corporate Sustainability Office

Looking back at NAGASE Group's history, one can see how, as a company that solves problems in manufacturing through materials, in addressing customers' needs, we have for many years now contributed toward solving various social and environmental issues. In formulating our **ACE 2.0** Medium-Term Management Plan, we have defined our materiality and further strengthened our initiatives to promote sustainability. We have set ourselves non-financial objectives in relation to improving employee engagement and contributing toward the realization of a decarbonized society, and we are working to achieve these goals. Recently, there have been major changes in the external environment, compared to the situation when we first defined our materiality. In September 2024, we revised part of our materiality to reflect these changes. More specifically, having undertaken a review in light of the changes in the external environment, following discussion by the Sustainability Committee, we added the following as new materiality items: "Extend a healthy life expectancy," "Driving a Circular Economy," and "Achieve a Sustainable supply chain." (See p.24 for more details)

Employee engagement improvement is an indispensable element for NAGASE's continuous growth, and starting in 2024, the Corporate Sustainability Office has been designated as the department in charge, as we proceed with initiatives in cooperation with the Human Resources Department. With regard to contributing toward the realization of a Decarbonization we are in dialogue with various business partners through collaboration with Zeroboard Inc., and we have a renewed awareness of the importance of undertaking efforts across the entire supply chain. In the NAGASE Group Carbon Neutral Declaration, we established reduction goals for not only Scope 1 + 2 emissions, but also Scope 3 emissions (the goal of achieving a 12.3% reduction by fiscal 2030, compared to fiscal 2020). This is because, as a trading company, we believe there is a need to make efforts across the entire supply chain together with our business partners. In aiming for Scope 3 reductions, we intend to move forward with stronger initiatives, including dialogues with all suppliers and the collection of primary data, etc. in the future.

Additionally, various issues have emerged recently in the global supply chain that are relevant to our new materiality, such as the need for greater emphasis on due diligence regarding human rights and the environment, circular economy and chemicals management. The Corporate Sustainability Office ascertains the latest trends in each field, shares them within the Company, and plans for solutions together with departments. There are many issues common to the different departments, so internal collaboration has increased. Previously, work often proceeded along vertical lines, but different departments can learn a lot from each other by working together to solve issues. Also, we are gaining positive responses in making greater strides to solve issues for our business partners by leveraging NAGASE Group strengths, such as NAGASE's network, and its manufacturing and research and development capabilities.

It is important to simultaneously enhance human resource development and collaboration within the Group in order to strengthen problem-solving capabilities across the entire Group. Moving forward, we will put even more effort into the development of human resources and collaboration, such as through dialogue-based internal promotion activities, sustainability lectures by experts, a system for having a Chief Sustainability Officer (CSuO) for each department, and collaboration with overseas Group companies.

We view environmental changes as constituting a significant opportunity for NAGASE. Actually, we are already receiving inquiries and responding to requests for consultations on various issues from our business partners, which has led to a widening of the range of our partners and solutions. Going forward, the Corporate Sustainability Office intends to enhance its horizontal functions including those relating to overseas businesses, and to leverage them in order to maximize Group potential. We will continue advancing our activities so that we remain a company that our business partners can trust, knowing that if they have a problem, NAGASE can help them find a solution.

Addressing our materiality

Theme	Product solutions	Examples of social issues requiring responses
LCD	Management, collection, and recycling of liquid medicine	● Effective utilization of resources ● Bio economy ● Advancement of innovation by making things ● Maintaining water quality and reduction of waste
Semiconductors	Collection and recycling of high purity film developer	
Functional materials	Bio-based materials (Epoxy) Green Denacol (Adhesive) Green Denatite	
Personal care	Readily biodegradable material groups	● Responding to an aging society -Maintain healthy mentality and looks with anti-aging -Enhance taste and ease of eating
Food ingredients	Suggestion of nursing care foods containing trehalose (TREHA®)	

Sustainability promotion system

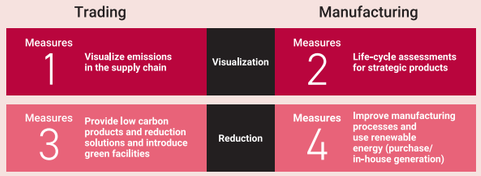
Strengthening supply chain initiatives

As a trading company with a network of approximately 18,000 business partners, NAGASE will strengthen initiatives particularly in the following four areas in order to contribute to problem-solving across the entire supply chain.

1. Carbon neutrality

Keywords: Paris Agreement, SBT*1, carbon neutrality goals

The chemical industry is the second biggest*2 industry in terms of greenhouse gas (GHG) emissions, so achieving carbon neutrality is a major issue. We are working on it through a 2-axis 4-quadrant framework of "Trading/Manufacturing" and "Visualization/Reduction." Moving forward, we will focus additional efforts under Scope 3 emission reduction through dialogue with suppliers and utilization of primary data.



2. Supply chain management

Keywords: Business and human rights, CSDDD,*3 Forced Labour Product Ban

Management across the entire supply chain is a major issue for a global company like NAGASE. In April 2024, we reformed our existing human rights policy to create the NAGASE Group Basic Human Rights Policy, as we first advance human rights response and then will go on strengthening those efforts.

⇒ Corporate website / NAGASE Group Basic Human Rights Policy

https://www.nagase.co.jp/english/sustainability/social/human-rights/

3. Circular economy

Keywords: Eco-design for Sustainable Products Regulation, ELV directives (end-of-life vehicle directives), EU battery regulations

Mostly around Europe, circular economies that aim to both grow their economies and reduce environmental burdens are progressing. Providing materials across the entire supply chain, NAGASE also faces this as a significant issue, and we aim to contribute to society on this front as well.

4. Chemical management

Keywords: GFC,*4 CSS,*5 responsible care

As regulations on chemical substances advance internationally, safe handling of chemical substances is an important base that supports NAGASE's business. In order to contribute to the continuation of that industry as we leverage the knowledge we fostered as an expert trader of chemical products, we are moving forward with a response together with all stakeholders.

*1 Science Based Targets: Greenhouse gas emission reduction targets aligned with the Paris Agreement
*2 From the National Greenhouse Gas Inventory Document of Japan (NID)
*3 EU Corporate Sustainability Due Diligence Directive (CSDDD)
*4 Global Framework on Chemicals (GFC)
*5 Chemicals Strategy for Sustainability - Towards a Toxic-Free Environment (CSS)

Strengthening our sustainability promotion system

1. Strengthening the system domestically

Starting in fiscal 2023, we have introduced a new system in which a Chief Sustainability Officer (CSuO) is appointed for each department, and as we develop sustainability solutions, we are strengthening collaboration between the Corporate Sustainability Office and business departments, and between business departments themselves.

2. Strengthening the system overseas

In addition to collaboration with Zeroboard Inc. in the ASEAN region, we are strengthening collaboration with Group companies in Europe and America, with regular information exchange with the sustainability teams of Nagase (Europa) GmbH, Nagase Holdings America Corporation, and Prinova Group LLC, leading to improved individual and Group efforts on all sides. Starting in fiscal 2024, we have established a Grobal team for the entire overseas area, and we are strengthening our promotion system across the entire Group.

3. Developing human talent with sustainability skills

In December 2023, we began the "Open Dialogue for the Promotion of Sustainability." With a casual dialogue format, it is utilized as a place for deepening participants' understanding of NAGASE's sustainability activities. Up to this point, it has been held 18 times and we have had a total of over 100 employees participate. We have also offered sustainability training for new employees and employees assigned overseas and LCA (life cycle assessment) training (see p.56 for details) as we work to develop human talent with sustainability skills.

Delivering next.

Implementing Value Creation

—Reform of Our Profit Structure

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- 51 Life & Healthcare Products Department, Nagase Viita Co., Ltd.

A dual-director sales structure Further strengthening the growth strategy and human resource development

The new management structure adopted in June 2024 for the sales division puts two directors in charge of sales. The directors discussed what the new structure is intended to accomplish, the key points for strengthening the sales structure, and the steps needed to achieve further business growth.

The objective of the new system and progress with digital marketing

Kamada ● I would like to start by saying that the new sales structure is a manifestation of our determination to build on our superior name recognition and on-site capabilities across a range of industries and to add more precision to how we approach our customers. Another objective is to have a management structure that allows both of us to make full use of our expertise in the Company's business areas. In fiscal 2023, the **ACE 2.0** Medium-Term Management Plan's four quadrants of Foundation, Focus, Development, and Improvement in the business portfolio were reorganized by business function to clarify areas with potential for high growth and high profit. I am in charge of the semiconductor field, and Mr. Isobe is in charge of the food and life sciences fields. He is also in charge of the biotechnology field, which is the core of the Development quadrant, as well as the overall R&D function. Under this structure, our mission is to set a direction for each business and prepare for the next medium-term management plan by laying the groundwork for growth and developing human resources.

Isobe ● We are tasked with directing cash generated by our trading function to the Focus and Development quadrants, which is a key part of the **ACE 2.0** plan to reform the profit structure. In my role overseeing the food, life sciences, and biotechnology fields, I will be particularly involved in coordinating the trading company, manufacturer, and R&D functions to create new value.

Kamada ● Lately, an increasing number of clients have been telling us that they look to NAGASE not just to provide products and services, but also to be a strategic partner on the business management level. We have been creating stronger connections across our organization so we can be an even better partner for our clients. The two of us now being in such close contact puts us in a better position to communicate horizontally across the business divisions, which will broaden the scope from which we can develop solutions. The ability to leverage NAGASE's full range of capabilities vastly enhances our ability to provide solutions to our clients.

Isobe ● That is absolutely true. Consolidating and reducing the 11 divisions down to 7 in the fall of 2023 makes it easier to connect not just horizontally but vertically as well.

Kamada ● The cloud-based marketing automation (MA) and customer relationship management (CRM) tools introduced to facilitate our inter-organizational collaboration are now also being used at our business sites and to integrate our website platforms. In fiscal 2024, we started training employees and linking the MA and CRM tools so our data assets can be better utilized throughout the organization and our digital marketing can be made even more effective.

The importance of strengthening on-site capabilities and setting challenges

Isobe ● As we have progressed with restructuring the organization and reforming the profit structure, developing our sales personnel has become increasingly important. Online business negotiations became both common and efficient during the roughly three years of the coronavirus pandemic. At the same time, new challenges arose for human resource development.

Kamada ● That's true. For example, our clients' final decisions are made by the organization rather than an individual person. When building a relationship of trust with a manager with the authority to make decisions, some things can't be done online. On-site, in-person skills will be crucial when visiting and talking with clients, conducting the necessary examinations and analysis, and presenting to clients what we see as the issues they are facing. We need to develop human resources with the on-site and digital marketing capabilities mentioned earlier and who can then use those skills to match the NAGASE Group's abundant functions to our clients' needs and create new business opportunities.

Isobe ● Once when you were my supervisor, you asked me, "Is that issue the real issue?" That made me realize that even if you've identified an issue that the client isn't aware of, searching for a solution for it is a waste of time if it's not part of the real problem. To this day, I keep that question in mind.

Kamada ● That question also applies when identifying and choosing issues to address inside the NAGASE Group. He's now an advisor, but when Hiroshi Nagase was the president about 15 years ago, he recognized that the Company had a problem and said, "Our business, which relies on petrochemicals, will eventually become very difficult." That problem was addressed by the decision to add the function of manufacturing naturally-derived materials, which led to adding the current Nagase Viita to the Group in 2012. With decarbonization now a standard part of corporate management, Nagase Viita is leading the Group's sustainability efforts. I think that's an example of identifying the real issue. It's essential to put in the time and work to ensure you have carefully identified and verified the actual issue, whether it's for business with a client or for the Group's transformation. This is also important when developing sales personnel.

The next medium-term management plan growth strategies

Isobe ● Investors have been taking notice of your business growth strategy for the semiconductor field.

Kamada ● Our starting point is Nagase ChemteX, which commands top market share in liquid encapsulant materials for semiconductors. We are also investing to expand production capacity, increase our production sites, and develop technologies in anticipation of the growing use of AI. Nagase & Co., Ltd. has been selected as one of the companies that will handle transportation of materials for Rapidus Co., Ltd., which is constructing a factory to manufacture advanced semiconductors in Hokkaido. The supply network will encompass over 100 suppliers, and we plan to continue strengthening that network and leverage it for new investments in the future.

Isobe ● In the food and life sciences fields, our priority will be on early implementation of strategies in the Foundation quadrant. We are also continuing our search for a "diamond in the rough" that President Ueshima is so strongly emphasizing because R&D of materials has the potential to produce earnings drivers in the medium and long term. In the Development quadrant, we plan to combine the Nagase Bio-Innovation Center, which is the Group's bio-infrastructure research base, with the Nagase Viita's basic research function beginning in 2027. Combining Group human resources and facilities will generate synergies and enable us to develop new materials into core businesses as we did with the unusual amino acid ergothioneine. We are also currently exploring several investment directions for the food and life sciences sectors.

Kamada ● As you execute your strategies and increase profits, is there anything in particularly that you are paying attention to?

Isobe ● Yes. I want to carry forward the good aspects of NAGASE's history and corporate culture, while actively pursuing new directions.

Kamada ● I would add being aware of sustainability as we grow our business. Providing solutions for social and environmental issues in a way that only NAGASE can will also increase our ability to make profits. I would also add employee engagement. Inside the company—and we don't say this outside the company very often—we often say that our managers can always count on employees to speak their minds. In a way, this reflects the quality of the engagement in the relationship between the Company and our employees, or the NAGASE style.

Isobe ● When I worked with you, whether you thought of me as "reliable" or not, you always believed in me and trusted me. As a director, I want to delegate as much authority as possible to people at the work sites and create a positive environment where everyone is comfortable and confident doing their work. I believe that will lead to the NAGASE Group continuing to earn the trust of society and create employees that are eager to contribute to the Group's success.

Reform of Our Profit Structure

The key to profit 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: Improvement, Foundation, Development, and Focus, and are executing strategies according to each area.

Reorganizing each of our business domains along the lines of our trading, manufacturing, and R&D functions

Foundation — Trading function

Generate the cash flow and high value-added information that will allow us to strengthen our focus and development areas

Gross profit for fiscal 2024: 131.0 billion yen planned

Development — Future revenue sources

Advance through new challenges in this area of future revenue sources

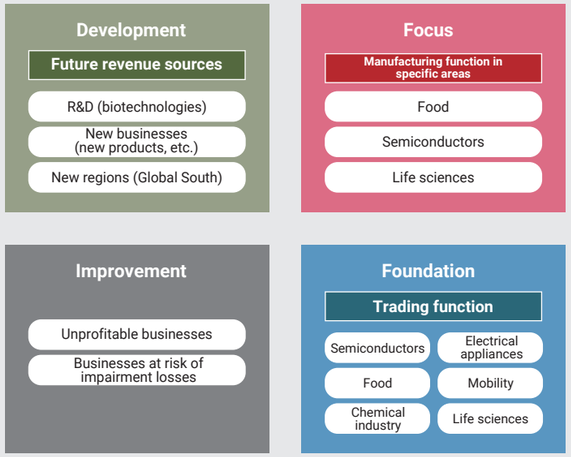
Focus — Manufacturing function in specific areas

Elevate overall profitability by leveraging our unique products and technologies

Gross profit for fiscal 2024: 49.0 billion yen planned

Improvement

Reduce operating subsidiaries' operating losses, equity losses, impairment losses, and unprofitable business arrangements



List of topics in the "Integrated Report 2024"

	Topics	Page
Foundation	Roles and strengths of NAGASE's trading businesses Issues in FY2023 Selected as Rapidus Corporation's transportation coordinator	P.32

	Area	Social issues and needs	Topic examples	Page
Focus	Food (manufacturing function)	Increasing health consciousness globally Awareness of food waste issues	Prinova Group Strengthening of contract manufacturing function in the nutrition business Essential oils distillation company	P.37
	Semiconductors (manufacturing function)	Growing demand for cutting-edge semiconductors Decentralization of manufacturing facilities driven by economic security concerns	Contributing to sustainability in the semiconductor industry Liquid molding compound for cutting-edge semiconductors becoming industry standard	P.33-P.36
	Life sciences (manufacturing function)	Aging societies and increasing health consciousness Increasing awareness of sustainability	Providing solutions in biopharmaceuticals	P.37

	Area	Topic examples	Page
Development	R&D (bio-materials) Establishing new businesses Developing businesses in the Global South	R&D: Ergothioneine contributing to extension of healthy lifespans R&D: Development of bio-derived, super-absorbent polymers New business: Starting initiatives to discover new businesses (corporate venture capital) Global South: Efforts around India, Indonesia, Mexico, and Brazil	P.38-39

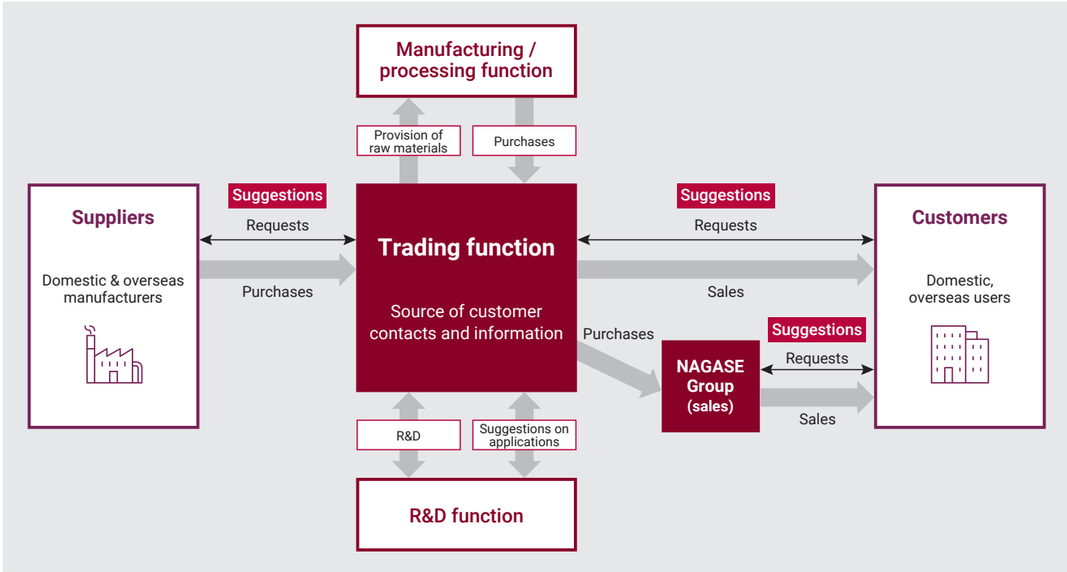
	Recent results		Page
Improvement	Moved forward by reducing unprofitable businesses and impairment losses	Progress of our initiatives in FY2023 Strengthen monitoring points Actual past withdrawals	P.40

Initiatives in the Four Areas of "Foundation," "Focus," "Development," and "Improvement"

Roles and strengths of NAGASE's trading businesses

NAGASE is a unique corporation in that it has the functionalities of trading, manufacturing, and R&D. Our trading function, in particular, is positioned as our "Foundation" and is the source of cash, connections with customers, and information. We gather customer feedback and needs, and dig up new business opportunities by providing materials and services in the following five segments: Functional Materials, Advanced Materials & Processing, Electronics & Energy, Mobility, and Life & Healthcare. This dedication indicates the maximum effect at each worksite, and it creates new value in the Group when all functions are operating at maximum capacity.

Also, in addition to credit and inventory management, we provide a steady supply of materials and contribute to securing the supply chain for business partners' production systems facing diversification due to regulations of chemical products.



Initiatives leveraging our strengths as a trading company

Nagase & Co., Ltd. was selected as one of the service coordinators organizing transportation of the semiconductor materials to semiconductor plants built in Chitose City, Hokkaido by Rapidus Corporation, who aims for domestic production of cutting-edge semiconductors. We gather the materials received from each supplier at a terminal site, and support centralized transportation from the mainland Honshu to Hokkaido. Our environmentally-friendly transport scheme is well received, including the network we have built as a dedicated chemicals trading company, our expertise in chemicals, and the solutions ensuring safe transportation of dangerous items. (For more details, see P.35.)

Issues in FY2023

[Distribution function system]

- Optimization of working capital through proper inventory management
- BCP response for potential supply chain disruption due to heightened geopolitical risks
- Proper response to the "2024 Problem" in the logistics industry

[Marketing function system]

- Provision of a steady supply chain in the face of reorganization of the domestic petrochemical industry
- Expanded sales of NAGASE Viita products using Prinova's global sales network
- Optimization of marketing reach and sales activities through digitalization

Development | **Focus**
Improvement | Foundation

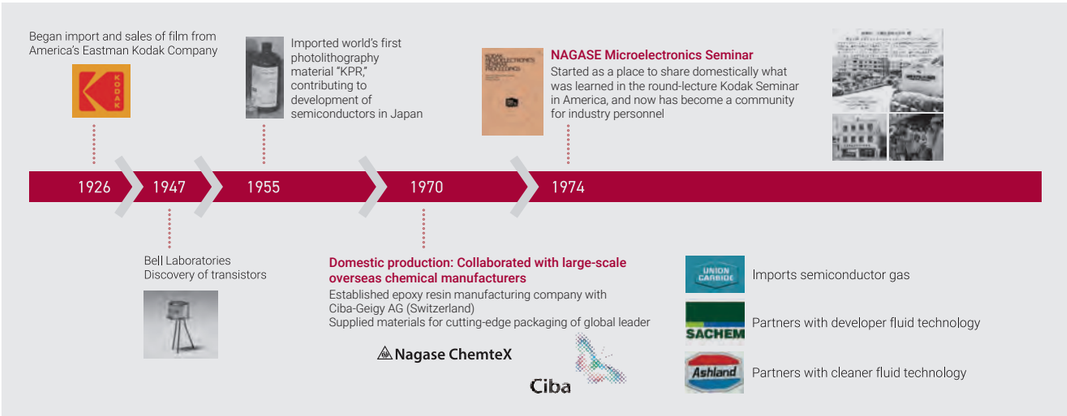
Manufacturing Function Semiconductors

Semiconductors have evolved dramatically as a "digital technology" product that has become central to all industries. Having deep connections to such history, NAGASE is moving toward further advancement and seeking to contribute with novel solutions in the industry as we combine our Group trading function with our manufacturing function.

NAGASE's history with Japan's semiconductor industry

The semiconductor industry in Japan began when NAGASE Group established a joint venture company as a sole agent for America's Eastman Kodak Company (currently Kodak) and started importing video film that would later be used for semiconductor photolithography technology.

Starting in 1974, NAGASE began holding the "NAGASE Microelectronics Seminar" for domestic corporations related to semiconductors with the aim of improving semiconductor technology. This study seminar, in which cross-disciplinary efforts are made across industries in order to enhance the whole of the semiconductor industry, was held for the 44th time in FY2023.



Connections with the full value chain

As a manufacturer and supplier of both materials and equipment, NAGASE expands globally while connected to the full value chain in the semiconductor industry and has carved its unique position. (See chart below.)

It is because the Company has manufacturing functionality within the Group, that we can solve critical multi-stage problems and rapidly respond to changing customer needs or technological trends. Moving toward our customers' "next," we improve the surrounding processes and involve relevant parties when offering suggestions.

Silicon Wafer Process – Pre Front End

Ingot	Slicing	Lapping	Etching	Edge Polishing	Polishing	Cleaning	Sorting Packing
Poly Puler Mainte	Wire Coolant	Powder Coolant	Chemical	Tool Tape	Slurry Pad	Machine Cleaner	Tools Clean Bag

Semiconductor Device Process – Front End

Water	Mask	Litho	Wet	Etching	CMP Cleaning	Inspection	Sorting Packing
Water Reclaim	Mask Pellicle	PR Gas	Wet Chemical	Tool Chemical	Slury Brush Cleaner	Machine	Tool Wafer Case

Advanced Packaging Process – M&B End

Carrier	Temporary Bonding	Molding	RDL	E-less plating	Bumping	Bonding	Probing	Tools
Glass Carrier	TBA/TBF	LMC ETFE Film	Subcon Service Polymide	E-less Plating	Solder Ball Placement Electro Plating	LAPLACE-FC	Probe Card Cleaning Sheet	Wafer Handling Tools

Number of business partners as a chemical trading company
Approx.
18,000
companies

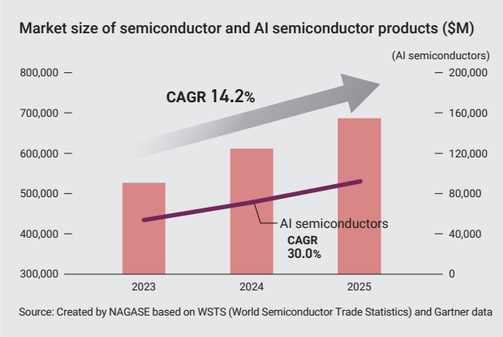
Number of semiconductor-related business partners
Approx.
300
companies

Development | **Focus**
Improvement | Foundation

Becoming a partner that solves industry issues through "sales" and "technology" capabilities, supporting greater business growth

As the movement in the semiconductor industry greatly impact other industries in our digital society today, the global situation will likely destabilize, and demand for semiconductors, or "international strategic resources" will rise even higher in the future. Amid the industry's environmental changes, NAGASE has technological capabilities backed by a solid track record, as well as its comprehensive network and sales capabilities typical of a trading company. As we examine growth areas and leverage our Company's strengths (resources), we create products that become the de facto standard in fields with high competitive advantages.

We support the industry with the entire Group, and aim to build a robust, trustworthy relationship as an indispensable partner for business growth.



Source: Created by NAGASE based on WSTS (World Semiconductor Trade Statistics) and Gartner data

Issues in the semiconductor industry

- Growing importance of semiconductors (growth of IoT, advancement in communication technology, etc.)
- Economic security (geopolitical risks ⇒ local production and consumption needs, rebuilding the supply chain)
- Technology trends, such as Chiplets
- Environmental regulations, recycling (changes in products handled)

NAGASE's value provided

Semiconductors (digital industry)
Ability to make suggestions to the electronics industry
Rebuilding each supply chain

×

Environment (greenification)
Materials / processing / low-consumption electrical products

×

Technology
Customization / sheeting technology / recycling technology

Strengths (resources) and strategies behind the value offered by NAGASE

The Company uses its **proprietary technology to develop products** not yet found, and avoids imitating what other companies may have achieved

First, **we produce results with industry-leading customers, and strive to become the de facto standard**

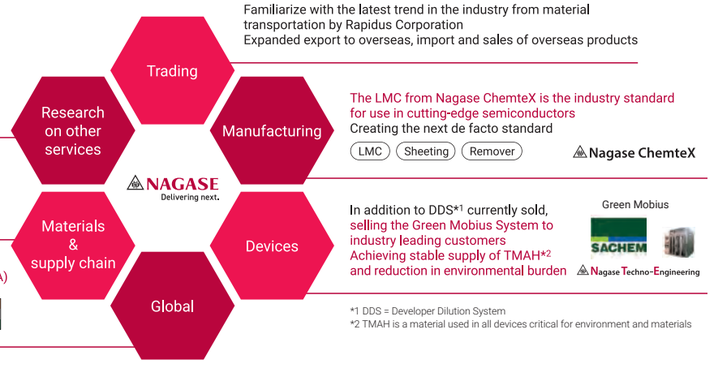
Involving the peripheral materials and device manufacturers with our internal products, we secure our position as the de facto standard, and continue to **expand our business range as a trading company**

To improve the NAGASE model, we will provide with more comprehensive strategic measures that can be used to **tackle clients' concerns**

Hosted the 44th NAGASE Microelectronics Seminar
142 participants shared the latest trends and formed connections

Proven track record with **over 300** semiconductor-related manufacturers

Expanding the strategic regions
Japan / Taiwan / America / Europe / Korea / China / India (TBA)



*1 DDS = Developer Dilution System
*2 TMAH is a material used in all devices critical for environment and materials

Manufacturing Function Semiconductor-related

■ Promoting industry development through industry standard technology

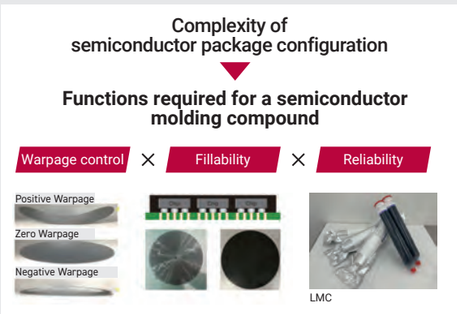
Solving problems in packaging for cutting-edge semiconductors
Epoxy molding compounds

Solving problems in packaging for cutting-edge semiconductors
Epoxy molding compounds

In 1980's, Nagase ChemteX (then Nagase-CIBA, Ltd.) introduced the technology for processing epoxy resin into a liquid encapsulant to Japan. Since then, it was applied in a wide variety of forms and uses, such that Nagase ChemteX's liquid molding compound now occupies a large share in cutting-edge semiconductors and has become the de facto standard (industry standard.) In addition to a liquid form, we succeeded in forming a sheet molding compound in the year 2000, achieving a lower manufacturer burden in the form of improved processes and reduced costs, thereby contributing to the development of the semiconductor-electronics industry through advanced manufacturing technology.

Now is the time to shine!
"Formulation technology" and "reliability"

To handle the increasing complexity of semiconductor packaging such as growing needs for 3D stacking, etc., the better formulation technology for molding compounds (see diagram below) will be in greater demand onwards. NAGASE will continue to provide a diverse array of solutions, based on the reliability and success in creating products that handle various customer issues and become industry standards. In addition to liquid molding compound (LMC), which currently holds a high market share, moving forward, we are going to devote energies to the business of developing a sheet molding compound (a-SMC) as a new concept to solve issues such as uniform molding and larger sizes.

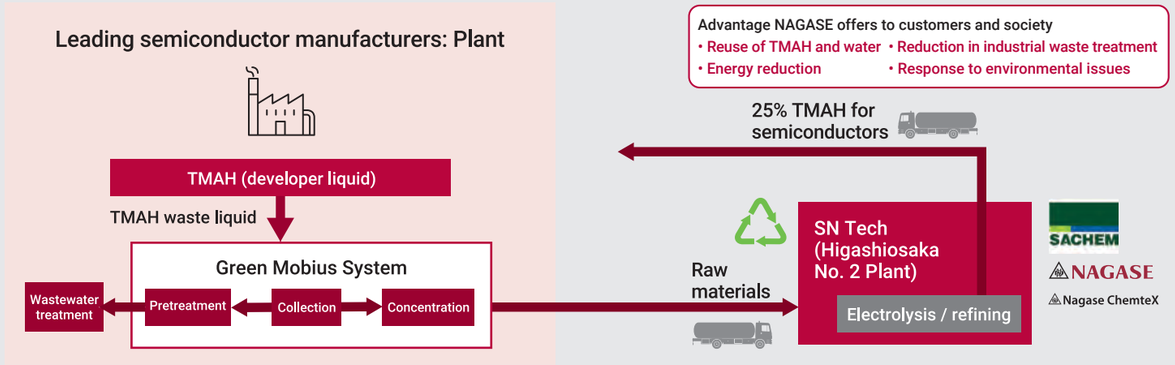


■ Contributing to industry sustainability

A new environmentally friendly business system

Developer liquid recycling (Green Mobius System)

A chemical substance that is essential in the process of manufacturing semiconductors, TMAH is a high-purity developer that is used when forming circuits. Up until now, this developer has conventionally been treated as industrial waste when used for semiconductors, but NAGASE is working to recycle used developer by enhancing developer electrolysis and refining technology originally used for manufacturing LCD panels by SN Tech Corporation, a company formed as a joint venture with Sachem Inc. in America. This business of collecting and recycling semiconductor developer liquid as a product for reuse in the semiconductor manufacturing industry is the first of its kind in Japan and one of the forerunners globally. Recycling contributes to stable procurement of developer, as well as to improved profitability in terms of cost competitiveness and the realization of an environmentally friendly business.



TMAH: Tetramethyl ammonium hydroxide

"Catalase"——an enzyme contributing to wastewater treatment at semiconductor plants

In the cleaning stage of semiconductor manufacturing, hydrogen peroxide and other chemicals are used as cleaning solutions. As the semiconductor market has grown in recent years, the amount of wastewater from the cleaning process has also increased, so more attention is being paid to the enzyme catalase, which breaks down hydrogen peroxide contained in the wastewater. The catalase manufactured as a product by NAGASE's unique biotechnology is also seeing increased demand, as it supports semiconductor manufacturing plants as an enzyme which efficiently treats a great volume of wastewater in comparison to processing by chemical products.

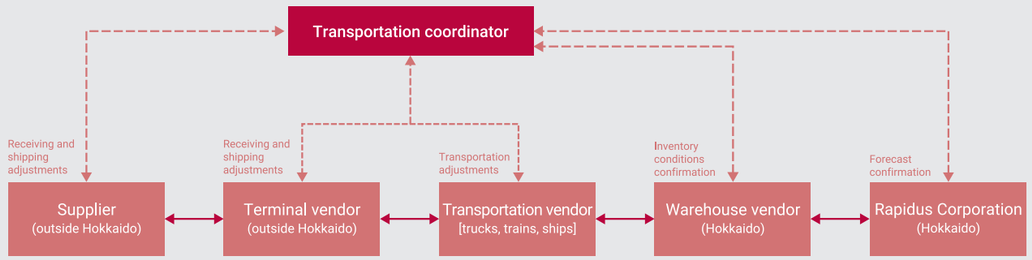
"Flux sheet"——daring to create a new industry standard using sheeting technology

Nagase ChemteX is developing the non-epoxy product "flux sheets," as a new effort utilizing our epoxy sheet technology and production facilities. Flux is an auxiliary material that removes the oxidized layer and allows for easier conjoining when soldering semiconductors or electronic parts to the circuit board. Conventionally, it comes as a paste, but by making it a sheet, it should not only shorten the customer's production process and improve SMT yield, we also expect it to be applicable to small diameter soldering in cutting-edge devices. Also, it can be cleaned with water, so we expect it to decrease the environmental burden when it replaces flux cleaned with solvents. Since flux sheets require suggestions starting from the construction method, this effort to create new value-add is ideally suited to NAGASE, who is thoroughly knowledgeable in devices and processes as a trading company.

Business as a transportation coordinator supporting domestic production of semiconductors

Supporting the logistics industry through know-how and network as a chemicals trading company

Nagase & Co., Ltd. was selected as one of the service coordinators organizing transportation from the mainland Honshu to Hokkaido for semiconductor materials headed to semiconductor plants (IIM) built by Rapidus Corporation in Chitose City, Hokkaido. Rapidus Corporation is a semiconductor manufacturer who aims for domestic production of cutting-edge semiconductors of size 2 nm, which are critical for next-generation industries such as self-driving and AI. NAGASE, as the coordinator for transportation of main materials necessary for manufacturing semiconductors, gathers the materials received from each supplier at a terminal site, and supports centralized transportation from the mainland Honshu to Hokkaido.



Strengths in the logistics industry

Dangerous flammable chemical substances and high-pressure gases are used in the process of manufacturing semiconductors, and they are forbidden by JR freight terms and conditions to be transported through the Seikan Tunnel connecting Hokkaido and Honshu.

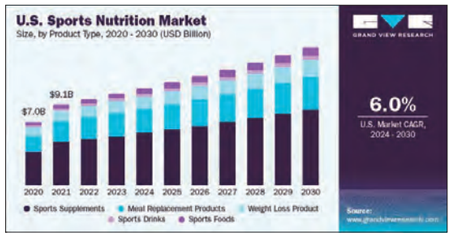
NAGASE collaborates with Senko Nagase Logistics Co., Ltd., a Group company with rich experience in transporting dangerous substances, and other merchant ship operators, as we offer suggestions for more efficient, safer, and more environmentally friendly transportation methods.

Development | **Focus** | Improvement | Foundation

Manufacturing Function Food

Full operation of contract manufacturing of stick pack products in our nutrition business in America

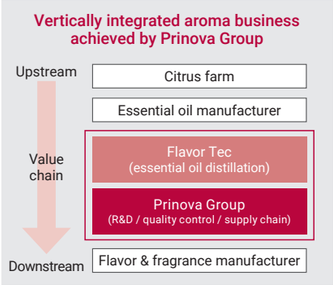
As the market for sports nutrition (sports nutrition-assisting foods) grows globally, Prinova Group is strengthening its contract manufacturing function as a strategic base for its food ingredient business in Europe and America. In particular, as powdered drink, which are highly in demand, stick pack products are gaining attention because the amount for one serving is clear, making measuring unnecessary, and they are easy to carry. So, in July 2024, Prinova Group began full operations of contract manufacturing through Prinova Nutrition, a subsidiary of Prinova Group. Prinova Group will ensure its position in the stick pack product market by aggressively approaching this area in the contract manufacturing field which is expected to grow markedly.



*Reference: Grand View Research

Acquisition of an essential oils distillation company to achieve a vertically integrated business in the aroma business

In June 2023, Prinova Group acquired Flavor Tec - Aromas De Frutas Ltda, a Brazilian essential oils distillation company. By acquiring this company involved in high-quality concentration and distillation in the citrus oils field, Prinova Group is realizing a vertically integrated business, from raw material processing to sales, in the aroma business. Also, by strengthening our essential oils processing technology and enhancing quality of procured raw materials, we are strengthening our sales and ability to offer suggestions to customers in the aroma business not only in the Brazilian market, but also globally. By working on distillation in South America, the world's largest citrus producing area, Prinova Group is able to greatly reduce logistics costs and the environment burden of transporting raw materials, and thereby offer sustainable solutions.



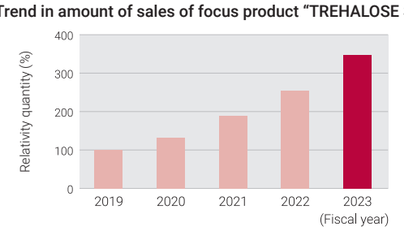
Manufacturing function Life sciences

Solutions in biopharmaceuticals

"SOLBIOTE™" — injectable-grade saccharide pharmaceutical excipient

In recent years, pharmaceutical development has shifted the focus of new drug development from traditional small molecules to complex molecules (such as peptides, proteins, and antibodies). Particularly in regards to cancer treatment, there has been global acceleration in the development of biopharmaceuticals based on antibodies. One major problem in this area is maintaining consistent quality when storing these pharmaceuticals. As demand for biopharmaceuticals has grown in recent years, sales of TREHALOSE SG, an injectable-grade saccharide pharmaceutical excipient developed and manufactured by Nagase Viita, which is a manufacturing subsidiary of the Group, have been on the rise as it can contribute to consistent quality. To strengthen marketing for the biopharmaceutical market, which is expected to grow into the future, we have established the injectable-grade saccharide pharmaceutical excipient brand "SOLBIOTE™" and are devoting efforts to increasing sales of series products TREHALOSE SG and MALTOSE PH. By contributing to the stabilization of proteins in biopharmaceuticals of anti-cancer drugs and immunoglobulin preparation, etc., these products stabilize the quality of the pharmaceuticals themselves, reducing the impact on quality of storage and transport of the pharmaceuticals, for which strict temperature control is needed. This leads to easier storage and transport and ultimately contributes to the steady provision of pharmaceuticals.

Trend in amount of sales of focus product "TREHALOSE SG"



Low endotoxin material and endotoxin removal service

Endotoxins are included in the raw materials of the cell cultures of pharmaceuticals, medical equipment and regenerative treatment, but can cause fever and shock reactions when present in the human body. NAGASE not only sells low endotoxin materials, we also offer endotoxin removal services.

Development | Focus | Improvement | **Foundation**

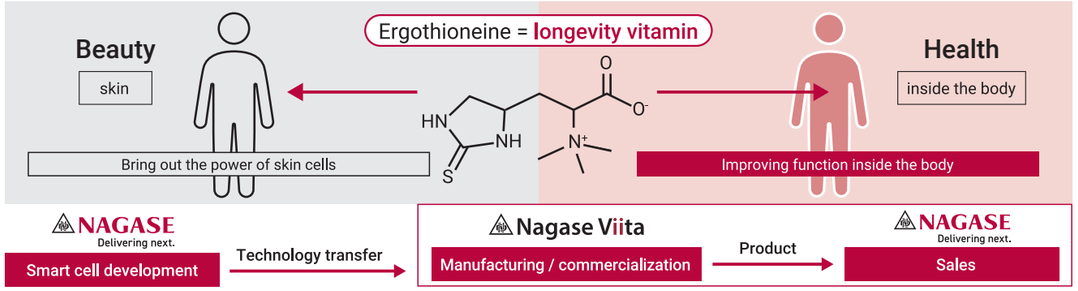
R&D Bio

Commercialization of the longevity vitamin ergothioneine

Present in fungi in small quantities, ergothioneine (EGT) is a rare natural amino acid that improves brain function and has a strong antioxidant effect. As a next-generation functional material, it is expected to have a wide range of applications, including treating the symptoms of neurodegenerative diseases (such as Alzheimer's disease and Parkinson's disease), depression, skin aging (wrinkles and spots) due to UV light, and cataracts, as well as controlling glycative stress. EGT cannot be produced in the human body, and it decreases with age and with stress. EGT is difficult to naturally extract with high purity and leaves a large environmental footprint when chemically synthesized so there were issues with commercialization.

In 2020, Nagase Bio Innovation Center, which possesses its unique fermentation technology as a NAGASE R&D base, succeeded in raising the production of EGT about 1000x over the conventional method using smart cell technology (biosynthesis technology that artificially maximizes the substance production capability of cells.)

Currently, we are utilizing developed production strains as we work for it to be ready for market in the cosmetics field. Going forward, the NAGASE Group will keep in mind its expansion into the food industry, as we continue to contribute to extending healthy lifespans across the world by utilizing biosynthetic technology to create in an environmentally friendly way.



Initiated joint development to commercialize bio-derived superabsorbent polymers

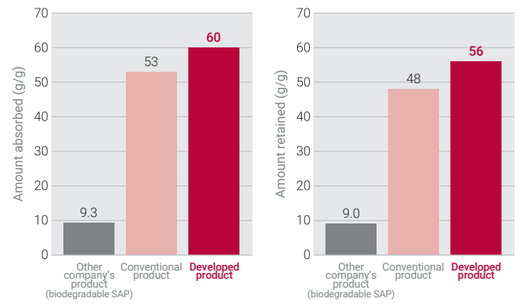
Superabsorbent polymers (SAP) are polymer materials with high water absorbance that are used in various areas such as sanitary products (mainly disposable diapers and sanitary napkins), as well as agriculture products. However, existing SAP products had the issue of being environmentally unfriendly, because of the petroleum-derived and non-biodegradable materials used. Although efforts were made to develop SAPs using natural raw materials and with improved biodegradability, the creation of commercially viable end products proved difficult as water absorption was insufficient.

In February 2023, through a combination of Nagase Viita Co., Ltd.'s fermentation technology and Nagase ChemteX Corporation's resin manufacturing technology, NAGASE succeeded in developing a SAP with a higher ratio of bio-derived raw materials. Despite starch being the main raw material, this SAP has absorption properties that equal or surpass those of conventional products. Furthermore, in April 2024, a new SAP grade was developed, and testing by a third-party organization confirmed its biodegradability, qualifying it for marine biodegradability certification (over 90% degradation in the ocean in 180 days). The SAP developed at this new grade is expected to reduce fertilizer and save water as a water retention material for use in greenification or agriculture. Also, even if it is washed out to sea by rivers and streams, it will reduce the amount of residual plastic waste.

In May 2024, we began joint development toward commercialization of adult disposable diapers that are environmentally friendly, and we hope to have a product ready starting in 2027. Making environmentally friendly hygiene products that use high bio-mass SAP practical is just the leading case. We are also working to develop a sustainable product for nursing and treatment facilities, as well as drug stores, and ultimately to propose a recycling scheme that enhances the resource recovery efficiency of used disposable diapers.

Comparison with biodegradable SAP from other companies and conventional polyacrylic acid SAP

<Absorbance / retention of saline solution>



* Absorption: Absorption (g) of saline solution per 1g of SAP [JIS K 7223-1996 Compliant]
* Retention: After the absorbance test, amount of saline retained after 90 seconds of dehydration of absorbing SAP at a centrifugal force of 150G
* Conventional product: polyacrylic acid SAP

Development | Focus | Improvement | Foundation

New Business Corporate Venture Capital

Shaping corporate venture capital (CVC) to discover the seeds of new businesses

The Company has begun initiatives with CVC starting from fiscal 2023 in order to elevate our investment in start-up companies who have new business ideas, and to acquire a broad array of knowledge of cutting-edge technology and business models. The Future Co-creation Office, directly under the President, leads up these initiatives and is building a base for development of next-generation business.

In March 2024, using CVC, we formed a capital and business alliance with Piezo Sonic Co., Ltd., a start-up company who is advancing the business of developing, manufacturing, and selling ultrasonic motors and robots. Piezo Sonic is improving its ability to manufacture ultrasonic motors and autonomous transport robots and strengthening its ability to develop in such fields as ultrasonic motors for vacuum environment in space. Through this investment, NAGASE is gaining knowledge in a field not covered by its existing businesses and deploying that knowledge in the creation of new business.

Furthermore, in July 2024, the Company decided to invest in A1A Inc., who provides data structuring services for quotations handled by the purchasing and procurement departments of corporations, and in Morgenrot Inc., who provides shared platform services and operation efficiency enhancement for HPC servers used in generative AI, etc.

New Area Global South

In the area of "Development," we are working to strengthen the next base by accelerating our investment of resources such as human capital in India, Indonesia, Mexico, and Brazil (the Global South), positioned as a new area expected to see continued growth moving forward.

Latest initiatives in the Global South

India	Expanding the market in the area of electronics (Liquid crystals for cell phones, semiconductors, etc.)
Indonesia	Pioneering markets in the area of food (food materials) as population grows
Mexico	Strengthening on-site procurement in the area of mobility (establishing JVs for manufacturing motorization-related materials)
Brazil	Expansion of business region of aroma business (acquisition of essential oils distillation company) (see picture) in the area of food (food materials)

Development | Focus | Improvement | Foundation

Unprofitable Businesses Businesses at Risk of Impairment Loss

Progress of our initiatives

We are working to ensure that future losses are as close to zero as possible. In the fiscal year 2023, we reduced over losses by approximately 3 billion yen compared to the previous year.

Regarding the assets of unprofitable operating subsidiaries and assets of concern for impairment loss, we have formulated and are implementing a concrete action plan for reducing losses, without eliminating the possibility of withdrawals or sales.

Targets for improvement	Initiatives
1. Operating losses of our operating subsidiaries and equity losses of our affiliates Rapidly formulate and implement improvement plans. Consider withdrawing from operations that seem unlikely to improve	• Withdrawal from color former business in America (liquidation of SOFIX LLC)
2. Assets at risk of impairment loss Strengthen monitoring of assets at risk of impairment loss and minimize that impairment	• Strengthen monitoring before concerns related to impairment loss become apparent
3. Unprofitable business arrangements List and monitor all dealings Return business rights when improvement seems unlikely	• List individual unprofitable arrangements and improve profitability

Strengthen monitoring points

For the following targeted businesses and items, the Company utilizes its conference bodies, with the corporate divisions and business divisions collaborating, as the Company aims to strengthen its monitoring.

- Improvement conditions related to deficits and unprofitable arrangements
- List of impairment loss concerns and preemptive countermeasures
- Improvement initiatives with consideration for business improvement settings and timelines

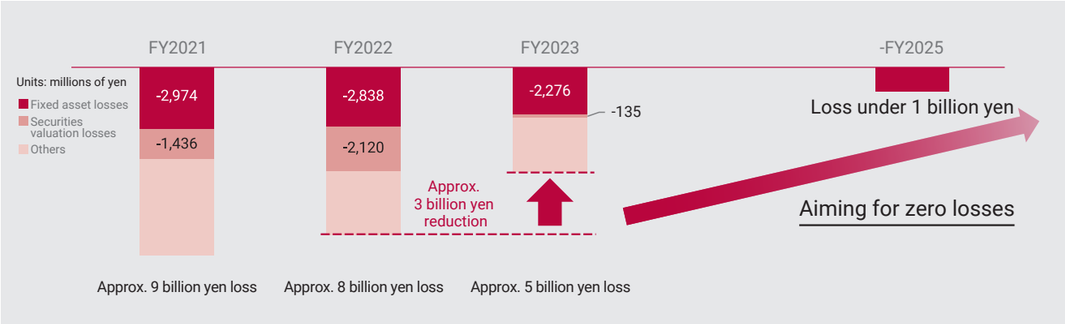
Regarding fixed assets and investment securities at risk of impairment losses, NAGASE clarified the items to be monitored by establishing criteria for listing. Furthermore, the supervising organization formulated countermeasures and plans for those items, and submitted them to the corporate division. By establishing and deploying this kind of monitoring process, we are working to prevent the emergence of losses in advance.

Actual past withdrawals

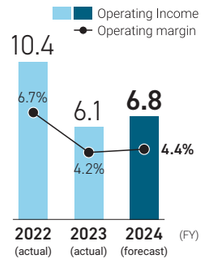
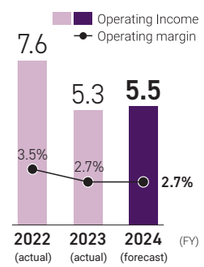
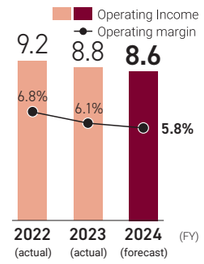
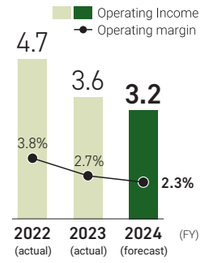
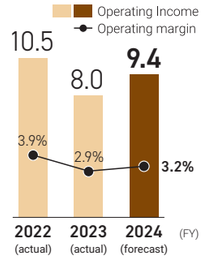
In September 2023, NAGASE decided to dissolve the Sun Delta Corporation, an equity affiliate which was formed as a joint venture with the Asahi Kasei Corporation. Since its inception in 2005, Sun Delta Corporation provided business to meet market demands by combining the technology of Asahi Kasei Corporation with the network marketing of Nagase & Co., Ltd. However, as the business environment changed drastically, it became necessary to reevaluate business activities based on our initial goal. As a result, we decided to dissolve the corporation in order to optimize operations and more effectively utilize operating assets.

Additionally, in June 2024, we decided to withdraw from the U.S. color former business, liquidating SOFIX LLC, a consolidated subsidiary of NAGASE which primarily supplied the U.S. market as a color former manufacturing and sales company. Responding to changes in the business environment, such as oversupply across the whole market, NAGASE decided to withdraw based on our judgment that steady profits would be difficult to generate, and it would be better to reorganize our business portfolio given its strategy of growth.

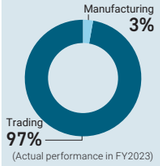
Financial scale of operating subsidiaries' operating losses, equity losses, impairment losses, and unprofitable business arrangements



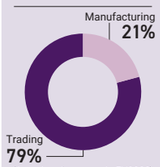
List of Segments

Business segments	Departmental initiatives	Main products and services	Operating income and operating margin (billions of yen)*2
Functional Materials >P.43-44	**Performance Chemicals Department** The Performance Chemicals Department provides high-performance materials for a wide range of industries, including coatings, inks, paints, urethane, toner, textiles, paper-making, and LCD. It is also responding to customers' needs by developing sustainable products, demand for which is rapidly increasing, based on the key words "environment" and "bio," and by effectively utilizing the functions of the NAGASE Group as a whole, including manufacturing, R&D, and processing. **Speciality Chemicals Department** The Speciality Chemicals Department provides chemical materials, devices and processing services for the chemical industry, with a focus on semiconductor materials, oils and surfactants, organic synthesis, petrochemicals, polymers , etc. Playing an important role in the chemical industry's supply chain with an extensive network of business partners globally, and the knowhow obtained through handling over 10,000 product items, it is also developing new businesses with unique technologies, thereby helping to solve the issues of customers all over the world.	**Performance Chemicals Department** Resin raw materials, resins, solvents, pigments, dyestuffs, coloring matter, dispersion processing materials, various types of additives, urethane materials, release agents, conductive materials, functional sheets, films, adhesives, sanitary materials, and joint distribution matching services **Speciality Chemicals Department** Organic chemicals, inorganic chemicals, high-purity chemicals, various types of additives, polymers, bio-products, specialty epoxy resins, specialty acrylic rubber materials, polymer filters, enzymes, water treatment equipment, metal organic framework (MOF), and contract manufacturing matching services.	
Advanced Materials & Processing >P.45	**Polymer Global Account Department** With a well-developed sales network and experienced local staff in the Asia Pacific region, the Polymer Global Account Department works with global companies to sell plastic resins for a wide range of industries, including office equipment and the electrical and electronics industries. It is also focusing on eco-friendly businesses and providing environmentally friendly materials and services, such as recycled materials and biomass plastics.	**Polymer Global Account Department** Engineering plastics, commodity plastics, packaging materials and other plastics-related products and services	
Electronics & Energy >P.46-48	**Electronics Department** In addition to providing functional materials and their constituent components to the silicon wafer, semiconductor, electronic components and display industries, the Electronics Department is working with partner companies to develop products that align with market and customer needs. **Advanced Functional Materials Department** Nagase ChemteX Corporation's modified epoxy resins, developer, re-claiming of stripper, high-performance materials for 3D printing, etc., which are developed based on the company's formulation, compounding, precision cleaning, surface treatment and photosensitive materials design technologies, are sold both in and outside Japan, with key fields including the electrical/electronics industry, mobility, the environment, energy, semiconductors (photolithography and encapsulant materials), 3D printing and displays.	**Electronics Department** High-precision abrasive materials, optical materials for displays, touch panel components, functional coating, conductive and insulating materials, adhesive and encapsulating materials, high-heat-resistant films, optical lenses, high-frequency devices, low dielectric materials, sensing modules, optical materials for XR, semiconductor and electronic device-related equipment **Advanced Functional Materials Department** Formulated epoxy resins and related materials, photolithography materials for flat panel displays and semiconductors, 3D printing-related materials	
Mobility >P.49	**Mobility Solutions Department** The Mobility Solutions Department contributes 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 offering diverse solutions through pursuing new technological innovations.	**Mobility Solutions Department** Various plastics, 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 >P.51-52	**Life & Healthcare Products Department** In the pharmaceutical, medical, cosmetics, household goods, and food products (processed foods and nutrition) sectors, we provide a wide range of solutions throughout the world through the NAGASE Group's manufacturing, processing, procurement, logistics, research, application development and regulatory-related functions. The Life & Healthcare Products Department is striving to contribute toward the realization of healthy, enriched lifestyles.	**Life & Healthcare Products Department** Pharmaceutical products (APIs, additives, intermediates, and other materials), materials for in vitro diagnostics, raw materials for cosmetics and household goods (active ingredients, additives, emulsifiers, and fragrances), food ingredients (nutritional materials, functional saccharides such as TREHA™, glycosides, enzymes, and other processing aids), premix (OEM/ODM), materials for agriculture (including livestock raising) and fisheries, and endotoxin removal services	

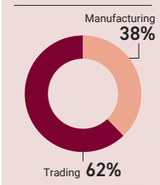
Shares of gross profit held by manufacturing and trading*1



(Actual performance in FY2023)

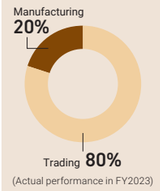


(Actual performance in FY2023)



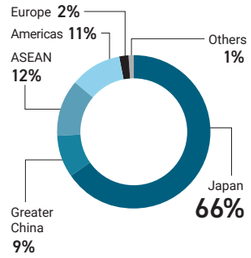
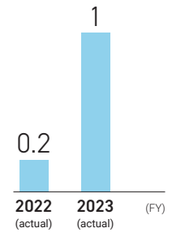
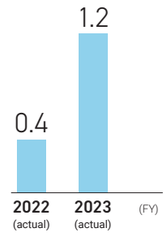
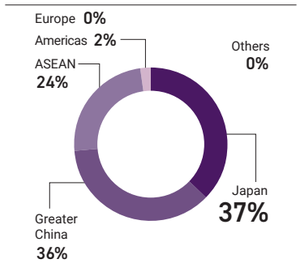
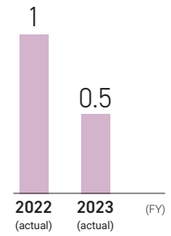
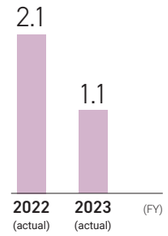
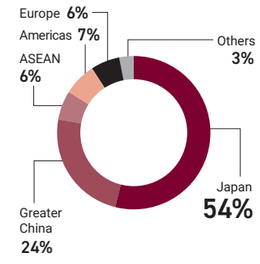
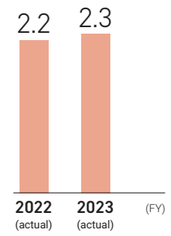
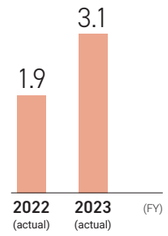
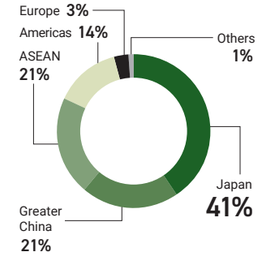
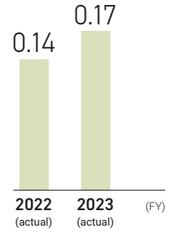
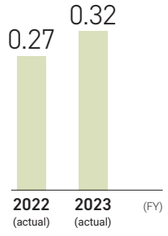
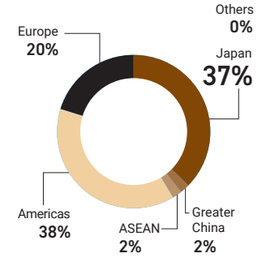
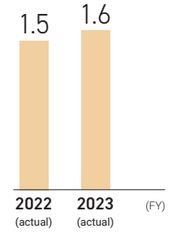
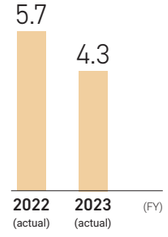
(Actual performance in FY2023)

(Actual performance in FY2023)

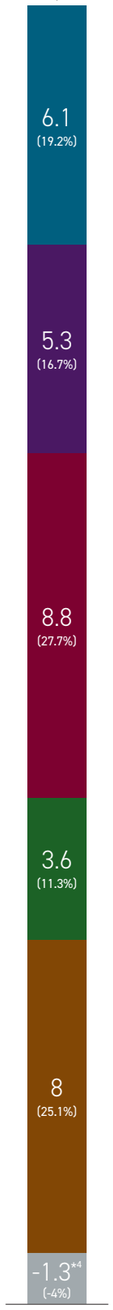


(Actual performance in FY2023)

*1 The trading portion of gross profit includes Other/Corporate, and takes into account the effect of consolidated adjustments.
*2 In order to realize more appropriate management of the reported segments, starting from the fiscal year ending March 31, 2025, the method used for allocating company-wide common expenditures is being partially adjusted, with part of the company-wide common expenditures that were previously included under "Other" being allocated to individual segments. Data for fiscal 2022 are presented prior to this allocation; data for fiscal 2023 and fiscal 2024 are presented after this allocation.

Gross profit by area	R&D expenses (billions of yen)*3	Capital investment (billions of yen)*3
		
		
		
		
		

Gross profit	Operating income
164.7 (Billions of yen)	30.5 (Billions of yen)



*3 These data were calculated based on the business classification adjustment conducted to accompany the business restructuring implemented in October 2023.(This does not apply to the actual performance data for R&D expenditure and capital investment for FY2022.)
*4 ■Other/Corporate: Includes businesses not included in reported segments and eliminated inter-segment transactions, etc.

Functional Materials Segment

In this section, we outline the results & challenges faced by each business segment in relation to the QUICK WIN (see P.16) initiatives.

Performance Chemicals Department

Masuo Higuchi
GM, Performance Chemicals Department

Business domains
Coatings, inks, adhesives, pigments, urethane, toner, textiles, paper-making, LCDs, etc.

Recent customer issues
The need to respond to the trend toward sustainable manufacturing, the shrinking of the Japanese domestic market, and intensifying competition in overseas markets

Products in daily lives
Coating materials used in automotive manufacturing and construction, dyes used in garment manufacturing, materials used in LCD displays, etc.

NAGASE's added value
A global procurement capability, and providing biotechnology-based, environmentally friendly materials solutions

Results – Effective utilization of digital technology

Meeting the needs of individual customers and industries with our unique technologies

As manufacturing sites become more diversified, customers' needs are growing more complex. Rather than merely offering proposals for raw materials, we are promoting the commercialization of a service model that makes effective use of digital transformation (DX). One example of this is our AI joint logistics matching service for chemical products. By realizing joint logistics for chemical products between multiple companies, and supporting efficient route planning, we are responding to the "2024 Problem" (the imposition of stricter rules on drivers' working hours, due to come into effect in Japan in 2024) affecting the logistics sector in Japan, and contributing toward a reduction in greenhouse gas emissions. Also, with the "Mixing Concierge" service which is scheduled to be launched in 2024, we are focusing on the mixing process which exists in many factories; by providing analytical software that allows the liquid mixing process to be visualized, we are aiming to enhance productivity. Going forward, we will contribute toward the continued development of the chemical industry by providing unique materials and technologies, and services that make effective use of digital technology, to meet customers' needs.

Challenges – Growth strategy

Integrating manufacturing function to improve profitability

With the aim of strengthening chemical manufacturing function relating to the "Foundation," "Focus" and "Development" aspects of our **ACE 2.0** Medium-Term Management Plan, we intend to merge three of our NAGASE Group manufacturing companies – Nagase ChemteX Corporation, the functional dyes (Fujita Plant) business of Nagase Viita Co., Ltd., and Fukui Yamada Chemical Co., Ltd. – within two years from now. This merger will bring about improved profitability through more competitive products. We will also be aiming to enhance production efficiency by strengthening our development capability through technology synergies, promoting business continuity planning (BCP) measures as part of our strategy to develop our network of business locations, and making talent cultivation more efficient by promoting the flow of human talent between business locations.

NAGASE has solutions! Customer's Voice: EDWIN Co., Ltd.

Making jeans production more sustainable with a resource-circulating bio-indigo solution

Within the apparel sector, jeans manufacturing is considered to have a particularly large environmental footprint. At EDWIN, we are implementing the CO:RE Project to recycle offcuts and waste product generated by our factories. NAGASE has provided us with a resource-circulating bio-indigo solution that makes use of waste fiber. Although there are still some challenges to address, we and NAGASE have a shared confidence in the value and future potential of this technology, and we are working together to commercialize it. Chemically synthesized indigo, which is currently the mainstream technology, contains aniline (which is harmful to humans), and is also seen as being problematic in terms of the CO_2 emissions generated. Bio-manufacturing, using alternatives to petrochemical-derived materials, has a key role to play in next-generation sustainable fashion, and given NAGASE's ability to develop bio products (as a company whose origins were in dyestuff manufacturing), and its strong organizational capabilities, we anticipate that NAGASE will play an important role in realizing this change.

Hidekazu Hosokawa
Creative Director
EDWIN Co., Ltd.

Speciality Chemicals Department

Kenichi Kurimoto
GM, Speciality Chemicals Department

Business domains
Semiconductor materials; oils, surfactants and organic compounds; petrochemical and plastics

Recent customer issues
1. Sustainable manufacturing: Reducing CO_2 emissions, responding to hazardous and harmful substances and production processes, etc.
2. New product development through continued technology innovation: Development of high-functionality semiconductors (miniaturization, etc.) and high functionality EV batteries, etc.

Products in daily lives
Our polymer filters are used in the manufacturing of components for electric vehicle (EV) batteries

NAGASE's added value
Our polymer filters are used in the manufacturing of separator materials for EV batteries, helping to ensure battery quality

Results – Organizational restructuring

Accelerating DX and new business development

With the newly established Planning and Marketing Office, we have been promoting DX and the development of new businesses. In the DX promotion, in addition to visualization of reports and development themes through CRM, we worked on business creation utilizing digital tools, such as online exhibitions and digital marketing of contract manufacturing matching services. Going forward, besides continuing to develop existing activities, we will also be making operations more efficient through the use of generative AI and to achieve new business creation. We have also started to study the commercialization of new technologies and are focusing on two technologies. The first is flow synthesis technology: we are working to commercialize this technology with the aim of contributing to improved manufacturing productivity, reduced waste emissions, and improved safety and workability. The second is metal-organic structures (MOFs): we are contributing to sustainable manufacturing, including carbon neutrality, by utilizing MOFs' superior CO_2 separation and recovery functions. In parallel, we are also exploring new unique businesses.

Challenges – Growth strategy

Evolution of the business model with NAGASE Group integrated business operation

We will operate our business in greater collaboration than ever with the Group's manufacturing companies, sales companies, and overseas subsidiaries. Five-year growth scenarios for key businesses and major projects have been under development. We will evolve the Group-wide businesses by utilizing our discernment in the growing semiconductor sector, our core manufacturing business, and new projects in India, one of our global south regional strategies.

Flow synthesis technology

Metal organic framework (MOF) technology

NAGASE has solutions! Employee's voice

Helping customers with manufacturing issues, from production equipment installation to product launch

When one of our customers was starting up a new business, they had difficulty sourcing the manufacturing equipment they needed to begin volume production, and they asked us to assist them with manufacturing. Based on our accumulated experience, we were able to suggest the optimal outsourcing partners for them (in terms of technology, location, scale of operations, etc.), and they were consequently able to begin volume production very rapidly. I was deeply moved when we celebrated the launch of the new product with everyone after repeated production and delivery adjustments. I also thought that other customers might have similar problems, so I created a system to meet customer needs by utilizing DX, for example, by creating a database of information and know-how of contract companies owned by NAGASE. Looking ahead, we will be accelerating our initiatives to generate new value by growing together with our customers and outsourcing partners.

Shoichi Uchiyama
Osaka Sales Office, Speciality Chemicals Section I
Speciality Chemicals Department

Advanced Materials & Processing Segment

Polymer Global Account Department

Koji Yoshida
GM, Polymer Global Account Business Department

Business domains
The plastics industry as a whole (including the electrical and electronics industry and the packaging industry)

Recent customer issues
Changes in the supply chain (diversification of production locations and of manufacturing technology), the need to reduce CO_2 emissions, and the need to cope with geopolitical risk

Products in daily lives
Office automation equipment, laptops, mobile phones, game consoles, cosmetics containers, and food packaging

NAGASE's added value
The ability to allocate personnel from different countries to multiple sites in response to the requests from customers to have production locations in multiple different countries

Results – ROIC-focused management

Thorough implementation of overseas inventory monitoring

One measure being implemented to enhance capital efficiency is thorough efforts to reduce inventory. Particularly in regard to overseas business locations, where in the past there has been significant variation in the quality of inventory management, increasing the frequency and precision of monitoring can lead to an improvement in awareness on the frontline. Going forward, we will continue with related initiatives, working to instill strong awareness of the improvement of capital efficiency management.

In addition, because once inventory starts to pile up it can result in having to sell products off cheap or dispose of them as waste, it is important to minimize the risk that inventory may build up by keeping the size of orders placed with suppliers at a reasonable level. Starting in fiscal 2023, we have introduced new order placement and inventory management systems in certain countries, including Thailand, and have begun trial operation of a new framework for procurement that takes into account changes in suppliers' production status, trends in customers' supply chains, and other variables. Once it has been confirmed that the new framework is producing results, the scope of implementation will gradually be expanded to include other countries.

Challenges – Speeding up management

Structuring data-driven decision-making and managerial judgement

Given the major global trend toward diversification of manufacturing methods and toward having multiple manufacturing locations in different countries, we believe that this is no longer an era in which NAGASE can survive and thrive based only on the experience of its sales managers. So, we are proceeding with the putting in place of a framework that does not just utilize the integration of historic sales performance data, current customer trends and the outlook for future economic growth for inventory management, but also uses them to realize data-driven decision-making and managerial judgment As a first step, we have set to work on developing a system for reflecting data analysis in future sales plans; we aim to have this system fully operational by the second half of fiscal 2024. Through this kind of initiative, we aim to be able to formulate high-precision growth strategies for each individual area and market, and set to work on restructuring our businesses (including partner companies that are part of the NAGASE Group), as well as optimizing our global human resources allocation.

NAGASE has solutions! Customer's voice: Sekisui Kasei Co., Ltd.

Creating synergy through the combination of our company's products and NAGASE's technology to develop new markets

Sekisui Kasei manufactures and sells a variety of different additives in micro-particle form. We received a request from one of the users of our additives asking whether we could supply them with high-concentration masterbatch (MB), partly to realize a further improvement of the additive usage environment, and also because of cost considerations. This particular additive could be manufactured in MB form at normal mixing concentrations, but there were significant challenges to overcome in order to realize high-concentration MB manufacturing for it. While we were exploring possible manufacturing methods, NAGASE proposed the adoption of a semi-wet manufacturing process which would not only save energy but also reduce the carbon footprint, while allowing the production of a highly-concentrated (over 90%) MB. I feel that NAGASE possesses unique strengths, in terms of having expertise in both manufacturing methods on the user side, and evaluation methods. By performing assessment and compiling data based on the actual conditions that would be faced in volume production, we were able to smoothly develop a solution for our customer. Combining our company's products with NAGASE's technology has been the key to developing new markets. Looking ahead, I hope that we and NAGASE will be able to continue working together on the development of new materials, new technologies, and new markets.

Yasuhiko Soeda
Chief,
Fine Polymers Business Division,
Fine Polymers Sales Group
Sekisui Kasei Co., Ltd.

Electronics & Energy Segment

Electronics Department

Kazuyuki Sato
GM, Electronics Department

Business domains
The semiconductor, display, and smart device sectors

Recent customer issues
Low power consumption devices, semiconductors, promotion of recycling, and heat countermeasures

Products in daily lives
High-precision abrasive materials for use in the semiconductor industry, and optical materials and functional materials for smart devices

NAGASE's added value
- Providing materials to achieve low power consumption for use in power semiconductors, and for use in new types of displays
- Selection and proposal of materials for use in heat countermeasures, heat dissipation, thermal resistance, and insulation

Results – Growth strategy

Capital investment directed toward development of multilayer semiconductors

PacTech Asia, NAGASE Group member company which manufactures semiconductor packaging equipment is proceeding with capital investment to expand its bumping services, which contribute toward development of multilayer semiconductors; volume production began in fiscal 2024. The last few years have seen the continued evolution of multilayer semiconductors, which help to realize high-functionality, low-power and ultra-thin semiconductors, and it is anticipated that Pac Tech Asia's bumping services, which play an important role in this process, will continue to grow. As these services utilize a chemical reaction method, which uses less electric power than conventional electroplating methods, they also help customers to solve problems in a way that contributes toward the achievement of the UN Sustainable Development Goals (SDGs). In terms of our department's regional strategy, we will be leveraging our network of production locations in Europe, the USA and Southeast Asia and expanding capital investment in line with market trends.

Challenges – Effective utilization of digital technology

Maximizing customer touch-points and sharing information within the Company

The Electronics Department is focused on providing a trading function, but up until now, we cannot really be said to have been making full use of digital tools in this area. To be able to realize business expansion in a way appropriate for NAGASE that keeps in mind the advantages provided by NAGASE's networks and assets, we are exploring strategies for the effective utilization of digital technologies, both within and outside the Company. As a first step for our external measures, we have utilized marketing automation (MA) tools to build a system for following-up on potential customers after trade shows. The aim of this is to make the best possible use of potential customer contacts made at trade shows, and link this with business development. An internal measure that we are implementing is to realize thorough utilization of customer relationship management (CRM) tools, diffusion of which currently stands at around 60%, to accelerate the development of new business by sharing information between divisions.

NAGASE has solutions! Employee's voice

United in wanting to live up to customers' belief that "If we ask NAGASE, they are sure to be able to come up with a good solution"

Responding to the rise in environmental consciousness, one of our customers got in touch with us to tell us that they wanted to develop a recycling process for their company's products. They realized that they needed to collaborate with external partners on developing this process, but because the project would be using innovative technology, they were concerned about information disclosure, so it was decided to make use of the Nagase Application Workshop* laboratory. After setting the conditions and performing process and materials evaluations, we were able to work together with the customer to select partner companies. What enabled us to solve this problem for the customer was not just the unique functions provided by the Nagase Application Workshop laboratory, but also our determination, as a trading company, to do whatever it took to live up to the customer's belief that "We can communicate well with NAGASE" and "If we ask NAGASE about it, they are sure to be able to come up with a good solution."

* Nagase Application Workshop (NAW)
NAW provides laboratory functions for the evaluation and analysis of resins and coating materials, application development, and formulation development proposals. (see p. 50)

Kosuke Baba
Business Planning Office
Electronics Department

Electronics & Energy Segment

Nagase ChemteX Corporation
https://group.nagase.com/nagasechemtex/en/

Advanced Functional Materials Department

Ryuhei Tashima
GM, Advanced Functional Materials Department

Business domains
Semiconductors, displays, electrical and electronics, structural materials, medical, etc.

Recent customer issues
Miniaturization, chemical recycling to reduce the burden on the environment, emerging of chiplet, thermal management to deal with complex structural design, reducing the incidence of installed wafer warpage, etc.

Products in daily lives
Semiconductor encapsulants used with generative AI, etc.

NAGASE's added value
Recovery and recycling of developing solution from leading semiconductor manufacturers (Green Mobius)

Results – Growth strategy

Gaining more trust with new value in product performance and environmental aspects

In fiscal 2023, we engaged in continuous dialogue with our major customers in Taiwan, North America and South Korea, which are the main semiconductor industry markets. Thanks to a series of product proposals that we made together with Nagase ChemteX to address customers' problems, we succeeded in reinforcing the status that our products enjoy as the de facto industry standard for cutting-edge semiconductor packaging materials. Our joint venture company, SN Tech Corporation, is proceeding with the introduction of the Green Mobius System recycling system for developer, the first of its kind in Japan, in collaboration with a leading semiconductor manufacturer. We will contribute to the semiconductor industry not only in terms of product performance and quality, but also in terms of the environment.

In addition, new products that we have launched which make effective use of the photolithography technology that we have cultivated over the years in our display- and semiconductor-related business are also attracting customers in the medical sector and in the metalworking industry. We will be proceeding with efforts to further transform our business portfolio, accelerating growth not only in our core businesses (electrical, electronics and displays) but also in new fields.

Challenges – Speeding up management execution and cultivating human talent

Rapid decision-making and human investment in industrial changes

The business environment affecting the semiconductor sector is constantly changing, and we are now at a stage where we need to reconfigure the existing supply chains at a national level. Given the situation, if NAGASE fails to realize speedy managerial decision-making and invest proactively in its businesses and its human capital, then not only we will not be able to grow, we may even have difficulty surviving.

Realizing human talent cultivation that looks ahead several years into the future is a particularly urgent task. The NAGASE Group possesses a manufacturing function with a wealth of experience and an impressive track record, and which also has very strong technological capabilities. Going beyond this, it is vitally important for the personnel who act as contact points for customers to be able to not only find out from customers about issues that have already emerged, but also identify and point out latent problems that have not yet manifested. NAGASE has links to every part of the semiconductor industry value chain, and has access to information that enables us to identify the industry's roadmap and major trends, so we are working to accelerate activities that integrate information and technological capabilities to provide real solutions.

NAGASE has solutions! Customer's Voice: SACHEM, Inc.

A partner looking at the future of semiconductors and environmental challenges together

We have known your company for a long time. We started out in the business of reclaiming chemicals used in displays, and now we are working together with major semiconductor manufacturers using our cutting-edge recycling technology "Green Mobius" to take on the challenge of creating a new style in the semiconductor industry.

In order to cope with the fast-paced changes, we sometimes have tough discussions and share difficult challenges, but we communicate closely on a daily basis so that we can make proposals that only Sachem and Nagase can offer.

In the rapidly changing world of cutting-edge semiconductors, Nagase's strengths lie in your staff's thorough knowledge of the technology, and your quick footwork, using a network that extends not only in Japan but also throughout the world. We hope that Nagase and Sachem will continue to grow together and that we will continue to be partners in creating the roadmap for the next five to ten years.

Rosemary Hoffman
CEO, SACHEM, Inc.

Nagase ChemteX Corporation (NCX)

Business overview

Nagase ChemteX Corporation (NCX) is a core manufacturing company within the NAGASE Group, possessing innovative technologies across a wide range of fields that includes chemicals and electronics.

With core technologies that include innovative organic synthesis, formulation, processing, and evaluation technologies, we create products that have a wide range of applications, from the electronics sector (semiconductors, electrical and electronic components, and displays) through to personal care products and coating materials. Our main business areas are: Functional Resins (formulated epoxy resins, including encapsulants), Precision Processing Materials (photolithography materials, etc.), and Functional Chemicals (special epoxy compounds and conductive coating agents, etc.). With our unique chemical products, which have won plaudits from many customers throughout the world, and the advanced technology that supports the development of these products, we are contributing toward making the world a better place.

Satoru Fujii
Representative Director, President and CEO

Functional resins
Epoxy adhesives, Encapsulants (Sheet/Liquid), Potting materials

Precision processing materials
Photolithography materials, 3D printer resins, and Ag nano ink

Functional chemicals
Special epoxy compounds, transparent conductive coating materials, and low-endotoxin materials

Company overview

Company name	Nagase ChemteX Corporation (NCX)
Establishment	April 1, 1970
Capital	2.47 billion yen
Net sales	About 25.1 billion yen
Employees	Around 560

Winning even more trust and achieving continued growth, by responding to society's problems and environmental issues

Besides strengthening our production system for products targeting the semiconductor industry, which is a key growth area, and focusing even more heavily on new product development, we are also developing products that help to reduce the burden on the environment, including: a superabsorbent polymer which is biodegradable; GREEN DENACOL, a bio-based special epoxy compound; and GREEN DENATITE, a resin for structural material use that utilizes GREEN DENACOL. We are also working vigorously to develop new production processes for our existing products that will use less energy and place less burden on the environment.

We believe that high-functionality chemical products have a vital role to play in helping to solve environmental problems and other issues affecting society. To this end, we are strengthening the R&D capability that enables us to develop unique products needed by the world, and we are also putting in place a stable supply system by strengthening our value chain as a manufacturer, which will enable us to realize sustained growth, and further enhance the value we provide.

Close-up

Contributing to the development of the Super Smart Society with semiconductor encapsulant materials

Our semiconductor encapsulating materials contribute to the field of "advanced semiconductors," which are indispensable to the realization of the Japanese government's vision of a Super Smart Society. As advanced semiconductor packaging continues to diversify and become more complex, including 2.xD/3D, WLP*1, and PLP*2, we have added liquid molding compound (LMC), which have a high market share, and new-concept of a-SMC sheet-type encapsulant material to our product lineup to further demonstrate our technological strengths. We also focus on providing a place where innovative ideas are generated to solve problems while working together with our customers. We are enhancing our facilities to enable us to determine the direction of development while checking the suitability of the molding process for devices brought in by our customers, and to fabricate devices for further reliability evaluations.

In response to the growing demand for cutting-edge semiconductors, we are proceeding with measures to strengthen our production system, including the building of a stable supply chain, the strengthening of the quality assurance system, and expanding the equipment in microelectronics production building. We will continue to take on the challenge of providing solutions that can be the de facto industry standard in an as yet unclear future.

*1 WLP: Wafer Level Package *2 PLP: Panel Level Package

Mobility Segment

Mobility Solutions Department

Daiji Matsuoka
GM, Mobility Solutions Department

Business domains
The mobility sector as a whole, with a focus on the automotive industry

Recent customer issues
With the transition toward xEVs (a general term for electric vehicles, including BEVs, HEVs, PHEVs, FCVs, etc.), our customers are having to implement initiatives to strengthen the functionality of electric vehicle components, make vehicles lighter to improve fuel economy, reduce vibration and noise to enhance ride comfort, meet safety requirements, and realize decarbonization.

NAGASE's added values
We are able to offer design solutions to make the components used in xEVs smaller and lighter, as well as proposals for environmentally friendly materials

Products in daily lives
Motor vehicles and rail transport rolling stock

Results – Reorganizing unprofitable businesses

Improving customers' manufacturing processes and contributing toward enhanced profitability

In our trading function, besides proposing new materials to joint venture companies and suppliers and striving to improve profitability, we have also contributed toward increasing the value that we provide to customers. In addition, as well as sending Mobility Solutions Department personnel on assignment to the factories of joint venture companies and suppliers to provide support for quality management, including measures to reduce the defect rate in production processes, we have also contributed toward enhancing profitability through improvement proposals that include automation and production line rationalization, making effective use of our network of external experts with their wide-ranging expertise. Going forward, in addition to focusing on environmentally friendly materials proposals and developing new products with our partners, we will also be aiming to achieve further global expansion into new fields.

Challenges – Effective utilization of digital technology

Expanding e-mail newsletter distribution for the mobility business into global markets

Three DX-accelerated initiatives are underway: First, a newsletter and website communication of NAGASE's approach to customer issues, which is aimed at creating new business. Currently, this is only for Japan, but will be launched globally during FY2024. The second is not only to realize smooth communication by expanding the use of CRM, but also to link marketing automation with CRM to enhance sales proposal. The third is to improve the flexibility of work styles by improving order and supply operations through the use of IT, which is currently being expanded by a dedicated organization established in April 2024.

NAGASE has solutions! Customer's Voice: ATECS Corporation

Establishing a joint venture in Mexico to jointly take on the challenge of developing global markets by combining our strengths

ATECS has been working to make products for EV components smaller and lighter. However, designing and mass-producing these parts was a challenge because, in addition to features such as pressure resistance for long-distance driving, heat dissipation and cooling functions were also necessary. We developed our own technology, jointly patented it with NAGASE, and overcame the challenge together to bring it to mass production. In November 2024, the two of us established a joint venture in Mexico to realize local procurement of products for the North American market, which is a new stage of our collaboration. NAGASE's unparalleled strengths are their global sales force, their capital and discernment to collaborate with companies that have technological capabilities, and their ability to supply components overseas. We have high expectations for NAGASE in promoting our products in North America and in establishing a supply chain and logistics network in Mexico.

The joint venture factory in Mexico

Tamanobu Naruoka
Representative Director and President
ATECS Corporation

Nagase Application Workshop
▶ https://www.nagase.co.jp/english/enterprise/naw/

R&D function: Nagase Application Workshop (NAW)

Akihiro Taniguchi
General Manager

Supporting Nagase's continued evolution through an open innovation lab for the resin and coating materials sector

The Nagase Application Workshop (NAW) combines technology development, innovation and technical training functions, and has the facilities and specialist technical staff needed to handle everything from coating material and plastics material evaluation, analysis, and application development to formulation development for end products using these materials. Through its technology development function, NAW supports NAGASE's continued evolution by integrating materials and processing technologies for our business partners and NAGASE Group manufacturing companies, and by providing incubation proposals to meet customer and market needs identified by NAGASE's marketing function.

Solving manufacturing issues with materials

❶ Linking manufacturers and suppliers through paper materials

With the accelerating trend toward reducing the use of plastic, one of the substitute materials that is attracting a great deal of attention is molded pulp. Made from pulp (the same material that paper is made from) which has been formed and dried, it is mainly used for trays that are utilized in food packaging; however, there have been problems with this material, because it does not cope well with water and oil seepage from food products and does not have strong resistance to abrasions. NAW collaborated with a molded pulp manufacturer that was looking to improve the strength of the material, and with a supplier whose area of expertise is functional coating materials. With the NAW's exploration of which synthetic resins to use and which additives they should be combined with, this collaborative project succeeded in realizing molded pulp that has superior water resistance, oil resistance and powdering resistance, while avoiding the use of coating material that contains potentially harmful Per- and Polyfluoroalkyl Substances (PFAS).

❷ Invigorating one of a Group company's main products by commercializing a new application in agriculture

NAW is actively engaged in collaboration with NAGASE Group companies. As a new application for trehalose (TREHA®) , which is one of Nagase Viita's main products, NAW undertook development of a new formulation that incorporates trehalose into biodegradable multi-film for agricultural use. In this way, when the film returns to the earth after use, it stimulates the growth of bacteria in the soil, creating a virtuous circle of enhanced soil fertility. A joint patent application for this "biostimulant" technology which can promote plant growth without the need to depend on chemical fertilizers was submitted in 2024. NAW will be collaborating with various partners to commercialize and boost sales of this technology.

❸ Experimenting with different devices and materials to expand the scope of utilization of 3D printers

While it is becoming increasingly common for manufacturing to make use of 3D printers, given the diverse, multi-faceted nature of the manufacturing tasks for which 3D printers are used, our customers require complex knowhow and technology in order to make effective use of 3D printers to meet different needs. NAW has been collaborating with Interfacial Consultants LLC (IFC), a NAGASE Group company which has a high level of expertise in the development of advanced materials and in related manufacturing process solutions. Using IFC's thermoplastic extrusion and stereolithography methods, as well as various other types of 3D printing equipment and specialist 3D data talent, NAW and IFC are able to provide customers with testing and evaluation services for different combinations of printers, resins and filler material. These services are becoming increasingly widely used by customers in the automotive and home appliance sectors, and NAW is also beginning to collaborate with materials manufacturers that have special product development needs.

Life & Healthcare Segment

Life & Healthcare Products Department

Kenji Okino
GM, Life & Healthcare Products Department

Business domains
Life science industries, including food products, pharmaceuticals, and cosmetics

Recent customer issues
The need to achieve raw materials traceability and ensure product quality and safety, and procurement risk in the supply chain

Products in daily livess
Food products, pharmaceuticals, cosmetics and other consumer products relating to daily living and health

NAGASE's added values
Providing support for meeting regulatory requirements, proposals for substitute materials that utilize biotechnology, and stable supply on a global scale

Results – Organizational restructuring

Realizing stable global procurement by strengthening business infrastructure

In the life sciences sector, supply chain disruptions and quality risk issues are frequent occurrences. Identifying the realization of stable global procurement as a significant market opportunity, starting from last year, we have been strengthening intra-group coordination in our overseas business (which had been noted as a problem) and proceeding with the optimization of organizational design. Our approach to this involves building on the strengths provided by the knowhow and experience that we have accumulated over our businesses in the Japanese domestic market, and building cross-business functional organizations for regulatory affairs, marketing, sourcing, etc., thereby putting in place a global organizational framework that is efficient and effective. Looking ahead, by strengthening the operations of the NAGASE Group as a whole (including our overseas subsidiaries), and by keeping all functions operating at the same level, regardless of whether they are located in or outside Japan, our strategy is to expand both our overseas business and the daily living and healthcare related businesses of our Group manufacturing companies, including Nagase Viita, Nagase ChemteX, and the Prinova Group.

Challenges – Growth Strategy

Accelerating the expansion of our overseas business

One of the ongoing issues addressed by our **ACE 2.0** Medium-Term Management Plan is the question of how to expand our overseas business by effectively utilizing the experience that we have accumulated in our domestic business in Japan. With the pace of change in the global life sciences market environment speeding up, we are working to put in place the organizational foundations needed to accelerate the expansion of overseas transactions that do not involve the participation of the head office in Japan. In April 2024, we established a new Product Management Division, and put in place a sourcing system that enables support to be provided from Japan for customer inquiries and business negotiations throughout the world. In addition, to ensure the secure, reliable supply of materials in all countries and regions, we have adopted a new framework to allow centralized management of regulatory affairs by the Global Regulatory & Pharmaceutical Affairs Office. The effective utilization of these new systems, combined with the customer base and supplier base that we have built up over the years, will generate new business opportunities on a global scale.

NAGASE has solutions! Topics

Combining our strengths as a trading company and as a manufacturer to strengthen the dissemination of sales-related information in overseas markets

We are working to strengthen the dissemination of information (including information about industry trends, new materials, etc.) to potential customers, particularly cosmetics companies in Asia and Europe, and diagnostic agent manufacturers in China by participating in trade shows, seminars, etc. Overseas customers have been particularly impressed by NAGASE's network. The business network that we have built up in the past – including our strong relationships with raw materials suppliers in Japan, and our links with experts in related academic fields and with potential customers at the regional level – can generate new business opportunities in overseas markets. Another of our strengths is that, besides being a trading company, we also manufacture some of our own materials in-house (for more details about Nagase Viita products, see the page on the right). With Nagase Viita handling the development and proposal of raw materials that meet the needs of customers in each country, and Nagase & Co., Ltd. offering marketing proposals based on case studies of effective raw material utilization and on market trends, we are able to provide customers with a wide range of solutions.

Nagase Viita Co., Ltd.
► https://group.nagase.com/viita/en/

Nagase Viita Co., Ltd.

Business overview

Nagase Viita is a manufacturing subsidiary that plays a key role within the NAGASE Group in the life sciences sector, developing materials for a wide range of applications, including food products, personal care products and pharmaceuticals. Tracing its origins back to a starch syrup manufacturer that was founded in 1883, Nagase Viita develops and supplies materials that contribute toward the realization of an environmentally friendly, sustainable society by combining the power of microorganisms and enzymes with raw materials derived from nature. In April 2023, the company merged with the biochemical (enzyme) business of Nagase ChemteX, another member of the NAGASE Group, to drive the growth of the Group's bio-related businesses by combining the unique technologies that each company had cultivated. The company name was changed from Hayashibara Co., Ltd. to Nagase Viita Co., Ltd. in April 2024, marking a new beginning for the firm. Going forward, Nagase Viita will be creating synergies with other NAGASE Group companies, and providing the world with new products and new value.

Naoki Yasuba
Representative Director

Food ingredients
TREHA™, PULLULAN, DENABAKE™ EXTRA

Health food materials
CitraPeak®, Fibryxa™, TetraRing™

Personal care ingredients
AA2G™, MG-60/Tornare™, Alpha Glucosyl Hesperidin

Pharmaceutical ingredients
Trehalose SG, Maltose-PH, PULLULAN

Functional dyes
Specific wavelength absorbing dyes, dichroic dyes, fluorescent dyes

Wellness products
LUMIN™-A (in tablet form), photosensitive dyes

Company overview

Nagase Viita Co., Ltd.(NVI)

Establishment	July 10, 1932
Capital	0.5 billion yen
Net sales	34.4 billion yen
Employees	797

Close-up

Taking on the challenge of manufacturing to meet demand for sustainable materials

Developing sustainable materials

Biodegradability – An indicator of a low environmental footprint that is becoming a major focus of attention

Personal care products such as skin care, body care, and hair care products have the potential to cause harm to the natural environment as wastewater from hand washing and bathing. Because these products are used every day, their materials must be functional and environmentally friendly. Biodegradability, the ability to quickly decompose in the environment such as soil, rivers, and oceans, is becoming increasingly important as a criterion for registration and adoption of raw materials by personal care brand owners.

Nagase Viita's seven biodegradable personal care ingredients

As a result of analysis by an external international testing laboratory, seven personal care ingredients developed and manufactured by Nagase Viita have been confirmed readily biodegradable. Nagase Viita is expanding sales of these ingredients for skin care, makeup, body care, sun care, hair care, and oral care products as ingredients with both unique and distinctive functions and biodegradability.

Name of product	Functions
AA2G™	Brightening, aging care, and antioxidant
Alpha Glucosyl Hesperidin	Enhancing blood circulation, and brightening
Glucosyl Naringin	Restoring skin elasticity
Trehalose (Cosmetic grade) PULLULAN (Cosmetic grade)	Preserving skin moisture Adhesion & film-forming properties, and instant lift-up
Lissenare™	Enhancing both stiffness and flexibility to maintain hairstyles, and caring for damaged hair
MG-60/Tornare™	Rich foaming and preventing skin irritation

► For more details, visit the Nagase Viita website:
https://group.nagase.com/viita/en/newsroom/press_release/article/6927/

Reducing the carbon footprint of manufacturing

Announcing new initiatives for carbon footprint reduction at the IFSCC Congress

Sustainability initiatives are presented to leading manufacturers and researchers from various countries at the IFSCC World Congress, the world's largest academic conference where cosmetics scientists present their latest research findings.

2022: Introduced the special features of sustainable cosmetic ingredients developed and manufactured by Nagase Viita, and the environmentally friendly methods used to manufacture these ingredients.
2023: Introduced initiatives to reduce the carbon footprint (CFP) of the entire business: Attempts to investigate flagship products to quantify the CFP reduction of the entire manufacturing process and summary of research on key materials.

➡ The presentation garnered significant industry recognition as a leading initiative, showcasing the environmental performance of cosmetic ingredients.

Poster presentation at the IFSCC Congress

Implementing Value Creation

—Reform of Our Corporate Culture / Functions Supporting Reforms

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Carbon Neutrality

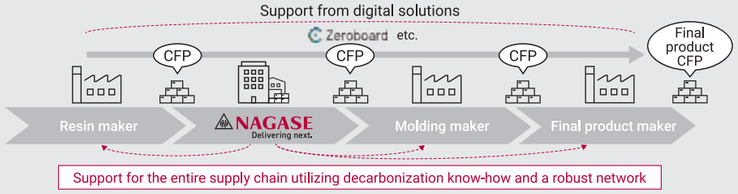
Besides its trading function, the NAGASE Group also has a manufacturing and processing function, and so we are working to achieve our goals in relation to carbon neutrality in line with a classification of our activities in terms of two axes and four quadrants (Trading, Manufacturing, Visualization, and Reduction), based on the NAGASE Group Carbon Neutral Declaration.

Decarbonized management solutions utilizing Zeroboard

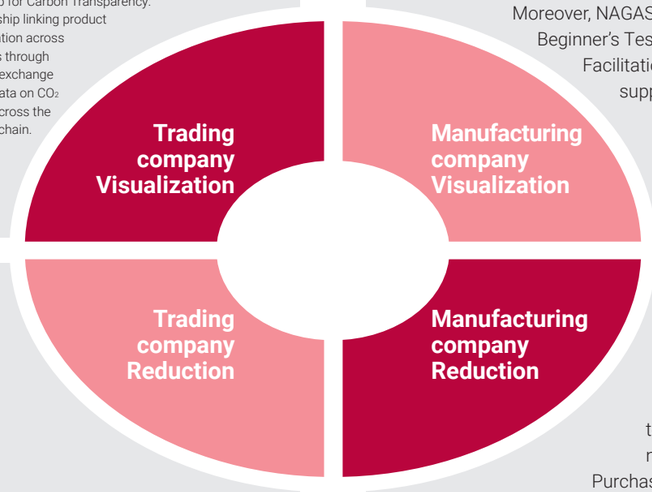
NAGASE financially supports Zeroboard Inc., the developer of the cloud service "Zeroboard," which calculates and visualizes GHG (greenhouse gas) emissions. Moving towards achieving carbon neutrality, the above management solution contributes to visualization and reduction of GHG emissions in the supply chains in wide ranging fields, such as chemicals, automobiles, electronic devices, paints, cosmetics, publication printing, fibers, semiconductor devices, etc. In addition to the activities up to fiscal 2023, we introduced "Zeroboard for batteries" as a novel solution for responding to the new laws and regulations in EU batteries regulation, as we build our foundation for support in solving issues among relevant corporations.

Additionally, we collect and lead increasing amount of data on the supply chain's CFP (carbon footprint), as we implement initiatives for supporting decarbonization management with a broad scope. By collaborating with Fujitsu Ltd. and Zeroboard Inc., NAGASE participated in the PACT Implementation Program* held by the World Business Council for Sustainable Development. We contributed to the success of this program by collecting primary data on GHG emissions from resin materials used in notebook computers and by supporting processing makers in the calculation of GHG emissions per part. The results were highly praised internationally as a supply chain collaboration model for GHG emissions that target the supply chain onsite.

GHG emissions supply chain linkage model



* Partnership for Carbon Transparency: The partnership linking product CFP information across corporations through transparent exchange of primary data on CO_2 emissions across the entire value chain.



Professional development for LCA calculations

LCA (Life Cycle Assessment) is a method for quantitatively evaluating the resources invested in all life cycles of products, from raw material procurement to production, distribution, use, and disposal, as well as the environmental burden and potential impact on the earth and ecosystems.

The NAGASE Group is focusing on developing people skilled in LCA throughout the Group, in order to evaluate environmental value of products we handle and to accurately communicate that evaluation to the stakeholders.

We implement LCA training annually, inviting external lecturers for Group manufacturing companies. Six out of seven Group manufacturing companies in Japan have already taken this training.

Moreover, NAGASE has begun offering the "LCA Beginner's Test" (Japan Life Cycle Assessment Facilitation Centre) and test preparation support to volunteering employees, through the "Self-Innovation Challenge," a knowledge/skill acquisition support system. As of July 2023, a cumulative total of 75 employees have participated. We will accelerate our efforts towards decarbonization across the entire Group through promotion of LCA.

No. of participants in LCA related training

		FY2021 (Jul 2021-Nov 2022)	FY2022 (Oct 2022-Jan 2023)	FY2023 (Dec 2023-Mar 2024)
For Group manufacturing companies in Japan LCA calculation training	Attendees	**13**	**27**	**12**
	(Cumulative total)	13	40	52
	Attendee companies	2	4	6

		Lecture started in Jul 2023	Lecture started in Jan 2024
Self-innovation challenge: LCA beginner's test course	Attendees	**54**	**21**
	(Cumulative total)	54	75
	People who passed the test	**39**	**9**
	(Cumulative total)	39	48

Kanako Okabe
Business Planning Division, Polymer Global Accounts Department

Comments: Those qualified the test

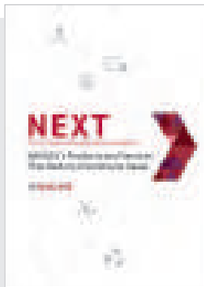
By learning fundamental ideas through the LCA test, I'm able to think about how Group products and services can contribute to the environment and social issues, and have found new perspectives to bring to conversations with business partners.

Contributing to reduction of greenhouse gases of business partners

In April 2023, we published the pamphlet "NEXT," which summarized the NAGASE Group's GHG emission reduction.

"NEXT" introduces NAGASE Group's GHG emission reduction solutions in each stage of the life cycle of products and services, from procuring raw materials to manufacturing, shipping, using, discarding, and recycling. "NEXT" helps us promote reduction in GHG emissions across the entire supply chain in our business proposals and dialogue with business partners.

We offer comprehensive solutions of various services, such as "Chemicals AI Joint Distribution Matching Service," which introduces partners for joint distribution in the chemicals industry, our know-how of factory wastewater treatment gained from our group manufacturing businesses to defining and extracting potential issues with business partners, and "provision of environmental value and supply of renewable energy power," which contribute to reducing GHG emissions from electrical power of business partners under Scope 2. We will lead these suggestions to business partners to contribute to the reduction of GHGs throughout the supply chain.



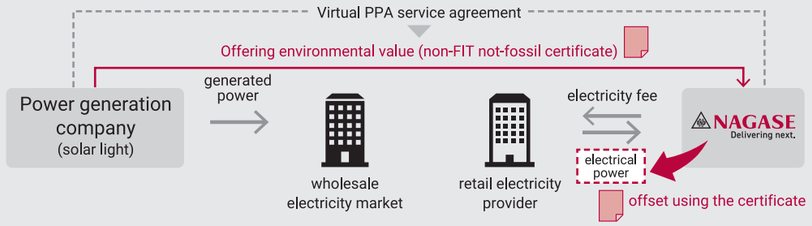
Utilizing on-site PPA and virtual PPA

NAGASE has introduced on-site PPA and virtual PPA in order to achieve our goal of carbon neutrality. PPA stands for Power Purchase Agreement.

For on-site PPA, we have begun a demonstration project to supply renewable energy along with industrial batteries through Fukui Yamada Chemical Co., Ltd., a Group manufacturing company. This project involves an on-site PPA for internal consumption, which supply electricity to the factory by installing solar panels (497kW) and storage batteries (538kWh) on the factory site.

Additionally, Nagase & Co., Ltd. has signed a virtual PPA service agreement with Clean Energy Connect Inc. This agreement is one of our initiatives to achieve Nagase & Co., Ltd.'s zero emissions under Scope 2, a non-financial goal from NAGASE's Medium-Term Management Plan **ACE2.0**. Based on this agreement, NAGASE will procure all additional environmental value generated by newly developed non-FIT solar power plants as a non-FIT non-fossil certificate for the long term. This is the NAGASE Group's first virtual PPA service, and moving forward, we will continue to contribute to the expansion of renewable energy.

Virtual PPA initiative



Improve Employee Engagement

Current status / Ideal NAGASE

Current status	Ideal NAGASE for FY2025
The NAGASE Group recognizes that employee engagement improvement is very important for sustainable corporate growth, and aims to realize a state in which companies (organizations) and employees understand and improve each other. Since fiscal 2021, we have launched a group-wide project implementing initiatives based on the engagement surveys.	• A higher level of motivation enables the self-directed growth for both the Company and its employees. • PDCA cycle of improvement activities based on the continuous engagement surveys has taken root in the organization.

Employee Engagement Improvement Project

It consists of a project committee of about 10 people, led by the Directors, with employees from around the world as members and secretariat. The project regularly hold active discussions aimed at improving employee engagement throughout the NAGASE Group across the region and positions, and plans and implements new dialogue meetings and various initiatives. In fiscal 2023, project members from NAGASE Group companies around the world gathered at the Tokyo Head Office for a global summit to discuss the current situation and the future plan.

N-Meetup meeting with the President

NAGASE's President and CEO outlines the Company's current status and future direction, as well as other points he has in his mind, on less paper simply, which is then disseminated to employees on a quarterly basis as the Q Paper, and he has also been traveling throughout Japan holding wine and cheese networking events with employees at different business locations so that he can communicate directly with employees. These meetings provide a safe, relaxed environment for a free, enthusiastic, and wide-ranging exchange of views that extends across the whole organization, and which embodies a key aspect of NAGASE's corporate DNA: generating innovation from connections. Going forward, there will be a further expansion of this kind of small-scale dialog between the President and employees.

Dialogue events with NAGASE's local employees worldwide

We have been undertaking employee engagement improvement with employees of NAGASE Group companies throughout the world, with NAGASE's Chairman playing a leading role, and we have been engaging in dialogue with local employees of Group companies outside Japan. The content of this dialogue includes not only matters that are directly work-related but also private talk. Being able to ask directly about senior management's experience of failure and success has provided an opportunity to stimulate employees' motivation and enhance their job satisfaction.

Sharing examples of engagement initiatives in the internal journal

We highlight the engagement improvement of each organizations and share videos of engagement improvement know-hows on the intranet to promote awareness of employee engagement. Examples include 1on1 meetings between supervisors and subordinates, dialogue sessions with divisional managers, study sessions for younger employees, business generation meetings, knowledge-sharing tools, mentoring systems, and other initiatives at each organization, mainly at the head office. In fiscal 2023, we also spotlighted group companies' activities and shared lunch meetings and forums on the theme of engagement globally. The entire group is fostering momentum to improve engagement.

Stakeholders Communication

Dialogue chart

Stakeholders	Value provided	Main opportunities for dialogue
Employees	⊙ Safe and comfortable work environments ⊙ Environments that allow our employees to enjoy their work and bring cheerful energy to their tasks ⊙ Being a corporate group that our employees and their families can speak of with pride	⊙ Annual policy explanations ⊙ Employee engagement surveys ⊙ Employee training (hierarchical education / vision education, etc.) ⊙ Opportunities and events for dialogue with management ⊙ Events offering employee opportunities for communication and building connection ⊙ Internal portal website / internal newsletters ⊙ Whistleblowing system / consultation office
Business partners	⊙ A cooperative structure that allows deeper understanding of business partners and offer broad range of possibilities ⊙ Solutions to social issues and issues that should be dealt with across the entire value chain	⊙ Daily operating activities ⊙ Exhibitions / online seminars ⊙ Websites ⊙ Continuous dialogue with business partners ⊙ Taking part in supply chain programs like Ecovadis / Sedex / CDP
Society and consumers	⊙ Practicing legal compliance and ethical management, and contributing to the development of local communities ⊙ Consideration for the rights, health, and comfort of those involved in our supply chains ⊙ Products and services aimed at creating a safe and caring world where everyone can live with peace of mind **Relationship with industry organizations** NAGASE's Representative Director, President and CEO serves as the full-time Director of the Japan Foreign Trade Council. As a member of the Sustainability Committee, the Company participates in committee activities and promotional efforts.	⊙ Activities contributing to society (special sponsorship of the NAGASE Cup) ⊙ Participation in and sponsorship of local events, etc. ⊙ Cultural preservation activities (Hayashibara Museum of Art, etc.) ⊙ Support of scientific engineers (Nagase Science and Technology Foundation) ⊙ Support for developing next-generation chemical expert human resources (on-site classes and competition sponsorship), etc.
Shareholders	⊙ Trustworthiness and peace of mind through highly transparent management system and timely information disclosure as appropriate ⊙ Maximization of corporate value by enhancing both economic and social value, and by continuous business creation	⊙ Shareholders' Meeting ⊙ IR briefings (financial results briefings / explanatory meetings for individual investors) ⊙ Small meetings with institutional investors ⊙ Websites (IR / investor information) ⊙ Issuing integrated reports

Special sponsorship of the NAGASE Cup —a track and field competition

Starting in 2022, the Company has been contributing to society through special sponsorship of the NAGASE Cup Para Athletics Competition (below, the NAGASE Cup), organized by Japan Para Athletics and the Tokyo Athletics Association. The NAGASE Cup is WPA approved and counts toward the WPA world rankings.

The NAGASE Cup is a track and field competition in which athletes compete with each other, regardless of disability, age, or country, under the concept of "inclusive competition where anyone can participate." At the 2nd NAGASE Cup in 2023, held at the Japan National Stadium in Tokyo, a total of 1,424 Japanese and foreign athletes competed, including about 450 para-athletes, with many records being set, including some world records. Over two days, a cumulative total of approximately 6,600 spectators attended, offering huge applause at the sight of 120 kids running around the track with all their might in the newly established elementary school kids group. Additionally, about 50 NAGASE Group employees volunteered to participate in the event, supporting operation of the competition.

The NAGASE Group has offered various sports-related support and has hosted related events for visually-impaired runner Shinya Wada, after welcoming him as an employee in 2018. As we felt the bravery of athletes trying to set records regardless of ability or disability, and the impact they have had on society, we asked ourselves what we could offer to society. The answer was the NAGASE Cup. Moving forward, the Company will continue to make efforts to grow the competition as a "place for having new experiences and discovering new values" for all athletes, spectators, and volunteers.

Dialogue | Growth for each employee is the key to leaping forward

Human resources measures to support strategy execution

Wakuda ● Much is being said about the importance of human capital as a primary source of corporate growth and competitiveness. What are your thoughts?

Nonomiya ● Japan is often said to be a country with very few resources, and I think that's especially true for human resources. The HR departments in Japanese companies have been assigned with creating personnel systems and then making sure they operate effectively. But simply maintaining a personnel system is not enough to strengthen human capital, and I believe personnel strategies have to fundamentally change.

Wakuda ● One of our management topics is to determine how to link the management, business, and human resource strategies. Under the new divisional CHRO structure, each division assigns a Divisional Chief Human Resources Officer (Divisional CHRO) who works with the HR Business Partner (HRBP) of the Human Resources & General Affairs Department to formulate and implement ideas for human resource development and organizational reform that will support our business strategies. The new personnel system Nagase & Co., Ltd. adopted in fiscal 2024 guides the career paths for management personnel who will lead the organization as well as for specialist personnel pursuing high-level expertise.

Nonomiya ● NAGASE has trading company, manufacturing, and R&D functions, and the most important asset of all three is the people who make them all work. There is not just one correct personnel system, but the system must be created by observing and understanding what motivates each employee to pursue their career path. I also think that strengthening the ties between the business and HR divisions is a wonderful measure for linking the corporate culture and business.

Respecting employee diversity How to create a fulfilling work environment

Wakuda ● From your interactions with NAGASE employees, how would you characterize the NAGASE Group's human resources?

Nonomiya ● My impression from talking with employees is that they have a lot of individuality and uniqueness, but at the same time, I feel like they fully embody NAGASE's unique culture. One outstanding element is how strongly the employees trust each other. Even though this is a relatively large company, the employees are close to each other and there is a sense of unity. We have a large corps of capable individuals who we can rely on to lead NAGASE in the future.

Wakuda ● I'm very glad to hear we have a "large corps" of capable people. At the same time I believe that as our business grows around the world, the NAGASE culture will also need to change.

Nonomiya ● With a global business, you cannot assume a relationship of trust will mean both sides will naturally have the same perspective, so it will be important to clearly communicate your intentions in words. I think an important part of diversity at NAGASE will be creating a workforce of people with different backgrounds and viewpoints who work together without making anyone feel separate or marginalized.

Wakuda ● I agree. We intend to implement measures that transcend all corporate environment and cultural boundaries to make NAGASE a group where diverse employees around the world trust each other, are not afraid to take on new challenges, and work with a sense of fulfillment every day.

Promoting D&I worldwide

Wakuda ● One of the new initiatives expands the overseas training system to cover global employees. We've had a system for Japanese employees from the head office to stay at a Group site in another country for six months to gain experience living and working in a foreign country. The system is currently being expanded so employees from throughout the Group can participate.

Nonomiya ● An organization like NAGASE with such a large pool of talent can afford to send some of its best employees out for specialized training. Developing human resources cannot be done all at once, so it's important to start the process one step at a time.

Wakuda ● As companies are being pushed to globalize, I am beginning to see various issues that will have to be addressed. The first may be to determine if the corporate environment in Japan is ready to bring in the foreigners that will be needed for globalization.

Nonomiya ● What are the objectives of the new overseas training system that you will be implementing?

Wakuda ● The increase in interactions among employees with different backgrounds, cultures, ways of thinking, and values will have various effects. The outcome I expect is innovation that could only come from NAGASE, which is precisely the "value of diversity" that the system is intended to produce.

Closing the gender gap requires increasing the percentage of female hires

Wakuda ● What is your impression of the gender gap at Nagase & Co.?

Nonomiya ● It's like an old private school for boys that suddenly became co-educational (laughs). The Corporate Governance Code calls for increasing the ratio of women in management positions, but increasing the ratio of women in executive and managerial positions will not happen overnight. I think the quickest way would be to increase the percentage of women hired among new college graduates.

Wakuda ● You're right. We noticed the low number of female applicants to the Company and started taking steps to better introduce ourselves. In fiscal 2023, this included creating a video about a day in the life of our female employees, which helped boost the number of female applications by 30% compared to the previous year. As a result, women represented 60% of the new recruits we hired in April 2024.

Increasing engagement will drive our growth

Wakuda ● NAGASE has grown and expanded its business over the course of its long history. In this era of rapid change, I believe employee engagement will be a key factor for continuing employee growth and enhancing corporate value. Making the office environments more comfortable for work and expanding the personnel systems, including adding remote work, helped increase the engagement score, but the biggest point increase found in the fiscal 2023 survey was for items related to learning opportunities. We were motivated by President Ueshima's proactive efforts to provide more opportunities for employees to learn.

Nonomiya ● I think expectations are high both inside and outside the Company for his unconventional reforms. The N-Meet up!! meetings and other initiatives to meet directly with employees and explain management's plans and objectives have been wonderful. Communicating with employees at all levels and stages of their careers should be a positive stimulus.

Wakuda ● Yes, definitely. The N-Meet up!! meetings are casual events with wine and cheese where President Ueshima talks to employees about the changes he is trying to make and employees can ask him questions directly. I would like the Company to continue providing opportunities like that for dialogue because employees can connect their careers to the Company's strategies and transformation to make them their own.

Nonomiya ● Another thing that is important for increasing engagement, and which is also related to providing opportunities for learning and dialogue, is giving individual feedback on employee performance. Employee engagement in the Company is what increases corporate value.

Wakuda ● We will continue actively investing in our human capital so that NAGASE will continue to be an attractive corporate group to all stakeholders. NAGASE aims for its human capital to be innovative, global, and leaders of change.

Nonomiya ● NAGASE has a long history, but it must be forward-looking and not hesitate to take action and take on new challenges. Change is already under way, and I look forward to NAGASE continuing to evolve in the future.

Human resources strategy
Maximizing human capital through the "Pursuit of Quality"

The Medium-Term Management Plan is steadily improving the quality of human resources

As we have implemented the **ACE 2.0** plan with its key theme of the "Pursuit of Quality" over the past three years, the quality of our human resources has been steadily improving. When the plan was launched, we set three areas where we would seek to enhance the quality of our individuals and of our group. The first area was People: In the rapidly changing business conditions, how can we strengthen our human capital of innovative and global individuals who will lead our change without being bound by precedent or past successes? The second area was Environment: How can we create workplaces and ways of working that are comfortable and safe, and allow employees to fully express their creativity? The third was Culture: How can we create a culture in which people with diverse backgrounds and values can take on challenges with enthusiasm and in their own way? The answers to these questions are the basis for measures that we are now implementing.

Pursuing quality in our People, Environment, and Culture to transform our company

◆ People: Opportunities to understand, learn, and grow

We are providing more opportunities for Group employees to understand our objectives through regularly scheduled meetings that we call "N-Meetup!" where the president talks about why NAGASE Group needs to change now, and employees from across the Group can engage in discussion. Meetings are held in Tokyo, Osaka, Nagoya, and at Group companies in Japan and overseas where members of management share their ideas and thoughts with employees to deepen their mutual understanding and bring them closer together.

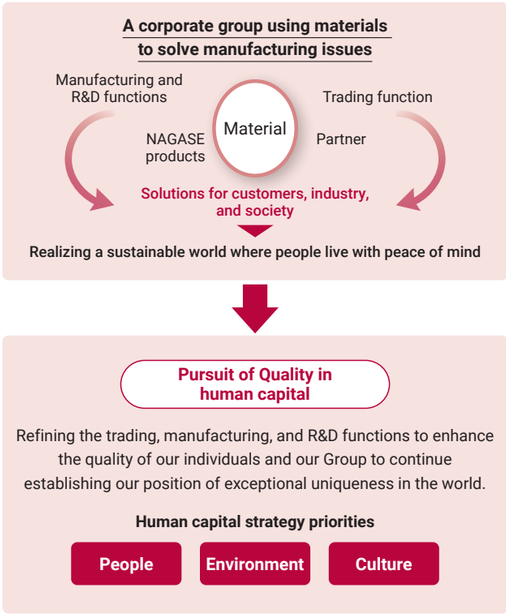
Providing more opportunities for employees to learn includes not only business school training but also dispatching employees to liberal arts-type training programs. It takes more than one person to change an organization. Our aim is to improve people's abilities to engage with and influence the actions of others. In addition to the standard rank-based training, we have also increased the number of training sessions open to employees of any age or rank who are motivated to learn and acquire new skills. This increase in opportunities to learn is being conducted both in Japan and overseas. The overseas training system, which was previously only available to employees at the head office, has been modified and expanded to cover global employees. With the percentage of overseas business growing each year, developing the skills of local staff around the world will be essential to the Company's growth.

Providing growth opportunities means placing the right people in the right positions. To do this, we are creating data visualization of our global-level talent, conducting succession planning for key posts, and accelerating promotions of talented young employees.

Toshio Wakuda
Executive Officer
GM, Human Resources & General Affairs Department

◆ Environment: Facilitating horizontal exchange and pursuing our "uniqueness"

In fiscal 2021, Nagase & Co., Ltd. introduced the Activity-Based Workplace (ABW) system enabling employees to choose where to work depending on their duties and circumstances for the day. This has eliminated barriers caused by hierarchies and departments and is stimulating vertical and horizontal communication that leads to innovation. First adopted at the Tokyo Head Office, the Nagoya and Osaka office environments are being prepared to accommodate the system in fiscal 2023 and 2024.



ACE 2.0 Human Resource Strategy

Priority	Keys to solutions	ACE 2.0 priority measures
People Innovative and global talents leading innovation	• A system for independent career development • Various opportunities for skill development • The right people in the right positions worldwide • Recruitment activities linked to our business strategies • Acquisitions and retainment of talented human resources globally	• Provide open opportunity training sessions • Strengthen training for overseas staff • Introduce a global training system • Create visualization of our global talent portfolio • Strengthen succession planning • Enhance the HRBP function and CHRO system for business divisions (See page 64 for details)
Environment Comfortable, safe and inspiring workplaces and workstyles	• An environment with communication across hierarchical and organizational boundaries • System reform to flexibly accommodate work styles • Health and productivity management	• Advance Project Bridge* • Implement a free dress code • Expand telecommute, shift work, and flextime eligibility • Create visualization and enhance analysis of employee health status
Culture Corporate culture that embrace challenges and diverse personalities	• Mutual understanding between employees and management teams • Dynamic staffing and promotion • Stronger mid-career recruitment, including highly specialized personnel • D&I	• Revise the Head Office personnel system for career-track employees • Conduct diversity training at all levels • Actively recruit and promote female career-track employees

2023 (200th anniversary of our founding)
Improve engagement ▶ Sustained growth and development for employees and the Company ▶ Realize the NAGASE Vision and create and strengthen NAGASE's competitive advantage

* Internal initiative to update our offices and work styles

We are also making our work system more flexible. In addition to enabling remote work and shift work and providing hourly paid leave, we are expanding the flextime system, which had been only for people in certain research positions, to more employees and making it adaptable to people's personal needs, such as for employees who are raising young children or providing nursing care.

◆ Culture: Diversity is the key to innovation Closing the gender gap

We overhauled our personnel system in fiscal 2024 and introduced a new system for managerial positions and above that allows each individual to thrive and grow in their own way. The new system adopts role-based and job-based grade systems as a hybrid model. The system, which we are continuing to modify and improve, assists individuals in mapping career paths for "management personnel" who will one day be guiding the Group and "specialist personnel" to pursue high-level expertise.

To increase the diversity of perspectives that go into our decision-making, we are taking steps to close the gender gap by actively recruiting and seeking to retain talented female employees. Diverse human resources is key to generating innovation and ensuring effective risk management.

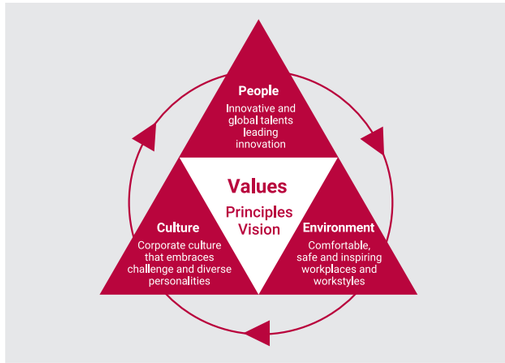
Employee engagement is the key to effective human capital management. Our role is to provide opportunities to employees.

When we have raised the quality level in the three areas I've described, the next objective is to improve employee engagement.

As I said at the start, the source of NAGASE's value creation is its human resources, and the key to corporate growth is how well we develop the potential of our employees. People feel a sense of growth and purpose when they are committed to solving a customer or social issue and it produces a successful result. If we can make every employee feel this, we can create a high level of engagement between our company and employees, and that in turn would enhance our corporate value. That is why I believe it is management's duty to provide opportunities and work environments so that employees will understand and get behind the NAGASE vision and truly feel they are growing in their jobs every day.

Employees are increasingly aware how the Company's policies and management concepts relate to their work. In addition, our annual engagement survey findings indicate that employees are highly motivated to solve social issues, which makes me believe that the NAGASE vision has deeply penetrated our workforce.

The 190-year history of NAGASE is a story of transformation. We will continue changing and evolving while remaining true to our core management philosophy of "maintaining the highest standards of integrity." We will also not be afraid to change how we approach our human capital and continue to incorporate new ideas and perspectives as part of our pursuit of the "Ideal NAGASE."



Promoting Diversity

Current status / Ideal NAGASE

Current status	Ideal NAGASE for FY2025
Diversity is one of the key elements in realizing our human capital strategy. We place a high priority on the career support of female employees and are expanding opportunities for them to play an active role by hiring and promoting career development and management positions.	• A culture and ethos that not only support women's empowerment but also enable diverse talents to demonstrate and challenge themselves. • Progress in both creating innovation and risk management, by transforming ourselves into a group of diversity.

Diversity management training for managers

We hold regular diversity management training programs for department and section managers, having started in fiscal 2023. The aim of this training is to strengthen awareness of the strategic importance of building a diversity-focused organization and to help managers understand the key aspects of managing diverse human talent. The first instance of this training program involved extensive discussion of the significance of diversity & inclusion (D&I) promotion and how to cultivate diverse subordinates; the training also provided an opportunity for managers to think deeply about the current organizational issues that they face in their managerial roles.

The second instance of the training program was conducted by Women's Ways, a general incorporated association involved in work related to women's body and hygiene issues, which invited leading sportspeople to give talks to help participants learn about the physical and psychological differences between men and women. Approximately 130 managers from Nagase & Co., Ltd. and Group companies attended the training sessions, and there was a lively discussion. We will continue to hold these training activities in the future, with the aim of realizing workplaces where employees, embodying a high level of diversity (including gender, nationality, religion, etc.), can pursue their own individual workstyles.

N-Circle activities aimed at reducing the gender gap

Launched in fiscal 2023, N-Circle comprises a variety of measures focused on strengthening retention of female employees on the management career track. In fiscal 2023, we held round-table discussion meetings for groups of 4–6 female career-track employees, which has helped to build internal networks of female career-track employees within NAGASE, and enabled exchange of ideas on how the Company can further promote women's empowerment. We believe that, through these activities, we can build a better working environment for female employees on the management career track so that they can fulfil their potential, while also increasing the pool of potential candidates for promotion to managerial roles in the future by providing exposure to role models, both within and outside the company.

KPIs and results achieved

As indicators for monitoring the promotion of women's empowerment within the Company, we set ourselves the target of increasing the percentage of women among new career-track hires at Nagase & Co., Ltd. to at least 30%, and increasing the percentage of female managers to at least 6% by the end of fiscal 2025. As of fiscal 2023, the percentage of women among new career-track hires was 25%, and 5% of the Company's managers were women. Going forward, we will continue to implement various measures in order to meet the targets for fiscal 2025.

	FY2021	FY2022	FY2023	Target for FY2025
Percentage of women among new career-track hires	17%	17%	25%	At least 30%
Percentage of female managers	4.6%	4.3%	5.0%	At least 6.0%

Talent Management

Current status / Ideal NAGASE

Current status	Ideal NAGASE for FY2025
NAGASE has provided learning opportunities for employees with a focus on grade-specific training. The talent cultivation system provides training in basic skills for younger employees, in management literacy and leadership for mid-career employees, and in managerial perspectives and skills and organizational management for managerial staff.	• The recruitment and cultivation of human talent links the Company's business strategy with its human resources strategy. • Realize talent visualization at a global level and ensure that the right people are placed in the right roles. • An environment that enables diverse human talent to grow professionally.

Coordination between HRBPs and CHROs

Within the Human Resources & General Affairs Department, a human resources business partner (HRBP) is assigned to each of NAGASE's business units, and a system has been adopted for undertaking organization building and human capital development based on a thorough understanding of the Company's business strategy. In addition, so as to be able to implement business strategy while keeping a human resources perspective, personnel have been appointed in each business unit to fulfil the Chief Human Resources Officer (CHRO) role.

By collaborating closely with each other, the HRBP and CHRO of each business unit are able to identify all of the personnel involved with the business, and the issues affecting the organization. The adoption of human resources initiatives at the level of the segment or division to address individual issues helps to accelerate the execution of the Company's business strategy.

Human capital development

Our basic approach to human capital development

The NAGASE Group positions human capital development as representing the strengthening of operational foundations that support the Group's growth. We aim to realize human capital development by the Group as a whole, by having grade-specific training implemented jointly throughout the Group, and by strengthening training for local staff at overseas Group companies.

Key points for strengthening human capital development

Among the wide-ranging human capital cultivation measures that we implement, the following three items are particularly important. Going forward, we will continue working to strengthen our human capital development as necessary in line with changes in the external environment and with the NAGASE Group's strategy.

❶ **Expanding elective training**

To ensure the strength of NAGASE as a business group, we provide sufficient opportunities for employees to acquire necessary knowledge and skills. We also hold lecture sessions at which leading figures from various sectors are invited to give talks.

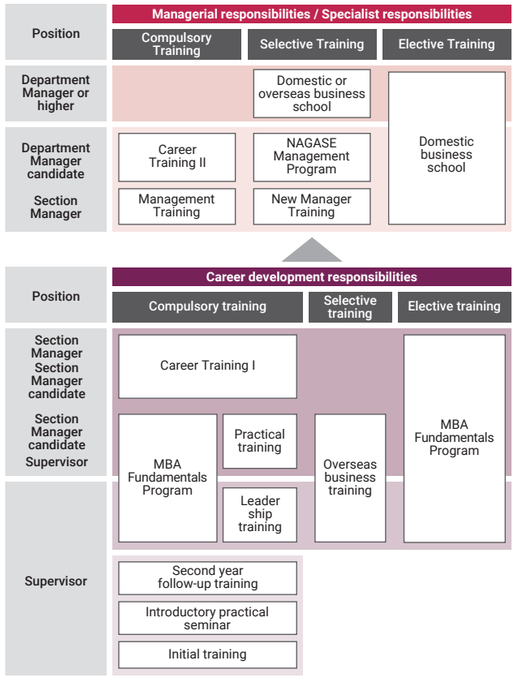
❷ **Strengthening training for local staff at overseas Group companies**

Besides realizing visualization of our human capital portfolio and strengthening succession planning for senior managers, we are also strengthening talent cultivation programs for local staff at overseas Group companies.

❸ **Globalization of overseas business training systems**

The Overseas Business Training program, which in the past involved employees of Nagase & Co., Ltd. in Japan being sent on overseas assignments, is now being implemented globally, so that employees of overseas Group companies can be sent on assignments to Japan, or to a third country.

Human capital development and training systems



Training expenditure and hours of training

Training per employee (FY2023)

Annual training expenditure	229,000 yen
Annual hours of training	40.4 hours

Human capital development and training systems (including elective training, etc.)

System	Overview
Overseas business training	System for employees to undergo training at overseas Group companies
Support for self-realization	• Financial assistance for company-approved training programs • Support for various certification (test fees, textbooks, and opportunities for study sessions, etc.) • Financial reward for obtaining qualifications
Assignment to attend external training or seminars (elective and selective)	Liberal arts training and business schools
Diversity training	Discussion of organization where diverse talents can demonstrate themselves, for advancing NAGASE's D&I

Work Style Innovation

Current status / Ideal NAGASE

Current status	Ideal NAGASE for FY2025
We are proceeding with the creation of "offices where employees can exercise their creativity" and a system for realizing "work styles independent of time or place" so that we can achieve the building of workplaces and workstyles that enable people to innovate in comfort and safety.	• We can generate innovation by accelerating horizontal and vertical communication through removal of barriers between employee grades and between organizational units. • We have cultivated a working environment and corporate ethos that enables diverse human talent to fulfil their potential in a manner that is comfortable for them, and with improved systems for realizing flexible workstyles.

Activity-based workplace (ABW)

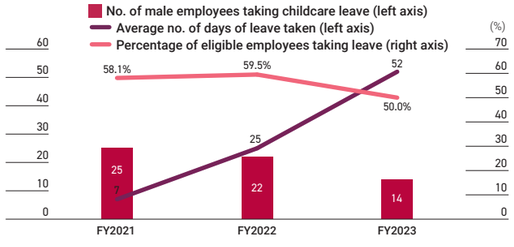
We believe that having varied workstyles that strengthen the productivity and efficiency of individual employee is vital for enhancing the productivity and work-life balance of the NAGASE Group as a whole.

The activity-based workplace (ABW) concept, which was introduced in the Tokyo Head Office of Nagase & Co., Ltd. in 2022, involves having all employees share spaces so that employees can choose their own working spaces that will allow them to maximize their performance based on the content and status of their current work tasks. An updated version of ABW has been adopted at the Nagoya office and the Osaka office over the period from fiscal 2023 to 2024.

Support for balancing childcare, nursing care, and work responsibilities

We are focusing on the cultivation of a corporate ethos that enables employees to continue working for the Company over the long term, by expanding systems and measures that provide support to help employees balance their childcare, nursing care, and other responsibilities with their work responsibilities. In recent years, we have increased the number of days' leave for male employees wishing to take childcare leave. We have also expanded the scope of the flextime system, which was previously limited to certain research positions, so employees with childcare or nursing care responsibilities can make use of the system.

Eligible male employees taking childcare leave



Health management promotion

The NAGASE Group has drawn up and announced the NAGASE Health Declaration to provide support for Group employees to maintain and enhance their health, and encourages this movement. Nagase & Co., Ltd. has been selected as a Certified Health & Productivity Management Outstanding Organization (which recognizes corporations that have realized particularly impressive health management), and has maintained this certification every year since fiscal 2018. This has been extended to NAGASE Group companies with a total of seven NAGASE Group companies (including Nagase & Co., Ltd.) obtaining the certification.

One of our initiatives is the Online Smoking Cessation Program, undertaken in collaboration with NAGASE's Health Insurance Society, for both employees and their family members. Participants can receive free consultations until they succeed in quitting smoking. We also hold the NAGASE Smoking Cessation Classes twice a year since fiscal 2023. Around 80% of the attendees from the Group have succeeded in stopping smoking. We have also designated the week starting May 31 (World No Tobacco Day) as NAGASE No Tobacco Week, during which employees are prohibited from using the smoking rooms raising awareness on smoke-free workplace.

2024 健康経営優良法人 Health and productivity

Employment of people with disability

The NAGASE offices in Tokyo, Osaka, and Nagoya have massage rooms with visually impaired masseurs. Employees are free to use these rooms, which contribute toward improving employee welfare. We also employ persons with disabilities for cleaning, and for data entry work performed at home, in line with their particular disability. Starting from August 2022, people with disabilities have been employed to do indoor farm work at the "Work Happiness Farm Plus Yokohama" run by S-Pool Plus, Inc. in Yokohama City, which has been renamed as the "NAGASE Sincerity Green Farm" to enhance its appeal. Inside the farm, vegetables are cultivated using the hydroponic method. The vegetables are distributed to NAGASE Group employees which becomes a good opportunity to understand the employment for people with disabilities as well as for mutual communication.

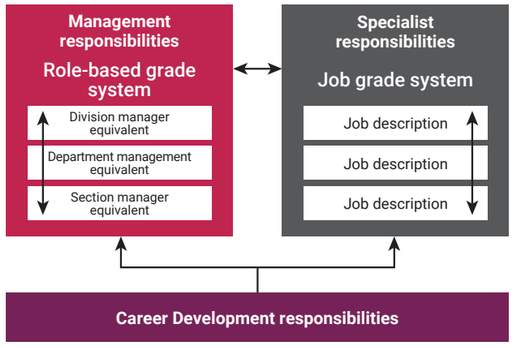
Human Resources Initiatives

Current status / Ideal NAGASE

Current status	Ideal NAGASE for FY2025
To cultivate a corporate culture and ethos that respect diverse talents and challenges, we believe that highly satisfactory work-styles and career development for employees in line with their abilities and ambitions with lead to sustainable corporate growth. We are actively working to reform our human resources systems and share HR strategies and initiatives throughout the Group.	• Both managerial talent and specialist talent can fulfil their potential with greater job satisfaction • Group companies both within and outside Japan share human resources strategies and foster mutual understanding by facilitating communication between Group companies, so that the Group as a whole is able to achieve effective coordination. • The design and adoption of human resources systems linked to management strategy is promoted within the Group.

Adopting a new human resources system

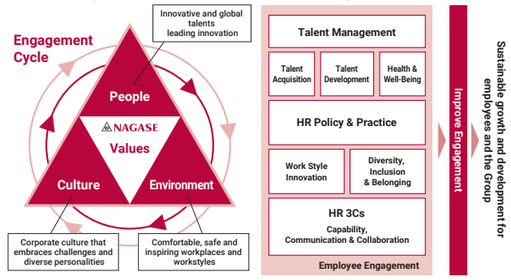
In April 2024, NAGASE introduced a new human resources system, with the aim of strengthening the cultivation of innovative global talent able to drive change in an era in which the business environment is being dramatically transformed. By adopting a new role-based grade system in which grades are assigned based on the importance and difficulty of the work performed, and a new job grade system, the new framework does away with the practice of appointing employees to positions largely on the basis of years of service (seniority), and with roles and jobs being clarified, they can be linked more closely with employee compensation. This in turn will facilitate more dynamic talent assignment and utilization, and will enable the Company to secure and make use of a more diverse range of high-level specialist talent. We will proceed with the effective utilization of this new system, which maps out a career development path for both the management talent who will handle the running of the NAGASE Group in the future and specialist talent with a high level of specialist expertise, and which provides opportunities for employees with diverse personalities and values to grow and play an active role in the company in a way that suits them.



Disseminating the HR strategy throughout the Group

With the aim of disseminating NAGASE's human resources strategy throughout the NAGASE Group and promoting the coordination of strategy implementation between business locations, starting from 2020 a Human Resources global meeting has been held online every two months. In regard to issues such as talent management and employee engagement, by encouraging participants to share their views without being too focused on ideas that have originated in Japan, it is possible to develop measures that embody a close integration of the global strategy with local conditions in each region.

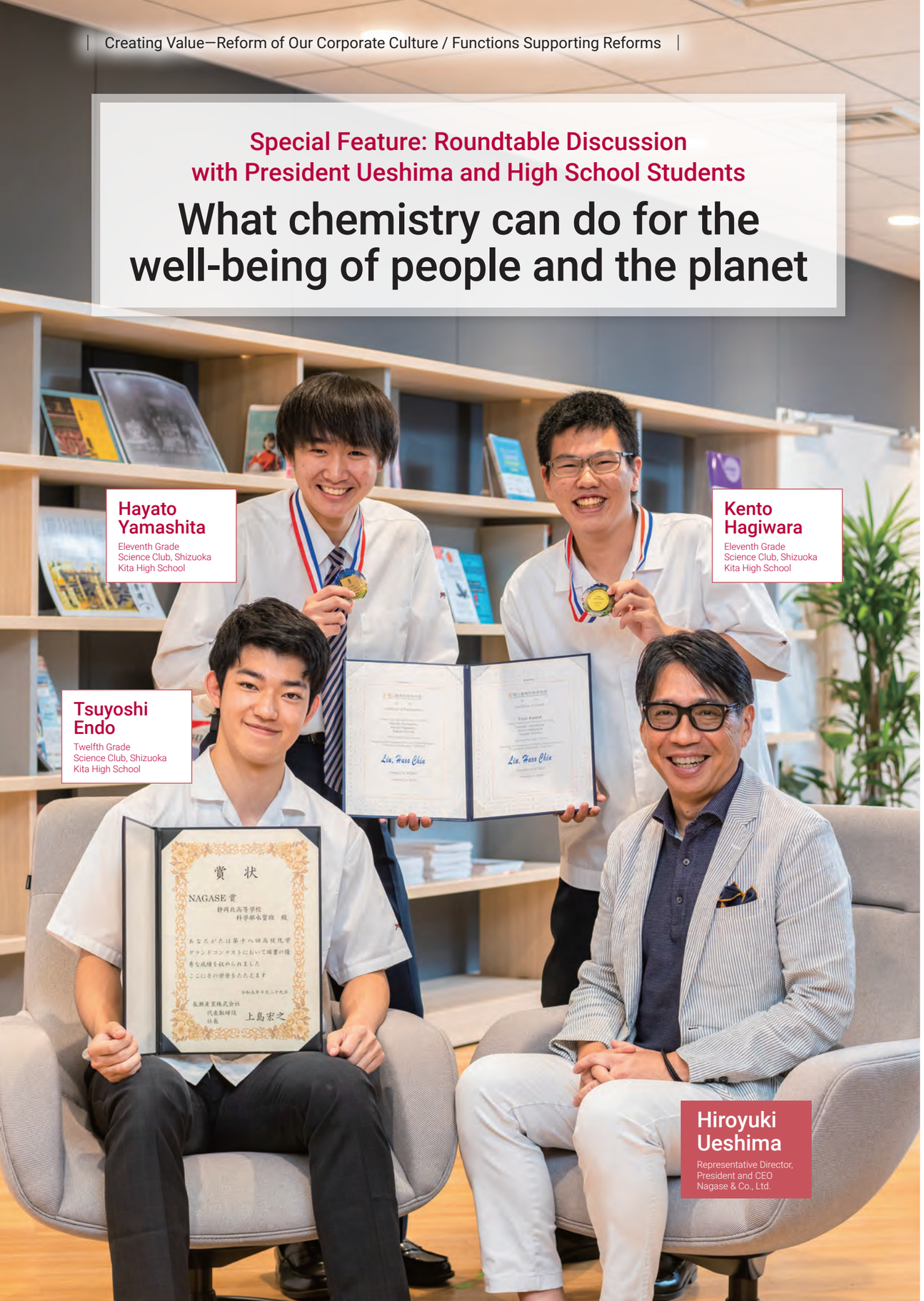
Global development framework of ACE 2.0 HR strategy



Besides the regular study meetings at which human resources managers from NAGASE Group companies in Japan meet to exchange information regarding the revision of human resources systems within Japan and the latest revisions to human resources related laws and regulations, we also distribute the quarterly bulletin Jinso Pics, containing human resources news and details of individual Group companies' initiatives, to Group companies in Japan and communication between companies is ongoing. By sharing important measures and information with individual Group companies in a timely manner, we provide support that enables the NAGASE Group's human resources to be handled in a coordinated manner, facilitating the linking of organizational operations with management strategy and allowing initiatives to be implemented more effectively.

Special Feature: Roundtable Discussion with President Ueshima and High School Students

What chemistry can do for the well-being of people and the planet



Hayato Yamashita
Eleventh Grade
Science Club, Shizuoka Kita High School

Kento Hagiwara
Eleventh Grade
Science Club, Shizuoka Kita High School

Tsuyoshi Endo
Twelfth Grade
Science Club, Shizuoka Kita High School

Hiroyuki Ueshima
Representative Director, President and CEO
Nagase & Co., Ltd.

The NAGASE Group was a special sponsor of the 19th The Grand Contest on Chemistry for High School Students held in October 2023. The 2023 winner of the NAGASE Award was the Water Quality Team of the Science Club at Shizuoka Kita High School. We invited the members of the winning group to the NAGASE Head Office in Tokyo to meet President Ueshima and talk about the challenges and insights they learned from the process of researching their project "Making phosphate fertilizer from wastewater," their thoughts on using chemistry to solve social issues, and their future aspirations.

How do you convey the details of your research to those around you?

Ueshima ● Congratulations on winning the NAGASE Award at the 19th The Grand Contest on Chemistry for High School Students. As I said at the time, I think your project to make phosphate fertilizer from wastewater is an amazing idea.
Yamashita ● Thank you. A few years ago, some members of the school Science Club created a technology using iron to recover phosphoric acid and applied for a patent. An auto parts company learned about that and approached us to see if we could find a way to recover phosphorous acid from nickel plating and then extract phosphoric acid. Nickel plating wastewater contains high concentrations of environmental pollutants, and there were no effective methods to treat the water. We thought that finding a way to take out the phosphoric acid could both protect the environment and reduce disposal costs. After we extracted the phosphoric acid, we continued researching because we thought we could make something truly useful for society by reusing the phosphoric acid in fertilizer. It took us two years, but I think we finally attained the result we were aiming for.
Ueshima ● It's remarkable for high school students to carry out such high level experiments. Is there anything about the research that left an impression on you?
Yamashita ● The biggest challenge was the oxidation of the phosphorous acid. We needed to create a catalyst, but it took a long time to get the results we wanted. We tried all the catalysts in the textbooks, including copper, iron, tin, nitric acid, bromine, iodine, and vitamin C, until we finally discovered a catalyst mechanism that continuously reduced oxidation. I'll never forget the shock and excitement I felt when we found it.
Endo ● When it came time to present all this research, we then had to figure out how to make the process understandable to the general public. We failed at several competitions as we tried to figure out the best way to show what we wanted to communicate. The moment when I finally felt that people were understanding what we were trying to show, I felt so happy and gratified.
Ueshima ● Communicating so someone fully understands is really hard. One of my fundamental approaches is to view "everyone as a teacher." I try to listen to the person who is speaking and remember that they are living a different life from me. That heightens my interest in what they are saying. However, many people don't listen to people that way. The trial and error you went through to find how to get people to listen and be interested in your project is a very good experience.

The Grand Contest on Chemistry for High School Students

19th The Grand Contest on Chemistry for High School Students is an educational support program to foster human resources who can play an active role in the field of science in the future. The contest is designed to encourage students in high school and at technical colleges (up to third year students) to engage in learning and research activities and to cultivate scientific creativity through independent investigation.

NAGASE has been an award sponsor since the 16th contest in 2019. At the 18th competition, we presented the NAGASE Award to the Water Quality Team from the Science Club of Shizuoka Kita High School. The NAGASE Award recognizes research that embodies our slogan "Delivering next." and creates excitement for the future. This year's award recognized the team's approach of considering social issues, the environment, practicality, and potential for commercialization.

NAGASE Award winner Shizuoka Kita High School

Shizuoka Kita High School is part of the Shizuoka Institute of Science and Technology and is designated Super Science High School by the Ministry of Education, Culture, Sports, Science and Technology. The school's Science Club includes approximately 100 people engaged in research activities in chemistry, biology, and geology.

The research by the Science Club's Water Quality Team on the topic of "Resolving the Phosphate Fertilizer Dilemma through Progressive Wastewater Treatment" received the NAGASE Award as well as the Chemistry Future Award for second place in the High School Chemistry Grand Contest. The team's project also won the First Award in the chemistry category at the Taiwan International Science Fair 2024 held during January 28 to February 2, 2024.

Special Feature:
Roundtable Discussion with President Ueshima and High School Students

Since you are a team, you listen to each other's opinions. What were your goals for the team?

The difficult balance between practicality and profitability of valuable technology

Hagiwara ● Our goal is to develop technologies that can be put to practical use. Also, rather than adding to the economic value of something, we are researching material recycling and other ways to increase external economic value, such as for the environment. We look for both practical and profitable ways to apply recycling technology. For example, one kilogram of phosphate fertilizer sells for ¥712, while the material cost is ¥124. The fertilizer is very environmentally compatible and also profitable, so I think the technology can be developed for practical use.

Ueshima ● That's a great idea. That perspective is indispensable for a business. What other research are you involved in?
Yamashita ● Environmental problems include climate change, soil and water quality, ocean and air pollution, and waste materials. Resources of phosphorus, fresh water, natural gas, oil, copper, and rare earth elements are also being depleted. Our research is particularly focused on areas related to climate change and resource depletion. Because the Japanese government set a target to attain carbon neutrality by 2050, we are researching carbon capture and methane synthesis technologies to see if we can synthesize plastic and fuels like methane.
Ueshima ● That would be incredible to not just capture carbon dioxide, but then to draw methane off it to put to other uses. Both how to capture carbon dioxide and what to use it for are major issues right now.

The highest priority is the well-being of people and the Earth

Yamashita ● Nagase & Co., Ltd. is also using its businesses to help find solutions for social issues. What issue do you think is the most critical to address right now?
Ueshima ● Climate change. I believe we have borrowed the Earth from the children of the future, and we have a responsibility to return it to them more beautiful than it is now. We have to go beyond carbon neutral and think about becoming carbon negative. If global warming continues, we will not have a planet where people can live with peace of mind. I believe our highest priority is the well-being of humanity and the planet.
Yamashita ● As both a trading company and a manufacturer, does NAGASE select research and development themes that are centered on important social issues? We always have trouble trying to find where to direct our research. How do you find what to focus your research on?
Ueshima ● NAGASE has been working closely with its clients and business partners for over 190 years. Over that time, we have constantly asked our clients to tell us about the problems they are facing, and responded by continuously adapting our business to meet their needs. We started by supplying dyes to a kimono dyeing factory in Kyoto. Later, we began importing advanced technologies and chemical products from overseas to support the Japanese chemical industry. Then, when the market in Japan grew, we set up companies overseas and created joint venture companies so we could start our own manufacturing business.
Endo ● You have a keen sense for identifying issues and then using that to think about what the company should do next.
Ueshima ● Our research depends on the needs of our clients, and it seems like our recent research has been mostly related to social and environmental issues. Since we follow our clients' needs, it's possible that we will not always be a trading company; as our clients' needs change, so could our business.
Endo ● I chose biology to fulfill my science requirement. In nature, the species that survive are the ones that are the most adaptable. Both the ability to identify needs and problems and to adapt seem to be essential.
Ueshima ● That's very true. That's why I think your decision to research a technology that can provide solutions for an environmental issue was an excellent choice. If your research continues progressing, it's possible that our company can provide funding and ultimately manufacture and sell what you produce. It's even interesting to imagine one day in the future making a company with your team. These days, anyone can

use their abilities, whether they're a high school student, a working adult, a company or an individual. We always want to partner with people who are highly capable and have keen business insight. I think the way all of you look at things is wonderful.
Hagiwara ● I appreciate that very much. Thank you.

A future combining interests and usefulness

Yamashita ● Mr. Ueshima, how do you think your experiences from when you were a student are influencing your career now?
Ueshima ● I've always been interested in the stars and outer space, and when I studied chemistry in high school, I was fascinated to learn that chemistry is everywhere in the universe. I loved learning things I didn't know and factorizing to find the answers to questions I had. That excitement to find more interesting things that I didn't know led me down the path of chemistry and to where I am today. Even now, when I'm in a business situation, I'm always thinking about how to create a chemical reaction between people. I think, underneath it all, it is about being interested in new things, asking questions, and questioning what everyone believes to be true. What do each of you want to do in the future?
Hagiwara ● I would like to be a researcher at a manufacturing company. Joining the Science Club and having my research in phosphorus produce results gave me a sense of accomplishment and belief that this technology will definitely be useful to society. For example, phosphorus is used for plating, but it can also be used as a flame retardant in curtains. I want to find more materials that have secondary functions like that, and then use them to create substances that will be useful in society.
Endo ● I also want the research I'm doing on phosphate fertilizer to become commercialized because I think it can, even just a little, help solve some of the food problems the world is facing. I want to continue researching phosphorus, but I'm also very interested in biomimetics technology, which incorporates the characteristics of organisms into the technology of human society. I'm also interested in ancient and deep-sea organisms. In any of these areas, I would like to do research that is useful to people and society.
Yamashita ● In addition to a research position, I'm also interested in becoming a pharmacist. If I were a researcher, I would like to study microplastics and find ways to collect the plastic pollution in our oceans. I live near Suruga Bay, and seeing the mounds of PET bottles and other plastic garbage makes me wonder if there isn't a way to make plastic that decomposes without harming the environment.
Ueshima ● I'm impressed by all three of you. It's excellent that you all have a clear idea what you want to do and why you want to do it. Your family and schoolteachers also deserve praise for giving you the opportunity and environment to think about those things.

I want our future leaders to meet people and see the world

Yamashita ● Yes, all of us are very grateful. You said earlier that you believe the Earth is borrowed from the children of the future. What are your expectations for us and the children of today?
Ueshima ● I really would like young people to meet and talk with a wide variety of people. A person's perspective can become quite narrow and rigid if they only communicate with people of the same generation, location, or community. Then it becomes difficult to create anything new. Meet and talk with people, break through what you think is common sense and destroy stereotypes.

Yamashita ● That sounds just like what we're doing today!
Ueshima ● That's true. Our business is matching companies with companies, which means people with people, and I hope we can be a bridge for people to connect with the people and companies they need. One more request I have is for young people to see the world. Seeing other countries lets you understand how wonderful Japan is and where we are in the world, and it will greatly expand your perspective when you think about the future. It's been wonderful hearing your stories and seeing your vitality and passion. Thank you very much.
All ● Thank you very much.

Governance

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Governance Summary

Institutional Format	Company with Audit & Supervisory Board
Number of Directors	9
Outside Directors	3
Outside Audit & Supervisory Board Members	2
Chairperson of the Board	Chairman
Term of Office Stipulated in Articles of Incorporation	1 year
Separation of Management and Business Execution	Executive officer system
Board Member Appointment	Nomination Committee
Director Compensation	Compensation Committee [1] Basic salary [2] Performance-linked compensation (in cash) [3] Performance-linked compensation (non-monetary)
Compliance/Risk Management	Risk Management & Compliance Committee
Internal Control	Internal Control Committee
Sustainability	Sustainability Committee
Independent Auditor	Ernst & Young ShinNihon LLC

Management Structure (As of June 30, 2024)

Directors

Note: Number of shares held is based on available information as of May 31, 2024. Figures given for the number of shares held include those held in the name of Nagase Officers' Shareholding Association and Nagase Employee's Stockholding.

Kenji Asakura

Representative Director and Chairman
Number of shares held: 31 thousand

Hiroyuki Ueshima

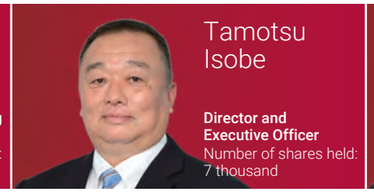
Representative Director, President and CEO
Number of shares held: 25 thousand

Masaya Ikemoto

Representative Director and Senior Managing Executive Officer
Number of shares held: 13 thousand

Masatoshi Kamada

Director and Managing Executive Officer
Number of shares held: 15 thousand



Tamotsu Isobe

Director and Executive Officer
Number of shares held: 7 thousand

Hiroshi Nagase

Director and Senior Adviser
Number of shares held: 2,060 thousand

Ritsuko Nonomiya

Outside Director
Number of shares held: 2 thousand

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, UBS Warburg Japan
2008	Senior Vice President and Business Development Leader, GE Capital Asia Pacific Ltd.
2013	Senior Executive Officer and Business Development Leader, GE Capital Japan, GE Japan Inc.
2013	Managing Director, GCA Savian Corporation (currently GCA Corporation)
2017	Director, GCA Corporation (current position)
2020	Director, Nagase & Co., Ltd. (current position)
2022–	Representative Director and CEO, Houlihan Lokey Japan Co., Ltd. (current position)

Noriaki Horikiri

Outside Director
Number of shares held: 1 thousand

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. (current position)
2023	Representative Director and Chairman, Kikkoman Corporation (current position)

Toshiaki Mikoshiba

Outside Director
Number of shares held: 0

1980	Joined Honda Motor Co., Ltd.
2008	Executive Officer, Honda Motor Co., Ltd., and Director and Vice President, Honda Motor Europe Limited
2011	President, Guangqi Honda Automobile Co., Ltd.
2014	Managing Officer, Chief Officer for Regional Operations (Europe Region), Honda Motor Co., Ltd., and President and Director, Honda Motor Europe Limited
2015	Senior Managing Officer, Honda Motor Co., Ltd.
2016	Chief Officer for Regional Operations (North America), Honda Motor Co., Ltd., and President and CEO, Honda North America, Inc.
2017	Senior Managing Director, Honda Motor Co., Ltd.
2019	Chairman, Honda Motor Co., Ltd.
2023	Director, Nagase & Co., Ltd. (current position)

Board of Directors and Audit & Supervisory Board Skill Matrix

We have identified the skills that members of the Board of Directors need to possess, and the roles that members of the Board of Directors and of the Audit & Supervisory Board play, as follows.

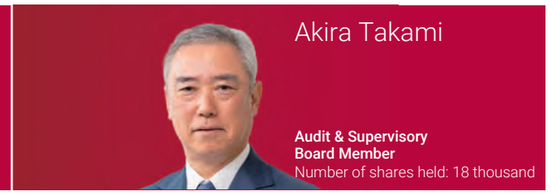
Position	Name	Corporate Management/ Management Strategy	Global Business	Marketing/Sales	R&D	Production/Quality	Finance and Accounting	Legal Affairs/ Risk Management	Human Resource Management	Sustainability	DX
Representative Director and Chairman	Kenji Asakura	●	●	●					●	●	
Representative Director, President and CEO	Hiroyuki Ueshima	●	●	●	●	●		●	●	●	
Representative Director and Senior Managing Executive Officer	Masaya Ikemoto	●	●			●	●	●	●	●	●
Director and Managing Executive Officer	Masatoshi Kamada	●	●	●				●	●	●	●
Director and Executive Officer	Tamotsu Isobe	●	●	●	●				●	●	●
Director and Senior Adviser	Hiroshi Nagase	●							●	●	
Outside Director	Ritsuko Nonomiya	●	●				●	●	●	●	
Outside Director	Noriaki Horikiri	●	●		●	●		●	●	●	
Outside Director	Toshiaki Mikoshiba	●	●	●		●		●	●	●	
Audit & Supervisory Board Member	Masanori Furukawa						●	●			
Audit & Supervisory Board Member	Akira Takami						●	●			
Outside Audit & Supervisory Board Member	Masaya Ishida						●	●			
Outside Audit & Supervisory Board Member	Gan Matsui						●	●	●		

Audit & Supervisory Board Members

Note: Number of shares held based on available information as of May 31, 2024. Figures given for the number of shares held include those held in the name of Nagase & CO., LTD. Officers' Shareholding Association.

Masanori Furukawa

Audit & Supervisory Board Member
Number of shares held: 9 thousand



Akira Takami

Audit & Supervisory Board Member
Number of shares held: 18 thousand

Masaya Ishida

Outside Audit & Supervisory Board Member
Number of shares held: 0

1992	Joined Sumitomo Bank (currently Sumitomo Mitsui Banking Corporation (SMBC))
2009	Head of Sales Promotion Group, Hibiya Corporate Banking No.2
2010	Office Group Head, Human Resources Dept.
2011	Group Head, Americas Business No. 1 Dept.
2014	Deputy General Manager, Americas Business No.1 Dept.
2016	Deputy General Manager, Tokyo Corporate Banking No. 5 Dept.
2018	General Manager, Fukuoka Corporate Banking No. 2 Office
2020	General Manager, Hamamatsucho Corporate Banking Office
2022	General Manager, Hiroshima Corporate Banking Office
2024	Retired from SMBC
2024	Audit & Supervisory Board Member, Nagase & Co., Ltd. (current position)

Gan Matsui

Outside Audit & Supervisory Board Member
Number of shares held: 3 thousand

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 (current position)
2018	Audit & Supervisory Board Member, Nagase & Co., Ltd. (current position)

Executive Officers

Managing Executive Officer

Naoki Yasuba
In charge of Nagase Viita Co., Ltd

Takanori Yamauchi
In charge of Nagase Business Expert Co., Ltd.

Satoru Fujii
In charge of Nagase ChemteX Corporation

Donald K. Thorp
In charge of Prinova Group LLC, Food Business

Kusuo Ota
In charge of Group Companies, Greater China (CEO)

Executive Officer

Koichi Sagawa
GM, Corporate Planning Department

Noriyoshi Yamaoka
Managing Director, Nagase Business Expert Co., Ltd.
Manager, Nagoya Branch Office

Yoshihisa Shimizu
GM, Risk Management Division
GM, ICT Planning Division

Xiaoli Liu
GM, Nagase Bio-Innovation Center

Eiroku Oki
India CEO

Toru Araki
Director, in charge of risk management and compliance, Totaku Industries, Inc.

Kentaro Nagase
Europe (CEO)

Kazuhiro Hanba
GM, Corporate Management Department

Toshio Wakuda
GM, Human Resources & General Affairs Department

Interview with the Outside Directors

Ritsuko Nonomiya

Reasons for selection as outside director and expected role
Ms. Nonomiya is highly versed in finance and accounting through her experience in auditing and other operations at the KPMG Group and M&A and business development at the UBS Group and GE Group. We expect Ms. Nonomiya to use her global management experience at the Houlihan Lokey Group to provide recommendations for NAGASE's overall management.

Further improving productivity and capital efficiency for balanced management

The policy announced this fiscal year of providing a total return ratio of 100% for a limited period of two years has had, I believe, a great impact because it has sent an easy-to-understand message to the market. One of our major issues has been determining what kind of capital policy the NAGASE Group wants to pursue to show its awareness of the need to increase shareholder value. The new policy is the result of numerous discussions by the Board of Directors over the past year.

Those discussions will need to continue so the capital policies reflect the Company's future vision. It's been four years since I was appointed as an outside director, and I believe the Group still has a lot of room to grow in the future, but one of the issues it is facing is how to further improve productivity and capital efficiency. As it aims for more balanced management, I believe we will need to closely monitor how well the Company performs as it implements various measures including ROIC management and delivers results.

Understanding the businesses and risks needed when using M&A as a management strategy

As in the cases of Nagase Viita and the Prinova Group, M&A can transform the corporate culture and trigger growth. At the same time, M&A is a complex management tool that requires a high level of judgment. Each member of the Board of Directors must be able to review various proposals and assess the impact on corporate value and the timeliness of the project. The members must also correctly understand the substance of the target business and be willing to take strategically calculated risks.

In fiscal 2023, I had the opportunity to visit the Prinova Group in Chicago, USA. For some time, the group's high inventory balance was viewed as a potential risk factor. However, Prinova management was able to explain why they needed to have that level of inventory volume. Seeing it for myself verified that. It was truly an instance of "seeing is believing."

Another challenge with risk is that it is difficult to identify contingent risks that are inherent for businesses that are expected to improve and contribute to growth strategy. It is easy for the Board of Directors to see materialized operating losses and unprofitable transactions, but the areas for improvement may contain contingent risks that are not yet visible so those businesses need to be monitored from the preliminary stage before those risks materialize.

Fostering leaders for a diverse society by providing opportunities to hone communication skills

One other item we need to address is the development of the next generation of leaders. In particular, global operations require strong communication skills, which does not simply mean the ability to speak English. Communication means the ability to think deeply and independently about something and to explain and communicate your thoughts to someone else.

As society becomes more diverse, what is considered as common sense in Japan and in our company will no longer be a given, and we cannot expect others to know what to do without communicating. I believe that making a conscious effort to provide employees with opportunities to practice communicating, in terms of both quantity and quality, will be essential for human resource development.

Noriaki Horikiri

Reasons for selection as outside director and expected role
Mr. Horikiri has deep insight and extensive experience in corporate management from an extended career in the management of Kikkoman Corporation. He is expected to contribute recommendations for overall business management, including for overseas development and production activities.

Mutual sharing of resources to create added value

I believe the new management structure adopted in fiscal 2023 has improved our ability to conduct strategic business management, including reforming the business structure, streamlining the organization, and integrating Group functions. From this point, we will need to organically connect NAGASE's abundant management resources in order to implement our strategies and generate results.

My many years in the manufacturing industry lead me to believe that there are still hidden management resources to uncover in NAGASE's technology. Beyond the combined trading and manufacturing functions. we should be able to interchange our non-financial assets of people, technology, and intellectual property to bring out buried management resources. Although the organization is divided into departments, we must make it a point to change the mindset of employees, such as by fostering an approach of thinking about what we can do if we pool our resources together. Since NAGASE also has a long history in the manufacturing industry, I would like us to enhance our corporate value by using the technical capabilities of our manufacturing function to add value when we move goods with our trading function, and likewise by using the information we gather in our trading function when we manufacture goods. Increasing the areas where we are the leader, even if the areas are niche sectors, will increase our strength as a company.

Showing and working toward fulfilling the Group vision will increase stakeholder support

In my two years as an outside director, I have felt that the agenda for the Board of Directors meetings is well organized in advance and the meetings provide ample opportunity for a frank exchange of opinions by members from both inside and outside the Company.

Last year, I was particularly impressed by the in-depth discussions of capital policy. We had clear objectives to boost the stock price and raise PBR to 1x, but we also were careful not to become overly focused on those targets and spent a fair amount of time discussing important topics like the balance between investing in growth and paying dividends. A PBR of 1x is only one part of the result we are working toward. Most important for an organization is to communicate the strategy in its processes and the future vision, and then to create the structure for executing its plan. When we do that is when stakeholders will start feeling like they want to support us, and the outcome will be reflected in the share price. When I shared this view at the Board of Directors meeting, members on both the management and executive sides seemed to give it careful consideration.

Think deeply about the value of the Company's existence and make it a driving force for a new history

Employees will only have a true understanding of who they are as a corporate entity when NAGASE shows what it is aiming to be in the future and how it is going to get there. I believe that forming a vision for the organization, self-analyzing our strengths and weaknesses, and ensuring all employees have a shared understanding of them will lead to long-term growth for the Company even in the difficult business conditions. The first step may be to have everyone learn the history of the Company.

NAGASE's nearly 200-year history gives us a platform for talking about a long-term vision 100 and even 200 years in the future. I hope that each of us will understand the importance of inheriting a business that has survived and thrived by contributing to society and thinking about what they envision for the Company in the future. I believe doing that will give each of us the ability to use the intangible asset of NAGASE's history to create something new for the future.

Toshiaki Mikoshiba

Reasons for selection as outside director and expected role
Mr. Mikoshiba brings deep insight and abundant experience in corporate management from his executive career at Honda Motor Co., Ltd. He is expected to contribute recommendations mainly in the areas of business development overseas and sales.

Combining assets limitlessly in all areas to generate new added value

The commitment with which President Ueshima has undertaken the transformation of NAGASE over the past year has been palpable. With regard to the direction of this transformation, I have two main hopes. The first is that, rather than merely responding to changing times, the company will, through its transformation, take a proactive role in leading the times. My second hope is that the company will take the myriad assets that it has cultivated over its distinguished history and combine these creatively and without limits, enabling it to create even more added value.

NAGASE engaged in organizational restructuring last year. Further to this, I would like to see dynamic cooperation within the company, both vertical business divisions and horizontal shared functions, such as business management, human resources and finance, cooperate with each other like warp and woof of a strong fabric. By working together at the intersections of various functions and responsibilities, establishing sound checks and balances and not shying away from constructive disagreement where necessary, I believe that NAGASE can make great strides towards a new future. And embedding such practices deeply within NAGASE's organizational structure is key to generating added value for the company.

Increased focus on growth strategies and longer-term objectives in Board meetings

In my first year as an outside director at NAGASE, I have found discussions in Board of Directors' meetings to be highly open and lively. Monthly lunch meetings between outside directors and the president have also provided opportunities for a candid and meaningful exchange of views.

At the same time, Board meetings have appeared to me to be somewhat oriented to executive issues. Moving forward, it may be apt to consider increased delegation to the executive team, enabling Board meetings to take on a more supervisory role, focusing on longer-term growth strategies. In terms of management indicators such as price-to-book ratio (PBR) and return on equity (ROE), which have become more and more important in recent years, the priority, in my view, should be on discussing the vision for the company in the medium- to long-term, rather than focusing solely on the achievement of target indices.

Encouraging accurate risk assessment, evaluating will to execute and supporting the Board

One of my commitments in every Board meeting is to evaluate the Board's strength of will and determination to execute each proposal that is put forward. An anecdote from a Board meeting last year comes to mind. A proposal was put forward on the execution of an option to purchase the remaining shares of the Prinova Group, with a view to making it a 100% subsidiary. I had found the proposal to be thorough and satisfactory, including the option price. I remarked that the proposal could have been presented with a firmer will and asked for delegation to execute the option within the proposed budget. To be sure, outside directors play an important role in assessing risk. This does not mean, however, that there can be absolutely no risk involved for us to proceed. Rather, the key is to evaluate risk accurately, and to develop appropriate countermeasures. So long as these are in place, I would like to encourage and support the Board in its decision-making. Therefore, I strive to ask questions that encourage the precise and accurate recognition of risks.

Lastly, I think that site visits are an ideal way for outside directors to interact with employees and evaluate first-hand how deeply our Board room discussions and decisions are taking root on the ground. As an outside director, I consider it my duty to engage in all manner of exchange and discussion to support the Board in leading NAGASE to its goals long into the future.

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.

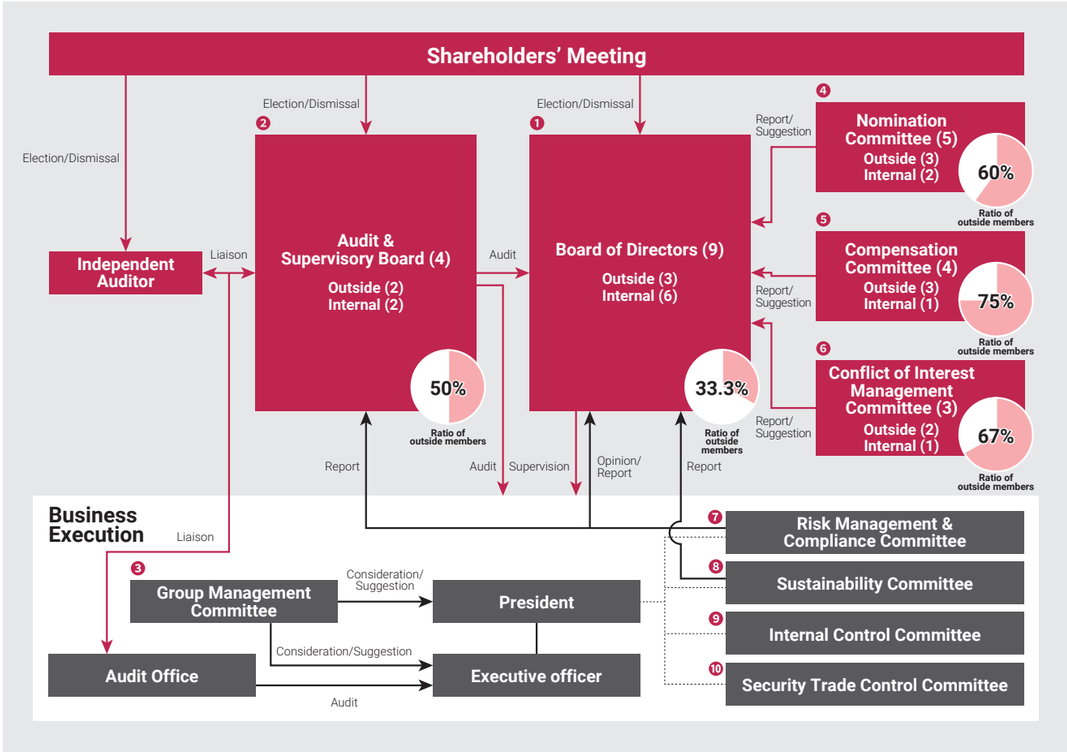
Based on this philosophy, NAGASE strives to increase corporate value over the medium to long term in line with the NAGASE Vision, its commitment to stakeholders: "To realize a sustainable world where people live with peace of mind, each of us embodies our value proposition, Identify, Develop and Expand through daily activities." We are working to strengthen our corporate governance, because we believe that rapid decision-making and execution, and ensuring transparency are essential for us to accomplish these objectives.

Overview of the corporate governance system

NAGASE has adopted the structure of a company with an Audit & Supervisory Board. We have also adopted an executive officer system that separates management and business execution, with the aim of accelerating decision-making and enhancing business execution. Our current management system is based on 9 Directors (of which 3 are Outside Directors), 18 executive officers (of which 4 are also Directors), and 4 Audit & Supervisory Board Members (of which 2 are Outside Audit & Supervisory Board Members). To strengthen the corporate governance function, NAGASE has voluntarily established a Compensation Committee, Nomination Committee, and Conflict of Interest Management Committee. Other voluntarily-established committees include the Group Management Committee, Sustainability Committee, Risk Management & Compliance Committee, Internal Control Committee, and Security Trade Control Committee.

Under the current corporate governance framework, the suggestions and advice provided from an objective standpoint by several independent Outside Directors, and the unbiased, objective oversight provided by an Audit & Supervisory Board whose members have a high level of specialist expertise and independence, have proven to be functioning effectively. We believe that, given the effective coordination between the various boards and committees that have been voluntarily established by the Company, this corporate governance framework is the most appropriate for our company.

Corporate governance system



Overview of the main boards and committees

Name	Overview	Composition	Number of Meetings Held in FY2023	Main Issues Addressed in FY2023
❶ 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.	9, including 3 Outside Directors	16	• Matters relating to management strategy, sustainability, and governance • Matters relating to risk management, internal controls, and compliance
❷ 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.	4, including 2 Outside Audit & Supervisory Board Members	16	• Audit policy and audit plans • Audit & Supervisory Board reports • Status of audit activities by full-time corporate Auditors • Review of annual audit activities • Reasonableness of the Board of Directors' resolutions regarding internal control and appropriateness of the establishment and operation of internal control systems, etc.
❸ Group Management Committee	The Group Management Committee comprises executive officers appointed by the Board of Directors, and in principle, meets regularly once 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.	Executive officers appointed by the Board of Directors	12	• Matters relating to management strategy, sustainability, and governance • Matters relating to risk management, internal controls, and compliance
❹ 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, including 3 Outside Officers	4	• Succession Planning • Matters relating to the following year's Directors and executive officers
❺ 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.	4, including 3 Outside Directors	4	• Matters relating to the compensation system for company officers • Introduction of ESG Indicators into the compensation system for company officers
❻ Conflict of Interest Management Committee	The Conflict of Interest Management Committee has three members, the majority being Outside Directors. It deliberates on potential conflicts of interest in relation to the Group's business operations with objectivity and transparency, and reports to and makes recommendations to the Board of Directors.	3, including 2 Outside Directors	2	• Various separate issues
❼ Risk Management & Compliance Committee	The Risk Management & Compliance Committee establishes and strengthens risk management and compliance systems that cover not only legal compliance but also corporate ethics.			
❽ Sustainability Committee	The Sustainability Committee is chaired by the President with executive officers and Group company managers 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.			
❾ 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.			
❿ 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.			

Board of Directors effectiveness evaluation

Evaluation method

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. Anonymity is maintained because respondents respond directly to an outside organization.

Evaluation results

Based on the evaluation results, the Company confirmed that its Board of Directors functions effectively, conducting appropriate and timely deliberations and decision-making.

The status of the response to items recognized as issues in fiscal 2022, and the issues recognized in fiscal 2023 based on the evaluation results, and the response strategy for these issues, are listed on the right.

Status of the response to items recognized as issues in FY2022

- The need for continuous improvement to realize efficient operation
  - ➡ Executives reviewed meeting bodies to speed up the decision-making process.
- The need to improve monitoring of management issues
  - ➡ Discussion opportunities were created. Future growth strategies and other topics were discussed as a part of the Medium-Term Management Plan.

Issues recognized in the FY 2023 evaluation results

- Further enhancement of discussion and monitoring at Board of Directors meetings
- Continuous improvement of operations

Based on this effectiveness evaluation, the Board will respond to issues after due consideration and continue its efforts to improve its functioning.

Company officer compensation policy

Compensation standards are set so that compensation is appropriate for the role and scope of responsibilities for each company officer and motivates them to sustainably enhance corporate value in light of objective external data and the current management situation, etc. The target ratios for each category of compensation are as shown below.

Compensation for Outside Directors and Audit & Supervisory Board Members is limited to basic compensation, a fixed salary, in view of the nature of their duties.

The indicators selected for performance-linked compensation are net income attributable to shareholders of the parent company, which is the final profit, as an incentive to improve business performance, and ROE as an incentive to improve capital efficiency. The method used to calculate performance-linked compensation is as follows. The basic amount of performance-linked compensation based on profit attributable to owners of the parent is determined based on the consolidated performance forecast at the beginning of the fiscal year, and is multiplied by the ratio of net profit for the previous fiscal year and the achievement ratio relative to the consolidated performance forecast at the beginning of the fiscal year, and is adjusted based on individual assessment. With regard to compensation based on ROE, to achieve the ultimate goals set in the Medium-Term Management Plan, targets are set for each fiscal year, and the amount of compensation is determined based on the extent to which the target for that year has been reached.

To strengthen the link between sustainability initiatives and executive compensation, ESG-related indicators were added to the performance-based indices in fiscal 2024.

Share held by each category of company officers' compensation

Basic salary	Share of total: 50 – 70%	Paid monthly, in cash
	Annual compensation, paid in equal monthly payments	
Performance-linked compensation (monetary)	Share of total: 25 – 40%	Paid annually, in cash
	Paid as lump sum at the end of June each year	
Performance-linked compensation (non-monetary)	Share of total: 5 – 10%	On retirement, in the form of shares
	A performance-linked share compensation system has been adopted whereby points are awarded based on position and achievement of performance targets, etc., and a number of shares corresponding to the number of points awarded is held in a trust set up by the Company to be paid on retirement.	

Strategic cross-shareholdings

To realize the sustainable enhancement of corporate value, the NAGASE Group holds strategic cross-shareholdings when this is deemed necessary, taking into account a comprehensive range of factors such as those relating to the maintenance and strengthening of relationships with business partners, business strategy, etc. The Board of Directors annually confirms the appropriateness of these shareholdings, based on the results of a detailed review by the responsible departments of the prospects for business expansion and synergies or whether such a company can be expected to provide stable services essential to the Group's business activities, in light of the earnings situation through related transaction gains and dividends received. In cases where the holding of a particular stock is deemed not to be appropriate, the Company will aim to reduce its holdings of these shares by selling them off in a step-by-step process, while taking various factors into account.

In addition, under the ACE 2.0 Medium-Term Management Plan, implementation of which began in fiscal 2021, NAGASE plans to sell off strategic cross-shareholdings valued at a cumulative total of 30 billion yen over a five-year period. As of March 31, 2024, a total of 22.4 billion yen of shareholdings had already been sold off.

Sale of strategic cross-shareholdings

(FY)	2019	2020	ACE 2.0 Medium-Term Management Plan			
			2021	2022	2023	Total over the Medium-Term Management Plan period
No. of stocks sold off	7 stocks	5 stocks	49 stocks	13 stocks	17 stocks	79 stocks
Total sale price	10.4 billion yen	6.2 billion yen	7.8 billion yen	7.3 billion yen	7.1 billion yen	22.4 billion yen

Breakdown of company officers' compensation and total amounts (FY2023)

Category of company officer		No. of eligible company officers (persons)	Total amount of compensation (million yen)	Amount of compensation by type (million yen)		
				Basic salary	Performance-linked compensation (monetary)	Performance-linked compensation (non-monetary)
Directors	Internal	6	234	177	30	26
	Outside	4	36	36	—	—
	Total	10	271	214	30	26
Audit & Supervisory Board Members	Internal	3	48	48	—	—
	Outside	2	34	34	—	—
	Total	5	83	83	—	—

Sustainability Management

Sustainability Basic Policy

The NAGASE Group has established the Sustainability Basic Policy as a way of thinking shared throughout its value system. Through the pursuit of activities to "Identify, Develop, and Expand" espoused in the NAGASE Vision, the Group will address issues affecting its business partners and society, thereby contributing toward the realization of a sustainable society.

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 ethical standards.
- 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, maintaining 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 as to their sustainability.
- We shall proactively disclose corporate information as appropriate.

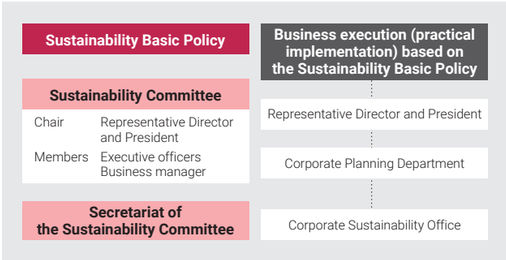
3. Consideration for the environment

- 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 operate 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 its 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 Basic Policy.



Materiality (important issues) identification process

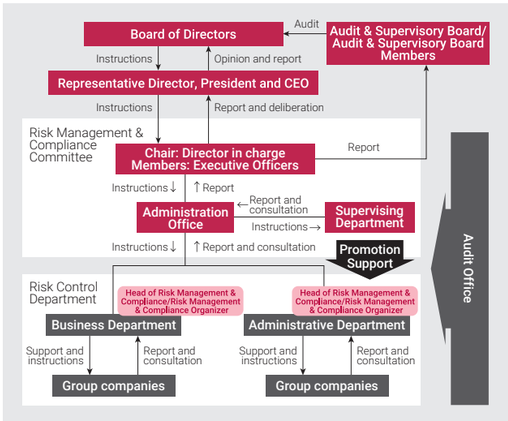
In September 2024, the NAGASE Group revised part of our materiality, in line with the formulation of the **ACE 2.0** Medium-Term Management Plan that we are now implementing. Having undertaken a review in light of changes in the external environment, following discussion by the Sustainability Committee, we added new materiality which it was felt needed to be recognized by NAGASE as constituting important issues: "Driving a Circular Economy," "Achieve a Sustainable Supply Chain," and "Extend a Healthy life expectancy." For more details, see p.25 of this report.

Risk Management and Compliance

Basic approach

The NAGASE Group's Management Philosophy is "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." In line with this philosophy, the Risk Management & Compliance Committee, chaired by a Director and Executive Officer, created the Code of Conduct for Risk Management & Compliance, which covers not only legal compliance but also corporate ethics. Based on this Code of Conduct the Committee works to establish, disseminate and consolidate a risk management system and a compliance system.

Risk management and compliance system



Revisions to the Code of Conduct for Risk Management & Compliance

On April 1, 2024, two important revisions were made to the NAGASE Group's Code of Conduct for Risk Management & Compliance.

① "Risk Management" was added.
② The content of the section on respecting human rights was updated.
(The scope was expanded from "group executives and employees only" to "the human rights of people involved in the Group's business activities".)

Accordingly, the following new or revised policies have been adopted.

Risk Management

Basic approach

The NAGASE Group runs a global and diversified operation, being exposed to various risks associated with the nature of its businesses. The Company classifies internal and external risks related to its business activities into two categories: risk management during normal times and management crisis control during emergencies, so that it can work to improve its ability to respond to each type of risk. The purpose of risk management is to ensure stable business continuity and sustainable growth by minimizing damage and loss caused by the manifestation of risks while taking appropriate risk mitigating measures.

Significant Group risks and countermeasures for FY2023

The Risk Management & Compliance Committee plays a central role in establishing a sustainable risk management system. To visualize the risks, the Committee identifies the risks, create risk scenarios for all of them and evaluates them on the two axes: one is impact, and the other is frequency and likelihood of occurrence. This helps to specify significant risks.

Significant risks	Countermeasures to minimize risks
Risks related to climate change	Promoting sustainability within the Group / setting carbon neutral targets / supporting the TCFD, etc.
Risks related to social demands	Assessing and reducing the impact of business activities on ecosystems and restoring ecosystems, etc.
Risks related to exchange rate fluctuations	Import and export in foreign currency / forward contracts for non-trading transactions, etc.
Investment risks	Improving the investment decision-making process, including the evaluation of profitability based on investment guidelines / periodic evaluation and review of investment value, etc.
Risks related to fluctuations in commodity markets	Ensuring customers receive guarantees / optimizing inventory levels through supply/demand forecasting, etc.
Geopolitical risks	Understanding the circumstances and legal and regulatory trends in each country / Establishing a supply chain that is not dependent on specific regions or suppliers, etc.
Risks related to securing and outflow of human resources, etc.	Improving employee engagement / mid-career recruitment / establishing hotline desks / improving compliance awareness, etc.
Risks related to loss of competitive advantage	Collecting information on changes in demand / changing strategies according to the situation / developing and strengthening systems to shift resources between regions in a timely manner, etc.

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 Company manages its suppliers and contract manufacturers and provides training to raise the level of product safety and quality control at eac of its manufacturing companies.

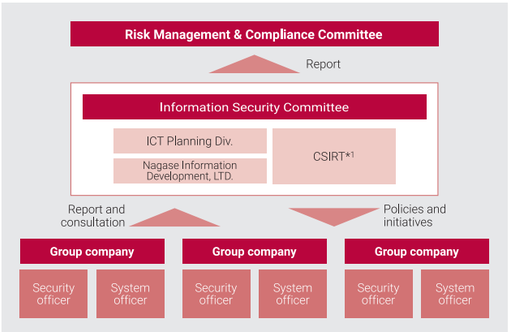
Basic approach on information security

The NAGASE Group recognizes that maintaining and improving the security of its information systems and the level of information security is an important management issue given its critical role in the supply chain. To this end, the Group has established an information security promotion system and policies, and is continuously implementing various security measures, as well as focusing on training and educating Group employees.

Information security promotion system

To promote information security, an Information Security Committee has been established under the supervision of the Risk Management & Compliance Committee. This helps to integrate it into the risk management system and to formulate and promote policies and measures at the Group level. Each Group company appoints a Security Officer and a Systems Officer who are responsible for implementing the Group's policies and for promptly reporting and responding to any incidents.

Information security system



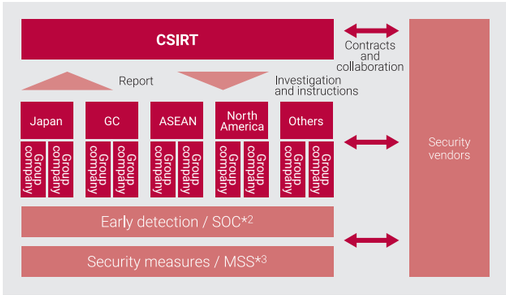
Information Security Policy

The Group implements a continuous improvement cycle to promote information security based on the Information Security Basic Policy and the Information Security Measures Guideline, which comprehensively describe the rules and recommended security level.

Cyber security enhancement initiatives

With targeted threats to businesses becoming more sophisticated every day, countering and responding to cyber-attacks is a critical management issue. The NAGASE Group is strengthening its cyber-attack countermeasures in terms of prevention, mitigation, and business continuity. To this end, the Group has built its cybersecurity structure based on the expertise and services of external security and network providers.

Cybersecurity structure



***1 CSIRT: Computer Security Incident Response Team**
A dedicated team has been established to respond to cybersecurity incidents within the Group.
***2 SOC: Security Operation Center**
The NAGASE Group has installed security products (EDR) in the endpoints (PCs/servers) of Group companies to prepare for cyber-attacks and malware infiltration. EDR detects suspicious behavior and cyber-attacks on endpoints and notifies a centralized control center called SOC to confirm the attack at an early stage and prevent the spread of damage.
***3 MSS: Managed Security Service**
In response to the increasing sophistication of cybersecurity, each Group company maintains and enhances the level of security by outsourcing some of the operational and administrative tasks to external specialized providers.

Employee training

To maintain and enhance the level of information security, it is essential to raise the awareness and literacy of each employee. The NAGASE Group regularly conducts the following training courses.

- Training against targeted email attacks
- Periodic e-learning courses on information security
- Familiarization of new employees with the Information Security Basic Policy

Risk management by the Group Manufacturers' Collaboration Committee

The Group Manufacturers' Collaboration Committee helps to share the know-how of each company and support each other in improving their risk management level. The Labor Safety Subcommittee diagnoses and tracks occupational safety at key follow-up sites. The Quality improvement activity shares know-how to improve quality control technology. The Environmental Subcommittee is in charge of environmental measures. The DX Promotion Subcommittee promotes the introduction of digital manufacturing technologies and technical studies.

Response to security trade controls

To conduct trade appropriately in line with laws and regulations as a member of the international community, 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 ensures that all business divisions and Group companies are well informed of its decisions and relevant statute updates to prevent violations of laws and regulations. To be capable of responding to the rapid changes in the security trade control field, the Company encourages its employees, particularly those involved in export business, to take the security trade control certification examination provided by the Center for Information on Security Trade Control (CISTEC). (As of the end of fiscal 2023, a cumulative total of 1,166 employees have obtained the certification).

Compliance with laws and regulations related to products

We are strengthening our management of product-related laws and regulations, including those relating to chemical products. We are also promoting centralized information management and have implemented a management system to appropriately comply with related laws and regulations across all products handled by the NAGASE Group.

• **Specific compliance measures:** We implement centralized management of matters relating to relevant laws and regulations using our comprehensive product management system, based on the chemical composition and specifications of all the chemical products that we handle.

• **Compliance with global chemical substance regulations:** The Company pursues systemization, education, and guidance for product management both in Japan and at our overseas subsidiaries based on the GFC (a global framework for managing chemical substances throughout their life cycles by diverse actors in diverse fields), which replaced SAICM.

Crisis prevention and business continuity planning (BCP)

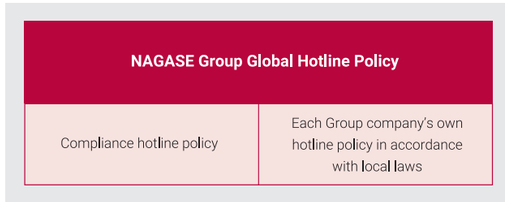
Each Group company has taken steps to mitigate risks such as natural disasters that could affect the continuity of business activities as well as the safety and lives of employees, through both "disaster prevention activities" and "BCP activities." As for crisis prevention activities, we annually conduct 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.

Compliance

Development of a Group-wide compliance system

The Company launched the "Compliance Support Round" in fiscal 2023 as an activity to visit Group companies in Japan that have not set up a Risk Management & Compliance Committee. Seventeen Group companies were visited. At each company, the visitors held discussions with the head of risk management and compliance, as well as risk management and compliance organizer. They reviewed compliance activities and the status of whistleblower response personnel under the revised Whistleblower Protection Act. Through this information sharing, the company was able to build relationships among compliance officers that were not fully possible during the COVID-19 pandemic. It also renewed awareness of compliance issues that should be considered by the Group as a whole in its information security and whistleblower investigation work.

In order to develop the whistleblowing system for all Group companies, including those overseas, NAGASE established the NAGASE Group Global Hotline Policy and worked to create an environment that facilitates reporting.



Compliance education for management and employees

To eradicate harassment such as abuse of power and sexual harassment, in fiscal 2023, the Company invited a specialized outside consultant to conduct training for the President, Directors, Presidents of Affiliated Companies, and other executives, as well as for department managers and division managers. E-learning and four cell manga on harassment were distributed to all employees once a month from fiscal 2023 to promote harassment-free awareness. As a result, more than 30% of respondents to an employee compliance survey conducted in fiscal 2023 said that the compliance situation in their workplace had improved compared to two years ago.

11-Year Financial Highlights

	2014/3	2015/3	2016/3	2017/3	2018/3	2019/3	2020/3	2021/3	2022/3	2023/3	2024/3
Medium-Term Management Plan	Change-S2014				ACE-2020				ACE 2.0		
	Investment Amount: ¥41.1 billion			Investment Amount: ¥13.7 billion	Investment Amount: ¥129.1 billion						
Performance (Accounting Fiscal Year): (Millions of yen)											
Net Sales	¥ 723,212	¥ 759,713	¥ 742,194	¥ 722,384	¥ 783,933	¥ 807,755	¥ 799,559	¥ 625,245	¥ 780,557	¥ 912,896	¥ 900,149
Segments: Functional Materials	169,973	168,238	157,149	153,546	174,922	179,627	169,318	75,294	99,874	156,161	146,804
Segments: Advanced Materials & Processing	239,224	254,165	255,505	242,609	262,831	275,203	267,078	209,715	257,283	220,955	198,543
Segments: Electronics & Energy	137,026	149,947	127,926	127,722	129,324	122,319	115,123	110,770	128,131	136,975	144,758
Segments: Mobility	99,441	109,851	115,351	112,956	129,708	139,235	126,000	78,783	103,389	125,560	132,117
Segments: Life & Healthcare	76,810	76,609	85,571	84,904	86,517	90,794	121,545	150,331	191,634	273,161	277,779
Segments: Others	737	900	689	644	629	574	492	349	244	81	146
Region: Domestic	372,939	374,208	363,038	369,365	395,428	412,617	402,390	221,737	250,360	265,407	268,872
Region: Overseas	350,272	385,505	379,155	353,019	388,504	395,137	397,169	403,507	530,196	647,489	631,277
Gross Profit	88,936	91,991	91,663	91,503	102,675	105,441	104,901	114,600	139,494	155,410	164,719
Operating Income	15,789	18,153	18,024	15,030	24,118	25,226	19,167	21,916	35,263	33,371	30,618
Profit Attributable to Owners of the Parent	11,663	11,318	12,316	10,331	17,175	20,136	15,144	18,829	25,939	23,625	22,402
Financial Condition: (Millions of yen)											
Total Assets	¥ 498,141	¥ 546,525	¥ 512,081	¥ 530,775	¥ 569,456	¥ 567,346	¥ 611,477	¥ 640,587	¥ 739,720	¥ 762,688	¥ 792,336
Equity Capital	246,723	281,398	273,963	290,217	303,636	307,674	305,322	329,687	344,261	367,675	394,064
Interest-Bearing Debt	92,828	98,493	87,560	82,046	86,173	85,620	135,974	118,947	166,530	179,697	166,948
Per Share Data: (Yen)											
Net Income (Basic)	¥ 91.86	¥ 89.10	¥ 96.96	¥ 81.65	¥ 136.34	¥ 161.30	¥ 122.12	¥ 151.91	¥ 213.46	¥ 199.54	¥ 194.96
Net Assets	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	3,139.26	3,463.84
Cash Dividends	28	30	32	33	40	42	44	46	54	70	80
Payout Ratio (%)	30.5	33.7	33.0	40.4	29.3	26.0	36.0	30.3	25.1	34.9	40.8
Ratios: (%)											
Overseas Sales to Net Sales	48.4	50.7	51.1	48.9	49.6	48.9	49.7	64.5	67.9	70.9	70.1
Manufacturing Ratio (Operating Income)	23.5	27.8	24.3	39.5	34.2	33.5	40.8	39.8	32.6	27.5	28.9
Operating Margin (Operating Income/Net Sales)	2.2	2.4	2.4	2.1	3.1	3.1	2.4	3.5	4.5	3.7	3.4
Return on Invested Capital (ROIC)	3.43	3.10	3.27	2.78	4.45	5.08	3.57	4.15	5.30	4.38	3.98
Return on Equity (ROE)	4.9	4.3	4.4	3.7	5.8	6.6	4.9	5.9	7.7	6.6	5.9
Shareholders' Equity Ratio	49.5	51.5	53.5	54.7	53.3	54.2	49.9	51.5	46.5	48.2	49.7
Net DE Ratio (Times)	0.2	0.2	0.2	0.1	0.1	0.1	0.3	0.2	0.3	0.4	0.3
Total Return Ratio	30.5	33.7	33.0	51.0	39.5	35.6	36.0	35.2	48.3	58.9	76.5
Shareholders' Equity Dividend Rate	1.5	1.4	1.5	1.5	1.7	1.7	1.8	1.8	1.9	2.3	2.4

(Note 1) 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 to figures from FY2020 (the fiscal year ended March 31, 2021).

(Note 2) Starting from the fiscal year ended March 31, 2021, overseas sales are calculated by compiling separate totals for each region where consolidated subsidiaries are located. Figures for previous years were calculated by compiling separate totals for each region to which products are shipped.

(Note 3) Business classification has been revised in line with the business segment restructuring implemented in October 2023; business results data for fiscal 2022 are based on the revised business classification.

Consolidated Balance Sheet

As of March 31, 2024

Assets	Millions of yen 2024	Millions of yen 2023	Thousands of U.S. dollars (Note 1) 2024
Current assets:			
Cash and time deposits (Notes 18 and 24)	**¥ 59,410**	¥ 40,897	**$ 392,378**
Notes and accounts receivable and contract assets (Note 18)	**321,126**	302,105	**2,120,904**
Inventories (Notes 6 and 7)	**147,991**	169,721	**977,419**
Other current assets	**14,881**	18,429	**98,283**
Less allowance for doubtful accounts	**(940)**	(1,021)	**(6,208)**
Total current assets	**542,470**	530,132	**3,582,788**
Non-current assets			
Property, plant and equipment, at cost (Notes 8 and 9):			
Land	**20,221**	18,839	**133,551**
Buildings and structures	**63,432**	64,095	**418,942**
Machinery, equipment and vehicles	**98,976**	93,845	**653,695**
Leased assets	**15,053**	11,439	**99,419**
Construction in progress	**3,548**	2,135	**23,433**
	201,233	190,355	**1,329,060**
Less accumulated depreciation	**(113,840)**	(108,290)	**(751,866)**
Property, plant and equipment, net (Note 25)	**87,392**	82,064	**577,188**
Investments and other assets:			
Investments in securities (Notes 10 and 18):			
Unconsolidated subsidiaries and affiliates	**10,286**	9,341	**67,935**
Other	**65,939**	60,402	**435,500**
	76,225	69,743	**503,434**
Long-term loans receivable	**326**	17	**2,153**
Goodwill (Note 25)	**27,884**	29,004	**184,162**
Technology-based assets	**2,761**	4,337	**18,235**
Retirement benefit asset (Note 13)	**6,217**	2,645	**41,061**
Deferred tax assets (Note 14)	**4,596**	3,857	**30,355**
Other assets (Note 9)	**44,638**	41,063	**294,815**
Less allowance for doubtful accounts	**(177)**	(176)	**(1,169)**
Total investments and other assets	**162,473**	150,491	**1,073,067**
Total non-current assets	**249,865**	232,556	**1,650,254**
Total assets (Note 25)	**¥ 792,336**	¥ 762,688	**$ 5,233,049**

Liabilities and Net Assets	Millions of yen 2024	Millions of yen 2023	Thousands of U.S. dollars (Note 1) 2024
Current liabilities:			
Notes and accounts payable (Note 18)	**¥ 156,352**	¥ 140,438	**$ 1,032,640**
Short-term loans (Notes 11 and 18)	**50,731**	66,117	**335,057**
Current portion of long-term loans and lease obligations (Notes 11 and 18)	**9,190**	3,120	**60,696**
Commercial papers (Notes 11 and 18)	**37,000**	38,000	**244,370**
Current portion of bonds payable (Note 11)	**10,000**	—	**66,046**
Accrued income taxes (Note 14)	**5,195**	2,913	**34,311**
Accrued expenses	**6,543**	6,300	**43,214**
Accrued bonuses for employees	**7,569**	6,985	**49,990**
Accrued bonuses for directors and executive officers	**251**	371	**1,658**
Other current liabilities	**19,841**	21,957	**131,042**
Total current liabilities	**302,675**	286,203	**1,999,042**
Long-term liabilities:			
Bonds (Notes 11 and 18)	**20,000**	30,000	**132,092**
Long-term loans and lease obligations (Notes 11 and 18)	**40,025**	42,460	**264,348**
Deferred tax liabilities (Note 14)	**13,567**	10,360	**89,604**
Retirement benefit liability (Note 13)	**12,345**	13,197	**81,534**
Provision for directors' stock benefit	**60**	65	**396**
Other long-term liabilities	**2,345**	2,012	**15,488**
Total long-term liabilities	**88,345**	98,097	**583,482**
Contingent liabilities (Note 22)			
Net assets:			
Shareholders' equity (Note 16):			
Common stock:			
Authorized — 346,980,000 shares			
Issued — 117,908,285 shares in 2024 and 117,908,285 shares in 2023	**9,699**	9,699	**64,058**
Capital surplus	**9,348**	10,636	**61,740**
Retained earnings (Notes 23 and 27)	**303,328**	290,279	**2,003,355**
Treasury stock, at cost (Note 17) — 4,143,115 shares in 2024 and 786,718 shares in 2023	**(9,543)**	(1,550)	**(63,028)**
Total shareholders' equity	**312,832**	309,064	**2,066,125**
Accumulated other comprehensive income:			
Net unrealized holding gain on securities (Note 10)	**33,763**	28,928	**222,991**
Deferred gain (loss) on hedges (Note 19)	**119**	(7)	**786**
Translation adjustments	**44,846**	30,414	**296,189**
Retirement benefit liability adjustments (Note 13)	**2,503**	(726)	**16,531**
Total accumulated other comprehensive income	**81,232**	58,610	**536,504**
Non-controlling interests	**7,250**	10,713	**47,883**
Total net assets	**401,315**	378,388	**2,650,518**
Total liabilities and net assets	**¥ 792,336**	¥ 762,688	**$ 5,233,049**

See notes to consolidated financial statements.

Consolidated Statement of Income

Year ended March 31, 2024

	Millions of yen		Thousands of U.S. dollars (Note 1)
	2024	2023	2024
Net sales (Note 25)	¥ 900,149	¥ 912,896	$ 5,945,109
Cost of sales (Note 7)	735,430	757,486	4,857,209
Gross profit	164,719	155,410	1,087,900
Selling, general and administrative expenses (Notes 20 and 21)	134,100	122,038	885,675
Operating income (Note 25)	30,618	33,371	202,219
Other income (expenses):			
Interest and dividend income	2,164	1,734	14,292
Interest expense	(3,744)	(3,211)	(24,728)
Equity in earnings of affiliates	568	318	3,751
Gain on sales of shares of subsidiaries and affiliates	—	52	—
Gain on sales of investments in securities (Note 10)	5,591	6,587	36,926
Loss on sales of shares of subsidiaries and affiliates	—	(466)	—
Gain on sales of investments in capital of subsidiaries and affiliates	—	147	—
Loss on sales of investment securities	(21)	(7)	(139)
Loss on devaluation of investments in securities (Note 10)	(135)	(2,120)	(892)
Gain on sales of property, plant and equipment	83	144	548
Loss on sales of property, plant and equipment	(41)	(87)	(271)
Loss on disposal of property, plant and equipment	(1,422)	(998)	(9,392)
Loss on impairment of fixed assets (Notes 9 and 25)	(2,276)	(2,838)	(15,032)
Gain on change in equity	—	449	—
Subsidy income	512	25	3,382
Other, net	767	37	5,066
Profit before income taxes	32,665	33,137	215,739
Income taxes (Note 14):			
Current	10,627	9,621	70,187
Deferred	(815)	(694)	(5,383)
Profit	22,853	24,210	150,935
Profit attributable to:			
Non-controlling interests	(450)	(584)	(2,972)
Owners of parent	¥ 22,402	¥ 23,625	$ 147,956

See notes to consolidated financial statements.

Consolidated Statement of Comprehensive Income

Year ended March 31, 2024

	Millions of yen		Thousands of U.S. dollars (Note 1)
	2024	2023	2024
Profit	¥ 22,853	¥ 24,210	$ 150,935
Other comprehensive income (Note 12):			
Net unrealized holding loss on securities	4,827	(2,794)	31,880
Deferred gain (loss) on hedges	126	(186)	832
Translation adjustments	14,738	16,852	97,338
Retirement benefit liability adjustments	3,229	(564)	21,326
Share of other comprehensive income of affiliates accounted for by the equity method	560	477	3,699
	23,482	13,784	155,089
Comprehensive income	¥ 46,335	¥ 37,994	$ 306,023
Total comprehensive income attributable to:			
Owners of parent	¥ 45,024	¥ 36,838	$ 297,365
Non-controlling interests	¥ 1,310	¥ 1,156	$ 8,652

See notes to consolidated financial statements.

Consolidated Statement of Changes in Net Assets

Year ended March 31, 2024

	Millions of yen											
	Common stock	Capital surplus	Retained earnings	Treasury stock, at cost	Total shareholders' equity	Net unrealized holding gain on securities	Deferred (loss) 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, 2022	¥ 9,699	¥ 10,639	¥ 280,015	¥ (1,534)	¥ 298,820	¥ 31,732	¥ 178	¥ 13,690	¥ (161)	¥ 45,441	¥ 10,830	¥ 355,092
Profit attributable to owners of parent	–	–	23,625	–	23,625	–	–	–	–	–	–	23,625
Cash dividends	–	–	(7,150)	–	(7,150)	–	–	–	–	–	–	(7,150)
Purchases of treasury stock	–	–	–	(5,662)	(5,662)	–	–	–	–	–	–	(5,662)
Retirement of treasury stock	–	–	(5,645)	5,645	–	–	–	–	–	–	–	–
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	–	(3)	–	–	(3)	–	–	–	–	–	–	(3)
Decrease in retained earnings resulting from changes in scope of equity method	–	–	(330)	–	(330)	–	–	–	–	–	–	(330)
Changes in accounting period of consolidated subsidiaries			(234)		(234)	–	–	–	–	–	–	(234)
Other changes	–	–	–	–	–	(2,804)	(186)	16,723	(564)	13,169	(117)	13,051
Balance at April 1, 2023	**9,699**	**10,636**	**290,279**	**(1,550)**	**309,064**	**28,928**	**(7)**	**30,414**	**(726)**	**58,610**	**10,713**	**378,388**
Cumulative effects of changes in accounting policies (Note 3)	**–**	**–**	**(72)**	**–**	**(72)**							
Adjusted balance at April 1, 2023	**9,699**	**10,636**	**290,207**	**(1,550)**	**308,992**	**28,928**	**(7)**	**30,414**	**(726)**	**58,610**	**10,713**	**378,315**
Profit attributable to owners of parent	**–**	**–**	**22,402**	**–**	**22,402**	**–**	**–**	**–**	**–**	**–**	**–**	**22,402**
Cash dividends	**–**	**–**	**(9,281)**	**–**	**(9,281)**	**–**	**–**	**–**	**–**	**–**	**–**	**(9,281)**
Purchases of treasury stock	**–**	**–**	**–**	**(8,001)**	**(8,001)**	**–**	**–**	**–**	**–**	**–**	**–**	**(8,001)**
Disposal of treasury stock	**–**	**–**	**–**	**7**	**7**	**–**	**–**	**–**	**–**	**–**	**–**	**7**
Changes in parent's ownership interest due to transactions with non-controlling interests	**–**	**(1,287)**	**–**	**–**	**(1,287)**	**–**	**–**	**–**	**–**	**–**	**–**	**(1,287)**
Other changes	**–**	**–**	**–**	**–**	**–**	**4,834**	**126**	**14,431**	**3,229**	**22,622**	**(3,462)**	**19,159**
Balance at March 31, 2024	**¥ 9,699**	**¥ 9,348**	**¥ 303,328**	**¥ (9,543)**	**¥ 312,832**	**¥ 33,763**	**¥ 119**	**¥ 44,846**	**¥ 2,503**	**¥ 81,232**	**¥ 7,250**	**¥ 401,315**

See notes to consolidated financial statements.

	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 (loss) 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, 2023	**$64,058**	**$70,246**	**$1,917,172**	**$(10,237)**	**$2,041,239**	**$191,057**	**$(46)**	**$200,872**	**$(4,795)**	**$387,095**	**$70,755**	**$2,499,095**
Cumulative effects of changes in accounting policies (Note 3)	**–**	**–**	**(476)**	**–**	**(476)**	**–**	**–**	**–**	**–**	**–**	**–**	**(476)**
Adjusted balance at April 1, 2023	**64,058**	**70,246**	**1,916,696**	**(10,237)**	**2,040,763**	**191,057**	**(46)**	**200,872**	**(4,795)**	**387,095**	**70,755**	**2,498,613**
Profit attributable to owners of parent	**–**	**–**	**147,956**	**–**	**147,956**	**–**	**–**	**–**	**–**	**–**	**–**	**147,956**
Cash dividends	**–**	**–**	**(61,297)**	**–**	**(61,297)**	**–**	**–**	**–**	**–**	**–**	**–**	**(61,297)**
Purchases of treasury stock	**–**	**–**	**–**	**(52,843)**	**(52,843)**	**–**	**–**	**–**	**–**	**–**	**–**	**(52,843)**
Disposal of treasury stock	**–**	**–**	**–**	**46**	**46**	**–**	**–**	**–**	**–**	**–**	**–**	**46**
Changes in parent's ownership interest due to transactions with non-controlling interests	**–**	**(8,500)**	**–**	**–**	**(8,500)**	**–**	**–**	**–**	**–**	**–**	**–**	**(8,500)**
Other changes	**–**	**–**	**–**	**–**	**–**	**31,927**	**832**	**95,311**	**21,326**	**149,409**	**(22,865)**	**126,537**
Balance at March 31, 2023	**$64,058**	**$61,740**	**$2,003,355**	**$(63,028)**	**$2,066,125**	**$222,991**	**$786**	**$296,189**	**$16,531**	**$536,504**	**$47,883**	**$2,650,518**

See notes to consolidated financial statements.

Consolidated Statement of Cash Flows

Year ended March 31, 2024

	Millions of yen		Thousands of U.S. dollars (Note 1)
	2024	2023	2024
Operating activities:			
Profit before income taxes	¥ 32,665	¥ 33,137	$ 215,739
Adjustments to reconcile profit before income taxes to net cash provided by operating activities:			
Depreciation and amortization other than amortization of goodwill	13,998	12,377	92,451
Loss on impairment of fixed assets	2,276	2,838	15,032
Amortization of goodwill	2,627	2,545	17,350
Subsidy income	(512)	(25)	(3,382)
Share of gain of entities accounted for using equity method	(568)	(318)	(3,751)
Gain on change in equity	—	(449)	—
Increase (decrease) in retirement benefit liability	3,775	(609)	24,932
Decrease (increase) in retirement benefit asset	495	(55)	3,269
Interest and dividend income	(2,164)	(1,734)	(14,292)
Interest expense	3,744	3,211	24,728
Exchange gain, net	(1,652)	(891)	(10,911)
Gain on sales of investments in securities	(5,570)	(6,312)	(36,788)
Loss on valuation of investment securities	135	2,120	892
Changes in operating assets and liabilities:			
Notes and accounts receivable	(7,373)	(5,171)	(48,696)
Inventories	31,626	(1,275)	208,877
Notes and accounts payable	8,844	(13,584)	58,411
Other, net	188	(1,462)	1,242
Subtotal	82,537	24,341	545,123
Interest and dividends received	2,589	2,418	17,099
Interest paid	(3,865)	(3,058)	(25,527)
Subsidy income	512	—	3,382
Income taxes paid	(8,814)	(14,286)	(58,213)
Net cash provided by operating activities	¥ 72,959	¥ 9,414	$ 481,864
Investing activities:			
Purchases of property, plant and equipment	¥ (14,019)	¥ (12,029)	$ (92,590)
Proceeds from sales of property, plant and equipment	585	540	3,864
Purchases of intangible fixed assets included in other assets	(3,735)	(4,888)	(24,668)
Purchases of investments in securities	(623)	(437)	(4,115)
Proceeds from sales of investments in securities	7,154	7,474	47,249
Purchases of investments in capital	(205)	—	(1,354)
Proceeds from sales of investments in capital	—	178	—
Purchase of shares of subsidiaries resulting in change in scope of consolidation	(244)	—	(1,612)
Proceeds from sales of shares of subsidiaries resulting in change in scope of consolidation	—	2,040	—
Increase in short-term loans receivable included in other current assets, net	(316)	(623)	(2,087)
Decrease in time deposits, net	378	337	2,497
Subsidy income	—	25	—
Other, net	(601)	(650)	(3,969)
Net cash used in investing activities	(11,627)	(8,031)	(76,791)
Financing activities:			
Decrease in short-term loans, net	(22,408)	(11,961)	(147,996)
(Decrease) increase in commercial papers, net	(1,000)	13,000	(6,605)
Proceeds from long-term loans	1,000	5,000	6,605
Repayments of long-term loans	(1,055)	(8,623)	(6,968)
Proceeds from issuance of bonds	—	10,000	—
Redemption of bonds	—	(10,000)	—
Purchase of treasury stock	(8,001)	(5,662)	(52,843)
Cash dividends paid	(9,281)	(7,150)	(61,297)
Cash dividends paid to non-controlling interests	(603)	(1,133)	(3,983)
Purchases of shares of subsidiaries not resulting in change in scope of consolidation	(6,025)	—	(39,793)
Other, net	(670)	(716)	(4,425)
Net cash used in financing activities	(48,046)	(17,247)	(317,324)
Effects of exchange rate changes on cash and cash equivalents	5,569	3,064	36,781
Net increase (decrease) in cash and cash equivalents	18,854	(12,800)	124,523
Cash and cash equivalents at beginning of the year	40,331	53,336	266,369
Decrease in cash and cash equivalents resulting from changes in fiscal year-end of consolidated subsidiaries	—	(204)	—
Cash and cash equivalents at end of the year (Note 23)	¥ 59,185	¥ 40,331	$ 390,892

See notes to consolidated financial statements.

Notes to Consolidated Financial Statements

Year ended March 31, 2024

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 ¥151.41 = U.S.$1.00, the rate of exchange prevailing on March 31, 2024. 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 its 75 significant domestic and foreign subsidiaries, the management of which is controlled by the Company. The changes in the scope of consolidation are as follows.

[Increase]

- Flavor Tec - Aromas de Frutas Ltda (acquisition of equity interests on June 28, 2023)
- Fruttini Sucos de Frutas Ltda (acquisition of equity interests on June 28, 2023)

[Decrease]

- INFINITE MATERIAL SOLUTIONS, LLC (dissolved in an absorption-type merger, in which consolidated subsidiary INTERFACIAL CONSULTANTS LLC was the surviving company, on April 1, 2023)
- PRINOVA GERMANY LIMITED (liquidation on April 11, 2023)
- Inkron Technologies GmbH (liquidation on May 17, 2023)
- Lakeshore Technologies, LLC (dissolved in an absorption-type merger, in which consolidated subsidiary Prinova US LLC was the surviving company, on January 1, 2024)

Affiliates over which the Company exercises significant influence in terms of their operating and financial policies have been accounted for by the equity method. The Company has 19 affiliates accounted for by the equity method. The changes in the scope of application of the equity method are as follows.

[Decrease]

- Sun Delta Corporation (liquidation on November 28, 2023)

All significant intercompany balances and transactions have been eliminated in consolidation. The 7 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 main unconsolidated subsidiary is CHOKO CO., LTD. The 7 unconsolidated subsidiaries and 5 affiliates not accounted for by the entity 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. The main affiliates is ON Colors & Chemicals (Shanghai) Co., Ltd.

Of the Company's subsidiaries, 33 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 22 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 profit 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 subsidiaries shifted to the stand-alone taxation system in the current fiscal year in conjunction with the abolishment of the consolidated taxation system.

(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) Provision for Directors' Stock Benefit

In order to provide for the payment of shares, etc. of the Company to Directors (excluding Outside Directors) and executive officers, the estimated amount of stock-based compensation payable in accordance with the Stock-Grant Rules for Directors (internal rules) is recorded.

(o) 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.

(p) 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 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 the 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.

(q) 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.

(r) Research and Development Costs

Research and development costs are charged to income when incurred.

(s) 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(a).)

3. ACCOUNTING CHANGES

(a) Adoption of U.S. FASB Accounting Standards Codification (ASC) No. 326, Financial Instruments—Credit Losses

Certain foreign consolidated subsidiaries that adopted U.S. GAAP apply ASC No. 326, Financial Instruments-Credit Losses, at the beginning of the current consolidated fiscal year. As a result, the subsidiaries are required to revise the methods used to measure financial instruments and recognize impairment of financial assets using the expected credit loss model. In applying this accounting standard, the subsidiaries recognized the cumulative effect as of the date of adoption, which is permitted under the transitional provisions. The impact of this accounting treatment on the consolidated statements is immaterial.

(b) Changes in Significant Hedge Accounting Methods

The Company previously used the allocation method for foreign currency receivables and payables with foreign exchange contracts, if receivables and payables qualified for the allocation method. However, from the consolidated third quarter of the current fiscal year, the Company changed its hedge accounting method from the allocation method to the principle accounting method.

As the Company reforms its enterprise system, the Company reviewed its management of foreign exchange contracts and changed the method to reflect derivative transactions more appropriately in Company financial statements.

Note that as impact from this change in accounting methods is minor, the change is not applied retrospectively.

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, 2024 and 2023, and for the years then ended are as follows.

	Millions of yen		Thousands of U.S. dollars
	2024	2023	2024
Property, plant and equipment	¥ 87,392	¥ 82,064	$ 577,188
Intangible fixed assets	69,349	68,928	458,021
Impairment losses	2,276	2,838	15,032

(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 selling 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. ADDITIONAL INFORMATION

Stock-Based Compensation Plan

Effective as of the previous consolidated fiscal year, the Company has adopted a stock-based compensation plan ("Plan") for directors (excluding outside directors) and executive officers (collectively, "Eligible Individuals"). The purpose of the Plan is to establish a clear link between compensation for Eligible Individuals and Company performance and share value, as well as for Eligible Individuals to share the benefits and risks associated with fluctuations in NAGASE share price with shareholders. In this way, the NAGASE Group intends to raise Eligible Individual's awareness about contributing to improved business performance and increased corporate value over the medium to long term.

(i) Overview

The Plan is a stock-based compensation plan under which a trust ("Trust") established by monetary contribution from the Company acquires Company shares. The Company grants points to each Eligible Individual, and the Trust delivers the number of Company shares equivalent to the points earned by each Eligible Individual. In principle, said delivery is made at the time of the retirement the Eligible Individual.

(ii) Company shares remaining in the Trust

Company shares remaining in the Trust are recorded as treasury stock under net assets in the consolidated balance sheet based on the carrying value in the Trust (excluding related expenses). The carrying value and number of shares of treasury stock is ¥619 million and 292,200 shares, respectively, as of March 31, 2023, and ¥612 million and 288,500 shares, respectively, as of March 31, 2024.

6. INVENTORIES

Inventories at March 31, 2024 and 2023 are summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2024	2023	2024
Merchandise and finished goods	¥ 131,137	¥ 152,504	$ 866,105
Work in process	2,594	2,446	17,132
Raw materials and supplies	14,259	14,770	94,175
Total	¥ 147,991	¥ 169,721	$ 977,419

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, 2024 and 2023:

	Millions of yen		Thousands of U.S. dollars
	2024	2023	2024
Loss on devaluation of inventories included in cost of sales	¥ 2,076	¥ 2,010	$ 13,711

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, 2024 and 2023 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2024	2023	2024
Buildings and structures	¥ 401	¥ 403	$ 2,648
Machinery, equipment and vehicles	730	730	4,821
Land	190	190	1,255
Total	¥ 1,322	¥ 1,324	$ 8,731

9. LOSS ON IMPAIRMENT OF FIXED ASSETS

Loss on impairment of fixed assets for the years ended March 31, 2024 and 2023 was as follows:

Major use	Classification	Area	Millions of yen 2024	Thousands of U.S. dollars 2024
Business-use assets for manufacturing and selling of color formers	Buildings and structures, machinery, equipment and vehicles, and tangible assets included in other assets, and intangible assets included in other assets	Hokuriku	**¥ 2,276**	**$ 15,032**
Total			**¥ 2,276**	**$ 15,032**

Major use	Classification	Area	Millions of yen 2023
Business-use assets for product and manufacturing process development in the resin field	Machinery, equipment and vehicles, Leased assets and other assets included in Investments and other assets	Wisconsin, USA	¥ 2,285
Business-use assets for development and manufacturing of water-soluble support materials for 3D printing	Machinery, equipment and vehicles and other assets included in Investments and other assets	Wisconsin, USA	539
Idle assets	Buildings and structures, and Land	Kanto	12
Total			¥ 2,838

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, 2023, the book values of certain fixed assets for business-use were reduced to their recoverable amounts, because the future cash flows fell below the book value as a result of reviewing the future business plans. As for idle assets, due to a declining fair value, the carrying values were reduced to their recoverable amounts.

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. The recoverable amounts for business-use assets were measured at the net selling value.

For the year ended March 31, 2024, the book values were reduced to their recoverable amounts due to deterioration in profitability.

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.

The business-use assets related to the color former manufacturing business were measured based on the net selling price.

10. INVESTMENTS IN SECURITIES

(a) Marketable securities classified as other securities at March 31, 2024 and 2023 are summarized as follows:

	Millions of yen 2024 Carrying value	2024 Acquisition costs	2024 Unrealized gain (loss)	2023 Carrying value	2023 Acquisition costs	2023 Unrealized gain (loss)
Securities whose carrying value exceeds their acquisition costs:						
Equity securities	**¥ 59,580**	**¥ 11,829**	**¥ 47,751**	¥ 53,460	¥ 12,004	¥ 41,456
Securities whose carrying value does not exceed their acquisition costs:						
Equity securities	**1,535**	**1,825**	**(290)**	2,389	3,056	(667)
Total	**¥ 61,116**	**¥ 13,654**	**¥ 47,461**	¥ 55,849	¥ 15,061	¥ 40,788

	Thousands of U.S. dollars 2024 Carrying value	2024 Acquisition costs	2024 Unrealized gain (loss)
Securities whose carrying value exceeds their acquisition costs:			
Equity securities	**$ 393,501**	**$ 78,126**	**$ 315,375**
Securities whose carrying value does not exceed their acquisition costs:			
Equity securities	**10,138**	**12,053**	**(1,915)**
Total	**$ 403,646**	**$ 90,179**	**$ 313,460**

"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, 2024 and 2023 are summarized as follows:

	Millions of yen 2024 Carrying value	Millions of yen 2023 Carrying value	Thousands of U.S. dollars 2024 Carrying value
Market value not available:			
Unlisted equity securities	**¥ 4,823**	¥ 4,552	**$ 31,854**
Total	**¥ 4,823**	¥ 4,552	**$ 31,854**

(c) Proceeds from sales of, and gross realized gain and loss on, other securities for the years ended March 31, 2024 and 2023 are summarized as follows:

	Millions of yen 2024	Millions of yen 2023	Thousands of U.S. dollars 2024
Proceeds from sales	**¥ 7,184**	¥ 7,448	**$ 47,447**
Gain on sales	**5,591**	6,584	**36,926**
Loss on sales	**21**	7	**139**

(d) A breakdown of loss on devaluation of investments in securities for the years ended March 31, 2024 and 2023 is summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2024	2023	2024
Loss on devaluation of investments in securities (*)			
Securities classified as other securities	¥ 125	¥ 2,028	$ 826
Other investments in capital	9	81	59
Investments in capital of subsidiaries and affiliates	—	10	—
Total loss on devaluation of investments in securities	¥ 135	¥ 2,120	$ 885

(*) 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 LEASE OBLIGATIONS

Short-term loans at March 31, 2024 and 2023 principally represented loans and commercial papers in the form of deeds at weighted-average annual interest rates of 5.35% and 5.06% per annum, respectively.

Long-term loans, bonds and lease obligations at March 31, 2024 and 2023 consisted of the following:

	Millions of yen		Thousands of U.S. dollars
	2024	2023	2024
Unsecured loans from banks and insurance companies, payable in Yen and U.S. dollars due through 2032, at rates from 0.20% to 5.50%	¥ 34,479	¥ 33,754	$ 227,719
Unsecured bonds in Yen, due 2024, at a rate of 0.150%	10,000	10,000	66,046
Unsecured bonds in Yen, due 2029, at a rate of 0.290%	10,000	10,000	66,046
Unsecured bonds in Yen, due 2032, at a rate of 0.640%	10,000	10,000	66,046
Lease obligations	14,736	11,826	97,325
	79,216	75,580	523,189
Less current portion	(19,190)	(3,120)	(126,742)
Total	¥ 60,025	¥ 72,460	$ 396,440

The aggregate annual maturities of bonds, long-term loans and lease obligations subsequent to March 31, 2024 are summarized as follows:

Years ending March 31,	Millions of yen	Thousands of U.S. dollars
2025	¥ 19,190	$ 126,742
2026	8,381	55,353
2027	17,006	112,318
2028	6,684	44,145
2029	1,523	10,059
2030 and thereafter	26,429	174,553
Total	¥ 79,216	$ 523,189

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, 2024 and 2023 is as follows:

	Millions of yen		Thousands of U.S. dollars
	2024	2023	2024
Lines of credit	¥ 20,000	¥ 20,000	$ 132,092
Credit utilized	—	—	—

12. OTHER COMPREHENSIVE INCOME

Reclassification adjustments and tax effects allocated to each component of other comprehensive income for the years ended March 31, 2024 and 2023 were as follows:

	Millions of yen		Thousands of U.S. dollars
	2024	2023	2024
Net unrealized holding loss on securities:			
Amount arising during the year	¥ 12,344	¥ 2,840	$ 81,527
Reclassification adjustments for gains and losses realized in the statement of income	(5,570)	(6,671)	(36,788)
Amount before tax effect	6,774	(3,830)	44,739
Tax effect	(1,946)	1,036	(12,853)
Net unrealized holding loss on securities	4,827	(2,794)	31,880
Deferred gain (loss) on hedges:			
Amount arising during the year	(7)	(460)	(46)
Reclassification adjustments for gains and losses realized in the statement of income	189	192	1,248
Amount before tax effect	182	(268)	1,202
Tax effect	(55)	82	(363)
Deferred gain (loss) on hedges	126	(186)	832
Translation adjustments:			
Amount arising during the year	14,738	16,852	97,338
Reclassification adjustments for gains and losses realized in the statement of income	—	—	—
Amount before tax effect	14,738	16,852	97,338
Tax effect	—	—	—
Translation adjustments	14,738	16,852	97,338
Retirement benefit liability adjustments:			
Amount arising during the year	3,697	(1,042)	24,417
Reclassification adjustments for gains and losses realized in the statement of income	970	229	6,406
Amount before tax effect	4,668	(813)	30,830
Tax effect	(1,438)	248	(9,497)
Retirement benefit liability adjustments	3,229	(564)	21,326
Share of other comprehensive income of affiliates accounted for by the equity method:			
Amount arising during the year	560	477	3,699
Total other comprehensive income	¥ 23,482	¥ 13,784	$ 155,089

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, 2024 and 2023 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2024	**2023**	**2024**
Balance at the beginning of the year	**¥ 33,786**	¥ 34,218	**$ 223,142**
Service cost	**1,294**	1,272	**8,546**
Interest cost	**226**	232	**1,493**
Actuarial differences	**(2,915)**	45	**(19,252)**
Retirement benefits paid	**(1,887)**	(1,743)	**(12,463)**
Changes in scope of consolidation	**—**	(262)	**—**
Other	**(209)**	23	**(1380)**
Balance at the end of the year	**¥ 30,293**	¥ 33,786	**$ 200,073**

The changes in plan assets for the years ended March 31, 2024 and 2023 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2024	**2023**	**2024**
Balance at the beginning of the year	**¥ 23,234**	¥ 24,119	**$ 153,451**
Expected return on plan assets	**469**	502	**3,098**
Actuarial differences	**778**	(989)	**5,138**
Contributions by the Company and its consolidated subsidiaries	**612**	595	**4,042**
Retirement benefits paid	**(944)**	(1,001)	**(6,235)**
Other	**15**	8	**99**
Balance at the end of the year	**¥ 24,165**	¥ 23,234	**$ 159,600**

The following table sets forth the funded status of the plans and the amounts recognized in the consolidated balance sheets as of March 31, 2024 and 2023 for the Company's and the consolidated subsidiaries' defined benefit plans:

	Millions of yen		Thousands of U.S. dollars
	2024	**2023**	**2024**
Funded retirement benefit obligation	**¥ 18,324**	¥ 21,168	**$ 121,022**
Plan assets at fair value	**(24,165)**	(23,234)	**(159,600)**
	(5,841)	(2,065)	**(38,577)**
Unfunded retirement benefit obligation	**11,969**	12,618	**79,050**
Net retirement benefit liability in the balance sheet	**6,127**	10,552	**40,466**
Retirement benefit liability	**12,345**	13,197	**81,534**
Retirement benefit asset	**(6,217)**	(2,645)	**(41,061)**
Net retirement benefit liability in the balance sheet	**¥ 6,127**	¥ 10,552	**$ 40,466**

The components of retirement benefit expenses for the years ended March 31, 2024 and 2023 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2024	**2023**	**2024**
Service cost	**¥ 1,294**	¥ 1,272	**$ 8,546**
Interest cost	**226**	232	**1,493**
Expected return on plan assets	**(469)**	(502)	**(3,098)**
Amortization of actuarial differences	**970**	229	**6,406**
Retirement benefit expense	**¥ 2,021**	¥ 1,232	**$ 13,348**

Actuarial differences included in other comprehensive income (loss) (before tax effect) for the years ended March 31, 2024 and 2023 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2024	**2023**	**2024**
Actuarial differences	**¥ 4,668**	¥ (813)	**$ 30,830**

Unrecognized actuarial differences included in accumulated other comprehensive income (before tax effect) as of March 31, 2024 and 2023 are as follows:

	Millions of yen		Thousands of U.S. dollars
	2024	**2023**	**2024**
Unrecognized actuarial differences	**¥ 3,636**	¥ (1,032)	**$ 24,014**

The allocation of plan assets, by major category, as a percentage of total plan assets at fair value as of March 31, 2024 and 2023 is as follows:

	2024	**2023**
Bonds	**61%**	64%
Equity securities	**20**	18
Alternative investments (*)	**16**	17
Other	**3**	1
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:

	2024	**2023**
Discount rate	**1.6%**	0.7%
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
	2024	**2023**	**2024**
Contributions to defined contribution plans by the Company and its consolidated subsidiaries	**¥ 779**	¥ 740	**$ 5,145**

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, 2024 and 2023.

The effective tax rates reflected in the accompanying consolidated statements of income for the years ended March 31, 2024 and 2023 differ from the statutory tax rates for the following reasons:

	2024	2023
Statutory tax rates	**30.6%**	30.6%
Adjustments for:		
Expenses not deductible for income tax purposes	**1.0**	2.0
Dividends and other income deductible for income tax purposes	**(6.8)**	(8.4)
Net adjustment resulting from elimination of dividend income upon consolidation	**7.4**	9.6
Different tax rates applied at overseas subsidiaries	**(4.7)**	(4.1)
Tax credit	**(1.9)**	(2.7)
Amortization of goodwill	**2.5**	2.4
Adjustment of book value of shares of subsidiaries for consolidated taxation system	**—**	0.5
Equity in losses (gains) of affiliates	**(0.5)**	(0.3)
Valuation allowance	**4.8**	(3.2)
Decrease in deferred tax assets resulting from change in statutory tax rate	**(1.5)**	(0.6)
Other, net	**(0.8)**	1.2
Effective tax rates	**30.0%**	26.9%

The significant components of the Company's and its consolidated subsidiaries' deferred tax assets and liabilities at March 31, 2024 and 2023 are summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2024	2023	2024
Deferred tax assets:			
Accrued bonuses for employees	**¥ 1,854**	¥ 1,680	**$ 12,245**
Allowance for doubtful accounts	**249**	119	**1,645**
Unrealized gain on inventories	**703**	717	**4,643**
Accrued enterprise taxes	**291**	145	**1,922**
Tax loss carryforwards	**2,340**	2,441	**15,455**
Retirement benefit liability	**1,792**	3,161	**11,835**
Investments in securities	**2,209**	3,428	**14,590**
Loss on impairment of fixed assets	**1,309**	672	**8,645**
Other	**8,426**	6,807	**55,650**
Gross deferred tax assets	**19,178**	19,174	**126,663**
Valuation allowance	**(6,695)**	(6,691)	**(44,218)**
Total deferred tax assets	**¥ 12,482**	¥ 12,482	**$ 82,438**
Deferred tax liabilities:			
Technology-based assets	**¥ (841)**	¥ (1,321)	**$ (5,554)**
Deferred capital gain on property	**(929)**	(936)	**(6,136)**
Reserve for special depreciation	**—**	(49)	**—**
Undistributed earnings of subsidiaries and affiliates	**(490)**	(373)	**(3,236)**
Revaluation of land	**(294)**	(292)	**(1,942)**
Net unrealized holding gain on securities	**(14,121)**	(12,214)	**(93,263)**
Other	**(4,776)**	(3,798)	**(31,543)**
Total deferred tax liabilities	**(21,453)**	(18,985)	**(141,688)**
Net deferred tax liabilities	**¥ (8,971)**	¥ (6,503)	**$ (59,250)**

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(p).)

(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 fiscal year expected to be recognized in the following 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 and contract assets based on contracts with customers are included in "Notes and accounts receivable and contract assets" and contract liabilities are included in "Other current liabilities." At the end of the previous fiscal year and the end of the current 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 fiscal year onward is not significant.

	Millions of yen		Thousands of U.S. dollars
	2024	2023	2024
Receivables from contracts with customers	**¥ 320,347**	¥ 302,105	**$ 2,115,759**
Contract assets	**778**	—	**5,138**
Contract liabilities	**4,581**	4,822	**30,256**

As of March 31, 2024, accounts receivable and notes receivable from contracts with customers included in the table above are ¥273,699 million ($1,807,668 thousand) and ¥46,648 million ($308,091 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, 2024 amounted to ¥9,634 million ($63,629 thousand). In addition, the Company's legal reserve included in retained earnings at March 31, 2024 amounted to ¥2,424 million ($16,010 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, 2024 and 2023 are summarized as follows:

	Number of shares			
	2024			
	April 1, 2023	Increase	Decrease	March 31, 2024
Common stock	**117,908,285**	**—**	**—**	**117,908,285**
	2023			
	April 1, 2022	Increase	Decrease	March 31, 2023
Common stock	120,908,285	—	3,000,000	117,908,285

17. TREASURY STOCK

Movements in treasury stock during the years ended March 31, 2024 and 2023 are summarized as follows:

	Number of shares			
	2024			
	April 1, 2023	Increase	Decrease	March 31, 2024
Treasury stock	**786,718**	**3,360,097**	**3,700**	**4,143,115**
	2023			
	April 1, 2022	Increase	Decrease	March 31, 2023
Treasury stock	881,767	2,904,951	3,000,000	786,718

(*) Treasury stock at the end of the current fiscal year does include 288,500 shares of the Company's shares held by the Stock-Granting Trust for Directors.

The increase in treasury stock includes 3,359,600 shares resulting from the purchases of treasury stock by resolution of the Board of Directors and 497 shares resulting from the purchase of shares less than one voting unit for the year ended March 31, 2024. The decrease in treasury stock includes 3,700 shares resulting from the grant of treasury stock by the Stock-Granting Trust for Directors.

The increase in treasury stock includes 2,612,300 shares resulting from the purchases of treasury stock by resolution of the Board of Directors, 292,200 shares resulting from the purchases of treasury stock by the Stock-Granting Trust for Directors and 451 shares resulting from the purchase of shares less than one voting unit for the year ended March 31, 2023. The decrease in treasury stock includes 3,000,000 shares resulting from the retirement of treasury stock by resolution of the Board of Directors for the year ended March 31, 2023.

18. FINANCIAL INSTRUMENTS

(a) Policy for financial instruments

With regard to the Group's 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, 2024 and 2023, are shown in the following table. Financial instruments for which fair value is deemed extremely difficult to determine are not included.

	Millions of yen		
	2024		
	Carrying value	Fair value	Difference
Assets			
Notes and accounts receivable	**¥ 320,347**	**¥ 320,347**	**¥ —**
Investments in securities (*2)			
Other securities	**61,116**	**61,116**	**—**
Total assets	**¥ 381,464**	**¥ 381,464**	**¥ —**
Liabilities			
Notes and accounts payable	**¥ 156,352**	**¥ 156,352**	**¥ —**
Bonds	**20,000**	**19,292**	**(708)**
Long-term loans	**27,533**	**27,173**	**(359)**
Total liabilities	**¥ 203,885**	**¥ 202,818**	**¥ (1,067)**
Derivatives (*3)			
Not subject to hedge accounting	**¥ (327)**	**¥ (327)**	**¥ —**
Subject to hedge accounting	**169**	**169**	**—**
Total derivative transactions	**¥ (158)**	**¥ (158)**	**¥ —**

	Millions of yen		
	2023		
	Carrying value	Fair value	Difference
Assets			
Notes and accounts receivable	¥ 302,105	¥ 302,105	¥ —
Investments in securities (*2)			
Other securities	55,849	55,849	—
Total assets	¥ 357,955	¥ 357,955	¥ —
Liabilities			
Notes and accounts payable	¥ 140,438	¥ 140,438	¥ —
Bonds	30,000	29,580	(420)
Long-term loans	32,697	32,286	(410)
Total liabilities	¥ 203,135	¥ 202,304	¥ (830)
Derivatives (*3)			
Not subject to hedge accounting	¥ (405)	¥ (405)	¥ —
Subject to hedge accounting	(11)	(11)	—
Total derivative transactions	¥ (416)	¥ (416)	¥ —

	Thousands of U.S. dollars		
	2024		
	Carrying value	Fair value	Difference
Assets			
Notes and accounts receivable	$ 2,115,759	$ 2,115,759	$ —
Investments in securities (*2)			
Other securities	403,646	403,646	—
Total assets	$ 2,519,411	$ 2,519,411	$ —
Liabilities			
Notes and accounts payable	$ 1,032,640	$ 1,032,640	$ —
Bonds	132,092	127,416	(4,676)
Long-term loans	181,844	179,466	(2,371)
Total liabilities	$ 1,346,576	$ 1,339,528	$ (7,047)
Derivatives (*3)			
Not subject to hedge accounting	$ (2,160)	$ (2,160)	$ —
Subject to hedge accounting	1,116	1,116	—
Total derivative transactions	$ (1,044)	$ (1,044)	$ —

(*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
	2024	2023	2024
Unlisted equity securities	¥ 4,823	¥ 4,552	$ 31,854
Investments in unconsolidated subsidiaries and affiliates	10,286	9,341	67,935
Total	¥ 15,109	¥ 13,893	$ 99,789

(*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, 2024 is summarized as follows:

	Millions of yen	
	Within 1 year	Over 1 year and less than 5 years
Time deposits	¥ 59,197	¥ —
Notes and accounts receivable	320,347	—
Total	¥ 379,545	¥ —

	Thousands of U.S. dollars	
	Within 1 year	Over 1 year and less than 5 years
Time deposits	$ 390,972	$ —
Notes and accounts receivable	2,115,759	—
Total	$ 2,506,737	$ —

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			
	2024			
	Level 1	Level 2	Level 3	Total
Investments in securities				
Other securities				
Shares	¥ 61,116	¥ —	¥ —	¥ 61,116
Derivatives				
Forward exchange contracts	—	(158)	—	(158)
Total assets	¥ 61,116	¥ (158)	¥ —	¥ 60,958

	Millions of yen			
	2023			
	Level 1	Level 2	Level 3	Total
Investments in securities				
Other securities				
Shares	¥ 55,849	¥ —	¥ —	¥ 55,849
Derivatives				
Forward exchange contracts	—	(416)	—	(416)
Total assets	¥ 55,849	¥ (416)	¥ —	¥ 55,432

	Thousands of U.S. dollars			
	2024			
	Level 1	Level 2	Level 3	Total
Investments in securities				
Other securities				
Shares	$ 403,646	$ —	$ —	$ 403,646
Derivatives				
Forward exchange contracts	—	(1,044)	—	(1,044)
Total assets	$ 403,646	$ (1,044)	$ —	$ 402,602

Financial instruments other than those recorded on the consolidated balance sheets at fair value

	Millions of yen			
	2024			
	Level 1	Level 2	Level 3	Total
Notes and accounts receivable	¥ —	¥ 320,347	¥ —	¥ 320,347
Total assets	¥ —	¥ 320,347	¥ —	¥ 320,347
Notes and accounts payable	—	156,352	—	156,352
Bonds	—	19,292	—	19,292
Long-term loans	—	27,173	—	27,173
Total liabilities	¥ —	¥ 202,818	¥ —	¥ 202,818

	Millions of yen			
	2023			
	Level 1	Level 2	Level 3	Total
Notes and accounts receivable	¥ —	¥ 302,105	¥ —	¥ 302,105
Total assets	¥ —	¥ 302,105	¥ —	¥ 302,105
Notes and accounts payable	—	140,438	—	140,438
Bonds	—	29,580	—	29,580
Long-term loans	—	32,286	—	32,286
Total liabilities	¥ —	¥ 202,304	¥ —	¥ 202,304

	Thousands of U.S. dollars			
	2024			
	Level 1	Level 2	Level 3	Total
Notes and accounts receivable	$ —	$ 2,115,759	$ —	$ 2,115,759
Total assets	$ —	$ 2,115,759	$ —	$ 2,115,759
Notes and accounts payable	—	1,032,640	—	1,032,640
Bonds	—	127,416	—	127,416
Long-term loans	—	179,466	—	179,466
Total liabilities	$ —	$ 1,339,528	$ —	$ 1,339,528

Explanation of valuation techniques used, and inputs related to the calculation of fair value.

(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.

(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.

(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.

(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, 2024 and 2023 are as follows:

		Millions of yen			
		2024			
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	¥ 4,954	¥ —	¥ (115)	¥ (115)
	Yen	146	—	1	1
	Euro	13,865	—	(253)	(253)
	RMB	457	—	(6)	(6)
	IDR	2,271	—	16	16
	Others	571	—	(9)	(9)
	Buying:				
	U.S. dollars	3,969	—	68	68
	Yen	3,307	—	(35)	(35)
	Euro	200	—	6	6
	Others	237	—	(0)	(0)
Total		¥ 29,981	¥ —	¥ (327)	¥ (327)

		Millions of yen			
		2023			
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	¥ 5,287	¥ —	¥ (61)	¥ (61)
	Yen	226	—	(2)	(2)
	Euro	13,918	—	(283)	(283)
	RMB	311	—	0	0
	IDR	2,002	—	(37)	(37)
	Others	152	—	(2)	(2)
	Buying:				
	U.S. dollars	4,770	—	(20)	(20)
	Yen	3,045	—	(2)	(2)
	Euro	186	—	5	5
	Others	165	—	(0)	(0)
Total		¥ 30,066	¥ —	¥ (405)	¥ (405)

Classification	Transaction	Thousands of U.S. dollars 2024 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	$ 32,719	$ —	$ (760)	$ (760)
	Yen	964	—	7	7
	Euro	91,573	—	(1,671)	(1,671)
	RMB	3,018	—	(40)	(40)
	IDR	14,999	—	106	106
	Others	3,771	—	(59)	(59)
	Buying:				
	U.S. dollars	26,214	—	449	449
	Yen	21,841	—	(231)	(231)
	Euro	1,321	—	40	40
	Others	1,565	—	(1)	(1)
Total		$ 198,012	$ —	$ (2,160)	$ (2,160)

The currency-related derivatives positions outstanding for which hedge accounting has been applied at March 31, 2024 and 2023 are as follows:

Method for hedge accounting	Transaction	Major hedged item	Millions of yen 2024 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	Accounts receivable	¥ —	¥ —	¥ —
	Euro		407	—	(8)
	RMB		115	—	(1)
	Others		104	—	(1)
	Buying:	Accounts payable			
	U.S. dollars		3,522	—	163
	Euro		489	—	17
	RMB		22	—	0
	Others		18	—	(0)
Allocation method for foreign currency forward exchange contracts (Note 2(p))	Foreign currency forward exchange contracts:				
	Buying:				
	U.S. dollars	Accounts payable	9	—	(*)
Total			¥ 4,689	¥ —	¥ 169

Method for hedge accounting	Transaction	Major hedged item	Millions of yen 2023 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	Accounts receivable	¥ —	¥ —	¥ —
	Euro		335	—	(8)
	RMB		72	—	0
	Others		17	—	(0)
	Buying:	Accounts payable			
	U.S. dollars		5,480	—	(13)
	Euro		359	—	11
	RMB		57	—	0
	Others		67	—	0
Allocation method for foreign currency forward exchange contracts (Note 2(p))	Foreign currency forward exchange contracts:				
	Selling				
	Euro	Accounts receivable	110	—	(*)
	Others		12	—	(*)
	Buying:	Accounts payable			
	Euro		202	—	(*)
	THB		122	—	(*)
	Others		12	—	(*)
Total			¥ 6,850	¥ —	¥ (11)

Method for hedge accounting	Transaction	Major hedged item	Thousands of U.S. dollars 2024 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	Accounts receivable	$ —	$ —	$ —
	Euro		2,688	—	(53)
	RMB		760	—	(7)
	Others		687	—	(1)
	Buying:	Accounts payable			
	U.S. dollars		23,261	—	1,077
	Euro		3,230	—	112
	RMB		145	—	0
	Others		119	—	0
Allocation method for foreign currency forward exchange contracts (Note 2(p))	Foreign currency forward exchange contracts:				
	Selling				
	Euro	Accounts receivable		—	(*)
	Others			—	(*)
	Buying:	Accounts payable			
	U.S. dollars		59	—	(*)
	THB			—	(*)
	Others			—	(*)
Total			$ 30,969	$ —	$ 1,116

(*): 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.

20. RESEARCH AND DEVELOPMENT COSTS

Research and development costs included in selling, general and administrative expenses for the years ended March 31, 2024 and 2023 totaled ¥5,987 million ($39,542 thousand) and ¥5,755 million, respectively.

21. OPERATING LEASES

Future minimum lease payments subsequent to March 31, 2024 under noncancelable operating leases are as follows:

Year ending March 31,	Millions of yen	Thousands of U.S. dollars
2025	¥ 321	$ 2,120
2026 and thereafter	469	3,098
Total	¥ 790	$ 5,218

22. CONTINGENT LIABILITIES

The Company and its consolidated subsidiaries had contingent liabilities as guarantors of loans of customers and other in the aggregate amount of ¥980 million ($6,472 thousand) and ¥982 million ($7,354 thousand) at March 31, 2024, and 2023, respectively. The amount of guarantees was previously disclosed based on an actual loan execution amount; however, from the current fiscal year the maximum limit of the guarantees is disclosed.

In addition, the Company and its consolidated subsidiaries had contingent liabilities arising from notes discounted with banks in the amounts of ¥252 million ($1,664 thousand) and ¥355 million ($2,659 thousand) at March 31, 2024, and 2023, respectively.

23. AMOUNTS PER SHARE

Amounts per share at March 31, 2024 and 2023 and for the years then ended are as follows:

	Yen		U.S. dollars
	2024	2023	2024
Profit attributable to owners of parent:			
Basic	¥ 194.96	¥ 199.54	$ 1.29
Diluted	—	—	—
Net assets	3,463.84	3,139.26	22.88
Cash dividends applicable to the year	80.00	70.00	0.53

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, 2024 and 2023 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 Company's shares held by the Stock-Granting Trust for Directors are included in treasury stock in shareholders' equity. These are excluded from the total number of issued shares at the end of the period when calculating net assets per share. Also, these are excluded from the calculation of average number of shares during the period when calculating profit attributable to owners of parent per share.

The number of such shares at the end of the period excluded from the calculation of net assets per share was 288,500 shares, while the average number of shares during the period excluded from the calculation of profit attributable to owners of parent per share was 289,923 shares.

The financial data used in the computation of basic profit attributable to owners of parent per share for the years ended March 31, 2024 and 2023 are summarized as follows:

	Millions of yen		Thousands of U.S. dollars
	2024	2023	2024
Profit attributable to owners of parent	¥ 22,402	¥ 23,625	$ 147,956
Profit available for distribution to shareholders of common stock	22,402	23,625	147,956
Weighted-average number of shares	114,911,971	118,398,261	

24. CASH AND TIME DEPOSITS

A reconciliation of cash and time deposits in the accompanying consolidated balance sheets at March 31, 2024 and 2023 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
	2024	2023	2024
Cash and time deposits	¥ 59,410	¥ 40,897	$ 392,378
Time deposits with maturities of more than three months	(225)	(565)	(1,486)
Cash and cash equivalents	¥ 59,185	¥ 40,331	$ 390,892

25. SEGMENT INFORMATION

(a) Overview of reportable segments

(Change in Business Segments)

On October 1, 2023, the Company integrated its original 11 business departments into 7 to streamline business operations by expanding the scale and functions of each department. The integration of business departments resulted in the following changes to business segments.

The Color & Advanced Processing Department of the Advanced Materials & Processing segment was abolished and integrated into the Performance Chemicals Department of the Functional Materials segment, and the Polymers Global Account Department of the Advanced Materials & Processing segment.

Segment information for the previous fiscal year reflects this reclassification.

The following describes the major products and services handled by each reportable segment.

The Functional Materials segment is engaged in the sales of paints/inks, dyestuffs, pigments, additives, processed pigments, dispersing elements, functional pigments, thermal paper materials, toner and inkjet materials, materials for 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, conductive coatings, and more for the paints/inks, dye/additive, resins, urethane foam, organic synthesis, surfactants, electronics chemicals, digital print processing materials, communications equipment, water processing, metal processing, plastic and film processing, stationery, functional film and sheet, hygiene materials, and other industries.

The Advanced Materials & Processing Segment is engaged in the sales of thermoplastic resins, thermosetting resins, plastics products, resin molding tools/dies, and more for the plastic compounds, masterbatch, raw resin material, resin molding, appliance and office automation device, electronics, packaging material, daily commodities, household goods, 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, solar panels, 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, renewable energy, large-scale commercial facility, and other industries.

The Mobility Segment is engaged in the sales of plastic products in general, materials for secondary batteries, interior and exterior materials, 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, and other industries. The segment offers radiation measurement and sleep measurement as one of its main services. In addition, this segment sells cosmetics, health foods, and beauty foods directly to consumers.

(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, 2024 and 2023 are as follows:

Millions of yen

	2024										
	Reportable Segments										
	Functional Materials	Advanced Materials & Processing	Electronics & Energy	Mobility	Life & Healthcare	Total	Others	Total	Corporate	Adjustments	Consolidated
Sales to customers	¥146,804	¥198,543	¥144,758	¥132,117	¥277,779	¥900,003	¥ 146	¥900,149	¥ –	¥ –	¥900,149
Intersegment sales and transfers	1,709	792	3,068	2,798	471	8,839	7,251	16,090	–	(16,090)	–
Net sales	148,513	199,335	147,826	134,915	278,251	908,842	7,398	916,240	–	(16,090)	900,149
Segment income	8,629	6,804	11,327	4,933	10,321	42,016	79	42,095	(12,007)	529	30,618
Segment assets	131,559	104,394	84,087	74,881	245,132	640,056	3,142	643,198	203,748	(54,610)	792,336
Other items											
Depreciation and amortization other than amortization of goodwill	916	725	1,803	388	7,291	11,126	18	11,145	2,853	–	13,998
Amortization of goodwill	143	–	54	–	2,429	2,627	–	2,627	–	–	2,627
Unamortized balance of goodwill	1,992	–	444	–	25,447	27,884	–	27,884	–	–	27,884
Investments in affiliates accounted for by the equity method	2,649	1,128	2,994	1,332	3,351	11,456	111	11,567	–	(4)	11,563
Increase in property, plant and equipment, net and intangible assets	1,262	1,159	3,189	325	4,367	10,304	60	10,364	9,648	–	20,012

Millions of yen

	2023										
	Reportable Segments										
	Functional Materials	Advanced Materials & Processing	Electronics & Energy	Mobility	Life & Healthcare	Total	Others	Total	Corporate	Adjustments	Consolidated
Sales to customers	¥156,161	¥220,955	¥136,975	¥125,560	¥273,161	¥912,815	¥ 81	¥912,896	¥ –	¥ –	¥912,896
Intersegment sales and transfers	799	776	2,580	2,257	490	6,903	7,439	14,343	–	(14,343)	–
Net sales	156,961	221,731	139,555	127,817	273,651	919,718	7,521	927,239	–	(14,343)	912,896
Segment income	10,486	7,678	9,273	4,794	10,581	42,814	108	42,922	(9,932)	381	33,371
Segment assets	130,562	113,358	77,666	74,739	240,442	636,769	3,221	639,990	189,535	(66,836)	762,688
Other items											
Depreciation and amortization other than amortization of goodwill	817	1,100	1,608	468	6,536	1 0,531	19	10,551	1,826	–	12,377
Amortization of goodwill	134	–	51	–	2,359	2,545	–	2,545	–	–	2,545
Unamortized balance of goodwill	1,890	–	442	–	26,671	29,004	–	29,004	–	–	29,004
Investments in affiliates accounted for by the equity method	1,957	1,297	2,562	1,259	3,268	10,344	104	10,449	–	(0)	10,448
Increase in property, plant and equipment, net and intangible assets	1,591	1,006	1,908	279	5,737	10,524	7	10,531	6,642	–	17,174

Thousands of U.S. dollars

	2024										
	Reportable Segments										
	Functional Materials	Advanced Materials & Processing	Electronics & Energy	Mobility	Life & Healthcare	Total	Others	Total	Corporate	Adjustments	Consolidated
Sales to customers	$ 969,579	$1,311,294	$ 956,066	$ 872,578	$1,834,615	$5,944,145	$ 964	$5,945,109	$ –	$ –	$5,945,109
Intersegment sales and transfers	11,287	5,231	20,263	18,480	3,111	58,378	47,890	106,268	–	(106,268)	–
Net sales	980,867	1,316,525	976,329	891,057	1,837,732	6,002,523	48,861	6,051,384	–	(106,268)	5,945,109
Segment income	56,991	44,938	74,810	32,580	68,166	277,498	522	278,020	(79,301)	3,494	202,219
Segment assets	868,892	689,479	555,360	494,558	1,618,995	4,227,303	20,752	4,248,055	1,345,671	(360,676)	5,233,049
Other items											
Depreciation and amortization other than amortization of goodwill	6,050	4,788	11,908	2,563	48,154	73,483	119	73,608	18,843	–	92,451
Amortization of goodwill	944	–	357	–	16,043	17,350	–	17,350	–	–	17,350
Unamortized balance of goodwill	13,156	–	2,932	–	168,067	184,162	–	184,162	–	–	184,162
Investments in affiliates accounted for by the equity method	17,496	7,450	19,774	8,797	22,132	75,662	733	76,395	–	(26)	76,369
Increase in property, plant and equipment, net and intangible assets	8,335	7,655	21,062	2,146	28,842	68,054	396	68,450	63,721	–	132,171

(d) Geographical information

Net sales by country or region for the years ended March 31, 2024 and 2023 are summarized as follows:

Millions of yen

	2024							
	Reportable Segments							
	Functional Materials	Advanced Materials & Processing	Electronics & Energy	Mobility	Life & Healthcare	Others (Note) 3	Total	Composition (%)
Japan	¥ 64,933	¥ 34,694	¥ 56,442	¥ 42,163	¥ 70,490	¥ 146	¥268,872	29.9
Greater China	17,881	96,356	59,803	31,724	3,866	—	209,632	23.3
ASEAN	34,198	60,586	7,403	37,665	6,200	—	146,053	16.2
Americas	22,847	4,509	8,880	18,716	123,756	—	178,710	19.9
Europe	5,899	1,133	4,021	1,562	73,068	—	85,685	9.5
Other	1,044	1,263	8,206	285	396	—	11,196	1.2
Revenues from contracts with customers	146,804	198,543	144,758	132,117	277,779	146	900,149	100.0
Net sales to customers	146,804	198,543	144,758	132,117	277,779	146	900,149	100.0

1. Net sales are categorized by country or region, according to the location of the Company and the consolidated subsidiaries.
2. Major countries and regions in each category other than Japan
   (1) Greater China..... China, Hong Kong, Taiwan
   (2) ASEAN ..... Thailand, Vietnam, Indonesia
   (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.

Millions of yen

	2023							
	Reportable Segments							
	Functional Materials	Advanced Materials & Processing	Electronics & Energy	Mobility	Life & Healthcare	Others (Note) 3	Total	Composition (%)
Japan	¥ 67,087	¥ 39,362	¥ 51,955	¥ 39,817	¥ 67,103	¥ 81	¥265,407	29.1
Greater China	20,504	108,088	56,943	33,499	3,276	—	222,312	24.4
ASEAN	35,916	67,243	7,540	36,541	5,507	—	152,750	16.7
Americas	24,238	3,625	6,929	14,039	122,538	—	171,370	18.8
Europe	7,172	1,094	4,712	1,321	74,386	—	88,686	9.7
Other	1,242	1,540	8,893	342	349	—	12,368	1.3
Revenues from contracts with customers	156,161	220,955	136,975	125,560	273,161	81	912,896	100.0
Net sales to customers	156,161	220,955	136,975	125,560	273,161	81	912,896	100.0

1. Net sales are categorized by country or region, according to the location of the Company and the consolidated subsidiaries.
2. Major countries and regions in each category other than Japan
   (1) Greater China..... China, Hong Kong, Taiwan
   (2) ASEAN ..... Thailand, Vietnam, Indonesia
   (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.

Thousands of U.S. dollars

	2024							
	Reportable Segments							
	Functional Materials	Advanced Materials & Processing	Electronics & Energy	Mobility	Life & Healthcare	Others (Note) 3	Total	Composition (%)
Japan	$ 428,855	$ 229,139	$ 372,776	$ 278,469	$ 465,557	$ 964	$1,775,788	29.9
Greater China	118,097	636,391	394,974	209,524	25,533	—	1,384,532	23.3
ASEAN	225,864	400,145	48,894	248,762	40,948	—	964,619	16.2
Americas	150,895	29,780	58,649	123,611	817,357	—	1,180,305	19.9
Europe	38,960	7,483	26,557	10,316	482,584	—	565,914	9.5
Other	6,895	8,342	54,197	1,882	2,615	—	73,945	1.2
Revenues from contracts with customers	969,579	1,311,294	956,066	872,578	1,834,615	964	5,945,109	100.0
Net sales to customers	969,579	1,311,294	956,066	872,578	1,834,615	964	5,945,109	100.0

1. Net sales are categorized by country or region, according to the location of the Company and the consolidated subsidiaries.
2. Major countries and regions in each category other than Japan
   (1) Greater China..... China, Hong Kong, Taiwan
   (2) ASEAN ..... Thailand, Vietnam, Indonesia
   (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.

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, 2024 and 2023 are summarized as follows:

Millions of yen

2024			
Japan	Americas	Other	Total
¥ 58,943	¥ 21,458	¥ 6,990	¥ 87,392

Millions of yen

2023		
Japan	Other	Total
¥ 59,807	¥ 22,257	¥ 82,064

Thousands of U.S. dollars

2024			
Japan	Americas	Other	Total
$ 389,294	$ 141,721	$ 46,166	$ 577,188

(e) Information on loss on impairment of fixed assets per reportable segments

Loss on impairment of fixed assets for the years ended March 31, 2024 and 2023 is as follows:

Millions of yen

	2024								
	Reportable Segments								
	Functional Materials	Advanced Materials & Processing	Electronics & Energy	Mobility	Life & Healthcare	Total	Others	Eliminations or corporate	Total
Loss on impairment of fixed assets	¥ 2,276	¥ —	¥ —	¥ —	¥ —	¥ 2,276	¥ —	¥ —	¥ 2,276

The Functional Materials segment recorded impairment losses of ¥2,276 million for business-use assets etc. related to color former manufacturing business due to declining profitability. The Company wrote down the book value of these assets to their recoverable amounts.

	Millions of yen								
	2023								
	Reportable Segments								
	Functional Materials	Advanced Materials & Processing	Electronics & Energy	Mobility	Life & Healthcare	Total	Others	Eliminations or corporate	Total
Loss on impairment of fixed assets	¥ —	¥ 2,825	¥ 12	¥ —	¥ —	¥ 2,838	¥ —	¥ —	¥ 2,838

The Company conducted a review of the future business plans for the business-use assets for the products and manufacturing process development business related to resins and for the development and manufacturing business in connection with water-soluble support materials for 3D printing, both in the Advanced Materials & Processing segment. As a result, the Company determined that future cash flows fell below book value. Therefore, the Company wrote down the book value of these assets to their recoverable amounts and recorded impairment losses of ¥2,285 million and ¥539 million, respectively.

	Thousands of U.S. dollars								
	2024								
	Reportable Segments								
	Functional Materials	Advanced Materials & Processing	Electronics	Mobility & Energy	Life & Healthcare	Total	Others	Eliminations or corporate	Total
Loss on impairment of fixed assets	**$ 15,032**	**$ —**	**$ —**	**$ —**	**$ —**	**$ 15,032**	**$ —**	**$ —**	**$ 15,032**

26. RELATED PARTY TRANSACTION

A consolidated subsidiary of the Company recorded the following related-party transactions for the years ended March 31, 2024 and 2023:

Name of related party	Relationship with the related party	Description of the transaction	Account	Millions of yen 2024	Millions of yen 2023	Thousands of U.S. dollars 2024
315 Fullerton LLC (*1)	A director of a consolidated subsidiary of the Company owns a majority of the voting rights of the entity.	Rental of real estate (*2)	Rent payment for real estate	**¥ 49**	¥ 45	**$ 324**
LivPure LLC (*3)	A close family member of a director of a consolidated subsidiary of the Company owns a majority of the voting rights of the entity.	Sale of products (*4)	Sale of sports nutrition products	**21 (*3)**	26	**$ 139 (*3)**
			Accounts receivable	**— (*5)**	21	**— (*5)**
Total				**¥ 70**	¥ 92	**$ 462**

(*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.
(*3): A close family member of Mr. Donald K. Thorp, a director of Prinova Group, LLC, which is a consolidated subsidiary of the Company, owned 67% of the voting rights. However, due to the sale of the shares as of January 2024, the entity is no longer classified as one in which a close family member of a director of a consolidated subsidiary of the Company owns a majority of the voting rights. The transaction amounts represent the amounts during the period when the entity was classified as a related party.
(*4): Transaction terms relating to sale of products, and policies on determination of transaction terms are determined in the same manner as general transactions.
(*5): As of the end of the fiscal year, the entity is not classified as a related party, so the balance of accounts receivable at the end of the period is not shown.

27. SUBSEQUENT EVENTS

(a) Cash Dividends

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, 2024, was approved at a meeting of the shareholders held on June 21, 2024:

	Millions of yen	Thousands of U.S. dollars
Cash dividends (¥40.0 = U.S.$ 0.26 per share)	**¥ 4,562**	**$ 30,130**

(*): Total amount of dividends for common stock of 4,562 million yen includes dividends of 11 million yen in relation to the Company's shares held by the Stock-Granting Trust for Directors.

(b) Acquisition of treasury stock

The Company resolved matters relating to the acquisition of treasury stock at the meeting of its Board of Directors held on May 8, 2024 as follows, pursuant to the provision of Article 156, as applied pursuant to Article 165, paragraph (3) of the Companies Act.

(1) Reason for the acquisition of treasury stock

The Company resolved at the Board of Directors meeting held on May 8, 2024 to change its shareholder returns policy under the Medium-term Management Plan ACE 2.0, to implement total return ratio of 100% as a tentative measure for two years. The Company will acquire treasury stock in accordance with this policy.

(2) Details of matters relating to the acquisition

(i) Type of shares to be acquired	Common shares of the Company
(ii) Total number of shares that can be acquired	5,500,000 shares (maximum) (4.82% of total number of issued shares (excluding treasury stock))
(iii) Total value of shares that can be acquired	10 billion yen (maximum)
(iv) Acquisition period	From May 9, 2024 to October 31, 2024
(v) Acquisition method	To be purchased on the market

(c) Cancellation of treasury stock

The Company resolved on matters relating to the cancellation of treasury stock at the meeting of its Board of Directors held on May 8, 2024 as follows, pursuant to the provision of Article 178 of the Companies Act.

(i) Type of shares to be cancelled	Common shares of the Company
(ii) Number of shares to be cancelled	3,000,000 shares (2.54% of total number of issued shares (including treasury stock))
(iii) Date of cancellation	May 31, 2024

* Reference: Treasury stock held as of April 30, 2024

Total number of issued shares (excluding treasury stock)	114,053,648 shares
Number of treasury stock	3,854,637 shares

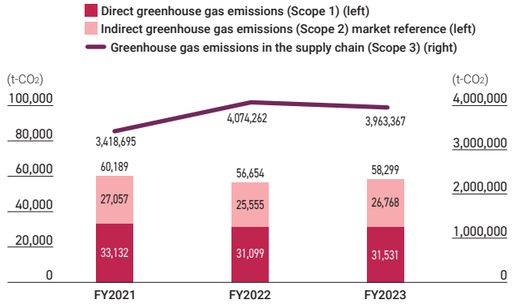
(*) Treasury stock in the above table does not include 288,500 shares of the Company's shares held by the Stock-Granting Trust for Directors.

Non-Financial Highlights

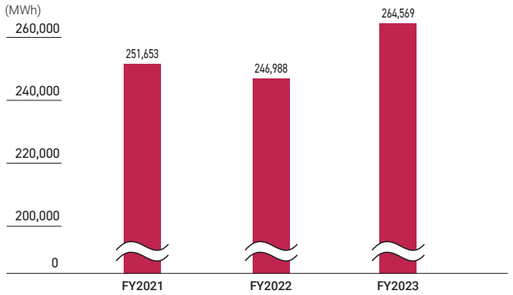
Environment

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

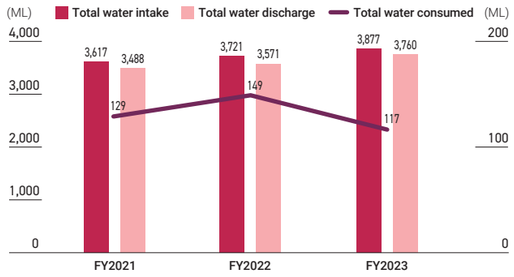
Group Greenhouse gas emissions in our business activities



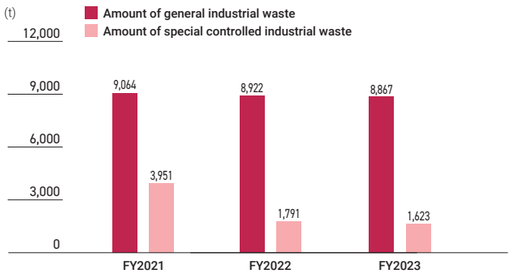
Group Energy use



Group Use of water resources



Group Amount of waste



External evaluation

Government Pension Investment Fund (GPIF) ESG Index

NAGASE Group has been selected as a component stock of all six ESG investment indices adopted by the GPIF. (as of October 2024)

FTSE Blossom Japan

FTSE Blossom Japan Sector Relative Index

2024 CONSTITUENT MSCI NIHONKABU ESG SELECT LEADERS INDEX

2024 CONSTITUENT MSCI JAPAN EMPOWERING WOMEN INDEX (WIN)

- S&P/JPX Carbon Efficient Index
- Morningstar Japan ex-REIT Gender Diversity Tilt Index

FTSE Russell (a registered trademark of FTSE International Limited and Frank Russell Company) hereby certifies that Nagase & Co., Ltd. has qualified for inclusion in the FTSE Blossom Japan Sector Relative Index based on independent research. The FTSE Blossom Japan Sector Relative Index is widely used to create and evaluate sustainable investment funds and other financial products.
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Other external evaluations

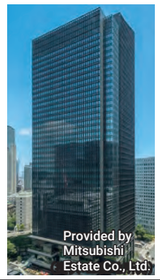
The NAGASE Group has been the subject of sustainability assessments by EcoVadis. Hayashibara Co., Ltd. (now Nagase Viita Co., Ltd.) received a Platinum rating, and Nagase & Co., Ltd. received a Silver rating. (The evaluation for the NAGASE Group as a whole is that of Nagase & Co., Ltd.)

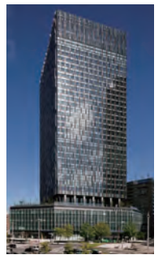
The NAGASE Group received the following ratings from the CDP:
Climate change: A- (A minus)
Water security: A (the highest possible rating)
Forests: B
Supplier Engagement Assessment: A (Leader)

Corporate Information

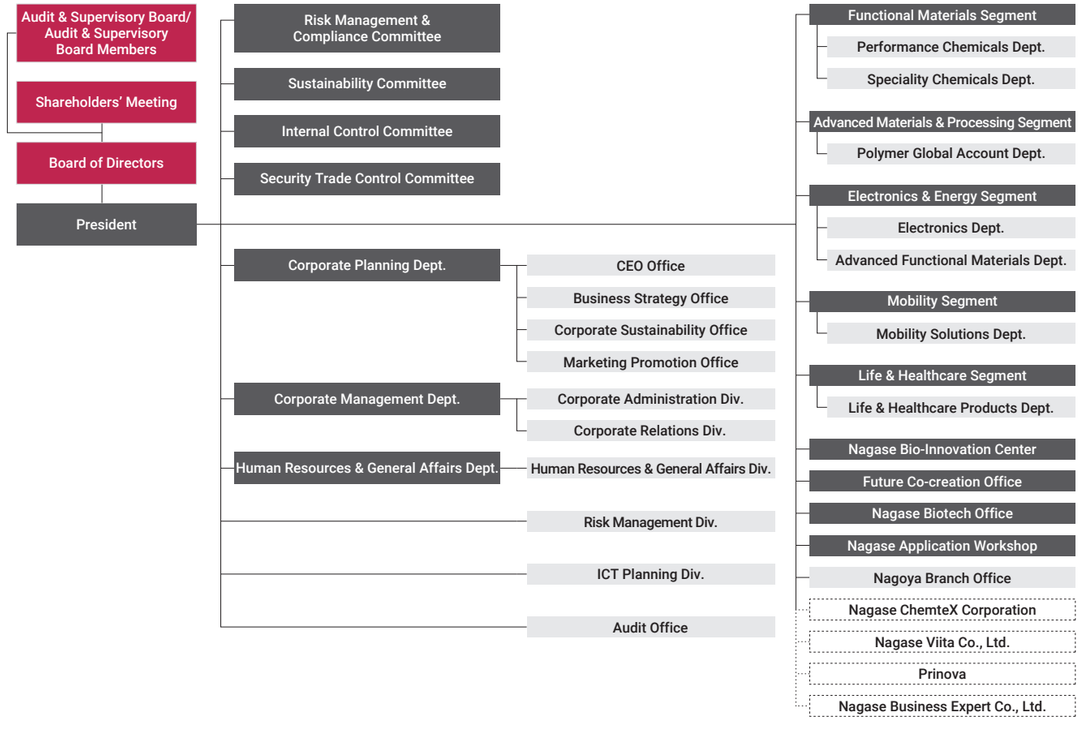
(As of March 31, 2024)

Osaka Head Office


Tokyo Head Office
Provided by Mitsubishi Estate Co., Ltd.


Nagoya Branch Office

Overview

Company name	Nagase & Co., Ltd.	
Founded	June 18, 1832	
Establishment	December 9, 1917	
Capital	¥9,699 million	
Employees	975 (consolidated: 7,528)	
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	
Main offices	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	3-28-12, Meieki, Nakamura-ku, Nagoya City, Aichi 450-6430 Tel: (81) 52-414-5056
	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
Number of bases	106 companies in 25 countries and regions	
Number of manufacturing companies	43 companies in 15 countries and regions	
Number of sales and service companies	63 companies in 24 countries and regions	

Organization (As of April 1, 2024)