



Functional Materials

Performance by Segment

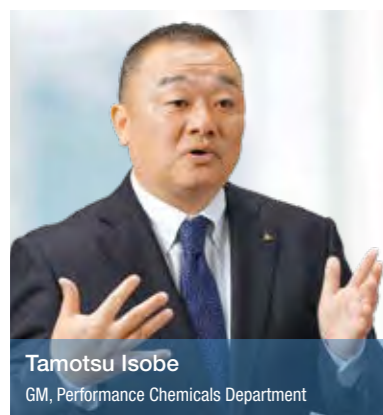
	Customer industries
Performance Chemicals Business	Paints, inks, urethane
Speciality Chemicals Business	Petrochemicals, plastics, electronic materials, semiconductors, industrial oil, surfactants, organic synthetics, environment-related etc.

Risks & Opportunities

- Global reorganization of the petrochemical and paint industries
- Impact of stricter environmental regulations around the world on chemical manufacturing

Strengths

- The largest share in the coating and urethane industry and a borderless global network
- Business expansion through composites, chemical synthesis, and polymer technologies
- Proposal of composite materials and technologies using evaluation data at the Nagase Application Workshop (NAW)
- Technical background equivalent to a manufacturer and compliance with various regulatory trends around the world



Tamotsu Isobe
GM, Performance Chemicals Department

Business Solutions Providing Performance, Safety & Reduced Environmental Load

The Coating Materials Division has been working to offer better solutions to customers while keeping a careful eye on challenges in the entire paint market amid global market reorganization.

Our key product "PatInaLock™" can contribute to society and the environment by extending the life of infrastructure and reducing the necessary number of paint jobs. We are working to develop more applications for this product.

In line with the concept of providing a much more comfortable life with our urethane business network, the Advanced Comfort Materials Division provides various combinations of new materials and services, enhancing the presence of the NAGASE Group.

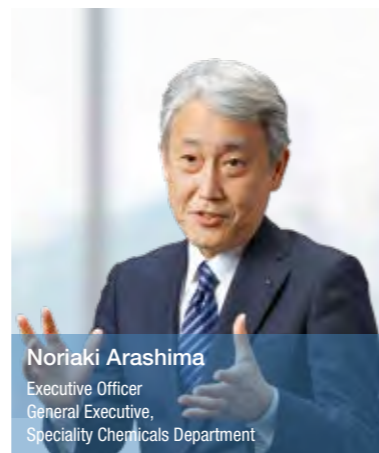
The Performance Chemicals Department has been making every effort for stable growth by providing chemicals for safety and comfort as well as biomass-derived materials for reduced environmental load.

Providing Value as a Specialist Chemicals Group

We supply a wide variety of materials that meet the needs of our business partners, from general products to high function/high value-added products (speciality products). In addition, we are developing new materials in line with the technological advancements made in electric vehicles, IoT, 5G, 3D technology, and more.

Furthermore, we provide our business partners with a wide range of data related to our value chain along with our unique technology-oriented sales and innovation capabilities. The data we provide covers not only prominent risks in the business environment but, also latent risks. We have earned highly favorable feedback from our business partners by offering forward-looking alternatives.

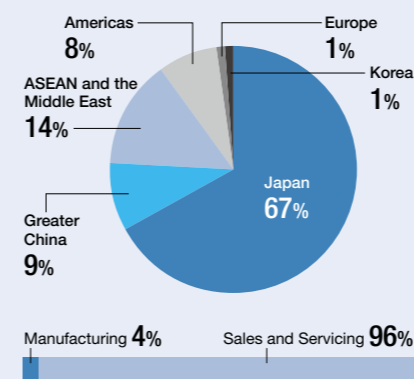
In addition to enhancing our eco-friendly products and services, we are researching uses of digital technology in the chemicals industry. We will continue working to maximize the value we provide as a group that specializes in chemicals.



Noriaki Arashima
Executive Officer
General Executive,
Speciality Chemicals Department

Business Scope and Operating Performance

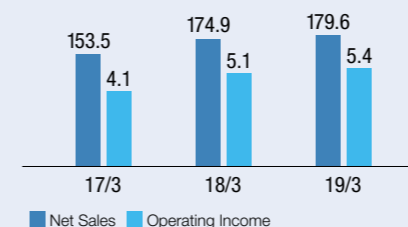
Net Sales Ratio by Region and Field



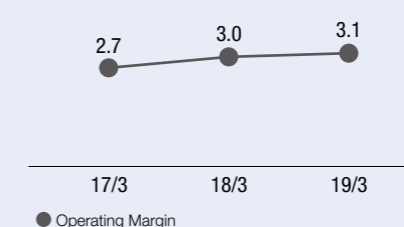
Main Manufacturing Bases (Includes equity affiliates)



Net Sales / Operating Income (Billions of yen)



Operating Margin (%)



Major Achievements under ACE-2020

Performance Chemicals Business	<ul style="list-style-type: none"> Acquired stock of Fitz Chem LLC, further developing the North American coating market Acquired stock of DAITAI KAKO CO., LTD. thereby entering downstream industries
Speciality Chemicals Business	<ul style="list-style-type: none"> Developed the market for Nagase ChemteX products. We redoubled our efforts and developed the market through our global marketing capabilities Expanded environmental infrastructure business and globally constructed a business model Used digital marketing to discover new customers and applications Expanded the filter business by increasing market share and strengthening initiatives in filter cleaning

Topics

Combating Infrastructure Decay with New PatInaLock™ Reactive Paint

NAGASE jointly commercialized PatInaLock™, an anti-rust paint that can extend the life of iron and steel infrastructure.

PatInaLock™ is a new, innovative reactive paint that prevents corrosion by forming a dense, protective layer of rust on the surface of iron and steel material through reactions with oxygen in the air. Because it is expected to protect structures from destructive rust that leads to decay, it is being widely adopted for plant engineering equipment and by communications and electric power companies, which will face difficulty in securing adequate labor in the future. In 2018, this product received an excellence award at the Second Annual Infrastructure Maintenance Awards and one of the 18th KCS Awards in Environmental Technology from the Kinki Chemical Society.



Creating a Circular Economy and Contributing to the Global Environment: Supporting Customer ESG Investment

The concept of a circular economy, fully responsive to global environmental regulations, has garnered recent attention in manufacturing. In response, NAGASE has focused its efforts on selling REARTH™ in regions where new environmental regulations have been adopted. This eco-friendly product of MORIKAWA INDUSTRIES CORPORATION achieves major cost reductions by collecting and reusing volatile organic compounds (VOCs) that otherwise pollute the atmosphere.

We also sell the AQUABLASTER™ (pictured right) wastewater treatment system developed by Aience Limited. Though these sales, we help solve a variety of customer issues by reducing related costs for electricity and treatment, while increasing total treatment capacity.





Advanced Materials & Processing

Performance by Segment

	Customer industries
Colors & Advanced Processing Business	Paper manufacturing, thermal paper, printing, print processing materials, office equipment, electronic equipment, 3D printing, packaging, cosmetics, hygiene products, medical products, home appliances, sheet and film products, liquid crystal, semiconductor components, colorants, dyestuffs, pigments, inks, paints, resins, and fiber processing
Polymer Global Account Business	Office equipment, games, electronics, consumer electronics, home appliances, building and construction packaging materials

Risks & Opportunities

- Strategic alliances between manufacturers and users (reorganization of the industry)
- Rise in demand for eco-friendly materials and technologies
- Changes in global production bases

Strengths

- Direct interaction with end users to acquire specifications and generate business
- A foundation for overseas expansion, an overseas network with capable human resources and strong sales potential, especially in China and ASEAN
- The testing and evaluation organization Nagase Application Workshop (NAW) to solve problems with business partners and manufacturers
- A wide range of materials and technical capabilities for creating premium products



Kusuo Ota
Executive Officer
GM, Colors & Advanced Processing Department

Close Relationships with Customers and Effective use of Customer Information

This department traces its roots back to the dyestuff business at the very founding of our company. The department consists of four main product groups: digital printing supply, colors & additives, functional film materials, and polymer products. We can cover a wide range of industries spanning many of our affiliated companies. We have staked out a midstream position that connects upstream seeds with downstream needs, which is ideal for executing on the NAGASE Vision's directive to Identify.

Our customers have started seeking higher level functions, ranging from our conventional procurement to sales of their own products, collaboration on new businesses, and proposals of latent business opportunities that are not presented by conventional data visualization. We are asked about how to grow and expand businesses as well as about our design capabilities for them.

Whether in Japan or overseas, in this department each of us will continue giving our all to meet the expectations of our customers. We will do this by leveraging the network we've built over the years through trading, our technical support that utilizes our application lab, and our manufacturing and sales affiliates.

Tapping Our Deep Insight to Create Optimal Customer-Focused Proposals

The NAGASE Group's plastics resin sales business has forged close ties with global businesses over many years via distribution rights. The organizational culture fostered through these relationships still remains one of our strengths. In addition, at overseas subsidiaries our locally hired staff have been praised for their high degree of expertise in the resins field and for expanding new business with non-Japanese customers.

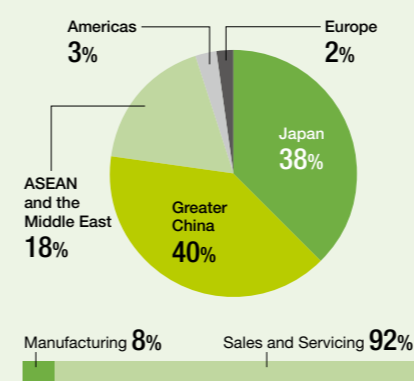
Environmental awareness is rising in the resins field, especially regarding the problem of marine plastic. We have identified business opportunities in eco-friendly materials, such as Biomass Plastics, Biodegradable Plastics and Mono-materials (uniform materials optimized for recycling). The NAGASE Group will tap into its keen perception and use its global network to offer optimal solutions.



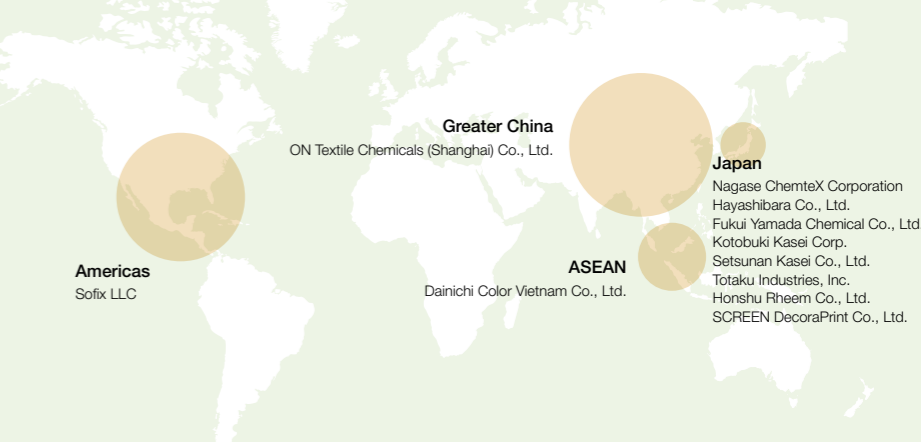
Koichi Sagawa
Executive Officer
GM, Polymer Global Account Department

Business Scope and Operating Performance

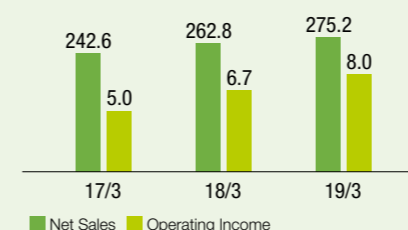
Net Sales Ratio by Region and Field



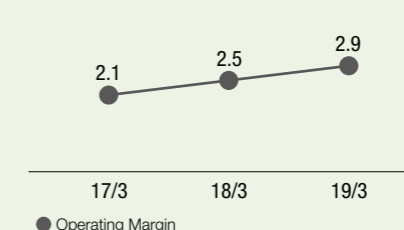
Main Manufacturing Bases (Includes equity affiliates)



Net Sales / Operating Income (Billions of yen)



Operating Margin (%)



Major Achievements under ACE-2020

Colors & Advanced Processing Business	<ul style="list-style-type: none"> • Expanded overseas business by supporting the establishment of a branch in Turkey and acquiring resin trading rights in five Asian countries • Established SCREEN DecoraPrint Co., Ltd. as a joint venture company with SCREEN Holdings Co., Ltd.
Polymer Global Account Business	<ul style="list-style-type: none"> • Expanded and strengthened partnerships with global customers • Further expanded our global network (India, South Korea, Australia)

Topics

Joint Development Project with Art Students to Uncover New Possibilities for Plastic Materials

As the distributor for Eastman Chemical Company in Japan, NAGASE deals with copolyester resins. One of them, Tritan™, boasts superior transparency, chemical resistance, durability, moldability, and heat resistance. It is used in a wide range of products, from daily goods like infant bottles and sports bottles to medical equipment.

In 2018, we launched a business-academic joint research program with Musashino Art University and Tama Art University to uncover new possibilities for the material. It is a new endeavor aimed at students aspiring to be product designers with the purpose of increasing understanding of Tritan™ and searching for new possibilities for the material.

At a recent results presentation, students unveiled novel ideas that only youth could dream up, including athletic goggles, musical instruments, and clothing accessories. These proposals highlight dazzling new possibilities for the material.



Proprietary Denapolymer™ Meets Exacting Customer Demands

With leading compounding technologies, the Company's manufacturing affiliate Setsunan Kasei Co., Ltd. handles a wide range of resins, including general-purpose resins, super-engineering plastics, petroleum derivatives, and biomass. NAGASE combined its unique information gathering expertise with Setsunan Kasei's resin processing technologies to promote Denapolymer™, a proprietary brand that Setsunan Kasei developed and manufactures. This product can meet unique requests and fulfill niche customer demands that present challenges to major resin manufacturers.

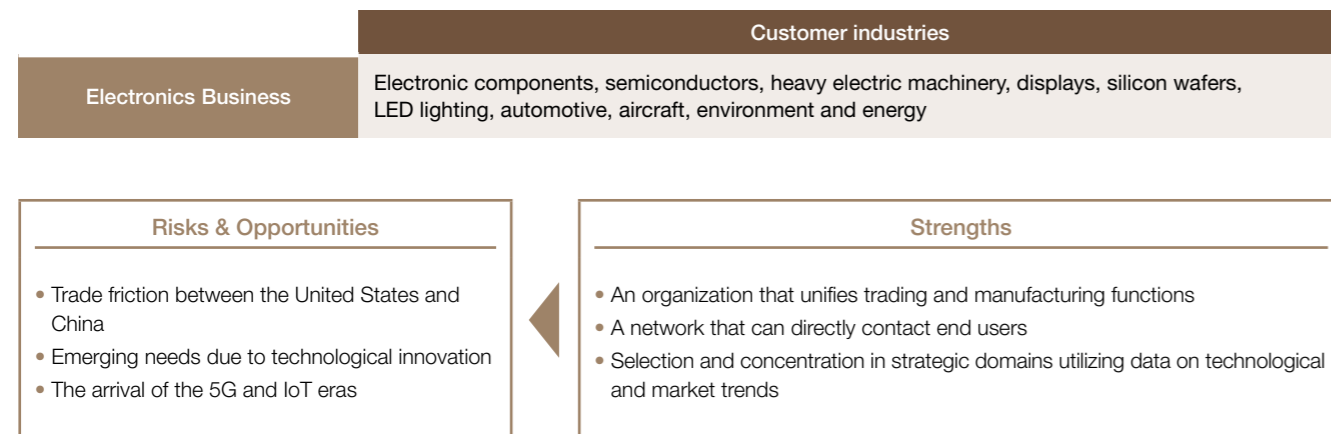
We are also working to create a record of success for unique, differentiated products, including functional masterbatches, eco-friendly resins and HS80 Series of high sliding polyethylene. Especially this HS80 series realizes unique sheets and films with enhanced sliding properties and impact strength.





Electronics

Performance by Segment



Takeshi Takada
Executive Officer
GM, Electronics Department

Focusing on the Technological Foundations for the New Era of Semiconductor- and Electronics-Related Businesses

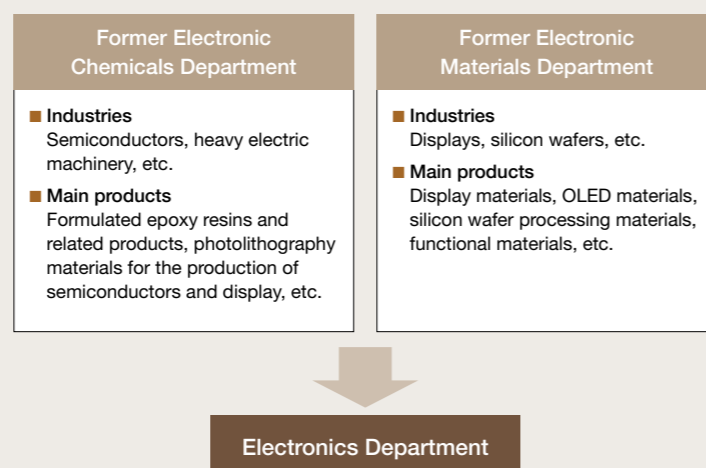
Self-driving cars and IoT services like telemedicine are already supporting the lifestyles of the future. But this progress was only possible once semiconductors and electronic devices had advanced sufficiently.

The Electronics Department aims to solve technological issues that arise in the development of next-generation semiconductors and electronic devices. We provide total solutions using technological materials, equipment-related technology, and process technology. These are centered around the latest packaging technologies made possible by liquid epoxy encapsulating materials developed by Nagase ChemteX Corporation.

As fallout from the trade friction between the United States and China continues to spread, especially in the semiconductor and electronic device markets, we are keeping an eye on various trends. At the same time, we will fully harness the potential of the new organization, which unifies our trading and manufacturing functions, and use technology to continue development in tandem with regional economies.

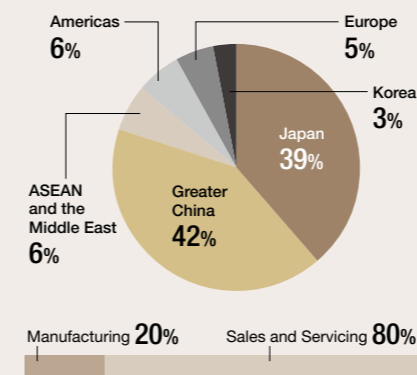
Integration of the Electronic Chemicals Department and the Electronic Materials Department

In April 2019, with the aim of flexibly implementing forward-looking business expansion and building a system that can monitor the entire industry, NAGASE integrated the Electronic Chemicals Department and the Electronic Materials Department to form the new Electronics Department. This new department will promote business expansion while swiftly responding to the diversification of semiconductor technologies, 5G- and AI-driven changes in applications, and structural changes in the industry due to self-driving technology.



Business Scope and Operating Performance

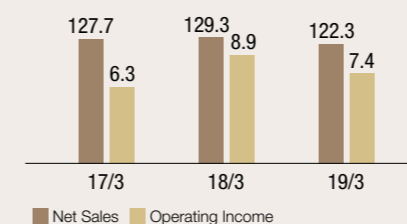
Net Sales Ratio by Region and Field



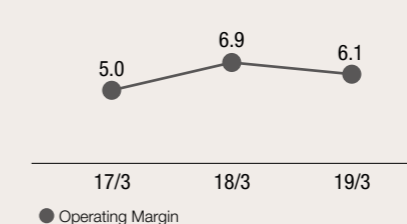
Main Manufacturing Bases (Includes equity affiliates)



Net Sales / Operating Income (Billions of yen)



Operating Margin (%)



Major Achievements under ACE-2020

Electronics

- Established a new photolithography materials manufacturing base in China in cooperation with the China-based Chengxing Group and built a local Chinese supply system for photolithography materials
- Invested in Kyulux, Inc. to spur development of the next-generation OLED market
- Acquired functional material technology for electronic devices and components by making Inkron a subsidiary

Topics

Supplying Next-Generation Display Materials

Completed Construction of Xenomax-Japan's Headquarters Plant

We wrapped up construction of the headquarters plant for Xenomax-Japan Co., Ltd. in Tsuruga City, Fukui Prefecture, and operations commenced in 2018. Xenomax-Japan was established as a joint venture with Toyobo Co., Ltd. XENOMAX® polyimide film offers among the best dimensional stability performance in the world, with a stable coefficient of thermal expansion (CTE) in environments ranging from room temperature to as high as 500°C. Toyobo created this film by making the most of its heat-resistant polymer synthesis and film manufacturing technologies. This plant will enable the company to meet growing demand for TFT substrates to be used in electronic paper displays. To market the product, Xenomax-Japan will also be able to capitalize on the main features of XENOMAX®. It is thin, light, virtually unbreakable and bendable, making it suitable for use in flexible OLED, various sensors and next-generation displays such as microLED.



Strengthening Our Presence in the 5G Market with Equity Investment in 3D Glass Solutions, Inc.

The Electronics Department is working hard to strengthen businesses in anticipation of the arrival of the 5G era. In 2018, we invested in 3D Glass Solutions, Inc. (3DGS), which is a specialty glass processing design and manufacturing company with development and production based in Albuquerque, New Mexico, USA. 3DGS is striving to expand its next-generation semiconductor business and globally roll out high-frequency 5G products while working to incorporate semiconductor-related technologies possessed by NAGASE Group companies, especially those of Nagase ChemteX Corporation. 3DGS will continue creating new businesses with an eye to the arrival of the 5G era. 3DGS aims to establish a global supply system centered in Asia by around 2021.



Mobility & Energy

Performance by Segment

	Customer industries
Mobility Solutions Business	Automobiles, trains, aircraft, spacecraft, mobility, social infrastructure
Energy Business	Batteries, photovoltaic generation, automobiles, electric components, construction, distribution, lighting, commercial facilities, public facilities, etc.

Risks & Opportunities	Strengths
<ul style="list-style-type: none"> Transitioning to a next-generation mobility society for people, things, and data Responding to global energy- and environment-related issues 	<ul style="list-style-type: none"> A pipeline from which we can extract data by directly contacting key players and our customer base in the automotive industry Possession of in-house battery development and manufacturing capabilities



Hiroyuki Ueshima
Executive Officer
GM, Mobility Solutions Department

Bringing Networks and Know-How Cultivated in the Automotive Industry to the Entire Mobility Sector

With the rise of electric and IT-capable automobiles, a paradigm shift is underway as the conventional automobile market moves beyond vehicles to embrace a broader concept of mobility. In addition, data systems are beginning to account for a larger percentage of related product sales.

In light of this situation, the Automotive Solutions Department was renamed the Mobility Solutions Department. We will not only supply automotive materials and parts as before, we will now offer total mobility solutions.

The department is aiming to achieve double-digit growth, focusing on the overseas business. To this end, we will continue working to quickly change the mindset of every person in the NAGASE Group as we unite to create the kind of business model needed in a next-generation mobility society.

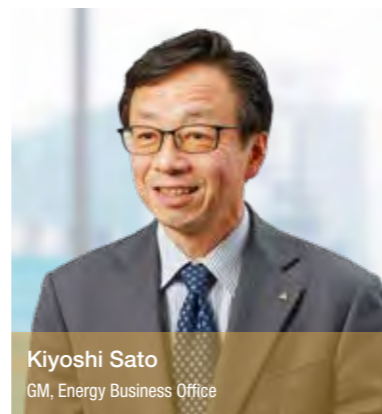
The Value the Mobility Solutions Department Provides

- Safety (Protecting Lives):** We provide solutions that enhance safety each day in a society shaped by smart mobility, enabling people to live their lives without worry.
- Environment (Protecting the Planet):** We help protect the global environment by promoting electric-powered mobility and materials with minimal environmental impact, to meet the overarching aim of realizing a low-carbon society.
- Comfort (Enriching Lives):** We help create lives that are richer on a daily basis, by providing new value that saves time and space for people who use mobility.

The Possibilities of the Energy Management Field

Countries around the world are grappling with energy-related problems, a situation which creates major business opportunities. For example, the household FIT scheme that began in Japan in 2009 to buy back surplus power from photovoltaic generation will be phased out from 2019. For households whose buyback programs have ended, it will therefore become more economical to store the surplus energy in batteries for personal use than to sell it to power companies. The Energy Business Office is promoting the development and sales of energy storage systems for that express purpose. We are also working to establish an engineering service system for the market.

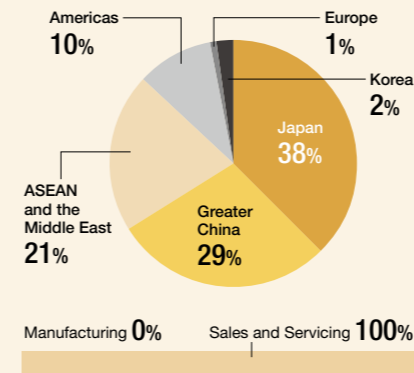
We are developing an energy management system that can avoid region-wide blackouts like the one that occurred in Hokkaido Prefecture last year. Our system is expected to help solve problems related to emergency preparedness. In addition, we are working on the development of optical wireless communication as a reliable, low-cost means of communicating even in places where traditional wireless technology too often ends in disconnection or interference. Going forward, we will continue working to reduce the energy consumption of the NAGASE Group as a whole.



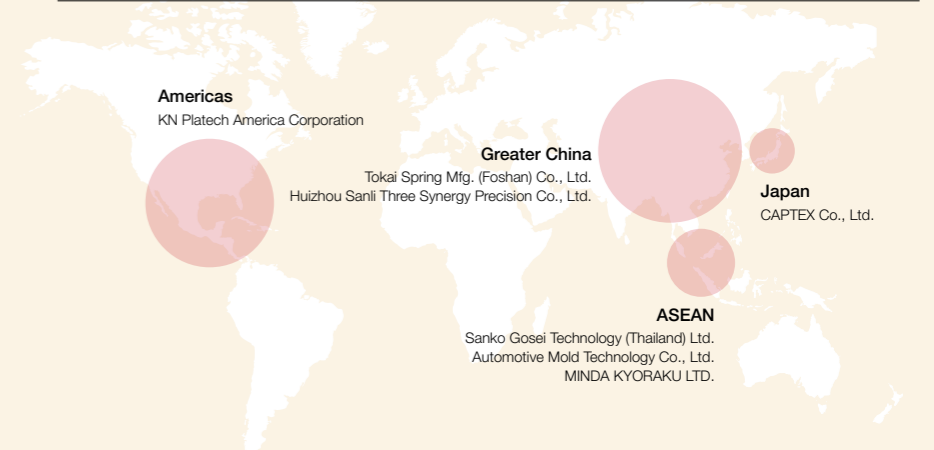
Kiyoshi Sato
GM, Energy Business Office

Business Scope and Operating Performance

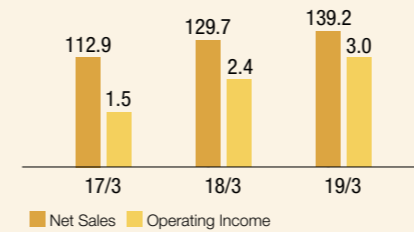
Net Sales Ratio by Region and Field



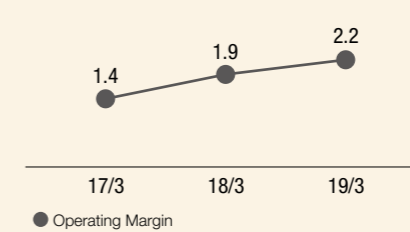
Main Manufacturing Bases (Includes equity affiliates)



Net Sales / Operating Income (Billions of yen)



Operating Margin (%)



Major Achievements under ACE-2020

- | | |
|-----------------------------|--|
| Mobility Solutions Business | <ul style="list-style-type: none"> Expanded business in India as MINDA KYORAKU LTD.'s plant in Gujarat came on line Concluded a consulting agreement with an automotive parts design company and began providing manufacturing methods and alternative materials to metals during the design concept stage |
| Energy Business | <ul style="list-style-type: none"> Established a production system for household and industrial storage batteries at our affiliate CAPTEX Co., Ltd. as well as a sales system and field engineering functions for launching products on the market Continued running pilot tests in the market to establish new optical wireless communications technologies using LEDs and lasers |

Topics

Start of Mass Production of Molded Parts for Hybrid and Electric Vehicles at Chinese Joint Venture

The global shift from gasoline and diesel vehicles to electric vehicles is accelerating, and that trend is rapidly picking up speed in China. Seizing this business opportunity, NAGASE in 2018 established a joint venture with China-based Shenzhen Kedali Industry Co., Ltd., which is the No. 1 producer of lithium ion battery cases in China, and with Japan-based ATECS Corporation, whose strength lies in metal insert moldings. The company began full-scale mass production for the Chinese market of module cases (pictured below) for molded components (semiconductor devices called IGBTs) used in hybrid and electric vehicles. The aim is to capture a larger share of the Chinese market, which is expected to see strong growth going forward.



Full-Scale Entry into the Field of Self-Driving Technology Start of Collaboration with Two LiDAR-Related Companies

NAGASE has begun collaborating with Canada-based LeddarTech Inc. and US-based TriLumina Corp., which possess strengths in light detection and ranging (LiDAR) sensor systems. These systems are garnering attention for being indispensable to making autonomous driving more practical. TriLumina has developed modules for vertical-cavity surface-emitting lasers (VCSELs), which are used in industrial and private-use 3D sensing light sources, including for automotive LiDAR. This technology is expected to enable high-definition and long-distance LiDAR detection capability, boosting it to over 200 meters. LeddarTech makes automotive systems on chip (SoCs) (pictured below) that are unique for being compatible with short- to long-range LiDAR systems. This helps enhance the product lineup of automotive part manufacturers and shortens development periods.





Life & Healthcare Materials

Performance by Segment

	Customer industries
Life & Healthcare Products Business	Food products, pharmaceuticals, health care, diagnostic drugs, fragrances, cosmetics, household products, agriculture, fisheries, and livestock
Risks & Opportunities	Strengths
<ul style="list-style-type: none"> Intensifying global competition Growing demand for eco-friendly materials 	<ul style="list-style-type: none"> License for manufacture and sales of drugs, development of generic pharmaceuticals (formulation, specification of active pharmaceutical ingredients, registration of drug master files), and manufacture of pharmaceuticals using unique drug delivery system (DDS) technology or through our alliance with PeptiStar, Inc. Applying actinomycetes, which form a fundamental technology of the Nagase R&D Center, to production of fermentation products and enzymes Enzyme production technology of Nagase ChemteX Corporation (Lactase, PLA2, etc.) Development and manufacturing functions of Hayashibara Co., Ltd., Nagase Medicals Co., Ltd., and Nagase ChemteX Corporation



Yoshihiro Shimizu
GM, Life & Healthcare Products Department

Leveraging the Wide-Ranging Strengths of the Group's Manufacturing Companies

The NAGASE Group's Life & Healthcare Segment includes the manufacturing companies of Hayashibara Co., Ltd., Nagase Medicals Co., Ltd., Nagase ChemteX Corporation, and more. The beauty care products business is mainly composed of Nagase Beauty Care Co., Ltd. The unique characteristic of this segment is its wide variety of products.

Hayashibara's vitamin C derivatives command the largest share of the domestic market. Nagase Medicals has built a disposable production line, which does not require cleaning validation, for high-potency formulations including those for anti-cancer drugs. Nagase ChemteX's unique enzymes derived from actinomycetes have a competitive edge and potential to shine on the global stage.

Strengthening the position of Hayashibara in the food industry overseas will be a specific area of interest going forward. As for pharmaceuticals, we will continue aiming to roll out our own formulations (anti-cancer drugs) in Europe and the United States. As for toiletries and cosmetics, we will expand overseas from Asia to Europe and the United States using our network comprising the Lyon, France branch (established in 2017) and the U.S.-based Group company Fitz Chem LLC.

Nagase Beauty Care Co., Ltd.

Nagase Beauty Care is a wholly owned subsidiary of NAGASE & CO., LTD. and conducts research, development, and sales of NAGASE brand cosmetics and health foods. The company's 50,000 beauty consultants located nationwide conduct door-to-door sales.

Risks & Opportunities	Strengths
<ul style="list-style-type: none"> Declining birthrate and aging population Spread of e-commerce 	<ul style="list-style-type: none"> The expansive sales networks of our organization of around 500 sales agents (managers) Data and know-how accumulated from a 50-year history in direct sales



New Skin Care Brand
RASISA

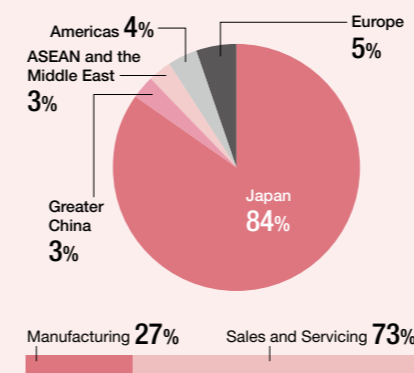
Measures for Achieving the Goals of ACE -2020

We promote sales-focused activities and have created an integrated manufacturing and sales structure. As a result, sales of skincare and other mainstay products began to turn around and are now increasing. By further enhancing sales-focused activities, we aim to expand sales of health foods and other mainstay products.

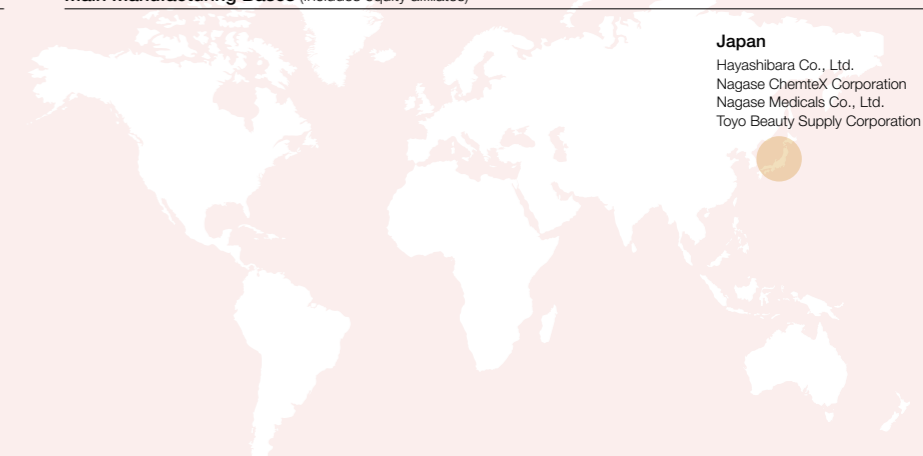
Action Policy: Three Arrows Strategy	Pursuing Total Beauty: The Exercise, Nutrition, and Rest Initiative
<ul style="list-style-type: none"> Focusing on sales: Strengthening the training system for sales personnel Training the next generation of managers: Appealing to younger generations Running business under the direct control of the head office 	<p>We offer services and hold events related to exercise, nutrition, and rest with the aim of helping customers, especially seniors, extend beauty and health for many more years. This will in turn sharpen our appeal to younger customers and generations to come.</p>

Business Scope and Operating Performance

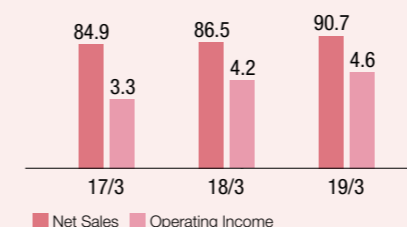
Net Sales Ratio by Region and Field



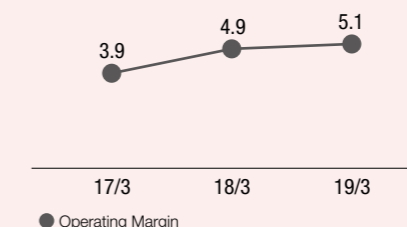
Main Manufacturing Bases (Includes equity affiliates)



Net Sales / Operating Income (Billions of yen)



Operating Margin (%)



Major Achievements under ACE-2020

Life & Healthcare Product Business

- Invested in PeptiStar, Inc., which has specialty peptide pharmaceutical technologies
- Established the Lyon branch in France to focus on cosmetics
- Concluded a general distributor agreement with Shikoku Nucleic Acids Chemistry Co., Ltd.
- Launched the bread-making enzyme DENABAKE™ EXTRA in collaboration with Nagase ChemteX Corporation and Hayashibara Co., Ltd.
- Completed an expansion of the T Building at Hayashibara's Okayama Functional Saccharide Plant

Topics

Peptide Pharmaceuticals Underpin Industry Trend toward Medium to Large Molecule Drugs

In the pharmaceutical industry, development of medium to large molecule drugs is accelerating amid the shift away from conventional small molecule drugs. To align its portfolio with this trend, the NAGASE Group has invested in PeptiStar, Inc., which possesses specialty peptide pharmaceutical technologies. In addition, we have spearheaded initiatives focused on forward-looking biotechnology-based medicine through an alliance with Shikoku Nucleic Acids Chemistry Co., Ltd. PeptiStar engages in R&D and manufacturing based on PeptiDream Inc.'s peripheral knowledge and technologies related to specialty peptide pharmaceuticals. Through investment in and collaboration with PeptiStar, NAGASE helps develop and manufacture new pharmaceuticals to underpin next-generation healthcare.



Collaboration between Nagase Beauty Care and Tanita Corp.

In collaboration with Tanita Corp., we opened TANITA × NAGASE Iki Iki Plaza, a members-only female fitness club, in Kosai City, Shizuoka Prefecture. Nagase Beauty Care had struggled to raise brand awareness, but by entering this new industry, the company aims to boost its recognition and promote the health of women in the community.

The mostly female clientele enjoys the twin benefits of health support, which is an area of competitive strength for Tanita, and beauty support, which is an area of competitive strength for Nagase Beauty Care. Nagase Beauty Care will continue promoting new activities that expand the scope of its main fields of *Activity, Beauty, Youth, and Health*.



Global Network

Built on a foundation of chemistry, the NAGASE Group is engaged in global business across a wide spectrum of industries. One of the NAGASE Group's biggest strengths is its global network, which can respond to precise needs and is well acquainted with the logistics and relevant laws and regulations of each country and region.

Goals of Mid-Term Management Plan ACE-2020

Aiming for ¥600 Billion in Total Overseas Group Sales
Launched in 2016, **ACE-2020** designates twin pillars to grow revenues:

1. Accelerate Globalization
2. Improve Manufacturing Profitability

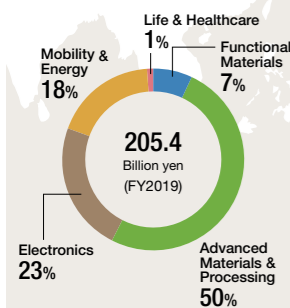
Note: Employees in the consolidated corporate group as of March 31, 2019

Greater China

Basic information

Base established: 1971
Number of employees: 1,049

Breakdown of Net Sales



Aiming to Achieve ACE-2020

Amid a rapidly changing industry structure and ongoing technological advances in China, under the slogan of "One China" we have organized and consolidated NAGASE's key resources (human resources and data). These had previously been dispersed across China's different regions. We set four focus businesses of semiconductors, mobility, electronics, and life & health. We will continue dynamically growing our businesses through active investment.

Representative:
Masatoshi Kamada
Executive Officer
Greater China CEO
Nagase (China) Co., Ltd.
CEO and COO



VISION Region / Main Businesses

Semiconductors	Leveraging the supply chain's information gathering expertise and the local human resources, we are leading the expansion of Chinese businesses through win-win relationships as an overseas manufacturing business consultant.
Mobility	We will help develop smart mobility in China by quickly responding to technological advances in the industry and providing value-added products and services.
Electronics	In such fields as next-generation displays, 5G, and car electronics, we create high-value-added local communication businesses by uncovering needs using our strengths and providing solutions.

FOCUS

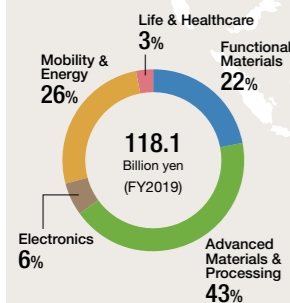
As the regional headquarters for Greater China, including Taiwan and Hong Kong, we established Nagase (China) Co., Ltd. in January 2019. Fully leveraging the Group's total capabilities, we aim to expand business in the still promising Chinese market by swiftly assessing investments, creating new businesses and strengthening governance with the regional headquarters as the center base.

ASEAN and the Middle East

Basic information

Base established: 1975
Number of employees: 723

Breakdown of Net Sales



Aiming to Achieve ACE-2020

In addition to the basic business of plastics, in the automotive industry, we are working to steadily capture demand in growth markets, especially Thailand, Vietnam, and Indonesia. We are also striving to create new businesses and expand our area through a region-wide collaborative framework with partner companies. In the food materials business, amid rising income levels, we expect demand to rise for functional and high-value-added products. We will continue developing businesses key to achieving the goals of **ACE-2020** by leveraging the expertise cultivated at Hayashibara Co., Ltd. and strengthening the specialization and R&D functions in the region.

Representative:
Takayuki Masuda
Executive Officer
ASEAN and India CEO
Regional Operating Centre Leader



VISION Region / Main Businesses

Mobility	We aim to create new businesses and expand our area by assessing customer needs for electric vehicles.
Food Materials	By expanding our sales channels and pursuing regional specialization, we will accelerate the development into our main businesses.

FOCUS

Establishment of Nagase (Thailand) Co., Ltd.'s Pakistan Office

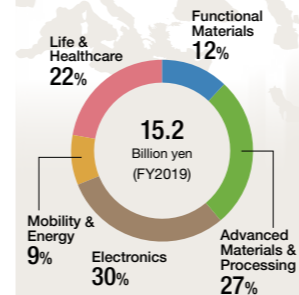
In February 2019, we established an overseas representative office for Nagase Thailand (NTL) in Karachi, Pakistan. The office began operations with NTL representatives and two local staff members to meet the need for local production, especially in the automotive industry. In addition to its existing customers, the office is contributing to the Group's growth as a strategic base in Pakistan and neighboring countries through collaboration with local companies and active entry into non-automotive industries.

Europe

Basic information

Base established: 1980
Number of employees: 260

Breakdown of Net Sales



Aiming to Achieve ACE-2020

Due to the maturation of existing businesses and the need for eco-friendly business, we are shifting toward high-value-added products and environmental business. In pharmaceutical raw materials, we continue providing solutions that closely match customer needs. Furthermore, we are discovering investment opportunities for natural materials, batteries, and recycled and energy-efficient products. That includes collaboration with start-up companies.

Representative:
Ryuichi Uchida
Executive Officer
Europe CEO
Americas CEO
Nagase Holdings America Corporation CEO



VISION Region / Main Businesses

Pharmaceutical Raw Materials	We will contribute to a sustainable society through the bioeconomy.
Mobility	We will focus on e-mobility, including battery systems and Robotics.

FOCUS

Clean Labels and White Biotechnology: Addressing Regulations and Customer Demands

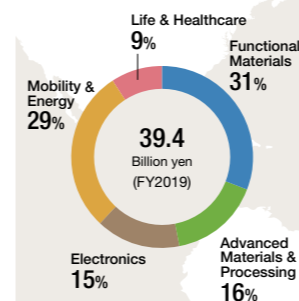
To meet various changing demands in the cosmetics field, we will establish a synthesis laboratory facility in Lyon, France, to develop formulations, especially with natural materials. Using current artificial 3D skin models, we are working to acquire basic and application data for natural materials for use in approved acquisitions and marketing activities.

Americas

Basic information

Base established: 1971
Number of employees: 246

Breakdown of Net Sales



Aiming to Achieve ACE-2020

In addition to spurring inorganic growth in our focus fields, we will take measures aimed at enhancing the corporate value of the Group companies Fitz Chem LLC and Infinite Material Solutions LLC. In mobility and life & healthcare, we are considering investments and alliances. We will continue expanding our business in new markets, especially in Central and South America. We will also meet customer needs through Group products and new technological discovery. We are expanding businesses that can contribute to a sustainable society.

Representative:
Ryuichi Uchida
Executive Officer
Americas CEO
Europe CEO
Nagase Holdings America Corporation CEO



VISION Region / Main Businesses

Mobility	We will acquire mobility-related technologies and focus on selling functional resins.
Life & Healthcare	We will expand sales of our own products in the life and healthcare field.

FOCUS

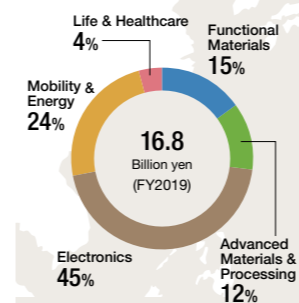
In April 2019, we established Nagase Holdings America Corporation as a regional headquarters. Looking to expand business in the Americas, which is still expected to be a promising market, this headquarters will serve as a base for the NAGASE Group's total capabilities. We aim to spur M&A and other business investments, create new businesses through regional leadership, strengthen governance, and make swift management decisions in response to local conditions.

Korea

Basic information

Base established: 1985
Number of employees: 35

Breakdown of Net Sales



Aiming to Achieve ACE-2020

We not only sell materials to major Korean companies and industries (such as semiconductors, display devices, and rechargeable batteries), we also support the overseas expansion of unique products from companies underpinning those supply chains. In addition, with the overseas expansion of Korean companies, we aim to achieve drastic growth by actively forming alliances with their overseas subsidiaries.

Representative:
Hideharu Yamazaki
Executive Officer
Nagase Korea Corporation CEO
and COO



VISION Region / Main Businesses

Electronics	We will expand business in semiconductors, electronic components, and display devices.
Businesses Related to Korean Products	We will create and expand businesses where South Korean companies excel and accelerate global expansion.

FOCUS

Expanding South Korean Communication Businesses

Shifting from a technology-driven approach toward global expansion, we aim to expand our range of NAGASE Group products and products that South Korean companies excel in producing, including OLED-related materials, semiconductor process materials, battery materials, and cosmetic materials.

Nagase ChemteX Corporation

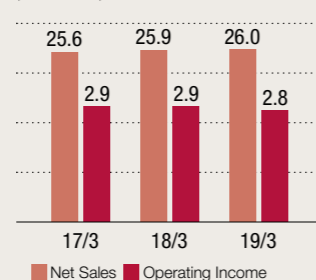
“For the Future.”

To leverage the strength of our unique product lineup, we aim to establish a competitive production system with a view to global markets.

Core Technologies / Creative

We have developed a wide variety of elemental technologies based on our core technologies, which encompass synthesis technologies (organic and polymerization), formulation technologies, biotechnologies, and evaluation technologies. Into technologies that we have nurtured and passed down over many years, we have infused innovation to create unique product lineups in the Functional Resins, Photolithography Materials, Performance Chemicals, and Bio Chemicals businesses.

Net Sales and Operating Income
(Billions of Yen)



President: **Satoru Fujii**

Established: 1970

Production and development bases:

- Domestic**
- Harima Plant
 - Sakai Plant
- Overseas**
- Nagase ChemteX (Wuxi) Corporation (China)
 - Wuxi Chenghong Electronic Chemical Co., Ltd. (China)
 - Engineered Materials Systems, Inc. (U.S.)
 - Inkron Oy (Finland)

Number of employees: 584

Number of patents held: 584

(including 279 overseas patents)

(As of March 2019)

Functional Resins Business

We develop and manufacture formulated epoxy resins and other high-value-added products, especially in the fields of environmentally friendly energy, mobility, and mobile devices. We have established a global supply system (covering Japan, the United States, and China) to provide total solutions.

Materials Supporting Our Information-Based Society

We are supporting our information-based society through FRP matrix adhesives for the mobility field (EVs, PHVs), highly heat resistant potting materials for car electronics, and encapsulating materials for semiconductor packaging used in 5G communications and data processing. In addition, we have begun work on developing new materials geared toward a society based on ubiquitous information access.

Photolithography Materials Business

We conduct development and manufacturing activities based on technologies developed in the chemicals business for liquid crystal display and front-end process of semiconductors. We are garnering praise from customers for developing new products for mid-end process of semiconductors. We are also steadily developing new photoresist for lift-off process for next-generation devices.

NPR9000 Series

This is a series of photoresists specialized for lift-off processes. These products enhance functionality, miniaturize, and reduce processing for electronic devices, including sensors that are expected to be more heavily used in IoT and self-driving applications. We are broadening our product lineup to meet every need.

Performance Chemicals Business

We are developing new applications for highly functional materials, based on organic synthesis technologies, polymerization technologies, and compounding technologies, in the fields of displays, automobiles, and hygiene products. We are working to create new businesses and expand existing business by developing new materials, acquiring new technologies, and developing new applications.

Denacol™ / Denatron™

The epichlorohydrin-derivatives Denacol™ is used as a resin for 3D printers and crosslinkers for super-absorbent polymer by leveraging its strengths (transparency and water solubility). We are working to develop applications for the conductive coating material Denatron™ for displays and light control films by leveraging its high conductivity and antistatic properties.



Bio Chemicals Business

This business serves as the core of the Life Science field and develops food and industrial applications for enzymes derived from microorganisms and plants. We are strengthening our alliances with the Nagase R&D Center and Hayashibara Co., Ltd. and are focusing on developing new products using actinomy-cete enzymes.

DENABAKE™ EXTRA

DENABAKE™ EXTRA is a bread-making enzyme jointly developed with Hayashibara Co., Ltd. It is a unique product that can make bread soft and melt-in-your-mouth. It can also add natural sweetness. It works well with whole-wheat and barley flour. We are promoting this enzyme for making scrumptious, easy-to-eat, healthy bread.



Hayashibara Co., Ltd.

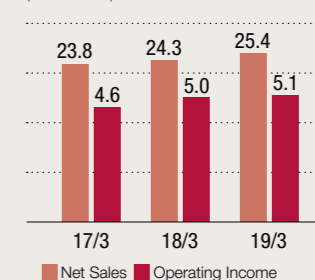
“We continue to innovate new and original materials with our advanced biotechnology.”

We will strengthen our overseas bases to make our functional ingredients a top global brand.

Biotechnology / Innovation

Our core technologies are microorganism screening technology, substance production technology using microorganisms and enzymes, and technologies for discovering functions of materials. We will continue working hard to develop new materials while refining our core technologies. We produce unique functional carbohydrates using enzymes created by microorganisms. We then supply these carbohydrates as ingredients for foods, cosmetics, and pharmaceuticals in a wide range of markets in Japan and overseas. In addition, we use sophisticated organic synthesis technologies to develop and manufacture a wide variety of functional dyes. The dyes are used in various industrial fields as well as the life science field as pharmaceuticals and diagnostic detectors.

Net Sales and Operating Income
(Billions of Yen)



President: **Naoki Yasuba**

Established: 1932

Production and development bases:

- Domestic**
- Okayama Plant I, Okayama Plant II, Okayama Functional Saccharide Plant, Fujita Plant, Fujita Pharmaceutical Plant, Fujsaki Institute, L' Plaza

Number of employees: 645

Number of patents held: 801

(including 531 overseas patents)

(As of March 2019)

Food Ingredient Business

We develop, manufacture, and sell unique high-value-added food ingredients and health food ingredients. We are playing a part in NAGASE Group's Life & Healthcare segment. We contribute to overseas subsidiaries by expanding their sales and sales channels through sales of food and health food ingredients.

TREHA™

TREHA™ is a low-sweetness food ingredient with a clean finish. It has a wide range of functions, including prevention of starch retrogradation, protein denaturation, and freshness keeping. Because it retains good flavor and texture for a long time, it is used in Japan and overseas in a wide range of fields, such as processed foods, beverages, and food services including restaurants, catering, and delis.



Cosmetic and Pharmaceutical Ingredient Business

We develop and manufacture unique high-value-added cosmetic and pharmaceutical ingredients. We provide products in the field of personal care and pharmaceuticals for the NAGASE Group's Life & Healthcare segment. We also contribute to expanding the sales of each Group company in Japan and overseas.

AA2G™

AA2G™ is produced by the enzymatic binding of glucose to vitamin C. This enzymatic conversion makes AA2G™ stable when incorporated into cosmetics. This maintains its activity and provides resistance to discoloration and odors. When applied to the skin, AA2G™ is degraded by a natural enzyme to release vitamin C, resulting in cosmetics that promote brighter healthier looking skin. It is used in Japan and around the world.



Functional Dye Business

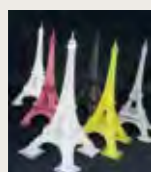
We develop and manufacture a wide variety of functional dyes as an organic synthesis specialist. Dyes with various functions are used in a broad range of fields. We also provide many different kinds of products to the life sciences fields, including the NAGASE Group's Advanced Materials & Processing segment.

Dyes for the Life Sciences

Some functional dyes are known for having medicinal and/or bioactive functions. In addition, some dyes are used as cell staining dyes and have fluorescent properties. We are developing new medical and pharmaceutical applications using these functions.



Topics



Next-Generation Manufacturing and Biomaterials

As for new businesses, we have entered the fields of next-generation manufacturing and biomaterials. In the next-generation manufacturing field, we have expanded our lineup of resins for 3D printers and began sales of samples of low-temperature sintered wiring ink with the aim of full commercialization, earning positive feedback for both efforts. In the biomaterial field, we used our unique endotoxin removal technology to begin providing samples that use low-endotoxin materials, mainly for the medical industry.



Topics



Formed Long-Term Partnership for Expanding Pullulan Capsule Market

To keep pace with the expanding market for pullulan capsules, we concluded a long-term partnership agreement with Switzerland-based Lonza, a leading supplier to the pharmaceutical, biotech and specialty ingredients markets. Pullulan is a highly water-soluble polysaccharide produced through the natural fermentation of starch. It is used as a food ingredient and a pharmaceutical ingredient for supplement capsules and other such products. We started to set up a new facility, which will be completed in September 2020 in order to respond to the expanding demand.

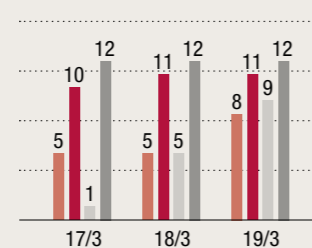
Nagase Business Expert Co., Ltd.

“Shared Service Center”

We are contracted to perform intra-Group administrative operations, including logistics, trade, payroll, treasury services, and credit management, and we strive to make these operations more efficient.

Under the mid-term management plan **ACE-2020**, we outlined the pursuit of efficiency to strengthen our business foundation. Nagase Business Expert Co., Ltd. has highly specialized staff who handle the administrative operations of NAGASE & CO., LTD. and its Group companies. Through this work, we aim to help rationalize Group management, help enhance productivity and make Group administrative operations more efficient, fulfill such risk management functions as credit and legal management, and develop human resources that can contribute to the Group. We aim to further contribute to the Group's value creation mainly by increasing the number of Group companies we provide services to and expanding the contracted operations in order to increase sales and profit, reduce costs, minimize future loss, and enhance the productivity of sales departments.

Number of Contracted Companies
(By operation)



For payroll operations, we plan to standardize the existing contracted companies by integrating our systems by fiscal 2020, and we plan to accept new contracts to expand our business from fiscal 2021 onward.



President: **Takanori Yamauchi**

Established: 1996

Note: The company relaunched in 2017 by integrating the businesses of Nagase General Service Co., Ltd. and Nagase Trade Management Co., Ltd.

Number of employees: 172
(As of March 2019)

HR & General Affairs Services Department

General Affairs Services Division

This division accepts contracts for a wide range of general affairs operations, including facility management, especially facility operations and building office environments; support for emergency preparedness, BCPs, and environmental ISO certifications; and employee welfare services. In addition, the department helps improve efficiency through Group-wide procurement, including for consumables and office equipment, and the joint use of services.

HR Services Division

This division accepts contracts from 11 Group companies, mainly for global HR training support and payroll-related services (domestic and overseas payroll, social insurance, labor insurance, work hour management, life insurance, non-life insurance, asset formation, stockholding associations, etc.). Regarding payroll-related operations, we are working to standardize the operations using a universal system.

Trading Services Department

Logistics Division

This division handles operations for Group companies, such as the creation of trade-related documents, procedures for customs clearance and ship loading, and insurance coverage. It also takes actions aimed at optimizing and reducing logistics costs, such as revising transportation routes and inventory bases.

Financial Services Division

This division accepts contracts from Group companies for operations related to domestic and overseas debt management, domestic treasury services (including paying business expenses), and overseas exchange rate management. The department is working to raise the efficiency of operations for making and receiving payments.

Sales Support Division

This division works to enhance the productivity of the entire Group using a unique system to manage credit, standardize various administrative operations related to sales activities, and automate operations using robotic process automation (RPA).

Topics



Promoting Working Style Reforms ahead of Group Companies

To enhance productivity, which is the source of the Company's competitiveness, we have actively introduced flexible working styles. We had already introduced a four day work week, paid vacation that can be taken in one-hour units, and reduced working hours without the need for childcare and care giving as reasons. In addition to these programs, we aim to introduce a telecommuting program during fiscal 2019 and will conduct trials where employees can conduct business by accessing the company's system from home. We are promoting working style reforms ahead of Group companies and will continue working to promote these good practices throughout the Group.

New Value Creation (NVC) Office

“New Value Creation”

We discover the cores of new businesses by using data science in the chemical big data fields.



GM: **Yasumitsu Orii**

Established: 2017

Organizational Goals / Structure

The NVC Office was established in April 2017 to promote NAGASE Group innovation and build core businesses of the future that will create new value. The office assesses trends in the IT industry, including IoT and AI, planning and developing mechanisms for businesses not currently part of the NAGASE Group. These mechanisms will be deployed to the various business divisions for implementation.

Semiconductors are running up against the limits of miniaturization, which had been the standard for measuring the advancement of electronics, and the technological revolution in this area is currently approaching a new turning point. Under its next-generation slogan of “Bio-Inspired Technologies,” the NVC Office aims to create new value by focusing on the integration of electronics and biology, as exemplified by neural devices and biomimicry.

Organizational Goals

- We will actively interact with academia to grasp industry-wide trends and build new businesses that look ahead five to ten years in the future.
- We will take stock of trends in hardware technologies that support AI and IoT to ensure that we always stay one step ahead of the next paradigm shift.

Organizational Structure

The NVC Office will be a flexible organization that benefits from synergistic effects between the business divisions, group companies, and partner companies.

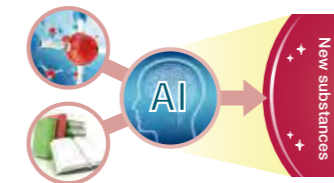
Project ① Predicting and offering new materials sought by users Materials Informatics

Technology Overview

Materials Informatics (MI) is a field of technology for developing new materials by combining the latest data processing technologies with materials science. We recently jointly started to develop a platform with IBM Corporation. Using AI to analyze and systematize big data from materials-related literature and experiments, this platform utilizes a cognitive approach to predict and propose new materials sought by users. There is also an analytics approach that shows the chemical structures of substances sought by users by having AI learn the relationships between chemical structures and physical properties from big data about substances.

Our Advantage

The conventional way to develop new materials is to repeatedly conduct experiments and make prototypes. However, by introducing MI, we aim to significantly reduce development costs and shorten development times. MI is also gaining a lot of attention due to its potential to help discover revolutionary materials.



Project ② Semiconductor design and technology supporting AI and 5G Axonerve™ Intellectual Property Core

Technology Overview

Axonerve™ is a data search algorithm developed by NAGASE and domestic research organizations. NAGASE developed an IP core for FPGAs, which are programmable semiconductors, and is expanding its IP core licensing business. Currently, FPGAs are garnering attention as a way to accelerate network functions and high-speed data processing at data centers, where virtualization is making inroads. We are working to cultivate the market with FPGA vendors.

Our Advantage

5G, which will start from 2019, will enable many simultaneous connections for high volume traffic and ultra-low latency. For telecommunication infrastructure that will support 5G and for edge servers that are expected to provide low-latency services, FPGAs' ability to accelerate servers is gaining attention for meeting tough low-latency demand and processing capabilities, as well as for enabling low-power-consumption systems. On the other hand, FPGA vendors are accelerating the development of design simplification tools using programming languages and sales of general-purpose cards for acceleration applications. They are promoting these design solutions with partners in Japan and overseas.

Topics

Launched Division-wide Technology Community Activities

We launched the NAGASE Technical Vitality Program, a division-wide technology community activity, with the purpose of incubating new cross-functional business that will support the future of the NAGASE Group.

Aim of New Activities

- Generate new division-wide themes (we will consider previously set themes and themes generated by members in a bottom-up approach)
- Engrain leading-edge technologies across the Company (AI, IoT, semiconductors, neural devices, additive manufacturing, next-generation wireless technology (5G, 6G), etc.)
- Promote NAGASE Group technologies internally and externally (material informatics, biotechnology, etc.)
- Discover and develop specialist human resources

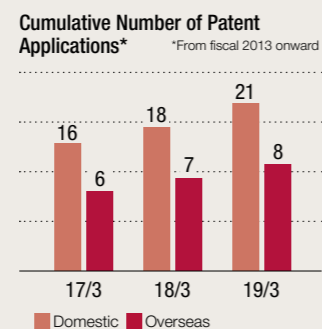
Nagase R&D Center

“Unavailable Made Available in a Sustainable Way”

The Nagase R&D Center will continue to advance the NAGASE Group's bio-related businesses from the earliest stages of research development.

Fundamental Technologies / Integration

Societies around the world are currently facing a multitude of issues, including growing populations with dwindling resources, abnormal weather events, and environmental problems. To solve these issues, the Nagase R&D Center aims to create research themes that contribute to society from a macro perspective. By integrating advanced technologies and our knowledge spanning many different bio fields, we will continue to spur process innovation and contribute to health, safety, security, and solutions to environmental problems as we meet people's needs.



GM: Xiaoli Liu

Established: 1990



Number of patents held: 30*

* Includes, pending applications and 10 overseas patents

(As of March 2019)

Patent Field ① Core Technologies

- Fermentation technologies using actinomycetes
- Strain improvement technologies utilizing metabolic engineering

Explanation of Patent Field: Materials production technologies using actinomycetes

Using actinomycete fermentation, we can efficiently manufacture valuable materials that are scarce in nature and are difficult to synthesize using organic chemistry.

Example applications:

- Ergothioneine (antioxidant)
- Nootkatone (fragrance ingredient)
- Trehangelin (cosmetic) materials, etc.
- Mycosporine-like amino acids (UV absorbers)

Patent Field ② Fundamental Technologies

- Genetic engineering
- Metabolic engineering
- Fermentation engineering
- Bioprocess engineering
- Bioinformatics
- Bioactivity assessment

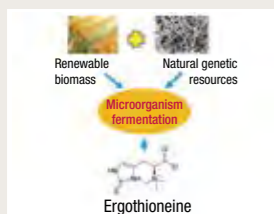
Explanation of Patent Field: Bioinformatics

We develop technologies that set us apart from competitors in regard to various elemental technologies indispensable to bio-related manufacturing.

Specific Research Content:

To use microorganisms to manufacture valuable materials that only plants produce, you first have to discover microorganism-derived enzymes that have a function equivalent to the unique enzymes in plants. Usually, the search begins with the genetic sequences that code for the enzyme. However, we found a search method that uses reaction patterns and does not rely on sequence data.

Topics



Breakthrough in Fermentation Technology for Producing Functional Ingredient “Ergothioneine”

Ergothioneine is a natural amino acid that has excellent antioxidant properties and can be found in trivial amounts in mushrooms and other organisms. Its applications in a wide range of fields, including foods, cosmetics, and pharmaceuticals are highly expected. The conventional method of extraction from mushrooms or chemical synthesis has issues in terms of stable supply, environmental impact, and cost. The Nagase R&D Center has researched an alternative fermentation method that is safe, secure and eco-friendly. The issue with the fermentation method is productivity, and it is important to control the complex microorganic metabolic systems. The R&D Center discovered an important factor related to the highly efficient production of ergothioneine and made a technological breakthrough that greatly raised production efficiency. We aim to quickly commercialize this technology as we continue to meet the needs of the market.

Nagase Application Workshop

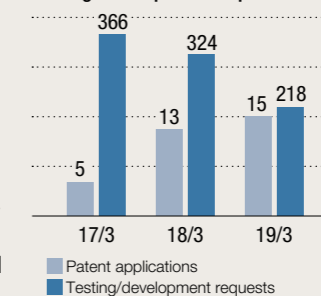
“A Place for Open Innovation for Plastics and Coatings”

We will enhance our global presence through high performance test and evaluation functions and technical support.

Plastics and Coatings / Evaluations

As the testing and evaluation arm of the NAGASE Group for plastics and coatings, the Nagase Application Workshop (NAW) develops application technologies to meet various needs, including those of domestic and overseas customers as well as materials manufacturers and processing companies. Annual visitors exceed 200 companies, and we respond to between 200 and 300 testing and development requests. We have gained magnificent trust as a development partner of customers and suppliers. In addition, we have an excellent technological expertise for new elemental technologies and functional materials, thereby enhancing the market presence of NAGASE.

Number of Patent Applications and Testing/Development Requests



GM: Akihiro Taniguchi

Established: 2007

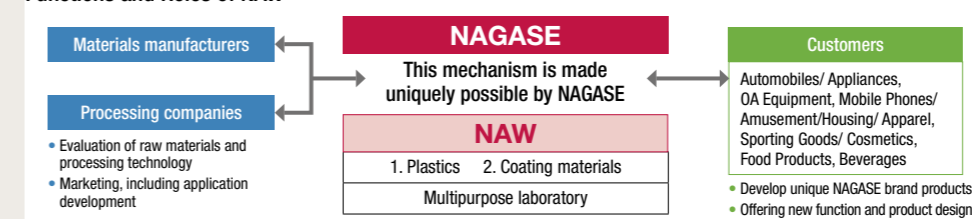


Number of patents held: 42*

* Includes, pending applications and 25 overseas patents

(As of March 2019)

Functions and Roles of NAW



Main Function ① Plastics

Plastic material analysis using twin-screw extruders, injection molding machines, and various analytic equipment; compound formulation, prototypes of formed products, and materials analysis

Equipment:

- Twin-screw extruders (15mm, 18mm, 26mm)
- Injection molding machines (80t and 110t)
- Forming presses
- Analysis equipment
- Measurement equipment, etc.

Products Developed in the Plastics Field

- Plastic materials for molding (in collaboration with automotive part makers)
- High sliding polyethylene featuring superior processing characteristics
- Transparent, high impact plastics for use in cosmetics, medical products, and food applications



Main Function ② Coating materials

Coating material analysis using various processing equipment, evaluation and analysis equipment, development of paint and ink formulation, prototyping and property evaluation

Equipment:

- Dry coating booths
- Dispersing machines (paint conditioner, horizontal type, vertical type bead mill)
- UV irradiation machines
- Drying ovens
- Various environmental testing machines

Products Developed in the Coating Materials Field

- PatInaLock™, a reactive paint that suppresses rust using rust
- A carbon hybrid coating system that dramatically reduces volatile organic compounds (VOCs) in paint
- New coating materials that enable new design offerings to meet industry needs



Topics

Vision for NAW

Testing and Evaluation Arm of the NAGASE Group (Testing Ground for New Technologies)

Because NAW is a laboratory of a trading house, it has access to materials from a wide range of suppliers and serves as a place to carefully study all the different technologies in the world. We will continue to flexibly respond to the NAGASE Group's various requests for testing, evaluation, prototyping, and development.

Antenna for Technological Trends (Storehouse of Technologies)

As the storehouse of the NAGASE Group's technologies, NAW fosters greater information sharing, combines and processes accumulated technologies, and promotes its findings across the Group.

Developer of Innovative Businesses (Development of Proprietary Fundamental Technologies)

Working with various partners, NAW promotes the development of proprietary fundamental technologies and helps create new businesses.

Collaboration with Group Manufacturing Companies

We enhance the Group's capabilities through collaboration with Group manufacturing companies while maintaining mutual independence.

Developer of Engineers

We develop the NAGASE Group's engineers using technical training and other programs.

Promoting NAGASE Group