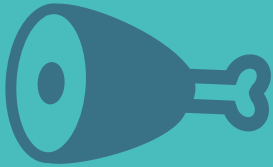


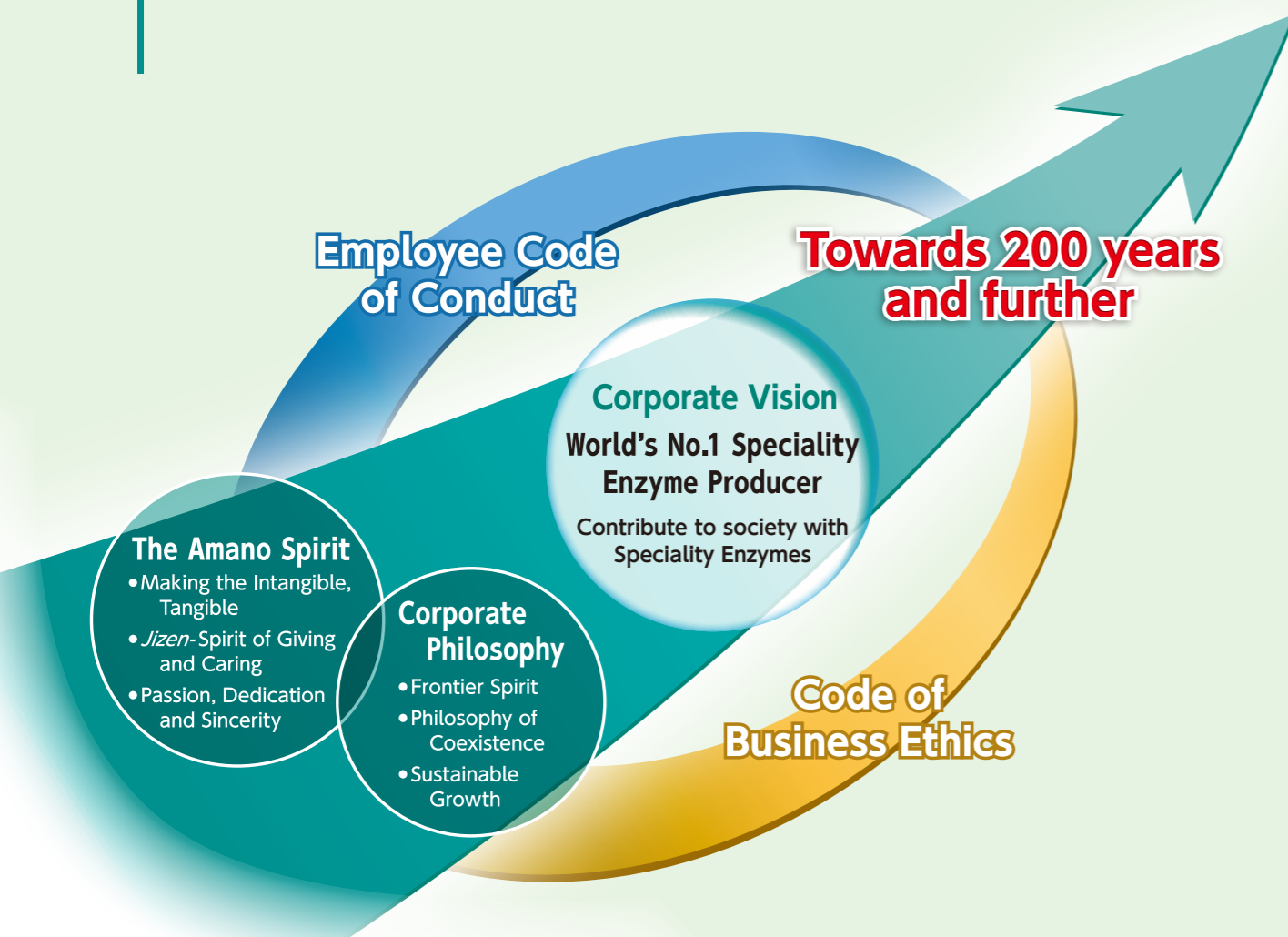
AMANO Sustainability Report 2022



— The words of our founder —

Making the Intangible, Tangible *Jizen*—Spirit of Giving and Caring Passion, Dedication and Sincerity

The Amano Spirit



Corporate Philosophy

Frontier Spirit

We sincerely listen to our customers, commercialize unique ideas through a fusion of tradition and cutting-edge technology, and provide society with new value.

Philosophy of Coexistence

For the continuous progress of society, Amano will endeavor to co-exist with: Local communities and the environment; Customers and suppliers; and Employees and stockholders.

Sustainable Growth

We will always be fluid and adapt to the needs of an ever-changing society. We utilize our expertise and resources efficiently to reach our short, mid and long-term goals. We continuously strive to make improvements to our quality of work in order to create a healthy corporation.

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Editorial Line The purpose of this report is to inform stakeholders of Amano Enzyme's thoughts and initiatives for achieving a sustainable society. In line with our Sustainability Vision based on current social issues, this report outlines Amano's goals and initiatives in the areas of The Future of Food and Health, Coexistence with Nature, Societal Trust, Diverse Human Resources, and Sound Corporate Management.

Report Period With a focus on our activities in fiscal year 2021 (April 1, 2021–March 31, 2022), this reports highlights the most relevant of our latest topics.

Date of Publication November 2022 Scheduled every two years

Company Information

Company name	Amano Enzyme Inc.
Established	1948
Founded	1899
Business outline	Production and sales of enzymes for pharmaceuticals, food, industrial use, and diagnostic reagents; and production and sales of drugs, animal drugs, and feed additives
Capital	390 million yen
Number of employees	440

Amano Enzyme's History

123 years of history, 74 in enzyme business

Since 1948, Amano Enzyme has continually been involved in the research and production of enzymes for over 70 years, focusing on the function of enzymes in nature and aiming to make enzymes useful to people's lives.



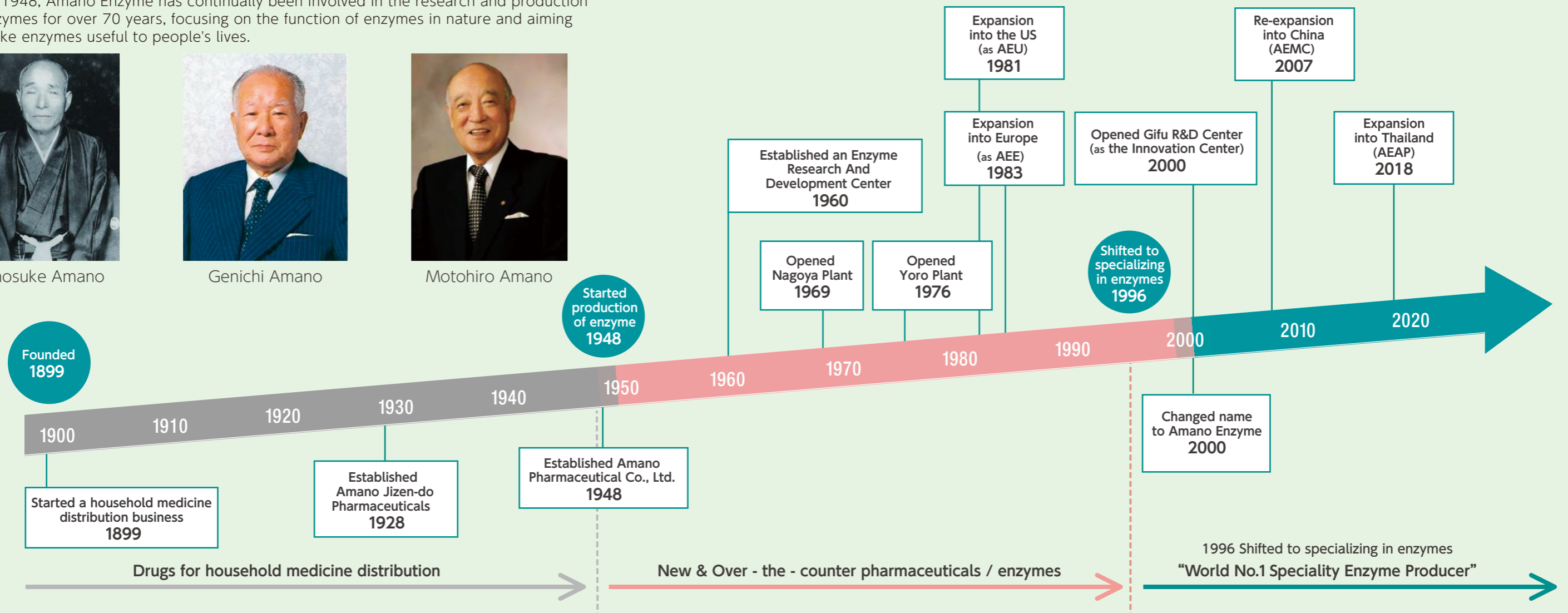
Ennosuke Amano



Genichi Amano



Motohiro Amano



- 1899** Ennosuke Amano started a household medicine distribution business in Japan.
- 1928** Established Amano Jizen-do Pharmaceuticals.
- 1939** Genichi Amano started pharmaceutical business in China to increase sales of over-the-counter pharmaceuticals.
- 1948** Established Amano Pharmaceutical Co., Ltd. and started production of digestive enzyme, MaltDiastase.
- 1950** Opened Nishiharu Plant (fungal amylase production).
- 1957** Patented Amano-style aeration koji production instrument.
- 1960** Established an Enzyme Research And Development Center.
- 1961** Started production of food-processing enzyme.
- 1969** Opened Nagoya Plant.
- 1970** Started production of diagnostic enzyme.
- 1976** Opened Yoro Plant.
- 1980** Pancreatin production technology was transferred to China.

- 1981** Established Amano International Enzyme Co., Ltd. → Became Amano Enzyme U.S.A. Co., Ltd. in 1992.
- 1983** Opened a liaison office in Europe (Germany). → Became Amano Enzyme Europe Ltd. in the UK in 1992.
- 1996** Shifted to specializing in enzymes—"World No.1 Speciality Enzyme Producer."
- 2000** Opened Gifu R&D Center in Gifu, Japan (as the Innovation Center).
- 2000** Changed name to Amano Enzyme Inc.
- 2001** Acquired majority shares of Daiwa Kasei K.K. → Merged into the Shiga Plant in 2013.
- 2007** Established Amano Enzyme China Ltd. in Shanghai.
- 2009** Established Amano Enzyme Manufacturing (China), Ltd.
- 2018** Merged Amano Enzyme Manufacturing (China), Ltd. and Amano Enzyme China Ltd. in Shanghai.
- 2018** Established Amano Enzyme Asia Pacific Co., Ltd. in Thailand.

For the Future Role of Microorganisms



Amano Enzyme Inc.
President

天野源之

Motoyuki Amano



Company Slogan

Make a better world
with Japanese biotechnology

Amano Enzyme's Origin

Our company dates back to 1899 in Aichi Prefecture's Kitanagoya City where Ennosuke Amano started a household medicine distribution business. Decades later, in 1948, during Japan's postwar reconstruction, Amano established Amano Pharmaceutical Co., Ltd. (now Amano Enzyme Inc.) in Nagoya City, Aichi Prefecture. There, in what could be considered the company's second founding, he began manufacturing enzymes. In 1950, we began enzyme manufacturing using microbial fermentation, marking the beginning of our long relationship with microorganisms.

Microorganisms, Humanity, and Japan's Fermentation Culture

Cheese, one of the oldest fermented foods known to mankind, is said to have been created around 3,500 BC.

Milk in a sheep's stomach was transformed into a delicious, long-lasting food. Through pure experience alone, humans used these microorganisms and enzymes before we even knew they existed.

Taking advantage of local characteristics, unique cultures of fermentation have been established in every region Japan and the country's relationship and culinary experience with sake, miso, and soy sauce, go back over 600 years. These traditional Japanese fermented foods use a microor-

ganism called *koji*.

Dr. Jokichi Takamine, the father of Japanese biotechnology, discovered the world's first digestive enzyme, Takadiastase, in 1894.

Takadiastase originated from *koji* and is still used today as a digestive agent. Also recognized as a national fungus due to its deep roots in Japan and its usefulness (Scientific Conference of Brewing Society of Japan, 2006), *koji* is said to be responsible for 1% of Japan's total GDP.

In these ways, microorganisms have supported people's lives for centuries. Furthermore, at the core of these microorganisms and their functions is enzymes.

Achieving a Sustainable Future With Microorganisms

After the industrial revolution of the 18th century, the human population exploded. And 200 years of industrial activity have pushed our environment to its limits. Since the UN General Assembly decided to adopt the SDGs in 2015, the world has begun a major shift toward turning into sustainable societies. All industries are seeking to shift to sustainable operations, including restructuring their supply chains, in order to reduce fossil fuel use and the waste, both of which have a negative impact on the environment. While this is going on, the role of enzymes in microorganisms has been garnering a great deal of attention.

The enzyme industry has grown signifi-



cantly in the 20th century and has expanded to include aspects of all industries, including medical, food, chemical, materials, environmental. The use of enzymes, which can produce large biochemical reactions under mild conditions and in small quantities, is expected to provide a solution for a sustainable society.

One example is addressing the issue of food waste. Enzymes have the unique ability to consume food, leaving no waste, increase nutrition, make food tastier, and make it last longer. Enzymes also have various roles in food tech, namely shifting protein sources away from animals to plant-based options.

Microorganisms are also one of the earth's important resources. The small Japanese archipelago is often thought to lack many natural resources, but it stretches

across a diverse range of climates, from the snowy north of Hokkaido to the tropical southern islands of Okinawa, and has an equally diverse range of elevations, from the Izu-Ogasawara Trench to Mt. Fuji. Adding the country's distinctly different seasons, Japan is actually one of the most microorganism-rich countries in the world. Although we have a library of more than 20,000 strains of safe bacteria collected from overseas and Japan's different climates, humans have yet to discover a mere 0.01% of all microorganisms. That is to say, microorganisms have unlimited potential.

Japan is a treasure trove of microbial resources and with it, we are always working to refine our traditional techniques of screening and breeding from nature.

However, in order to solve issues of

economic rationality, making progress in advanced research, such as progressing protein engineering, and combining both traditional and new technologies to achieve breakthroughs are necessary. In the spirit of our founder's words, "Make the intangible, tangible," we will use technology to conquer environmental issues and contribute to creating a sustainable future.

Contributing to society with the spirit of Amano

We will position ourselves to contribute to the world in order to create a sustainable future. That is why the commitment of all employees is essential. We believe that a company should be the right platform for each employee to lead a fulfilling life.

The most important foundation of the company is the maintenance and promotion of the mental and physical well being of employees and their families. We made a deceleration to promote healthy management in 2018 and have continued to tackle health promotion activities as a company since. We look at outside of the company as well. As one measure to improve mental and physical well being, we invite lecturers from various fields to come and speak to employees. By exposing employees to areas outside of their expertise, and which may not be related to their work, we allow them to be exposed to new perspectives and ideas and actively encourage them to learn from



outside sources.

We also held a sports festival in 2021, which helped lift the spirits of employees during the pandemic. We are a certified Sports Yell Company and are actively involved in familiarizing ourselves with and watching sports. In 2022, we also hired top domestic athletes and began supporting them to work and live as athletes, as well as working with them to achieve greater heights.

Founded to contribute to society, our employees are united in their aspirations, nurture healthy minds and bodies, and are advancing our business toward a sustainable future where microorganisms play an active role.

Through this report, we hope that you will gain a better understanding of our business activities. We sincerely appreciate your continued support and encouragement.

In 2019, Amano Enzyme celebrated its 120th anniversary. We are enzyme specialists.

Enzymes are a type of protein that supports the function of life in all living things.

In other words, things cannot live without enzymes.

And it is those living creatures, including bacteria and microorganisms in the soil and in the human gut, that make these enzymes.

There are more than 8,000 types of enzymes, each with its own unique function.

In simple terms, they help to break down, synthesize, and change organic matter.

Enzymes improve the world in all aspects of life.

For a world with tastier foods



In the foods all around us, enzymes help make bread fluffy, meat tender, and seasonings more flavorful.

For a healthier world



Enzymes have, are, and will always be used in medicine as digestive agents to prevent upset stomachs, diagnose illnesses, and assist in creating regenerative medicines.

For a more convenient world



Enzymes are assisting our daily lives behind the scenes, by enhancing potencies of detergents or cosmetics, creating new materials for industrial products, and improving water quality.

We at Amano Enzyme search for enzymes in microorganisms that range from the deep sea and jungle to even the stratosphere, and provide the world with them as solutions.

This spirit we possess is something that has been passed down since its birth long ago in the Japanese culture and climate.

Miso, soy sauce, and sake are just three examples of the wisdom of using the invisible power of enzymes to live in harmony with nature, make the most of limited resources, and further enrich blessings of nature.

Since ancient times, Japan has long since been using biotechnology.

Today, the power of enzymes, uncovered through cutting-edge technology, has begun to garner attention as a solution to the overwhelming number of issues in food, energy, resources, and the environment.

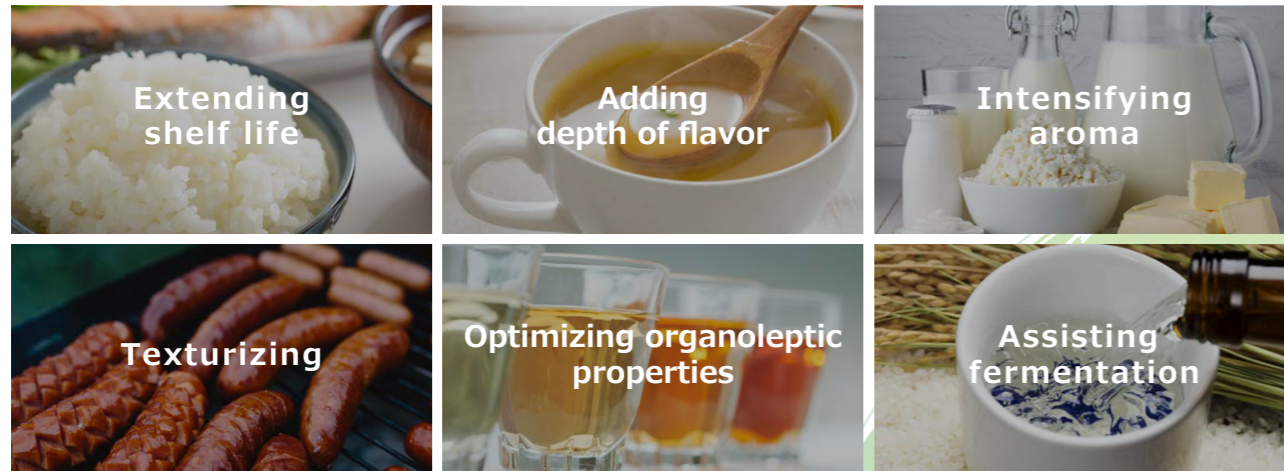
Listening to the earth and supported by the power of nature, we work every day to create a better world for tomorrow with enzymes.

Seeing the invisible

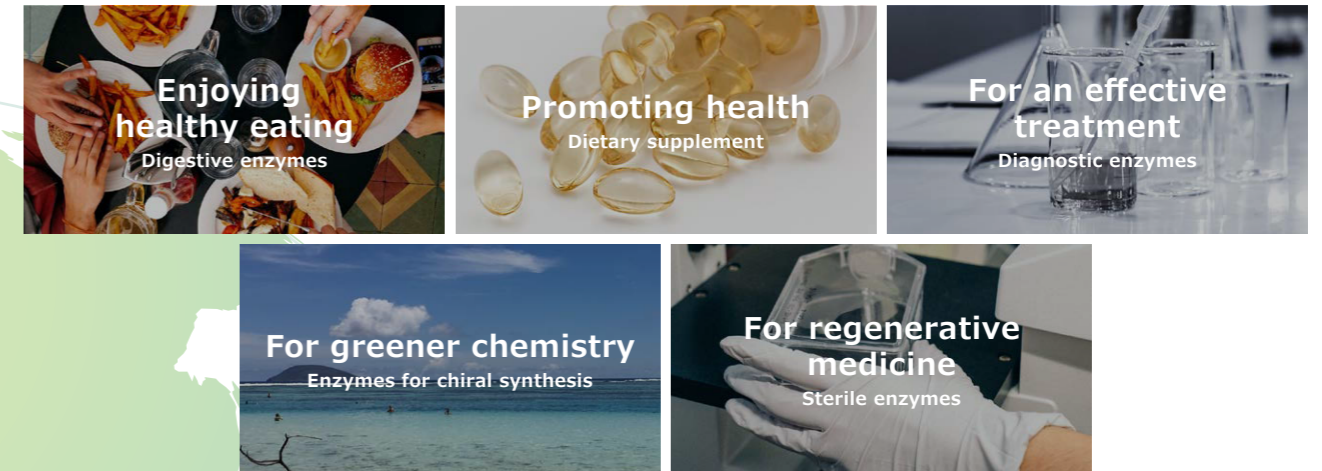


Visit our website on enzymes and see how they have the potential to solve the many issues facing modern society.
<https://mienaimono.jp/en/>

For a world with **tastier** foods



For a **healthier** world



Contributing to a sustainable society with **120+ years of history** and **70+ years of enzyme manufacturing**

Food × Medical applications



Leveraging our expertise in medical and food areas to develop innovative applications with consistent and high quality

Koji × Liquid fermentation



Enabling the production of a wide range of unique products with *koji* and liquid fermentation and production technology

Modern × Classical biotechnology



Differentiating and creating a unique value proposition with modern and classical biotechnology

Sustainability Vision

Contributing to the future of the planet and its people alongside enzymes

Under our philosophy of "coexistence," we at Amano Enzyme work for the development of a sustainable society. The world is facing a multitude of social issues from environmental pollution to food shortages brought on by population growth. In order to fulfill our societal responsibilities through our enzyme business, we have identified five goals and issues, starting with social issues, to tackle. Through these efforts, Amano will contribute to the achievement of the SDGs and work toward the realization of coexistence.

SDGs (Sustainable Development Goals)

The SDGs are international goals for a sustainable and better world to be achieved by 2030. They were introduced in the 2030 Agenda for Sustainable Development and adopted by the UN summit in September 2015. The Agenda is comprised of 17 goals and 169 targets, and pledges to leave no one behind.



Amano Enzyme's Vision

The future of food and health

Creating the future of food and health with enzymes

With enzymes, we aim to create a world where everyone can enjoy a variety of foods and a healthy lifestyle. Enzymes bring out the best in food. They also reduce food waste by improving shelf life. Enzymes are also used in the fields of regenerative and preventive medicine, contributing to the extension of healthy life expectancy.



Coexistence with nature

Reducing environmental impact and protecting a sustainable and prosperous future

Global warming and waste management are important issues that must be taken seriously by everyone across the globe. We are committed to reducing our environmental impact through our businesses in order to realize a sustainable society for the future. We will not only reduce greenhouse gas emissions and waste generated in the enzyme manufacturing process, but also contribute to the reduction of environmental impact through our enzyme products.



Societal trust

Providing safe and reliable products that go one step ahead

As a manufacturer, our mission is to provide customers with quality products that are both safe and secure. We always ensure that we are prompt in providing information on product quality, allergens, religious compliance, and more to ensure customer satisfaction. To address issues around the globe, we also provide solutions to quality-related issues through cutting-edge technology that includes AI and DX.



Diverse workforce

Creating a lively corporate culture where everyone can thrive

In the words of our founder, "people's brains are our greatest asset," we believe human resources are one of our most important management resources. To this end, we support the maintenance and promotion of employee health and endeavor to offer a lively environment for employees to work. We also promote work system reforms that enable a diverse range of employees to grow and demonstrate their skills.



Sound business management

Ethical business activities

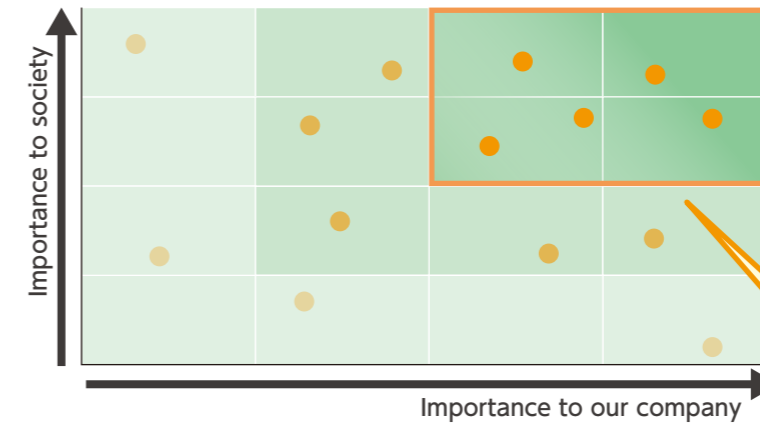
In order to fulfill our corporate social responsibility, we pledge to comply with laws and regulations, as well as continue to be a company that is an upstanding corporate citizen that has the trust and confidence of customers by holding ourselves to high corporate ethical standards.



The Materiality Decision Process



Issue/Theme assessment



Our Vision		Materiality
The future of food and health	Plentiful food	Reducing food waste Delicious and safe food production
	Health	Increasing nutrient absorption and contributing to improved health Contributing to the medical field
Coexistence with nature		Reducing greenhouse gases Reducing waste
Societal trust		Product quality and safety Efforts to accept diverse values
Diverse workforce		Healthy workplace environments Human resource development
Sound business management		Supply chain management Strengthening philosophy-based governance

The future of food and health

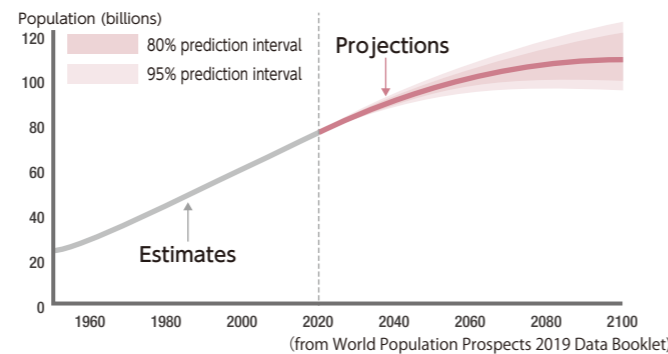
Creating the future of food and health with enzymes

With enzymes, we contribute to creating a world where everyone can enjoy a variety of foods and a healthy lifestyle.

Enzymes bring out the best in food. They also contribute to reducing food waste by improving shelf life.

Enzymes are also used in the fields of regenerative and preventive medicine, contributing to the extension of healthy life expectancy.

Environmental issues affecting our world



- By the 2050s, the world population will reach 10 billion.
- Between 2025 and 2030, protein demand will exceed supply due to the world population increase.
- Global food waste is 1.3 billion tons per year (Ministry of Agriculture, Forestry and Fisheries of Japan website).
- Medical expenses are increasing due to aging populations.



Amano Enzyme's Material Issues and Goals to 2030

Plentiful food

Reducing food waste

Contributing to the reduction of food waste

Creating food that is safe and enjoyable for everyone

Ensuring that everyone can eat delicious, safe food

Health

Increasing nutrient absorption and contributing to improved health

Improving quality of life through the enjoyment of food

Contributing to the medical field

Realizing a society where everyone can lead a healthy life

Plentiful food

Reducing food waste

Goals for 2030



Some enzymes can be used in food processing to allow foods to remain tasty for longer. Enzymes can also play a role in reusing food waste, such as food processing waste, for other purposes or in other products. Amano Enzyme contributes to reducing food waste by extending the shelf life of food through enzymes and by supporting corporate upcycling.

Creating food that is safe and enjoyable for everyone

Creating food that is safe and enjoyable for everyone

Improving the physical properties and efficiency of plant-based milk production through the use of enzymes



Enzymes are used in food processing to improve taste, physical properties, and manufacturing efficiency. For example, they are used to bring out umami in vegetable proteins and to improve binding. In addition, chemical reactions with enzymes are known to have a lower environmental impact than chemical processes using other catalysts and reagents. We will continue to develop enzymes with the goal of allowing everyone to eat safe, delicious food, and strive to achieve a recycling society.

Health

Increasing nutrient absorption and contributing to improved health



For about 75 years, Amano Enzyme has been manufacturing and selling enzyme products for upset stomachs and indigestion, including diastase, biodiastase, and pancreatin. Amid global trends in aging populations and increasing health consciousness, we continue to research and develop enzyme products that enable people to enjoy delicious and healthy food.

Contributing to the medical field

Realizing a society where everyone can lead a healthy life



Enzymes for blood glucose sensors

Development of enzymes for regenerative medicine

Amano's enzymes also support people's lives through medicine. Some examples are their role in precision diagnosis of substances in blood, such as blood sugar levels, and in improving cell recovery rates in regenerative medicine. Striving to realize a society in which everyone can lead a healthy life, we will continue to support the maintenance and improvement of people's health through enzymes.

The future of food and health

Creating the future of food and health with enzymes

Plentiful food

Reducing food waste

Relevant main SDGs



Reusing food waste

Starchy foods such as bread and rice are staple foods around the globe. Along with fat and protein, these carbohydrates are one of the three major nutrients. But starchy foods go stale and lose their flavor. This is due to loss of moisture in the starch and the crystallization of sugar chains. This phenomenon is called retrogradation. Retrogradation occurs especially quickly at low temperatures, making it difficult to store starchy foods at lower temperatures. In contrast, treatment with enzymes can delay retrogradation by changing sugar chains to be less prone to crystallization. Bread, rice and other carbohydrates that have been treated with enzymes in this way are able to retain their softness and flavor for longer. They can also be stored at lower temperatures.



Health

Increasing nutrient absorption and contributing to improved health

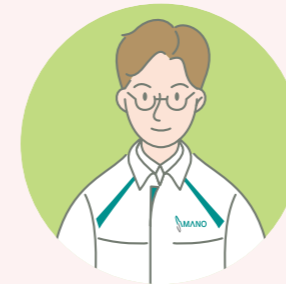
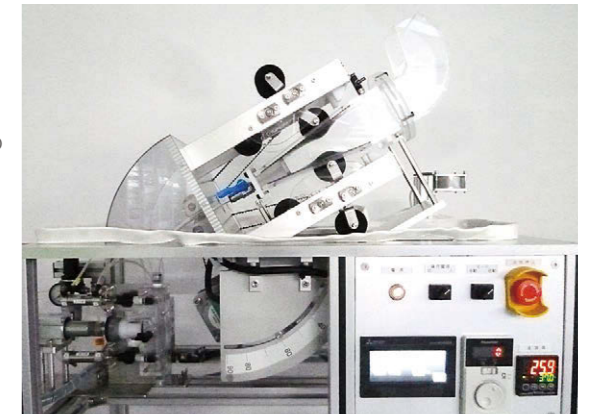
Relevant main SDGs



Stomach digestion simulator

Digestive enzymes have long been used to relieve upset stomachs and indigestion. Amano Enzyme uses a continuous human stomach digestion simulator (see photo) to observe the effects of digestive enzymes on food digestion and to analyze the products of digestive enzymes in order to discover new functions of digestive enzymes.

Going forward, we will continue to search for new functions of digestive enzymes and share useful information about health and food.



Creating food that is safe and enjoyable for everyone

Relevant main SDGs



Advancing our food tech business

With the foreseeable protein shortage crisis, attention has turned to low environmental impact plant-based protein. However, they are still not as satiable as animal-based protein and sometimes require extreme seasoning.

Enzymes can be used to modify their ingredients to convert them into taste components, mask odors, and improve dispersion.

As they are microorganisms and their reactions can occur under mild conditions, thus reducing the environmental impact, enzymes are also used in a wide range of food production.



Enzymes are also used in meat and milk alternatives.

Contributing to the medical field

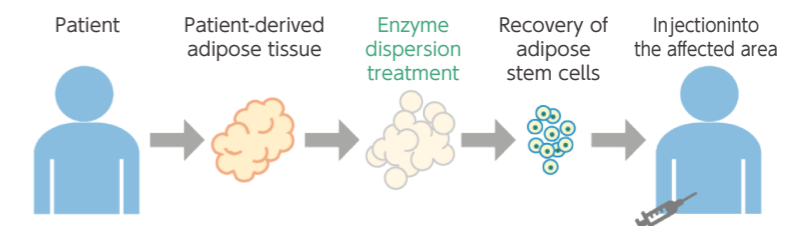
Relevant main SDGs



Supporting the future of medicine

Our enzymes are also used in regenerative medicine. Regenerative medicine is a treatment method that restores the functions of weak organs, such as the heart, or damaged tissue, such as the skin, by transplanting healthy cells and tissue that have been grown outside of the body. Regenerative medicine uses stem cells, the cells which create tissue and organs.

In stem cell-based therapy, tissue is first taken from the patient. To retrieve the stem cells, those tissue cells must first be separated. Enzymes are used to separate the cells.



Coexistence with nature

Reducing environmental impact and protecting a sustainable and prosperous future

Global warming and waste management are important issues that must be taken seriously by everyone across the globe.

We are committed to reducing our environmental impact through our businesses in order to realize a sustainable society for the future. We will not only reduce greenhouse gas emissions and waste generated in the enzyme manufacturing process, but also contribute to the reduction of environmental impact through our enzyme products.

Related policies and external assessments:
 Environmental Policy, ISO 14001
<https://www.amano-enzyme.co.jp/corporate/csr/index.html>
<https://www.amano-enzyme.com/uk/why-amano/>

Environmental issues affecting our world



Global annual average temperature



Pre-Industrial Revolution *From IPCC data

- Set to increase by 3.2°C by the end of the 21st century*
*From IPCC Working Groups III report
- Increase in extreme weather events and meteorological disasters

- Air pollution such as acid rain, PM 2.5, yellow sand, and photochemical smog
- Water and soil pollution by chemical fertilizers, pesticides, plastics, and heavy metals

Amano Enzyme's Material Issues and Goals to 2030

Reducing greenhouse gases

CO₂ emissions

Down 46% from 2020

Target for CO₂ emissions by 2030:

16,570 t-CO₂ per year or less

Reducing waste

Waste emissions

Down 46% from 2020

Target for waste emissions by 2030:

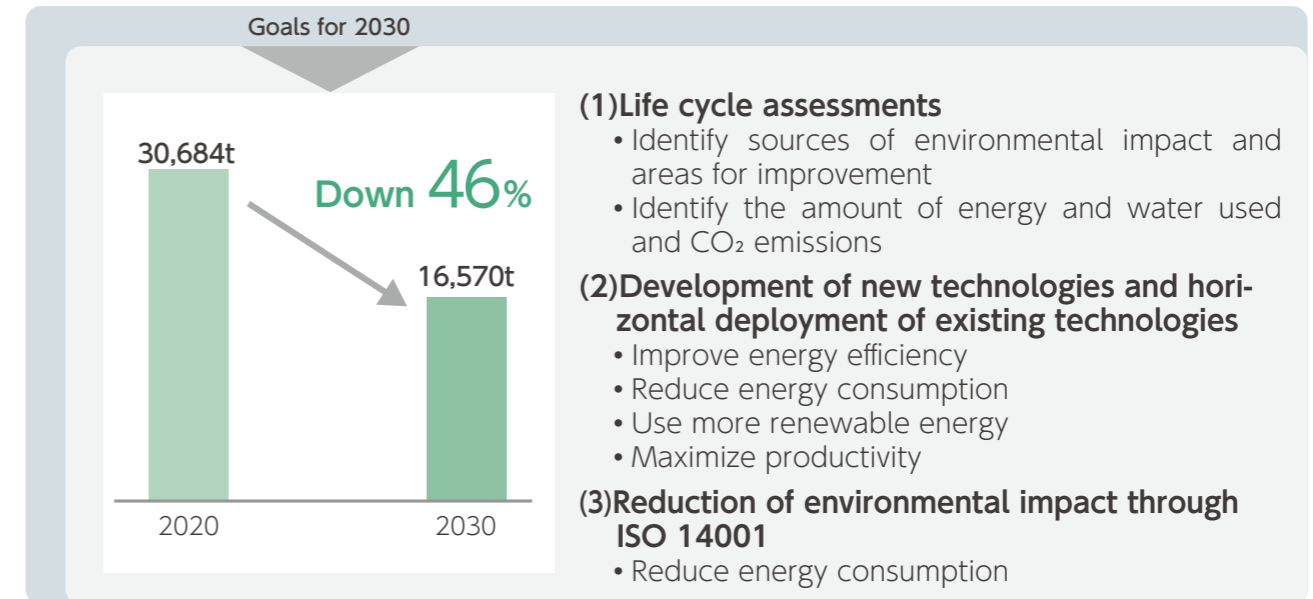
5,230 t per year or less

We are tackling the three below initiatives to reduce greenhouse gas emissions and waste:

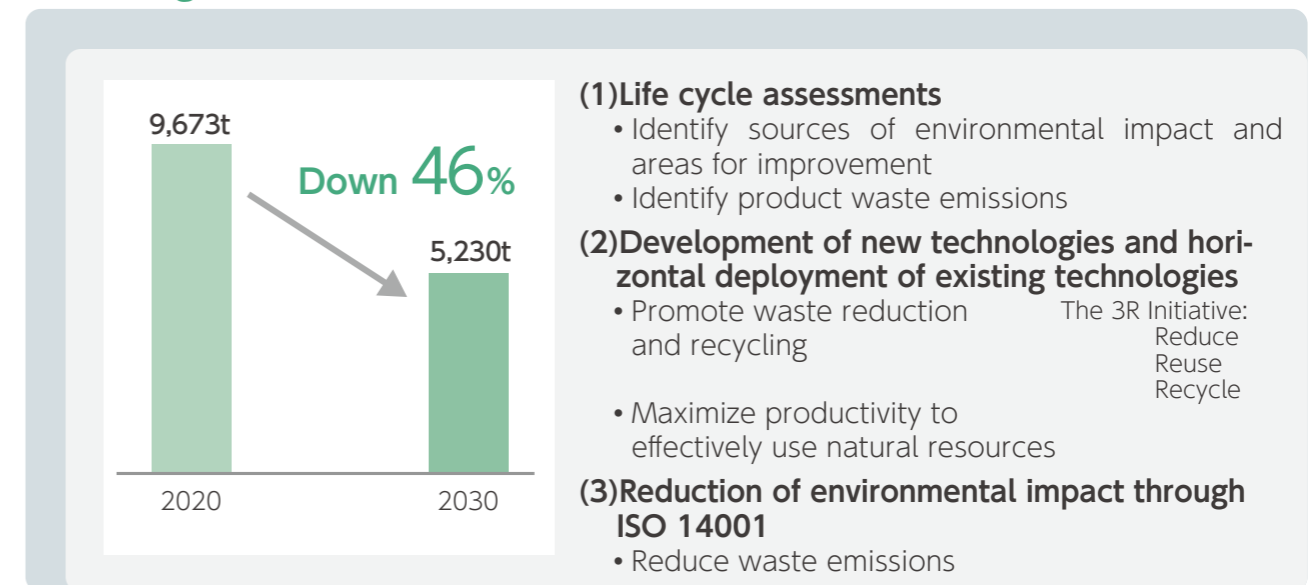
- (1) Life cycle assessments to identify sources of environmental impact and areas for improvement
- (2) Development of new technologies and horizontal deployment of existing technologies
- (3) Reduction of environmental impact through ISO 14001

We will manage the progress of measures in an ISO 14001 environmental management system and will revise goals, set KPIs, and make changes to achieve the following goals.

Reducing greenhouse gases

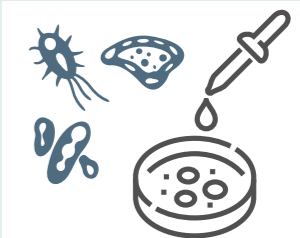


Reducing waste



Topics: Methods of acquiring microorganisms

Microorganisms used for enzyme production are obtained naturally and modified primarily using reactions similar to those found in nature. Since its establishment 120 years ago, Amano Enzyme has grown with Japanese culture and traditions that cherish coexistence with nature. We also cherish the coexistence with nature in using microorganisms in enzyme manufacturing.



Coexistence with nature

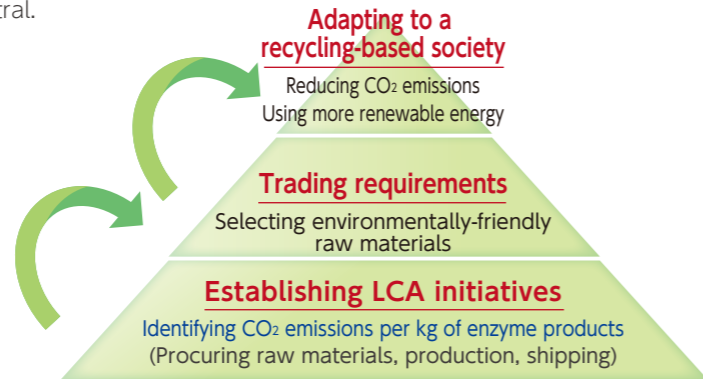
Reducing environmental impact and protecting a sustainable and prosperous future

Initiatives to reduce greenhouse gas emissions



CO₂ emissions visualized

From raw material procurement to manufacturing and shipping, we are working to pin down CO₂ emissions throughout the product life cycle. To effectively reduce environmental impact, it is essential to establish a system to know the CO₂ emissions of each product and to identify the source of environmental impact and areas for improvement. In addition to our 2030 CO₂ emissions reduction goal, we are working to implement lifecycle assessment (LCA) across the organization with the aim of transcending the goal and becoming carbon neutral.

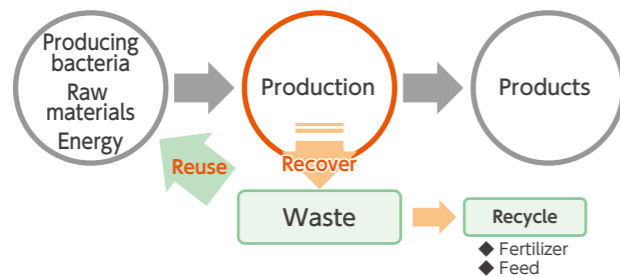


Reducing waste



Effectively reusing waste

Enzyme agents are manufactured by extracting enzymes produced by microorganisms from culture. Usually, after extraction, *koji* lees is discarded. As part of our efforts to reduce waste, we are developing applications of this lees. Utilizing *koji* lees as fertilizer, feed, or fuel not only reduces environmental impact but also reduces disposal costs. By promoting the effective use of waste, we aim to both reduce environmental impact and achieve economic efficiency.



Societal trust

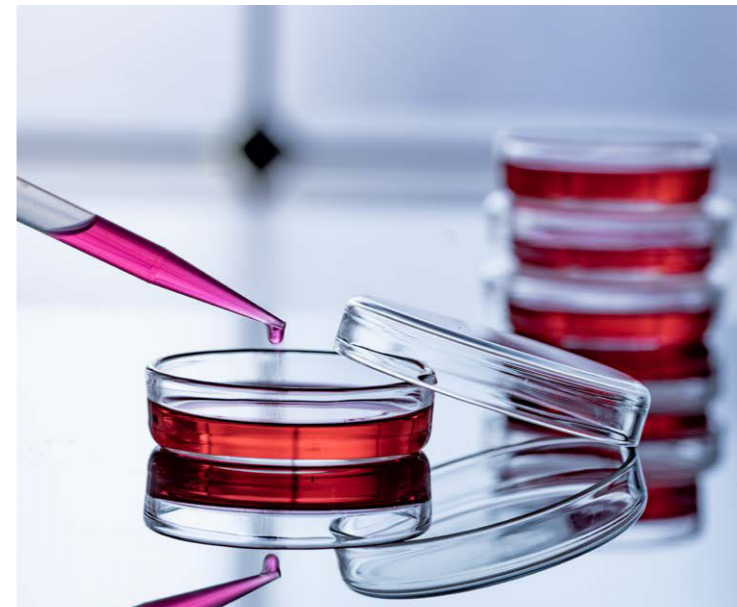
Providing safe and reliable products that go one step ahead

As a manufacturer, our mission is to provide customers with quality products that are both safe and secure.

We always ensure that we are prompt in providing information on product quality, allergens, religious compliance, and more to ensure customer satisfaction. To address issues around the globe, we also provide solutions to quality-related issues through cutting-edge technology that includes AI and DX.

Related policies and external assessments:
 Product Safety Action Plan, FSSC 22000, ISO 13485, GMP for food additives
<https://www.amano-enzyme.com/uk/why-amano/>

Environmental issues affecting our world



- Increasing consumer awareness of safety
- Scientific and technological advances in safety assessment and openness of information
- Accelerating international standardization of GMP standards
- Emergence of issues related to health, nutrition, safety, and the environment due to technological development

Amano Enzyme's Material Issues and Goals to 2030

Product quality and safety

- Promotion of quality management
- Provision of safe and reliable products
- Provision of appropriate and prompt information

Efforts to accept diverse values

- Establishment of Amano global quality assurance standards

Product quality and safety

Goals for 2030



Maintaining and improving management systems

Promotion of quality management

We hold third-party certifications (FSSC 22000 and ISO 13485) and are committed to maintaining and continuously improving our quality management systems in all areas. We provide highly safe enzyme products that comply with the latest regulations, guidelines, and international standards of different countries. We are also committed to ensuring that our customers around the globe can use our enzyme products with peace of mind by ensuring that they comply with religious, vegan, and GMO/non-GMO regulations.

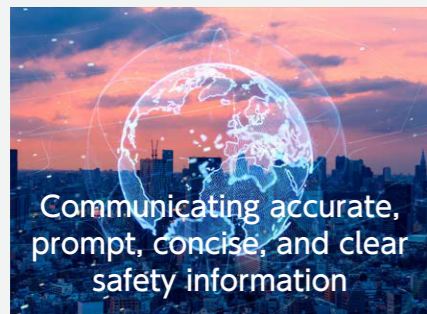


Manufacturing high-quality products and maintaining zero product recalls

Provision of safe and reliable products

Through proper manufacturing control in all processes from acceptance of raw materials to shipping of products, we strive to manufacture high-quality products and continue to achieve zero product recalls. We purchase all raw materials from suppliers who hold quality and supply safety assessments, and adhere to work procedures and customer agreements on manufacturing, testing, and inspection, to consistently manufacture products that meet the desired quality.

Additionally, we continue to improve manufacturing control by incorporating new technology, such as factory automation and IT, including AI and IoT, and tackle challenges daily to provide customers with even higher quality products.



Communicating accurate, prompt, concise, and clear safety information

Provision of appropriate and prompt information

We strive to provide information about products as quickly and reliably as possible to ensure trustworthy communication with customers. For the appropriate and effective management of product information, we are introducing technology into document management and quality reviews. We also collect real-time information on regulations in different countries, are looking into introducing big data analysis using AI, and strive to communicate accurate, prompt, concise, and clear safety information to customers over the internet.

Efforts to accept diverse values

Establishing Amano's own global quality assurance standards, **AQS**



Establishment of Amano global quality assurance standards

Our mission is to strive to create value from fermentation products and natural extracts, with a focus on enzymes, through the fusion and synergy of pharmaceuticals and food as our core business areas. For the global market, we must create products that respect diverse values in people's diets and ways of thinking. To build and improve the Amano Quality Assurance System (AQS), we are researching, learning, and deepening our understanding of diverse values. In addition to product safety, we are also developing systems and technologies to achieve customer satisfaction in harmony with the environment, society, and the economy.

Featured

Amano Enzyme's Initiatives

Societal trust

Providing safe and reliable products that go one step ahead

Product quality and safety

Relevant main SDGs

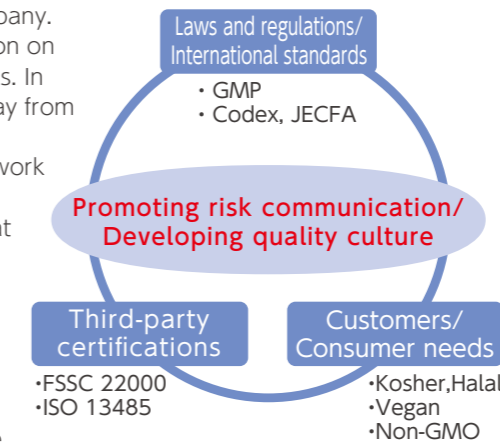


Amano's Quality Assurance System

We promote risk communication with those outside the company. We actively share information on quality with our stakeholders. In addition, we do not shy away from exchanging feedback.

Within the company, we work to strengthen the development of a quality culture that fosters high ethical standards.

Working from these, we fulfill three initiatives that help us live up to the trust instilled upon us by customers around the globe.



Efforts to accept diverse values

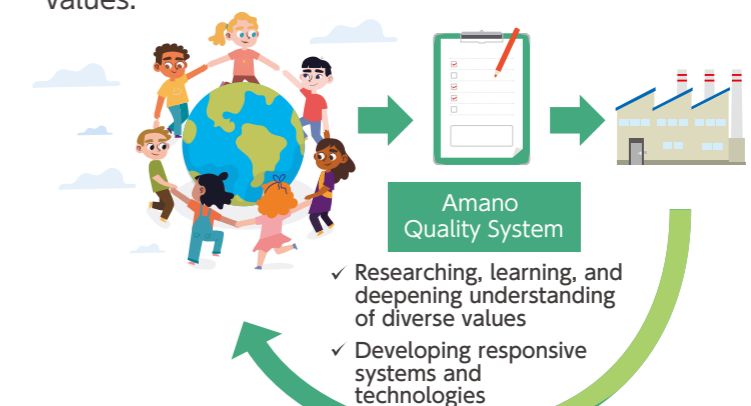
Relevant main SDGs



Establishing Amano global quality assurance standards

"Bringing Smiles to People's Faces"

We will always make products that respect diverse values.



Diverse workforce

Creating a lively corporate culture where everyone can thrive

In the words of our founder, "people's brains are our greatest asset," we believe human resources are one of our most important management resources.

To this end, we support the maintenance and promotion of employee health and endeavor to offer a lively environment for employees to work. We also promote work system reforms that enable a diverse range of employees to grow and demonstrate their skills.

Related policies and external assessments:
 Declaration of Health Management
<https://www.amano-enzyme.co.jp/corporate/health.html>

Environmental issues affecting our world



- Japan's domestic workforce continues to decrease due to low birthrates and an aging population
- Acceptance of diverse work styles was accelerated by COVID-19
- Technological innovation and trends, such as digitization and ecofriendly practices, are making skills obsolete at an increasing rate
- Developments in tech and economic growth in emerging markets are driving globalization and borderless business

Amano Enzyme's Material Issues and Goals to 2030

Healthy workplace environments

Maintenance and promotion of employee physical and mental health
 Diversification of work environment

Human resource development

Employees set their own goals and always grow

Healthy workplace environments

Goals for 2030



Through disease prevention, exercise habits, and mental health care, we promote health management and encourage the maintenance and improvement of employee health. By raising awareness for health checkups, holding regular health education seminars, and actively supporting club activities, we work to promote the building of healthy habits of employees. In addition, we created a mental health program to help improve employee communication through company trips, sports tournaments, company live streams, and more.

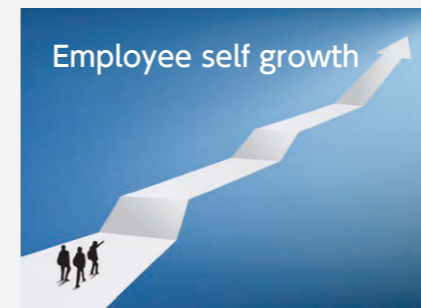
Diversification of work environment



- Nationality
- Disability
- Life stage, etc.

We are working to create a flexible work environment that embraces diverse values and human resources to allow each and every employee to fully exhibit their skills in a rewarding and fulfilling way. We are committed to actively taking on non-Japanese employees and improving the work environment so that people with disabilities can demonstrate their aptitudes. We have created multiple systems, such as childcare leave, eldercare leave, shorter working hours, and leave, to help employees balance work and life based on their personal stage in life. The rate of female employees taking childcare leave is 100%, and we are working to create an environment that facilitates male employees to take childcare leave as needed.

Human resource development



While promoting "work-in-life" (work-life integrity), we provide various training opportunities and encourage employees to undertake independent learning and always grow.
 We systematically implement training for acquiring business skills, such as career design training and problem discovery skills, and work to always improve our educational library (employee lectures, in-house educational videos, etc.).

Topics: Responding to globalization

As the world continues to globalize, overseas sales make up over 60% of our sales, with this number growing each year.

With this in consideration, we are actively working to improve the skills of individual employees, aiming to become a group of strong "individuals."

In particular, in response to globalization, we are systematically promoting human resource development to improve language skills, communication skills with people around the world, and cross-cultural understanding.



Diverse workforce

Creating a lively corporate culture where everyone can thrive



Health management initiatives

With the goal of being a company of active people, we work to maintain and improve the health of our employees. Since 2020, our efforts in health management have been recognized and we have been certified as a Health & Productivity Management Outstanding Organization.

Relevant main SDGs



Sports Yell Company certification

In recognition of its efforts in sports, Amano Enzyme has been certified by the Japan Sports Agency as a "Sports Yell Company" since 2021. We consider the maintenance and promotion of the physical and mental health of our employees and their families to be an important foundation for the company in achieving sustainable growth. We are actively incorporating the benefits of sports into our health management, including support for gym use and watching sports games.



Amano Enzyme's health management initiatives



Sound business management

Ethical business activities

In order to fulfill our corporate social responsibility, we pledge to comply with laws and regulations, as well as continue to be a company that is an upstanding corporate citizen that has the trust and confidence of customers by holding ourselves to high corporate ethical standards.

Related policies and external assessments:
 Basic Procurement Policy, Code of Business Ethics
<https://www.amano-enzyme.co.jp/corporate/quality.html>
<https://www.amano-enzyme.co.jp/corporate/rinen.html>

Environmental issues affecting our world



One in ten children around the globe is subject to **child labor**.




- Energy and raw material shortages due to epidemics and wars, and supply-chain disruptions
- 28 million people worldwide work in forced labor (From ILO, international human rights group Walk Free, and IOM report, 2022)
- One in ten children worldwide is subject to child labor (from ILO release, 2021)
- Awareness of sustainability has changed the ideal corporation

Amano Enzyme's Material Issues and Goals to 2030

Supply chain management

Achieving sustainable supply chain management
 — Coexisting with suppliers —

Strengthening philosophy-based governance

Realizing sound management foundation

Supply chain management

Goals for 2030

Sustainable supply chain management

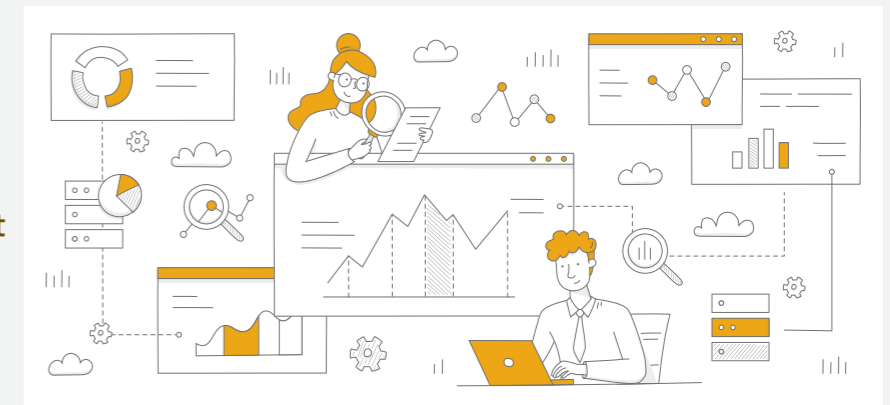
- Enhancing CSR audits
- Strengthening links with suppliers
- Reducing environmental impact



Coexistence is one of our corporate philosophies, and we aim to develop sustainably alongside society and suppliers. We also have a procurement policy that encompasses social issues, such as the environment, human rights, and occupational safety, and we support the establishment of a responsible supply chain. In order to further develop our global business and fulfill our social responsibility, we are committed to enhancing our CSR audits, strengthening links with suppliers, and reducing our environmental impact. We will continue to work toward solving social issues throughout our supply chain and contribute to achieving a sustainable society.

Strengthening philosophy-based governance

Realizing sound management foundation



Our corporate philosophy of "frontier spirit," "coexistence," and "sustainable growth" is the foundation of our sound corporate structure and management. For the sustainable development of society, we aim to realize a sound management foundation through sincere business activities for all stakeholders, including local communities, customers, suppliers, employees, and shareholders. Based on this philosophy, in order to achieve sustainable growth as an upstanding member of society, we have established and are applying corporate ethics standards to ensure the human rights, safety, and health of employees, fair and transparent transactions, and prevention of corruption.

In addition, to ensure that each and every employee understands and embodies these ideas, and that employees and the company grow together, we conduct activities to instill our philosophy, such as philosophy forums, and apply our employee code of conduct. All executives and employees of Amano Enzyme work together to pursue a better corporate structure and governance.

Sound business management

Ethical business activities

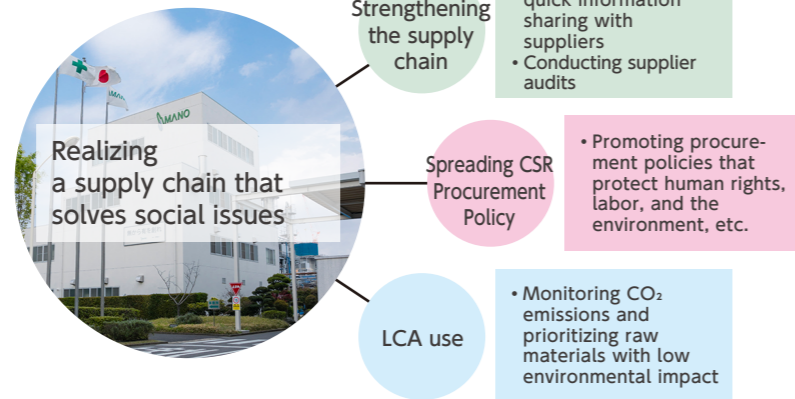
Supply chain management

Relevant main SDGs



Social issue initiatives

As corporations globalize, there is a shift toward socially responsible procurement (CSR procurement) throughout the supply chain. We will ensure that our suppliers understand and agree with the "Amano Enzyme Procurement Policy" and "Requests to Suppliers Concerning Procurement," and we will work on the following to achieve solutions to these issues.



Strengthening philosophy-based governance

Relevant main SDGs



Spreading our philosophy: Philosophy Awards

We employ a diverse range of people in nationality, life stage, and thoughts. To ensure that all employees work together to promote our business activities,

we conduct a variety of activities to instill our corporate philosophy. As part of these activities, we select employees for the Philosophy Awards. With the goal of enabling all employees to think and act in line with the philosophy, the Philosophy Awards are an award presented to those who have embodied our philosophy in their actions or who have voluntarily and enthusiastically contributed to the spread of the philosophy. Starting in 2017, awards are given out annually at the company policy briefing held every April.



Amano Enzyme's social contributions

Academic aid

Enzyme Application Symposium

Relevant main SDGs



First held in May 2000, our 100th anniversary, this symposium's goal is to contribute to the promotion of science and technology in Japan through the aid of enzyme-related R&D. This year's symposium marked the 23rd year.

Now, both information on the applications of enzymes and related as well as topics from different fields, including cultural themes, are offered as lectures.

Disaster reconstruction assistance

Great East Japan Earthquake reconstruction assistance

Relevant main SDGs



Past events

After the earthquake, we went to Tohoku with employee donations and company disaster relief for three years in a row. Since then, we have provided support in the form of volunteers and it has become a regular company trip in which new hires also participate.

Amano Enzyme's Initiatives and SDGs

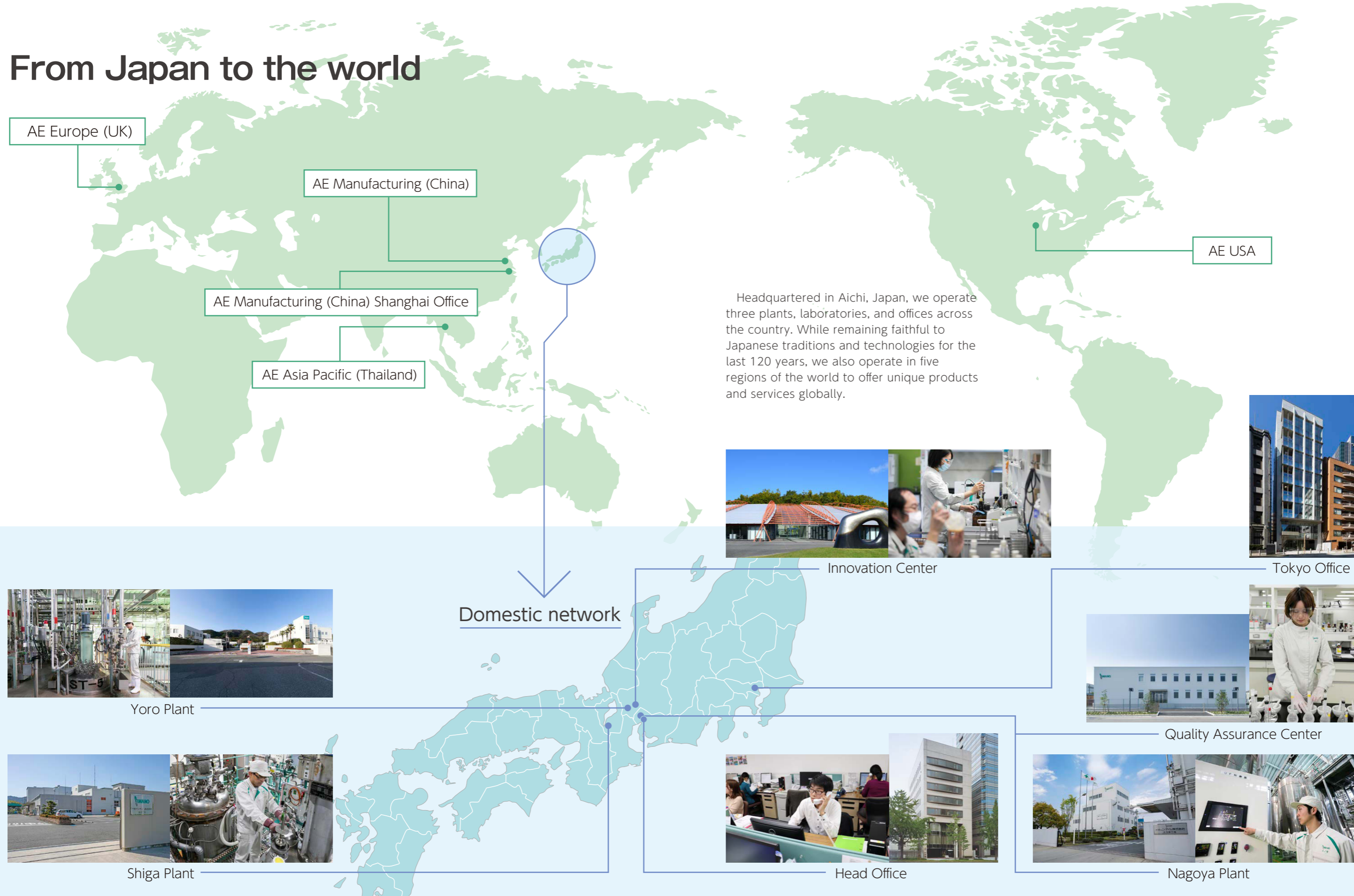
We offer a variety of products and services related to the SDGs and implement sustainability initiatives. In order to further promote these initiatives, we have organized the major targets and material issues for each of the ESG key themes, and verified their relevance to our initiatives within the 17 goals and 169 targets of the SDGs.

● : Mainly related SDG targets ○ : Somewhat related SDG Targets

ESG	ISO 26000 core subjects	Amano corporate policy	ESG key themes	Our major targets	1 NO POVERTY	2 ZERO HUNGER	3 GOOD HEALTH AND WELL-BEING	4 QUALITY EDUCATION	5 GENDER EQUALITY	6 CLEAN WATER AND SANITATION	7 AFFORDABLE AND CLEAN ENERGY	8 DECENT WORK AND ECONOMIC GROWTH	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	10 REDUCED INEQUALITIES	11 SUSTAINABLE CITIES AND COMMUNITIES	12 RESPONSIBLE CONSUMER AND PRODUCTION	13 CLIMATE ACTION	14 LIFE BELOW WATER	15 LIFE ON LAND	16 PEACE, JUSTICE AND STRONG INSTITUTIONS	17 PARTNERSHIPS FOR THE GOALS				
E	The environment	In line with our environmental policy, we engage in sustainable environmental improvement activities to contribute to the conservation of the environment and the protection of natural resources through our business activities.	Preventing climate change and air pollution	Reducing CO ₂ emissions			○3.9				●7.3	●8.2 ●8.4	●9.4				●12.2	●13.2							
				Decarbonization																					
				Promoting alternative proteins		●2.1 ●2.2																			
				Improving productivity																					
			Promoting energy conservation	Breeding and screening											●8.2	●9.5									
				Promoting energy conservation										●7.3											
			Promoting renewable energy										●7.2												
			Biodiversity conservation	Biodiversity conservation						○4.7								●11.4							●15.1 ○15.2 ●15.6
				Respecting animal welfare																					
Waste and recycling	Reducing food loss					●2.1 ○2.4																			
	Reducing waste																								
	Soil and water conservation						○3.9			●6.3			●9.4												
S	Fair operating practices	• We will be honest and fair in business with customers and form sound relationships. • We will fairly compare and evaluate suppliers of raw materials, products, and services. • We will not engage in bribery or collusion of any kind.	Fair trade compliance	Fair trade compliance	●1.2	○2.3																●16.4 ●16.5			
				Fair marketing and public relations																				●16.10	
	Supply chain management	Sustainable procurement	●1.1	●2.4									○8.4		○10.2								●16.5		
		Supply chain management	○1.3										●8.7		●10.3								●12.8 ●12.2 ●12.4 ●12.5		
	Consumer issues	We are committed to delivering safe products and providing reliable services and information.	Raising awareness of the value of health	COVID-19 measures																					
				Contributing to health through food																					
				Contributing to infant and child health																					
				Contributing to elder health																					
			Diagnosis, treatment, and prevention of diseases																						
			Protection of personal information	Ensuring information security																					●16.4 ●16.5 ●16.10
Product quality and safety	Protection of personal information																								
	Product quality and safety																								
Product availability	Supporting diverse values																								
	Product availability																								
Appropriate information disclosure	Product labeling																								
	Appropriate information disclosure																								
Human rights	We will work to eliminate forced labor, harassment, inhumane treatment, and all forms of discrimination of workers, comply with legal working ages.	Respect for human rights	Raising awareness of human rights																						
			Elimination of child labor	●1.1																					
Labor practices	• We will comply with laws, regulations, and internal rules related to occupational health and safety, and strive to create a safety-first work environment. • We will promote activities to maintain and improve the physical and mental health of employees.	Employee health and safety	Elimination of forced labor	●1.3																					
			Healthy workplace environments																						
			Respect for freedom of association																						
			Promotion of occupational health and safety																						
			Maintaining and promoting employee health																						
			Human resource development	Human resource development																				○17.17 ○17.16	
			Human resources and employee benefits	Equal employment and treatment																					
				Guaranteed minimum wage	●1.1 ●1.3																				
			Diversity	Achieving diversity																					
				Gender equality																					
Community involvement and development	Local activities with communities Environment and culture with communities Industry development with communities Human rights issues with communities Disaster reconstruction assistance with communities	Local activities with communities Environment and culture with communities Industry development with communities Human rights issues with communities Disaster reconstruction assistance with communities	Local activities with communities																						
			Environment and culture with communities																						
			Industry development with communities																						
			Human rights issues with communities																						
			Disaster reconstruction assistance with communities	●1.1 ●1.5	○2.4																				
Organizational governance	Corporate governance Compliance Risk management	Group governance Permeating compliance awareness Effective risk management Technology leaks, microorganism strain leaks Business continuity in the event of disasters, etc.	Group governance																						
			Permeating compliance awareness																						
			Effective risk management																						

*Coloring of Amano's main targets: Mainly related its vision goals ■ : The future of food and health ■ : Coexistence with nature ■ : Societal trust ■ : Diverse workforce ■ : Sound business management

From Japan to the world



Headquartered in Aichi, Japan, we operate three plants, laboratories, and offices across the country. While remaining faithful to Japanese traditions and technologies for the last 120 years, we also operate in five regions of the world to offer unique products and services globally.



Make a better world
with Japanese biotechnology

For inquiries about the Amano Enzyme Sustainability Report, please contact

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