Business of the Organo Group

Organo possesses a wide variety of water treatment technologies for ultrapure water, pure water, tap water, industrial wastewater, and sewage, and is developing its businesses globally to serve a diverse range of customers while also applying these technologies to non-water fields. In addition, the Company has built a structure that allows it to provide comprehensive solutions by integrating all functions in-house, including product development, design, construction, sales, post-delivery maintenance, and operational support.

Water Treatment Engineering Business Unit

This business unit provides water treatment systems used at various manufacturing plants, power plants, and water supply and sewage facilities. It undertakes business as a comprehensive water treatment engineering company providing solutions ranging from the supply of ultrapure water—which boasts the top level of purity in the world—to water recycling and various wastewater treatment facilities that detoxify harmful wastewater.



Plant Business



Service Solutions Business

Performance Products Business Unit

This business unit provides performance products such as water treatment chemicals, standard water treatment equipment, filters, and food processing materials to various manufacturing plants, retail facilities, and medical and research institutions. Although the business has focused primarily on Japan, the Company is also

working to strengthen business development overseas with products such as compact pure water systems for medical institutions and water treatment chemicals for the electronics industry.



Water treatment chemicals





History of the Organo Group

Technology Cultivated Over 75-Plus Years

1946-

Social needs and challenges

Demand for boiler water and pure water increased with postwar economic recovery in Japan, and requests for the purification of customer products in various industries, from pharmaceuticals and chemicals to sugar and textiles, grew.

Organo used ion exchange resin to develop sugar liquid refining facilities and antibiotic extraction and refining facilities tailored to customer products.

1960s

Social needs and challenges

Demand for energy increased to meet rapid economic growth in Japan, and awareness to prevent pollution rose through measures such as the establishment of the Water Pollution Prevention Act.

Organo developed and delivered a water treatment system for Japan's first boiling-water nuclear power plant and delivered various wastewater treatment systems to oil refineries, food plants, and other locations tailored to the wastewater characteristics of the specific industry.

1980s

Social needs and challenges

The industrial structure shifted from high energy consumption to energy conservation, the semiconductor market saw rapid growth, and Japanese manufacturers expanded production overseas.

Organo delivered many ultrapure water systems to semiconductor plants and established an overseas subsidiary to provide support to overseas factory operations.



Founded

1946

Developed compact pure water system (heat-free water distillation system)

1951

Delivered Japan's first large-scale pure water system



Founding Spirit (Origin of the Company)

Maruyama researched ion exchange resins as a technology to supply drinking water. After the war, in the face of a severe energy shortage, Mr. Maruyama developed a water distillation system using ion exchange resin that did not require fuel or electricity. necessary, he proceeded to develop a water quality meter. This was the starting point for the development of ultrapure water equipment and analysis technology for modern-day cutting-edge semiconductor plants

1940 1950

13



Social needs and challenges

Growing needs for lifecycle costs and sustainability

Organo developed comprehensive service solutions including operational support and entered the water recycling market and non-water purification areas.

2014

Launched energy-saving service solutions using water heat utilization system

2018

Formulated new management philosophy and long-term management vision

2022

Formulated Sustainability Policy

2015

Established joint venture enterprise Murugappa Organo Water Solutions Private Limited (India) (terminated the joint venture in 2021)

2021 Established Organo USA Inc.

2020

Note: The graph indicates the changes in net sales.

ORGANO Group Report 2024

Value Creation Process

With the Water Treatment Engineering Business Unit remaining at the core, Organo will further expand its role by leveraging its separation and purification, analysis, and manufacturing technologies. The Company will also expand the scope and regions of its businesses-including those beyond water-and constantly provide products and services that promote the creation of value and resolve the challenges that confront industry and society.



Value provided

Social and customer value

Leveraging the technologies Organo has cultivated through long experience with water treatment to contribute to the development of industry and societal infrastructure

Realizing a safe, comfortable society

through the development of the Information and Communications Technologies (ICT) infrastructure (semiconductor) industry

Contributing to the global environment

by reducing the environmental impact, improving water utilization, cutting energy consumption, minimizing waste, reducing labor, and extending useful life

Contributing to the well-being of everyone

by maintaining pharmaceutical manufacturing quality

Shareholder value

Increasing shareholder returns through continuous growth

Organo's Three Strengths

Since its founding, Organo has developed technology to meet its customers' diverse needs through the use of ion exchange resins—unique materials possessing ion component exchange capability—and equipment that effectively utilizes these materials. The accumulation of these efforts has led to the development of unique practical technologies, and the cultivation of our strengths.

Advanced Separation and Purification **L** Technologies and Analysis Technology

What Are Separation and Purification Technologies?

While Organo's separation and purification technologies can be found in a wide range of applications-from ultrapure water to wastewater and for various solvents and chemical solutions-the key is the ability to separate and remove unwanted matter and to purify useful substances.

Separating and removing unwanted matter



Impurity concentration of **1 ppt** or less

Impurity concentration in ultrapure water for semiconductor manufacturing is no higher than 1 ppt (parts per trillion). This represents just 2.5 mg in a volume of ultrapure water equivalent to a 50-m swimming pool (2,500 m³) at the Olympic Games.

Purifying useful substances



Technology to increase the purity of specific substances is used in applications such as the recovery of valuable resources in wastewater. (The above is an example of calcium fluoride recovery from wastewater)

Non-Aqueous Separation and Purification

Organo entered the non-aqueous separation and purification field in 1953. We are conducting demonstration tests of technologies for the refinement and decolorization of sugar, the removal of substances from a distilled spirit that cause people to feel sick, and currently, to recover N-methylpyrrolidone (NMP) used in large quantities in the manufacture of cathode materials for rechargeable lithium-ion batteries found in electric vehicles (EVs). Whereas mainstream distillation methods are energy intensive, our membrane separation method reduces costs to one-seventh that of conventional methods and reduces lifecycle CO₂ emissions by nearly 75%, contributing to resource and energy savings.

O Lifecycle CO₂ emissions



Development of Analysis Technology

While our R&D Center utilizes state-of-the-art analytical equipment and a host of advanced analyses to confirm equipment performance and water guality, the impurities in ultrapure water used in advanced semiconductor manufacturing are at levels so low that they are undetectable by this analytical equipment. Therefore, we continued the development of our analysis technology and succeeded in using a proprietary membrane-the first in the world with the ability to measure fine particles as small as 10 nm (1.0E-8 -meters). (See photo on the right.) Using the newly developed membrane along with filtration and continuous automatic observation technologies, we have made possible the analysis of fine particles as small as 10 nm, contributing to the improvement of the semiconductor product quality and yield (non-defective rate).

How Separation and Purification Technologies Contribute to Society





- Organo's Three Strengths

Comprehensive Water Treatment 2. Engineering

Organo continues to evolve the broad range of separation and purification technologiesincluding water treatment-developed over the years to meet our customers' needs.

From a single drop

Water quality

Support for everything

from the purification of

industrial process water

to wastewater, recovery,

pure and ultrapure

and recycling

to large-scale plants

Capacity

Applications

Support for fields ranging from

manufacturing and testing and

societal infrastructure-such

as power plants and water

supply and sewage-to

research centers

Wide Range of Supporting Technologies

The Organo Group supports a vast range of processing capacities, from ultrapure water production systems used at research institutions that require a single drop of water to ultrapure water production systems used in cleaning applications at large-scale semiconductor manufacturing plants that supply 1,000 tons of water per hour-more water than in an Olympic-size swimming pool. The scale of production determines the equipment technology required, even when producing the same ultrapure water. In addition, water before treatment-also known as raw water-varies depending on the location, such as seawater, river water, well water, industrial water, and wastewater, and there is also a variance in customer uses. As such, we provide water treatment facilities and services in line with the characteristics and uses of raw water.

Comprehensive Structure

We internally share customer needs and new insight gained at each phase to improve our technology and services.



Know-How and Support Capabilities

The source of the Organo Group's customer support capabilities is the accumulation of know-how through accurately responding to customer needs based on individual experiences. This includes the development of technology and installation of equipment related to separation and purification for more than 75 years as well as the ability to respond to issues that arise during operation and maintenance.

Extensive Track Record in Industry 3. Extensive Trac. and Daily Life

The breadth of our customer base accumulated from our wide-ranging delivery record is one of our most valuable assets for meeting our customers' future needs.

Water Treatment Engineering Business Unit



Performance Products Business Unit







Food product

Main areas	Main equipment	
uctors, silicon wafers, and electronic parts	Ultrapure water production systems, wastewater treatment systems, wastewater recovery systems, valuable resource recovery systems	
uticals and cosmetics, beverages, mechanical I chemical uses	Ultrapure water production systems, wastewater treatment systems, wastewater recovery systems, refining facilities for sugar liquid, refining facilities for distilled spirits	
and nuclear power er supply and sewage	Pure water production systems, wastewater treatment systems, condensate treatment systems, water treatment facilities, sewage treatment facilities	

Main areas	Main equipment
Various manufacturing industries, building air conditioning, commercial facilities	Wastewater, cooling water, boiler water, and RO membrane treatment agents
Medical and research institutions, convenience stores/restaurants, electronic materials purification	Compact pure water/ultrapure water systems, water purification filters, ion exchange resin, electrodeionization (EDI)
Food/beverages, food products for nursing care patients/health food products	Food additives and processing agents, food ingredients

Value Provided through Organo Group Products and Technology

There is a Japanese proverb that says, "When the wind blows, the barrel maker gets rich." The blowing wind creates dust, which gets in people's eves and causes them to lose their evesight. People who lose their eyesight try to make a living playing the shamisen, leading to an increased demand for shamisen. Because the shamisen is covered in cat skin, the number of cats decreases. As the number of cats decreases, the number of mice increases, resulting in more barrels being gnawed by mice. Therefore, the barrel maker profits from selling more barrels.

While this is an extreme example, in the world in which we live, seemingly unrelated things can actually be connected.

Pure water purified using Organo's state-of-the-art technology is used in pharmaceutical manufacturing, and these pharmaceuticals help people to regain their health. Our technology to purify industrial wastewater beyond legal requirements protects river and ocean ecosystems, thereby preserving marine resources. Ultrapure water with minimal impurities is essential for semiconductor manufacturing. These semiconductors support the core elements of societal infrastructure, including bank ATMs, train operations, and the Internet. Moreover, our technology to

Our Businesses, Services, Initiatives, and Social Issues to be Solved -

enhance air conditioning energy efficiency not only reduces energy consumption but also mitigates CO₂ emissions.

Organo products and technologies support industry and people's daily lives behind the scenes through a process of intake, use, and discharge of water. Behind this are our strengths-our advanced technologies in separation and purification, analysis, and manufacturing.

Our technology contributes to both environmental conservation and economic development by building small water reclamation circulation loops used in daily life and industry within the larger global water cycle. This is the value that we proudly provide to society. By pursuing this value, we support semiconductor, pharmaceutical, and other cutting-edge technologies while realizing climate change measures and the Sustainable Development Goals (SDGs).

Taking full advantage of the cutting-edge technology we have cultivated through long experience with water treatment, Organo will continue to serve as a valuable partner company by contributing to the industries that create the future, and by playing a key role in the development of societal infrastructure.

SDG contributions and targets for FY2030





Goal 6

Ensure availability and sustainable management of water and sanitation for all

Goal 14

Conserve and sustainably use the oceans, seas, and marine resources for sustainable development

We use our systems to reduce substances in customers' industrial wastewater to below the legally mandated levels in each country, thereby contributing to appropriate, transparent industrial wastewater treatment.

[Goals for FY2030] Total wastewater volume: 60 million m³ Total recovered and reused water volume: 250 million m³

Goal 12 Ensure sustainable consumption and production patterns

We use our services to reduce the amount of sludge generated at customers' wastewater facilities.

[Goal for FY2030] Total sludge reduction volume: 10,000 t

Goal 6 Ensure availability and sustainable management of water and sanitation for all

Goal 12

Ensure sustainable consumption and production patterns

We educate stakeholders on water environment conservation technologies

Business Model

Large-scale water treatment systems, such as ultrapure water production systems, wastewater treatment systems, and wastewater recovery systems, are delivered to customers based on custom specifications, and become long-term transactions of over 20 years when maintenance and operational support are factored in. Meanwhile, the Performance Products Business Unit sells standardized products. The common denominator is our promise that our customers will get the quality and quantity of water they need for their business.



Strengthening synergy between the Plant and Performance Products Business Units

Regarding water treatment plant equipment deliveries, we incorporate various functional materials essential to performance, such as ion exchange resin, filters, and water treatment chemicals, to meet replacement demand after equipment has become operational. In recent years, we aim to enhance both equipment and functional materials to further improve added value and realize the SDGs. We will work to develop marketing-driven technologies and products to create a proactive synergy by integrating equipment and technology (hardware) with functional materials and products (applications). In addition, there are numerous cases where target markets and customers in the Water Treatment Engineering and Functional Products Business Units overlap. Given this, we will further enhance our comprehensive support for these same customers, from large-scale water treatment systems to compact equipment for laboratory use.

> We sell chemicals and filters used for water treatment, compact water treatment equipment, food processing agents, and other products, and we are developing functional materials for non-aqueous separation and purification.



of expendable items, and troubleshooting support

Customer inquiries via the customer service center are shared inside the Company as knowledge and used to improve the support quality

Delivery

ient 's	Food products
arch	Food factories, food processing industry
ustries	Beverage manufacturing industry
cation	Manufacturing industry for food products for nursing care patients/ health food products

Management Resources

Capital	Features		
Intellectual capital	Continuous refinement and application of accumulated separation and purification technologies and analysis technology Our core intellectual capital lies in the accumulation of technologies, from individual water treatment technologies, such as ion exchange resin, membranes, and functional materials, to entire water treatment systems encompassing mechanical, electrical, control, operations, and maintenance know-how, as well as technology for analyzing water quality after it has been treated. We advance R&D to meet customer needs for specific water and liquid quality, explore research topics from the perspective of market changes and future trends, and aim to grow our business by building our own intellectual property (IP) network while respecting the IP of other companies.	R&D expenses¥2.8 billion Target2.5% of consolidated net sales Number of patents and utility models (Japan)803 Established a research facility in Taiwan (2024)	• Further strengthen co In the semiconductor inc evolving, it is critical to c them as part of our IP. Therefore, we have creat semiconductor field and activities.
Human capital	Fostering a culture of taking on challenges and the desire to learn while creating a workplace where employees are energetic and passionate about their work. Diverse human resources with specialized knowledge is the source of the Company's competitiveness and growth. Organo actively supports talent who have skills gained through hands-on experience, independent thinking, a sense of teamwork, the drive to take on new challenges, and those committed to continuous skill improvement while striving for personal growth. We have also introduced a variety of systems that take into account a wide range of life events so that employees can perform to the best of their abilities within their own personal circumstances.	Total number of employees ——2,512 (consolidated) Number of overseas employees ——881	Enhance talent manages By visualizing the skills of paths, and assign talent if Promote diversity It is essential to secure of promote new businesses Therefore, we are aiming female managers to 50.
Manufacturing capital	Supply of water treatment equipment We have a site for assembling equipment units that are the main components of equipment handled by the Water Treatment Engineering Business Unit and for purifying ion exchange resin, one of the functional materials that are key to water treatment performance. Group company Hostec Co., Ltd. assembles standard water treatment equipment, a component of the Performance Products Business Unit, and Group company Organo Food Tech Corporation manufactures food ingredients and food processing agents.	Water treatment system unit assembly plant (Iwaki Factory) Ion exchange resin refinery (Tsukuba Factory) Standard water treatment equipment manufacturing site (Hostec) Food ingredients and food processing agent manufacturing site (Organo Food Tech)	 Strengthen our ability to To shorten delivery time are sharing project sche We manage lead times f manufacturing and refine Increase manufacture Manufacturing subsidiar accommodate the expan management plan for the
Financial capital	Stable infrastructure that supports business To steadily generate cash through operating activities, we are working to improve profitability and strengthen our financial position by thoroughly managing project profitability and expanding our Service Solutions business and Performance Products Business Unit, which are stable sources of revenue. In addition, to improve corporate value over the medium to long term, we will promote management that is conscious of cost of capital and stock price, and strive to achieve a balance between and expansion of capital efficiency, investment in growth, and shareholder returns.	Equity ¥101,928 million Total shareholder's equity ratio 55.8% Operating profit ratio 15.0% ROE 18.4%	 Initiatives to enhance To achieve ROE that exc profitability, improve effi ROE of 12% or more. Capital allocation and We will continue to make and owned-facility servic For shareholder returns, payout ratio of 30% or n
Social capital	Customer base and partner companies span a broad range of industries and layers Each industry has its own ecosystem of end users and their partner companies, and Organo has client companies across multiple layers in a number of industries. In recent years, some of our customers have invested globally in the electronics industry overseas. In these cases, along with our network in the country or region of investment, we often collaborate with domestic and third-country partner companies. We are leveraging this cultivated network as a major capital.	Domestic affiliates 6 Domestic offices and sales offices 42 Overseas sites 7	Expand overseas eng We are bolstering recruit in Thailand and Vietnam countries as well. Capital and business In June 2024, we entered of solutions for technolo manufacturing industry.
Natural capital	Contributing to a sustainable global environment The use and conservation of water resources have been gaining attention as a global sustainability issue, and we view the impact on our corporate activities of water resource depletion, river flooding, and water pollution as a risk. The Organo Group is working to conserve water resources by effectively using water intake and maintaining and improving the quality of wastewater around its business sites to ensure the sustainable use of water resources. We will continue to contribute to environmental conservation through our business activities. We further recognize that climate change is a serious issue that must be addressed on a global scale, and that it is one of the most important matters affecting the Group's business activities. We will analyze the risks and opportunities that climate change poses to the Group's business and reflect this in our management strategies and risk management, and strive to achieve the common goal of carbon neutrality while also aiming for further growth.	Through product offerings Volume of wastewater treated 20.72 million m³ Volume of water recovered and reused 12.31 million m³ CO2 emissions by Scope (FY2023/Consolidated) Scope 1 and 2 emissions 6.6 thousand t-CO2 Scope 3 emissions -1,393 thousand t-CO2 Note: Does not include some Group companies.	 Address water resources Contribute to the present water use in industry and technology. Protect biodiversity Contribute to the protect including wastewater treat and waste reduction. Reduce the Company Contribute to realizing a business activities and business activities activiti

Initiatives for strengthening capital

ompetitive advantage in cutting-edge semiconductor field

dustry, where customer manufacturing technology is rapidly quickly identify customer needs, develop solutions, and establish

ated a specialized team to explore trends in the cutting-edge d collaborate with the department in charge of IP in promoting

gement

of each employee, we aim to develop human resources, plan career from the perspectives of both the organization and the individual.

diverse talent in order to respond to rapidly changing markets and es.

g to proactively hire foreign employees and increase the number of

prespond to demand in semiconductors and other markets

es for all water treatment equipment while maintaining quality, we edule information more closely with the Sales Division. for material procurement, assembly, and the like, and proceed with mement. See p. 40

e of standard water treatment equipment

ry Hostec moved to a new building in February 2024 to ansion of manufacturing capacity based on the long-term ne Performance Products Business Unit.

corporate value

ceeds the cost of capital (7–9%), we are working to raise iciency, and utilize financial leverage, with the aim of achieving an

I shareholder returns

ke growth investments in human capital, R&D, digital investments, ice projects.

, we will aim for continuous dividend increases with a dividend more.

gineering locations and strengthen cooperation

itment and training of local engineers at our engineering locations n, and they are playing an active role in projects outside those

alliance with LIGHTz Inc.

ed into a capital and business alliance with LIGHTz Inc., a provider ogy transfer and business optimization, centered on the . This will help us build a more competitive engineering structure.

rce issues

rvation of healthy water cycles and secure water resources through ad daily life by providing wastewater treatment and recovery

ction of biodiversity through corporate initiatives on material issues eatment, products and services that save energy and resources,

y's CO₂ emissions

a sustainable society by optimizing energy usage related to our by providing products and services that contribute to lessening the ge.