



FLUID MACHINERY &  
SYSTEMS BUSINESS



EBARA Group  
Integrated Report  
**2020**



## EBARA Way

# Creation of New Value by Acting Based on the “EBARA Way”

The EBARA Group’s beginnings were in answer to the calls of society, and we have continued to provide value to society through our business in addition to fulfilling our social responsibilities. In conjunction with the 100th anniversary of the Company’s founding in 2012, we reflected on the type of company we are and want to be and reorganized those fundamental values and ethics into the EBARA Group Business Ethics Framework, to support our ethical operation over the next 100 years. As part of this undertaking, we redefined the Group’s Founding Spirit, corporate philosophy, and CSR Policy as the “EBARA Way,” the transcendental value shared across the EBARA Group. By acting based on the “EBARA Way,” we will create new “social, environmental, and economic value.”

EBARA’s Founding Spirit of “*Netsu to Makoto*” (Passion and Dedication) is a philosophy of engaging with work and people with passion and dedication that inspires us to contribute to society in the areas of water, air, and the environment. Guided by this spirit, we advance our business activities in accordance with the EBARA Group CSR Policy and aspire to foster relationships of trust with stakeholders through highly ethical conduct.

## EBARA Group Business Ethics Framework

### Elements of the EBARA Way: Founding Spirit of Passion and Dedication

Both employees and the Company shall strive for growth with passion and dedication to bring forth originality and ingenuity, rather than simply fulfilling the task at hand. When working with passion and dedication, there is nothing that cannot be communicated to others.

### Corporate Philosophy

We contribute to society through high-quality technologies and services relating to water, air, and the environment.

### CSR Policy

We seek to foster trust with our valued stakeholders by conducting our business with a strong sense of ethics.



## Key Points of EBARA Group Integrated Report 2020

EBARA Group Integrated Report 2020 focuses on explaining, in an easy-to-understand manner, the EBARA Group’s value creation story through explaining specific initiatives taken in the framework of the E-Vision 2030 long-term vision and new E-Plan 2022 medium-term management plan announced in February 2020. We would like to take this opportunity to touch on the following key points of this report to help readers gain an even deeper understanding of its content.

### POINT 1

#### Technological Capabilities and Reliability—The Strengths Born Out of Passion and Dedication

EBARA’s Founding Spirit of “*Netsu to Makoto*” (Passion and Dedication) represents the fundamental qualities we expect all EBARA employees to embrace. At EBARA, we are committed to refining our technologies through passion and delivering reliable products and services through dedication. The strengths of our technological capabilities and reliability born out of passion and dedication are driving the growth of EBARA.

Introduction → P.03–12

Value Creation Story → P.21–22

### POINT 2

#### E-Plan 2030—Vision for 10 Years from Now Aimed at Fulfilling Mission of “Technology. Passion. Support Our Globe.”

The new E-Vision 2030 long-term vision identifies five material issues (EBARA’s materiality) to be addressed in order to contribute to the realization of a sustainable society while simultaneously improving a “social, environmental, and economic environment.” This report provides a glimpse at how EBARA will accomplish these goals.

EBARA Group’s Corporate Value Creation → P.13–28

### POINT 3

#### E-Plan 2022—Medium-Term Management Plan for Realizing Long-Term Vision

E-Plan 2022 is a medium-term management plan formulated through reflection on the previous medium-term management plan and backcasting from E-Plan 2030. This report explains some of the specific measures of this plan from the perspectives of business strategies, resource strategies, and ESG-focused management.

Business Strategies → P.29–44

Resource Strategies → P.45–52

Refined ESG-Focused Management → P.53–78

## Editorial Policy

The EBARA Group has issued this integrated report to provide stakeholders with financial and non-financial information about its medium-to-long-term value creation activities. This report was created with reference to the International Integrated Reporting Council (IIRC)'s International Integrated Reporting Framework; the Ministry of Economy, Trade and Industry (METI); the Guidance for Integrated Corporate Disclosure and Company-Investor Dialogues for Collaborative Value Creation: ESG Integration, Non-Financial Information Disclosure, and Intangible Assets into Investment (Guidance for Collaborative Value Creation); and the Global Reporting Initiative (GRI) Standards. A table detailing the referenced GRI Standards is available on the Company's corporate website.

**Company References** "EBARA" and "the Company" refer to EBARA CORPORATION while "the EBARA Group," "the Group," or "we" refer to EBARA CORPORATION and its domestic and overseas subsidiaries and affiliates.

**Target Readers** All stakeholders of the EBARA Group

**Reporting Period** The fiscal year ended December 31, 2019 (January 1, 2019, to December 31, 2019) (Notice will be provided when the period differs from the above.)

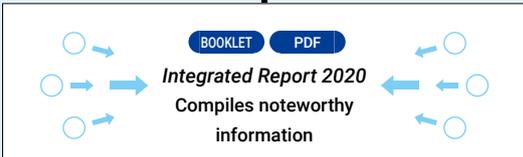
**Scope of Reporting** EBARA CORPORATION and the 92 subsidiaries (of which 65 are consolidated) and four affiliates that collectively comprise the EBARA Group (as of December 31, 2019)  
Notice will be provided when the scope of data collection differs from the above.

**Japanese Publication Date** July 2020

**Information Regarding the Group**

**INTERNET Corporate Website**  
<https://www.ebara.co.jp/en/index.html>



Financial Information	Non-Financial Information
 <p><b>Integrated Report 2020</b> Compiles noteworthy information</p>	
<p><b>INTERNET</b> <b>Investor Relations</b> <a href="https://www.ebara.co.jp/en/about/ir/index.html">https://www.ebara.co.jp/en/about/ir/index.html</a></p>  <p><b>PDF</b> <b>Annual securities report</b></p>	<p><b>INTERNET</b> <b>Corporate Social Responsibility</b> <a href="https://www.ebara.co.jp/en/about/csr/index.html">https://www.ebara.co.jp/en/about/csr/index.html</a></p>  <p><b>PDF</b> <b>Corporate governance report</b></p>



To contact EBARA CORPORATION, please use the following.  
<https://www.ebara.co.jp/en/contact/index.html>



Please share your opinions regarding this report at the following.  
[https://www.ebara.co.jp/en/contact/qa/report/index.php?contact\\_group=Report](https://www.ebara.co.jp/en/contact/qa/report/index.php?contact_group=Report)

**Cautionary Statement with Regard to Forward-Looking Statements**  
Certain of the statements made in this integrated report are forward-looking statements, which involve certain risks and uncertainties that could cause actual results to differ materially from those projected. Readers are cautioned not to place undue reliance on these forward-looking statements, which are valid only as of the date thereof. EBARA undertakes no obligation to republish revised forward-looking statements to reflect events or circumstances after the date thereof or to reflect the occurrence of unanticipated events.

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# Founding Based on Passion and Dedication

EBARA Corporation was founded in 1912 by Issey Hatakeyama with the aim of spreading use of the Inokuty-type volute pump. Applying the volute pump research of Dr. Ariya Inokuty, a world-renowned professor at the time, EBARA sought to contribute to the modernization of Japan by producing the first domestically manufactured waterworks pumps, installing water infrastructure to prepare for natural disasters, and developing the first water purifiers for waterworks manufactured in Japan. United by this passion, members of EBARA were inspired to fulfill their mission of supplying the products and services that support society, industry, and everyday life. In this manner, EBARA has continued to be driven by its Founding Spirit of “*Netsu to Makoto*” (Passion and Dedication) since the time of its inception. Over the years, we have continued to accumulate technological capabilities and enhance our reliability as employees exercise this spirit. These assets are the wellspring of EBARA’s growth.

# 熱と誠

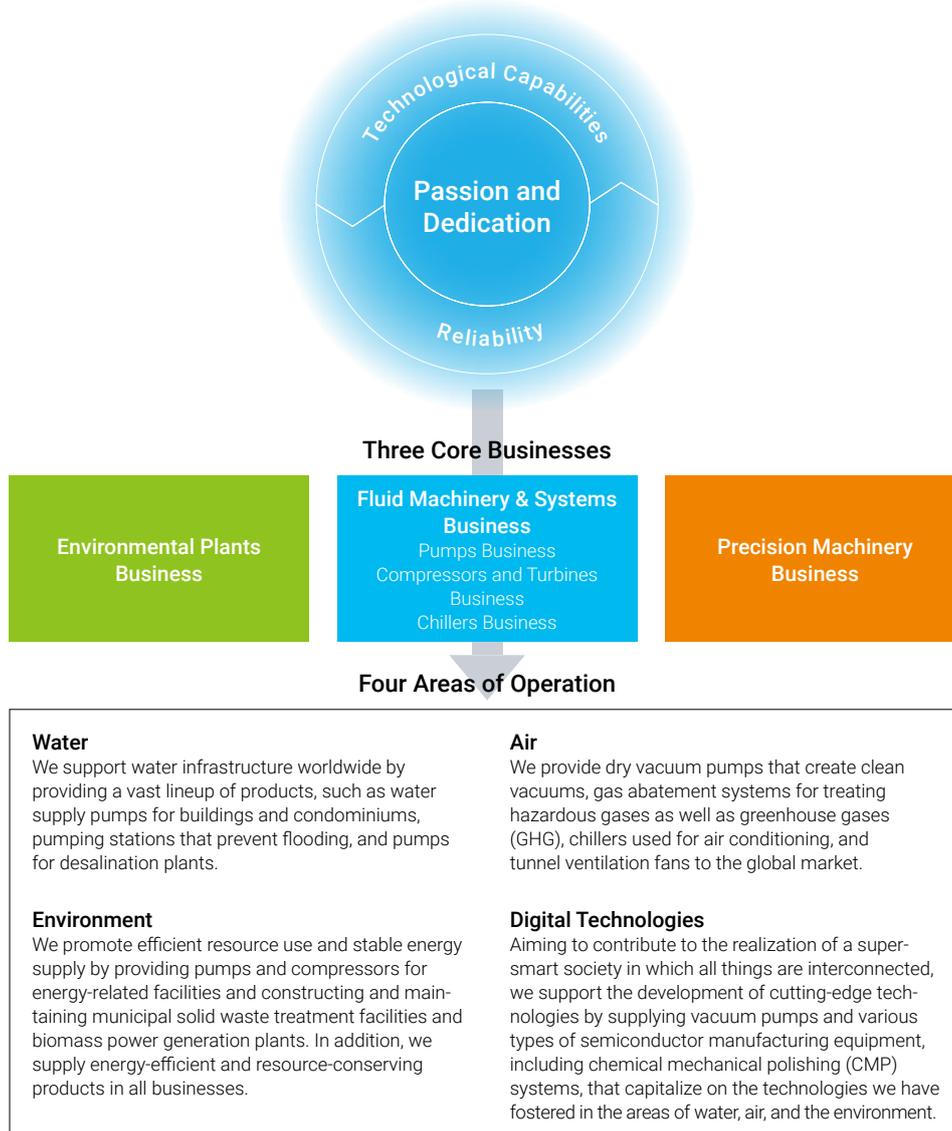


**Issey Hatakeyama**  
EBARA founder

### Founding Spirit of "Netsu to Makoto" (Passion and Dedication)

It was not long after the founding of EBARA that the Company completed a pump of record size, a painstaking task that took place in a small factory with no crane facilities in the Nippori area of Tokyo. Founder of EBARA, Issey Hatakeyama, acted in accordance with his philosophy of approaching daily tasks with passion, dedication, integrity, and ingenuity in order to spur personal and corporate growth, and encouraged employees to adopt the same approach. The founding spirit of "Netsu to Makoto," or Passion and Dedication, has continued to drive EBARA in our efforts to hone our technological prowess and achieve greater levels of reliability. EBARA's growth into a global industrial machinery manufacturer with three core businesses-the Fluid Machinery & Systems Business, Environmental Plants Business, and Precision Machinery Business-is a result of the ongoing commitment to this spirit.

### Founding Spirit and Strengths Underpinning Competitiveness



EBARA's History

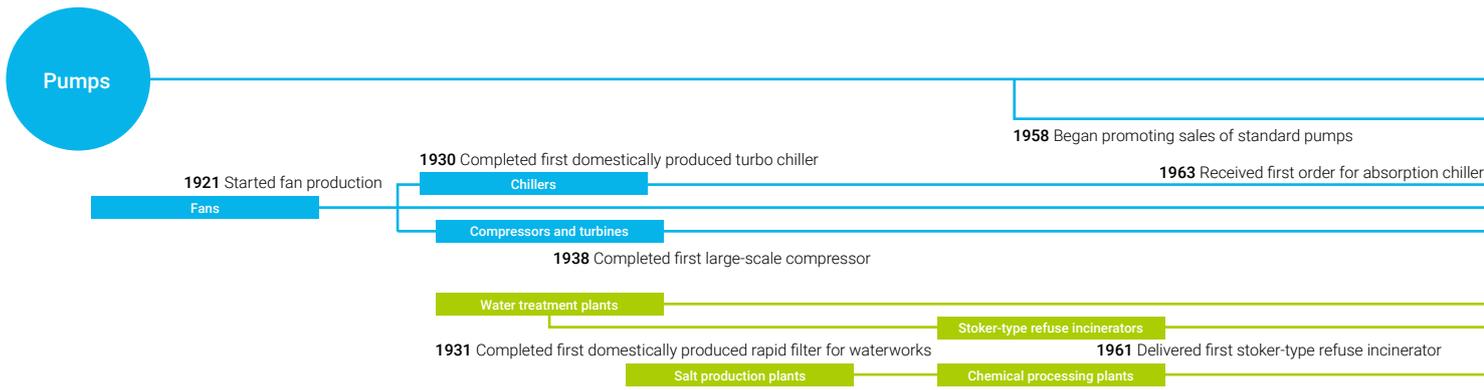
# History of Growing While Addressing the Social Issues of Every Era with Technologies and Reliability

Over the years, the EBARA Group has continued to grow by responding to the needs of society through businesses supporting social and industrial infrastructure. Behind this growth has been the constant enhancement of the Group's technologies and reliability through the exercise of its Founding Spirit of "Netsu to Makoto." By applying, evolving, and combining the core technologies that originate from the Inokuty-type volute pump, we have developed products and services that meet the needs of every era. Going forward, we will pursue future growth by further honing our technological prowess to deliver new products and solutions.



Note: The above graph indicates changes in net sales.  
As FY2017 was an irregular nine-month accounting period due to the change in settlement date, figures for this period have been restated to encompass the period from January to December 2017.

1912 Founded as Inokuty Type Machinery Office



1912-

## Development of the EBARA Group's Foundations

EBARA was founded by Issey Hatakeyama with the goal of supplying products based on Dr. Ariya Inokuty's world-renowned volute pump research. In the years that followed, EBARA continued to contribute to the modernization of Japan by producing the first domestically manufactured waterworks pumps, installing water infrastructure to prepare for natural disasters, developing the first water purifiers for waterworks manufactured in Japan, and undertaking other initiatives ahead of its time.

Pressing Social Issues

### Modernization of Japan

- Installation of water infrastructure
- Lack of arable land
- Reconstruction after the Great Kanto Earthquake
- Widespread industrialization

1945-

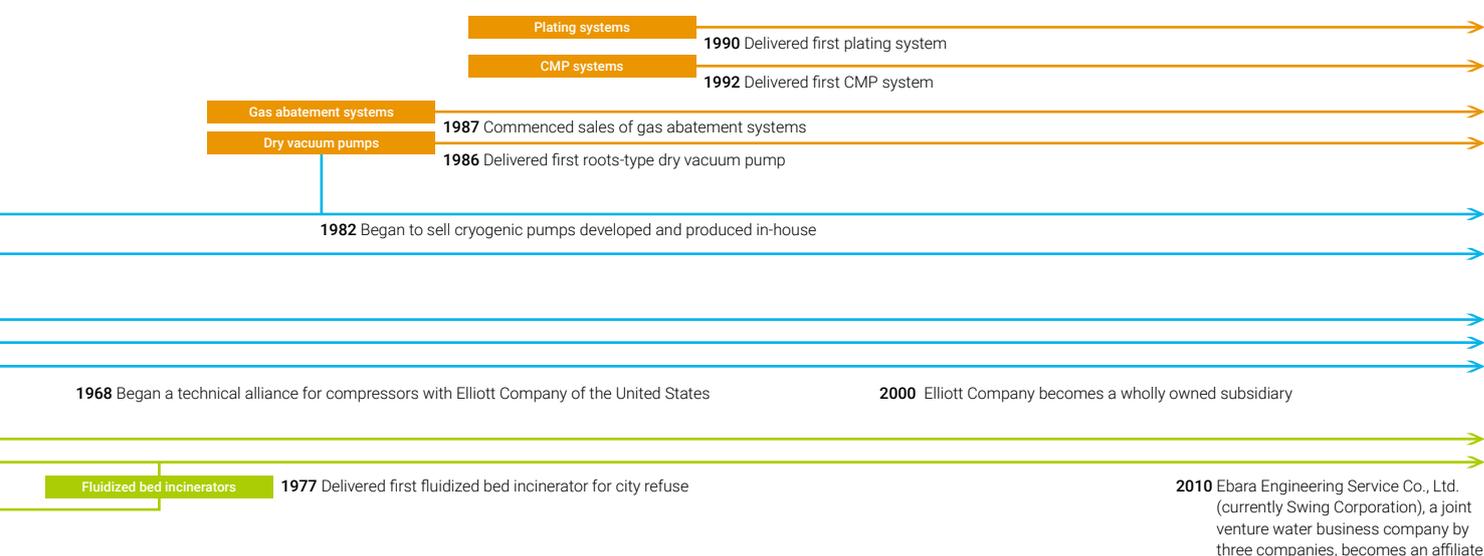
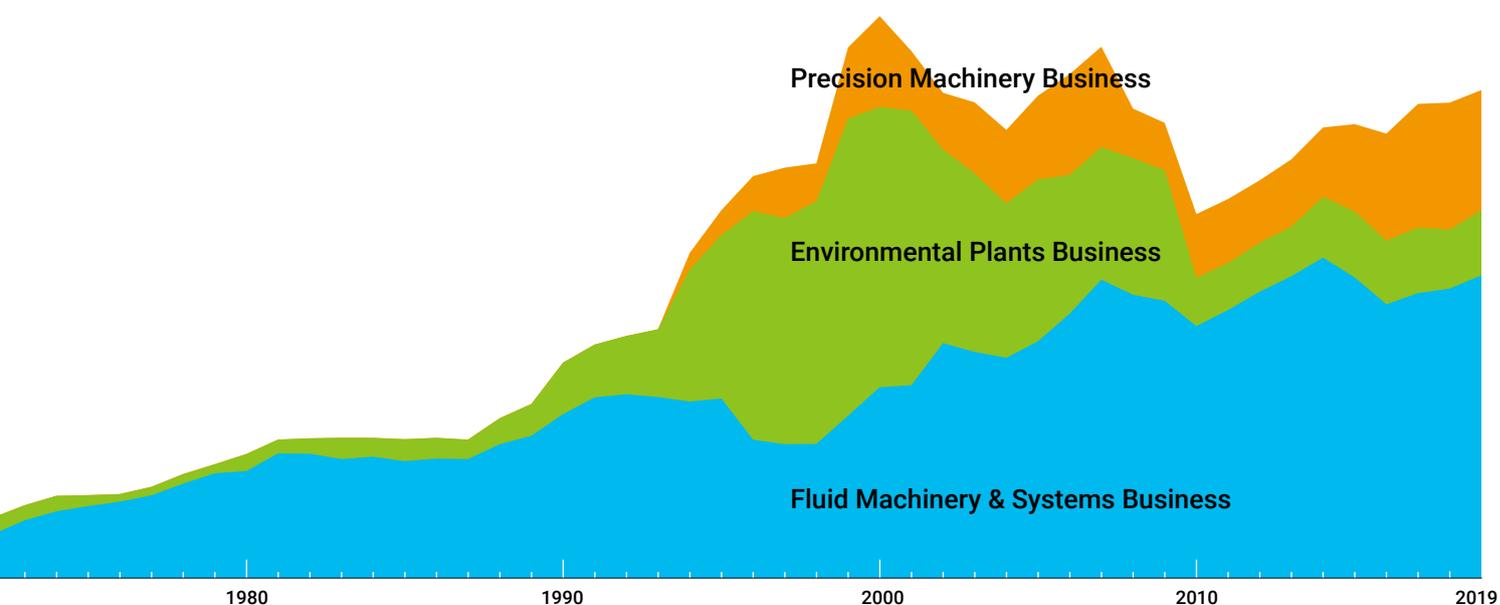
## EBARA Technologies Responding to Social Demand

EBARA contributed to the stabilization of the lives of people in Japan after World War II by mass producing pumps for increasing food production and for farmland reclamation. In addition, we delivered the first domestically manufactured feed water pump for supercritical pressure power plants to help address power shortages. At the same time, the Group began exporting plant equipment and establishing overseas bases to lay the groundwork for its overseas expansion.

Pressing Social Issues

### Post-World War II Reconstruction and Japanese Postwar Economic Miracle

- Lack of food and other basic necessities for people of Japan
- Power shortages
- Advancement of heavy and chemical industries
- Increased construction of plants overseas



1980-

**EBARA Technologies Permeating Society**

It was during this time that the Group succeeded in developing and realizing practical application of a gasification and ash melting furnace for use as a next-generation waste treatment facility capable of completely decomposing dioxins and recycling residue. In addition, technologies accumulated thus far were applied to the development of dry vacuum pumps, resulting in the start of the Precision Machinery Business.

Pressing Social Issues

**Development of the Information Society**

- Ozone depletion, desertification, and advancement of climate change
- Lack of waste disposal sites
- Need to realize recycling-oriented society
- Growth of semiconductor market and increased semiconductor demand

2000-

**Frameworks for Future Growth**

Energy-efficient, high-efficiency pumps and chillers were developed to help reduce environmental impacts while pump technologies were created for urban rainwater drainage systems. The Group also developed sophisticated, ultra-precise, high-productivity CMP and plating systems.

Pressing Social Issues

**Search for Path to Sustainability**

- Increased concern for environmental issues and acceleration of global warming countermeasures
- Rising demand for energy-saving and highly efficient technologies
- Extreme rain resulting from urban heat island phenomenon
- Development of information and communication technologies (ICT) and accelerated advancement of semiconductor technologies

2010-

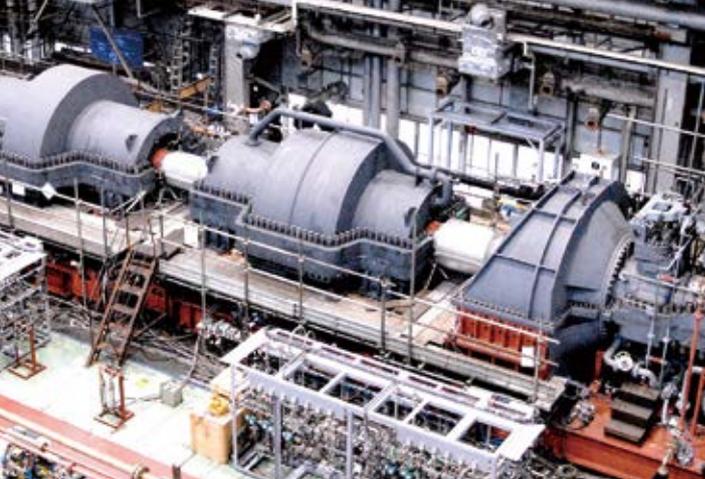
**Centennial Anniversary and Pursuit of Future Growth**

The Group began investing in its global competitiveness, following its success in improving its financial base through the selection and concentration of businesses. These investments include strengthening corporate governance, implementing new human resource systems, bolstering overseas service and support (S&S) base network, introducing automated assembly lines powered by Internet of Things (IoT) and artificial intelligence (AI) technologies, and other environmental, social, and governance (ESG) management initiatives.

Pressing Social Issues

**Toward a More Diverse and Inclusive Society**

- Digitization driven by proliferation of the IoT and AI
- Social pressure for work style reform
- Increasing expectation for companies to contribute to realizing a sustainable society due to rising interest in climate change and ESG issues and the adoption of the United Nations Sustainable Development Goals (SDGs)



Fluid Machinery & Systems Business

# No.1

## Global Share of Compressors for Downstream Oil and Gas Plants

Our compressors are a central component of oil refineries and petrochemical plants and are used to compress the gases emitted during crude oil and natural gas production. We offer a wide lineup of compressors matched to various customer needs and processes.

Fluid Machinery & Systems Business

# TOP

## Domestic Share for Standard Pumps and Cooling Towers

To date, EBARA's domestic factories have produced more than 18 million standard pumps. Through the widespread provision of pumps that address diverse needs, such as those pertaining to the supply of the water that is indispensable to our daily lives, we are supporting the development of industry and of comfortable living environments. We also supply equipment for air conditioning in buildings and public facilities and propose optimal solutions to customers through a system integrating everything from manufacturing to maintenance.



EBARA's Presence

## Distinctive Presence Underscored by Technologies and Reliability

Fluid Machinery & Systems Business

More than **1,000**

## Pumping Stations in Japan Using EBARA Drainage Pumps

EBARA supplies pumping stations across Japan with large-scale drainage pumps that protect cities from flood damage by draining rainwater into rivers and oceans in the event of sudden heavy rains or typhoons. As abnormal weather events increase around the globe, EBARA is ever more committed to protecting people's lives and livelihoods through the provision of drainage pumps and systems.



Fluid Machinery & Systems Business

# No.1

## Global Cryogenic Pump Share

The primary role of cryogenic pumps is to transport ultralow temperature liquefied natural gas at liquefied natural gas (LNG) liquefaction plants, which require exceptional technological prowess. EBARA boasts an exceptional global delivery track record in this field and has thus earned a position as a recognized global leader.



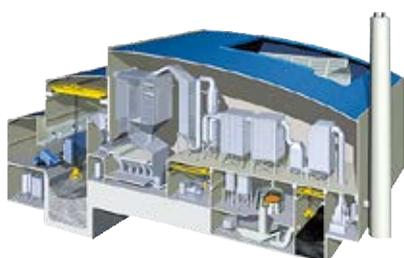


## Environmental Plants Business

More than **80**

**Waste Treatment Plants under Contracted Management**

EBARA is accumulating insight into the management of daily waste treatment plant operation as it performs management of more than 80 such facilities on a contract basis. Leveraging this insight, we offer technical operation support and optimization support by confirming the operating status of waste treatment plants in real time via remote support centers.



## Environmental Plants Business

More than **300**

**Waste Treatment Facilities Delivered in Japan**

EBARA provides one-stop service for the design, construction, operation, and maintenance of waste treatment facilities, and we have delivered more than 300 waste treatment facilities in Japan, making for a delivery track record of more than 400 facilities when including those delivered overseas. In addition, we contribute to the local production and consumption of energy by returning the power generated through waste incineration to the surrounding communities.

## Precision Machinery Business

More than **50**

**Support Bases and Overhaul Bases Worldwide**

The EBARA Group is augmenting its proposal capabilities by developing support bases and overhaul bases worldwide. Leveraging cutting-edge technologies to deliver even higher-quality S&S, we offer assistance for customers' business activities.

## Precision Machinery Business

More than **2,500**

**CMP Systems Shipped to Date**

Semiconductors are an indispensable component of computers, smartphones, and cloud systems. Increasing the performance of semiconductors requires their circuits to be made more intricate and layered. CMP systems represent a core technology for realizing these advancements. These systems are used to polish semiconductor wafers with nano-level precision, thereby helping meet the high-level demands of semiconductor manufacturing processes while supporting the evolution of semiconductors by accommodating constant technological progress.



Note: Shares were calculated by EBARA.

# Social Value Created by EBARA

EBARA products are amalgamations of the technologies it has accumulated thus far. These products are used under a variety of circumstances in our everyday lives, supporting social infrastructure around the world and contributing to safe, secure, and fulfilling lifestyles.

## 1. Water Supply Units

**Supplying water for everyday use to buildings and condominiums**



Water supply units are a crucial element of the facilities of buildings, condominiums, factories, and other structures for realizing a stable supply of water for everyday use.

## 2. Agricultural Pumps

**Watering crops in fields**



Agricultural pumps reliably supply water for agricultural purposes as an important component of irrigation equipment. These pumps are also used to drain water to prevent damage from flooding due to heavy rains.

## 3. Water Drainage Pumps

**Protecting against typhoons and concentrated heavy rains**



Water drainage pumps are used to protect residential areas, agricultural land, and other areas against flood damage from heavy rains by redirecting rainwater into rivers with less risk of flooding or the ocean.

## 4. Seawater Circulation Pumps

**Efficiently transporting seawater**



Equipped with thermosetting resins, EBARA's seawater circulation pumps boast superior anti-erosive properties, enabling them to be used with fluids that would even erode stainless steel articles, such as acid and seawater. They are thus ideal

for circulating seawater inside of aquarium tanks. Our seawater circulation pumps can also be used for transporting and circulating hot spring water and chemicals.



**Wide-Ranging Support for Society and Infrastructure Ensuring Stable Water Supplies and Preventing Water Damage**



**Creation of Comfortable Environments While Combating Climate Change**

## 5. Fans

**Ventilating tunnels**



EBARA fans are delivered for installation in tunnel ventilation equipment. By achieving highly precise ventilation control, these fans help appropriately maintain the air environments of tunnels while securing evacuation routes in the event of a tunnel fire.

## 6. Chillers

**Maintaining comfortable temperatures in buildings, large-scale commercial facilities, and factories**



Our chillers supply cold water for use in the air-conditioning equipment of large-scale commercial facilities and factories to be utilized for cooling or heating entire structures. Other benefits of our chillers include reduced costs through optimization

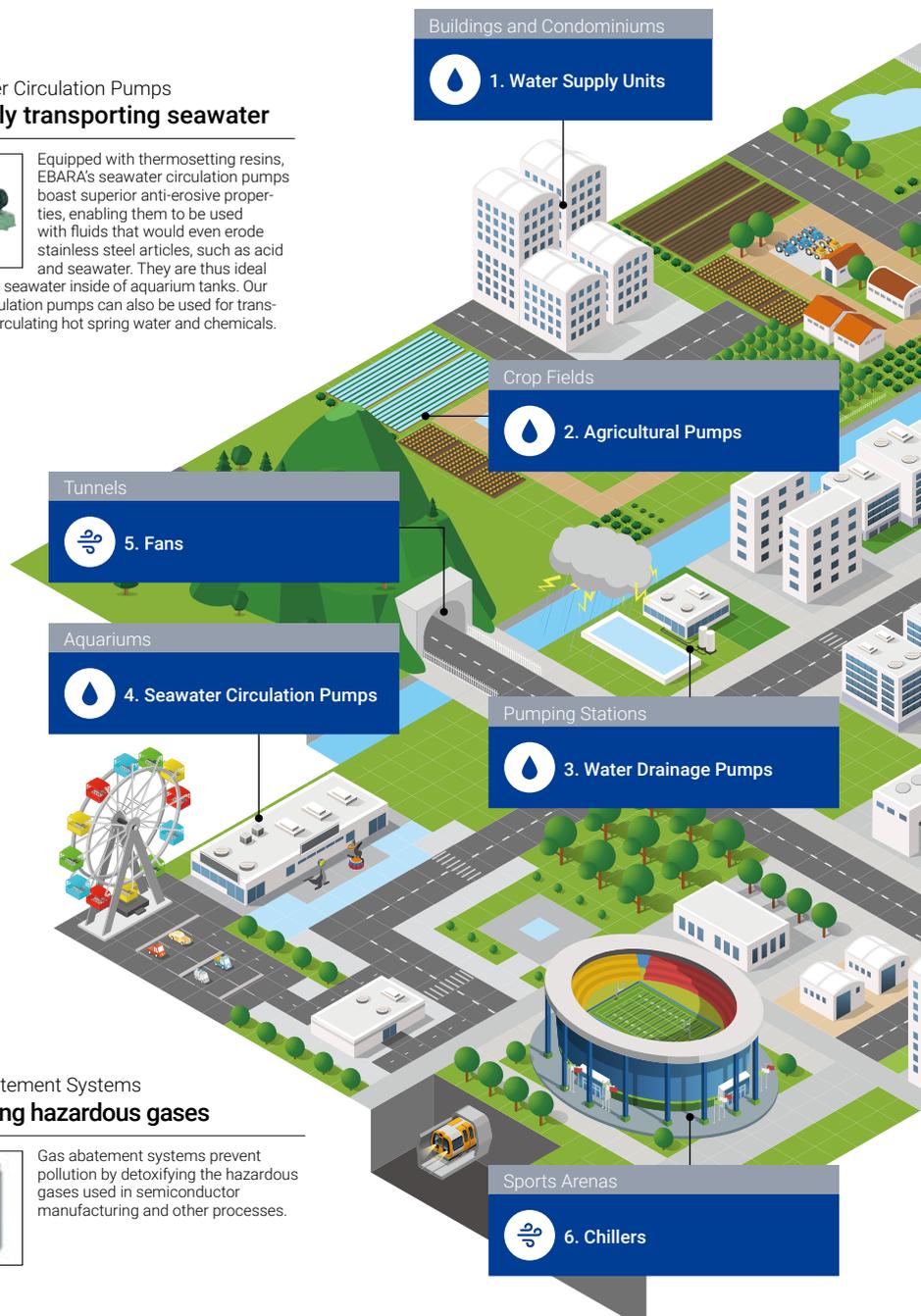
of cooling and heating equipment as well as lower energy consumption and CO<sub>2</sub> emissions.

## 7. Gas Abatement Systems

**Detoxifying hazardous gases**



Gas abatement systems prevent pollution by detoxifying the hazardous gases used in semiconductor manufacturing and other processes.



8. Boiler Feed Pumps  
Offering “behind-the-scenes” support for power generation



Thermal power plants generate electricity through generators directly attached to turbines, which are rotated using high-pressure steam. Boiler feed pumps supply high-temperature water to boilers to create this high-pressure steam.

9. Compressors  
Playing a central role in power plants and oil refineries worldwide



Compressors play a central role in oil refineries and petrochemical plants by compressing the gases produced from crude oil and natural gas.

Environment

Contributions to a Sustainable Society by Promoting Effective Energy and Resource Usage



10. Cryogenic Pumps  
Safely transporting LNG



Cryogenic pumps are used to transport and store LNG at temperatures of  $-162^{\circ}\text{C}$  and thus require superior technologies and impeccable safety.

11. Municipal Solid Waste Treatment Plants  
Supporting safe and reliable plant operation



We provide one-stop service for municipal solid waste treatment plants ranging from engineering to construction, operation, management, and maintenance to support reliable operation. We also contribute to the local production and consumption of energy by returning the power generated through waste incineration to the surrounding communities.

12. Biomass Power Generation Plants  
Generating power using woody biomass fuel



We offer construction, operation, and management services for biomass power generation plants that leverage the characteristics of internally circulating fluidized-bed boilers designed to use woody biomass as fuel and capable of achieving reliable combustion of a diverse range of fuel sources. Through these services, we are contributing to the popularization of renewable energy and the prevention of climate change.

Digital Technologies

Support for the Evolution of Lifestyles with Cutting-Edge Technologies

13. Dry Vacuum Pumps  
Realizing the optimal clean environments necessary for semiconductor production



Dry vacuum pumps are used to create the vacuums needed in the semiconductor production process.

14. CMP Systems  
Supporting semiconductor production with nano-level-precision polishing technologies



CMP systems polish the surface of semiconductor wafers with nano-level precision using polishing solutions.

EBARA's Vision

# Unending Support for Society Based on the Spirit of “*Netsu to Makoto*”

The EBARA Group has continued to develop its business based on “*Netsu to Makoto*” (Passion and Dedication), the Founding Spirit that we have valued since our inception. Throughout our history of over 100 years, we have proceeded to hone our exceptional technological capabilities in order to deliver products and services that support society, industry, and everyday life. This is the very meaning of our existence. Going forward, the EBARA Group will pursue ongoing growth by capitalizing on the strength of its proven technological prowess as it contributes to the development of a sustainable society by exercising its passion in the global supply of products and services that support fulfilling lifestyles.

## Long-Term Vision

# “Technology. Passion. Support Our Globe.”



Delivery of Products and Services that Support Society, Industry, and Everyday Life



Founding Spirit and Strengths Underpinning Competitiveness



Never satisfied, EBARA will climb to new pinnacles in its quest to support the safety and security of society, industry, and everyday life with its products and services.



## Message from the President

# Marching toward the accomplishment of our new long-term vision with an eye to the needs of the future and the world after the COVID-19 pandemic.

Masao Asami

President and Representative Executive Officer



### Global COVID-19 Pandemic Response Measures Proactive action based on an accurate understanding of risks and opportunities with stakeholder safety as our top priority

On behalf of the EBARA Group, I would like to extend our sincere condolences to anyone who has lost loved ones to COVID-19 or have fallen victim to this virus. I also express our appreciation for the essential workers around the world who perform tasks that are indispensable to our daily lives.

The EBARA Group provides essential social infrastructure, supporting industry and life around the world. To fulfill the social responsibility this entails, we are continuing our business activities while placing the safety of our employees and other stakeholders as our top priority.

When the Japanese government issued its state of emergency declaration, we requested that all Group employees remain at home except for when absolutely necessary. In Japan, we quickly adjusted our internal systems in response to the COVID-19 pandemic by taking measures such as expanding our existing staggered attendance time scheme and telework program to apply to all employees. Additionally, whenever possible, employees were asked to telework in order to prevent the spread of the virus. For production floors, we implemented a rotating shift system, enabling us to keep facilities active while lessening the risk of infection among staff. These measures were relaxed a bit after the Japanese government lifted the state of emergency, but we are still examining new work styles for EBARA. For example, we are shifting toward telework and taking other steps to develop workplace environments, human resource systems, and information systems that are ideal for protecting both employee health and business efficiency.

Negative impacts of the pandemic on our business in the first three months of 2020, included restrictions on factory

operations and sales activities due to the policies of national and municipal governments in China, Europe, the United States, and Southeast Asia. We also experienced disruptions to our supply chain and logistics activities as well as limitations on the movement of people. That being said, the overall impact on our business during this period was relatively small.

Since April 2020, the pandemic has spread to Europe, the United States, and other regions, plunging the world into a global economic recession. The impacts on EBARA have included customers foregoing investment projects, delays in construction negotiations, and supply chain disruptions. Conversely, there is a move to reopen economies in developed countries. This combination of factors is making it extremely difficult to formulate an outlook for the EBARA Group's operating environment.

Going forward, we will continue to monitor trends as we strive to minimize the negative impact on our business activities while placing the prevention of the infection of customers, suppliers, employees, and other stakeholders as our top priority. We will also take steps to respond to the changes in the operating environment over the medium-to-long term, both during and after the pandemic. We are examining a myriad of measures with this regard, including further shifts to telework, encouraging sales activities to be performed in a non-face-to-face manner, reconstructing global production systems and supply chains, and transforming the very nature of our services. In the midst of this uncertain and unclear operating environment, we are committed to flexible and proactive action based on an accurate understanding of risks and opportunities with stakeholder safety as our top priority.





## Review of the Previous Medium-Term Management Plan E-Plan 2019

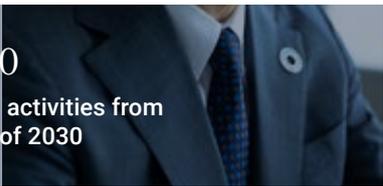
**Failure to meet key management indicator targets denote remaining issues for the next medium-term management plan**

Under E-Plan 2019, the previous medium-term management plan, we pursued our primary goals of profitability improvement and growth based on the slogan of “Unlimited challenge toward growth”. However, we failed to accomplish our targets for the important key performance indicators (KPIs) of return on invested capital (ROIC) and the operating income to sales ratio. The major reasons for this failure included the overly optimistic nature of our outlook for the oil and gas market and an insufficient degree of transformation in our business structure as was necessary for strengthening our profit foundation. These are issues that we will need to address going forward. During the period of the plan, we executed growth investments as intended. Examples of these investments include those for the

construction of fully automated plants for the purpose of improving productivity. We anticipate that the benefits of these investments will begin to occur in 2020 and beyond. Meanwhile, we were able to achieve a consolidated total return ratio that greatly surpassed our targets through shareholder returns activities including conducting share buybacks for the first time in Company history. We also proceeded to practice management based on ESG factors. Examples include our reinforcement of corporate governance systems, the revision of human resource systems, and other measures to cultivate foundations for transitioning to a corporate culture that encourages all employees to tackle their work with a competitive spirit and embrace challenge.

### Evaluation of Progress toward Targets of E-Plan 2019

Key Management Indicator Targets	×	<ul style="list-style-type: none"> <li>Targets of the key management indicators of ROIC and operating income to sales ratio were not achieved</li> <li>Main reasons why targets were not achieved were our too optimistic market outlook and insufficient business structure transformation to strengthen the revenue base</li> </ul>
Growth Investment	△	<ul style="list-style-type: none"> <li>Three-year investment was ¥95.5 billion</li> <li>Built an automated plant to improve productivity and invested in systems to improve various processes; Enhanced product competitiveness and improved profitability are expected after 2020</li> </ul>
Shareholder Returns	○	<ul style="list-style-type: none"> <li>Significantly above target: Total return ratio 30% or more</li> <li>In the second year repurchased shares for the first time and continued in the third year</li> </ul>
ESG-Focused Management	○	<ul style="list-style-type: none"> <li>Promoted environmental management (e.g., Task Force on Climate-related Financial Disclosures (TCFD) participation)</li> <li>Implemented reforms to corporate culture (e.g., new human resource system and work style innovations)</li> <li>Enhanced governance (enhanced oversight function of the Board of Directors)</li> </ul>
<b>Issues for the Next Medium-Term Management Plan</b>		<ul style="list-style-type: none"> <li>Transformation of business structures to strengthen revenue base</li> <li>Enhancement of S&amp;S business</li> <li>Creation of new businesses</li> </ul>



## Long-Term Vision—E-Vision 2030

**Contribution to the resolution of social issues through business activities from a market-oriented perspective looking toward the world of 2030**

The EBARA Group has unveiled E-Vision 2030, a new long-term management policy that illustrates our vision for the Group a decade from now and the value creation story that will service as the roadmap toward realizing this vision.

The vision we pursued up until 2020 was defined in Management Policy—Towards Year 2020. This management policy was established when we transitioned to the Company with Nominating Committee, etc., structure described in the Companies

Act of Japan in 2015 as part of our efforts to reinforce our corporate governance structures. It was here that we laid our intent to shape management based on ESG factors (human resources, environmental issues, bonds with society, corporate governance, etc.) as well as our policies for growth targets, strategies, and R&D activities.

Meanwhile, we fully recognize the issues presented by our inability to achieve the targets of the previous medium-term

management plan, E-Plan 2019. Reflecting on this situation, we have come to the realization that establishing management policies based on a long-term view of the operating environment, setting the course for management, and executing growth strategies will require a bold, steadfast, and global approach. This approach will be vital to ensuring that the Group is able to continue growing in the increasingly volatile operating environment to be seen going forward. This process of self-examination led to the February 2020 announcement of E-Vision 2030, the EBARA Group's new long-term vision looking toward its growth over the next decade.

### **Background for Establishment of E-Vision 2030—Path from Past to Present and Outlook for the Future**

E-Vision 2030 was formulated through a process of reexamining the spirit and DNA that the EBARA Group has continued to treasure over the 108-year history since its founding and clarifying its presence in the world of today. With this framing, we identified the issues and opportunities the Group is likely to face going forward based on our outlook for the future of society and the global environment.

Since it was founded in 1912, the EBARA Group has continued to develop its business activities in accordance with its Founding Spirit of "*Netsu to Makoto*" (Passion and Dedication) and its corporate philosophy of "We contribute to society through high-quality technologies and services relating to water, air, and the environment." At the time of the Group's founding, Japan was still lacking in terms of social infrastructure. For this reason, our forebears were dedicated to shaping Japan through their business of helping realize the safe and reliable supply of water. This dedication led them to respond to the needs of society through the development of fluid machinery and system products, such as the first domestically manufactured pump.

After the end of World War II, Japan would eventually experience what would become known as the Japanese postwar economic miracle. This was a period of demand for social infrastructure as well as growing construction demand related to industrial infrastructure and urbanization. EBARA responded to this demand with a diverse lineup of fluid machinery and system products matched to the various needs that arose during this period. In addition, we developed waste incineration facilities to be used in the disposal of waste, which was increasing in step with economic growth. It was also at this time that we saw the development and spread of electric and electronic products, resulting in explosive growth in demand for semiconductors. EBARA met this demand by developing semiconductor manufacturing equipment and components and supplying these to the market to contribute to the evolving information society.

Reviewing the history of the EBARA Group dating back to its foundation, we will see that the Group is a conglomerate that has always been mindful of the contemporary issues faced in society, industry, and everyday life. It has addressed these issues through the passionate development of technologies and the dedicated supply of products, systems, and services to society, growing its business through this process. Ours has truly been a history of growth achieved by honing the strength of our technological capabilities and reliability through constant ambition, originality, and ingenuity grounded on the passion and dedication described in our Founding Spirit.

Conversely, if we look toward the future of society and the global environment a century from now, we will see a number

of issues that we must address. One issue of particular importance is climate change. Global warming sparked by climate change, for example, has the effect of intensifying abnormal weather patterns and natural disasters, raising sea levels and tides and consequently submerging land masses, and triggering shortages of resources such as food and water. Meanwhile, the evolution of the digital society will, no doubt, result in computers, telecommunications equipment, AI, and the IoT permeating all aspects of society. In this manner, the accelerated evolution of the digital society can be expected to transform our lifestyles. Amid these trends, we anticipate that the semiconductors underpinning the digital society will be subject to ongoing technological innovation and growth in demand.

### **Basic Policies of E-Vision 2030**

When considering the outlook for the world of the future, the issues to be faced therein, and the EBARA Group's strengths, I see substantial opportunities for the Group to grow by contributing to the resolution of social issues, such as those indicated by the SDGs. In the past, EBARA tended to be overly focused on aspiring to create high-spec products, with world-leading technologies, just for the purpose of pushing technology forward. Capitalizing on the opportunities to be seen going forward, however, will require a market-oriented perspective toward addressing the needs of customers seeking solutions to their problems. The necessity of a market-oriented perspective has been something that Independent Directors have continued to stress at meetings of the Board of Directors. If EBARA is to continue contributing to the resolution of the increasingly wide range of social issues, it will need new ideas that defy prior conceptions. We will, of course, also need to grow our existing businesses. Accordingly, in the future we will be looking to optimize our business portfolio through bold efforts to grow existing businesses and create new businesses based on an accurate understanding of the opportunities open to us based on a global, market-oriented perspective.

### **Slogan and Material Issues of E-Vision 2030**

As we advance into the future, the EBARA Group will continue to make increasingly wide-reaching contributions to society through its business by capitalizing on the strengths of the technological capabilities and reliability it has cultivated thus far. These efforts will be shaped by the "EBARA Way," a set of transcendental values for the EBARA Group with our Founding Spirit of "*Netsu to Makoto*" at their core. This intent is expressed in the slogan of E-Vision 2030: "Technology. Passion. Support Our Globe." Moreover, this slogan encapsulates our desire to support society, industry, and everyday life by inspiring a broader range of customers around the world to use EBARA products.

Five material issues (EBARA's materiality) to be addressed by the EBARA Group leading up to 2030 were identified in E-Vision 2030. These issues were chosen based on an examination of our outlook for the world of the future, the issues to be faced therein, and the EBARA Group's strengths. We have also drafted a value creation story. This story portrays the process through which we will realize greater levels of corporate value by simultaneously increasing our social, environmental, and economic value. This will be achieved through addressing our five material issues, which in turn contribute to the realization of a sustainable society.

5 Material Issues (Materiality)

 <p><b>1. Contribute to the creation of a sustainable society</b></p> <p>We will utilize our technologies to passionately support the creation of a sustainable, environmentally friendly world with ample food and water, and safe and reliable social infrastructure.</p> 	 <p><b>2. Elevate standards of living and support abundant lifestyles for all</b></p> <p>We will utilize our technologies to passionately support economic development that enables the world to end poverty and realize ever-evolving and abundant lifestyles.</p> 	 <p><b>3. Conduct comprehensive environmental management</b></p> <p>We will promote the reduction of CO<sub>2</sub> emissions from our business operations and maximize our use of renewable energy to move toward a carbon-neutral world.</p> 	 <p><b>4. Promote working environments that encourage challenge</b></p> <p>We will promote a corporate group culture of competition and challenge, and provide diverse employees with meaningful work and comfortable working environments.</p> 	 <p><b>5. Enhance corporate governance</b></p> <p>We will lay out a vision for and pursue growth through offensive and defensive governance that supports high-level management capabilities.</p>
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Management Strategies of E-Vision 2030

The basic policy of E-Vision 2030 is to address the five material issues (EBARA's materiality) by embracing a global market-oriented perspective and maximizing corporate value through the optimization of our business portfolio. Based on this policy, we have put forth four management strategies to guide us in responding to the material issues. This policy and these strategies have been broken down in the E-Plan 2022 medium-term management plan to direct ongoing action to ensure the accomplishment of our targets.

Targets of E-Vision 2030

E-Plan 2030 sets targets for social, environmental, economic, and corporate value to paint a picture of our vision for the EBARA Group a decade from now.

The targets for social and environmental value are to reduce GHG emissions by the equivalent of about 100 million tons of CO<sub>2</sub>, deliver water to 600 million people, and contribute to smarter living by contributing to the 14-angstrom (one ten-billionth of a meter) generation with ICAC5 technologies.\* Economic value targets call for us to achieve ROIC of 10.0% or

Basic Policies and Four Management Strategies of E-Vision 2030

<p><b>Basic Policy</b></p>	<p><b>Maximize corporate value through the optimization of business portfolio</b></p> <ul style="list-style-type: none"> <li>Recognize issues based on realistic future forecasts</li> <li>Integrate a global market-in approach</li> </ul>
<p><b>New / Existing Business Strategies</b></p>	<p><b>New Business:</b> Contribute to solving material issues by starting up new types of business  <b>Existing Businesses:</b> Enhance S&amp;S and execute aggressive business segment-specific strategies</p>
<p><b>Regional Strategies</b></p>	<p><b>Global Market:</b> Actively develop business in areas where problems associated with economic development are arising (i.e., increasing energy consumption, population growth, environmental issues, etc.)  <b>Japanese Market:</b> In the midst of a maturing market, expand S&amp;S services and implement creative, flexible business reforms untethered to conventional manufacturing</p>
<p><b>Resource Strategies</b></p>	<p>Achieve optimal resource allocation through focus on the following three strategies:</p> <ul style="list-style-type: none"> <li>Financial / Investment Strategy</li> <li>Manufacturing / Technology / Information Strategy</li> <li>Human Resource Strategy</li> </ul>
<p><b>ESG Strategies</b></p>	<p>Further refine ESG-focused management to facilitate the creation of a sustainable society  <b>E</b> Take aim at environmental issues    <b>S</b> Foster bonds with society    <b>G</b> Enhance governance</p>

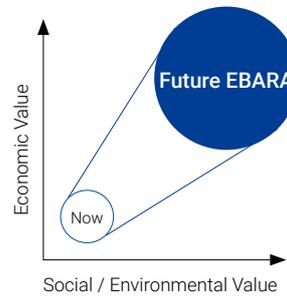
more and net sales of roughly ¥1 trillion. For corporate value, we have set the target of ¥1 trillion in market capitalization.

By clarifying this vision for the EBARA Group a decade from now, we hope to motivate employees working across the Group and further stimulate its growth. Our approach toward achieving this vision will entail uniting the strengths of employees to improve social and economic value by contributing to society through our business while simultaneously heightening economic value through business growth and efficient management. We thereby aim to earn greater corporate value and recognition as an excellent global company from society and from the entire world.

\* IoT, cloud technologies, AI technologies, automated driving technologies, and 5G communications technologies

### 10-Year Vision

Enhance EBARA's corporate value through the improvement of social, environmental, and economic value



#### Social / Environmental Value

- Solve social issues through our business:
  - Reduce GHG emissions equivalent to about 100 million tons of CO<sub>2</sub>
  - Deliver water to 600 million people
  - Contribute to development of ICAC5: Challenge 14Å

#### Economic Value

- ROIC of 10.0% or more
- Roughly ¥1 trillion in sales

#### Indicator of Corporate Value

¥1 trillion in market capitalization

## New Medium-Term Management Plan—E-Plan 2022

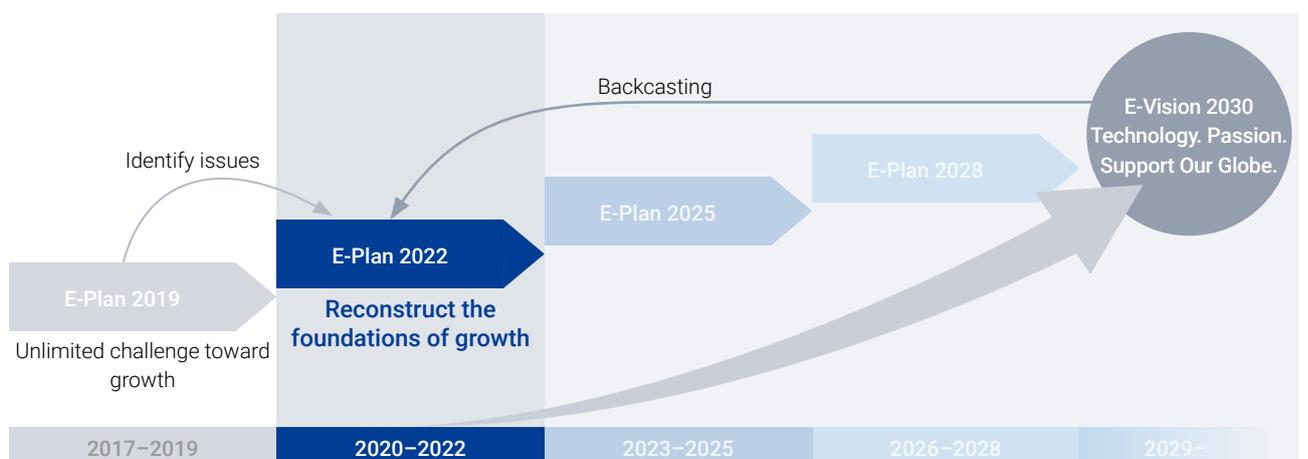
First step toward accomplishment of long-term vision

E-Plan 2022 is a three-year medium-term management plan covering the period from 2020 to 2022. This plan is comprised of management policies and strategies for the coming three years formulated based on backcasting from what we want to achieve in the next decade, as indicated by E-Vision 2030, and on reflection on the previous medium-term management plan to identify the issues that still need to be resolved.

The major issues identified through our review of E-Plan 2019 pertained to the strengthening of our profit foundation and the expansion of S&S operations. Our profit foundation has been growing steadily stronger, but we still see the need for ongoing

efforts to strengthen this foundation during the period of E-Plan 2022. As for S&S operations, although we had been engaged in efforts to expand these operations previously, we were unable to achieve satisfactory results during the period of E-Plan 2019. Accordingly, we are taking a cross-business perspective toward examining the ideal approach for our S&S operations. At the same time, we will pursue synergies through collaboration between our custom pumps business and our compressors and turbines business, which share an overlapping segment of the market, as we implement ongoing measures to enhance S&S operations.

### Position of E-Plan 2022



**Basic Policies of E-Plan 2022**

The period of E-Plan 2022 has been positioned as a period in which we will “reconstruct the foundations of growth” to achieve our vision for 10 years in the future. In the three-year period of the plan, which represents the start of our journey toward long-term growth, we are tasked with identifying and cultivating the seeds of growth that will satisfy contemporary needs and

securing the funds needed for this process. We will also need to improve our speed in operational execution and management decisions by taking measures to strengthen the foundations for global operations while conducting business operations in line with the ideals of stakeholder capitalism.

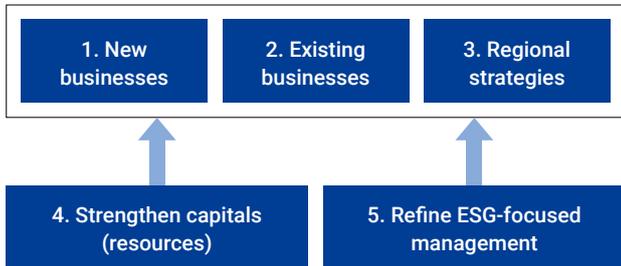
Four basic policies (indicated in the table below) have been established to guide us in accomplishing these tasks.

**Basic Policies of E-Plan 2022**

<b>Strive for growth</b>	Create and cultivate new businesses and expand existing businesses further into the global market
<b>Improve profitability of existing businesses</b>	Transform business structures to strengthen revenue base and increase S&S sales in all businesses
<b>Refine management and business infrastructure</b>	Introduce an enterprise resource planning (ERP) system and institute drastic global process reforms to form the foundations for proactively implementing digital transformation to facilitate swifter management and further emphasize ROIC management and long-term growth
<b>Enhance ESG-focused management</b>	Combat climate change (environmental); utilize human resources, foster bonds with society, and respect human rights (social); and evolve corporate governance and risk management practices (governance)

**Strategies of E-Plan 2022**

We have set management strategies based on the following five perspectives and the basic policies of E-Plan 2022. Each business will formulate and enact plans aimed at accomplishing these targets.



**1. New Businesses**

By identifying new global-basis social needs from a market-oriented perspective, EBARA will work to supply customers with solutions that leverage its own technological capabilities and external resources.

**2. Existing Businesses**

We aim to strengthen our S&S operations by maximizing inter-business synergies on a Companywide basis. At the same time, we will execute aggressive business segment-specific strategies.

Other focuses will include strengthening development capabilities to create competitive advantages and expanding global procurement systems.

**3. Regional Strategies**

Efforts aimed at the global market will include the aggressive allocation of management resources to countries and regions where we can anticipate growth, such as China, India, and

Africa, which are seeing population, economic, and industrial growth. Through this allocation of resources, we will bolster our products and services in these markets while recruiting and developing global human resources.

Meanwhile, we will have to assume that the Japanese market will continue to mature. In this market, we will seek to ensure we capitalize on S&S sales in all businesses while utilizing IoT, AI, and other digital technologies ahead of the curve in order to maximize efficiency and earnings. The Group also looks to help build robust social infrastructure that is resilient to natural disasters. The development of technologies necessary for making such contributions will be pursued particularly in our custom pumps business and Environmental Plants Business.

**4. Strengthening of Capitals (Resources)**

Six capitals that are necessary for our business are human capital, manufacturing capital, financial capital, intellectual capital, social and relationship capital, and natural capital. At EBARA, we are committed to evolving and augmenting these different kinds of capital to ensure their viability for responding to business changes and growing global operations.

For example, we are implementing manufacturing, technology, and information strategies aimed at driving the global transformation of products, services, and business models by using data and digital technologies to heighten operational efficiency and achieve long-term growth. One facet of these strategies will be the Companywide introduction of an ERP system and the development of globally optimized business infrastructure.

**5. Refinement of ESG-Focused Management**

Ongoing business growth will be pursued through initiatives to respond to ever-changing environmental issues, foster bonds with society, and enhance corporate governance.

Initiatives for responding to environmental issues will include

the provision of high-efficiency products and services that help combat climate change and the advancement of business activities that contribute to reduced environmental footprint.

To foster bonds with society, we will aspire to create and provide social value by supplying safe, secure, and convenient products and services.

Meanwhile, we will seek to fully exercise the functions of the Board of Directors to achieve ideal corporate governance systems and to evolve and further enhance these systems.

#### **Targets of E-Plan 2022**

The management indicators we will focus on under E-Plan 2022 are ROIC and the operating income to sales ratio. In the fiscal year ending December 31, 2022, the final year of the plan, we are targeting ROIC of 8.0% or more and an operating income to sales ratio of 8.5% or more. In addition, supplementary performance indicators have been identified for monitoring to ensure that we accomplish these targets. The indicators designed to guarantee the accomplishment of the ROIC target are return on equity (ROE) and the debt-to-equity ratio. The indicators related to the consolidated operating income to sales ratio are the equivalent ratios from our five businesses. We will work toward the accomplishment of these targets by improving earnings while also appropriately managing our balance sheet with regard to asset efficiency and debt-to-equity ratios of our businesses.

#### **In Closing**

E-Vision 2030, our new long-term management policy, is a declaration stating that "We aim to further our contributions toward the SDGs through the pursuit of solutions to our identified material issues to contribute to the creation of a sustainable society, while simultaneously increasing the social, environmental, and economic value we generate. We believe this will earn us greater corporate value and recognition as an excellent global company."

The current operating environment is characterized by volatility, uncertainty, complexity, and ambiguity, making it difficult to project the future of society and of business, and this environment is only becoming more opaque due to the global COVID-19 pandemic. In this environment, we will act based on an understanding of risks and opportunities arrived at through a global, long-term market-oriented perspective while being guided by the slogan of E-Vision 2030: "Technology. Passion. Support Our Globe."



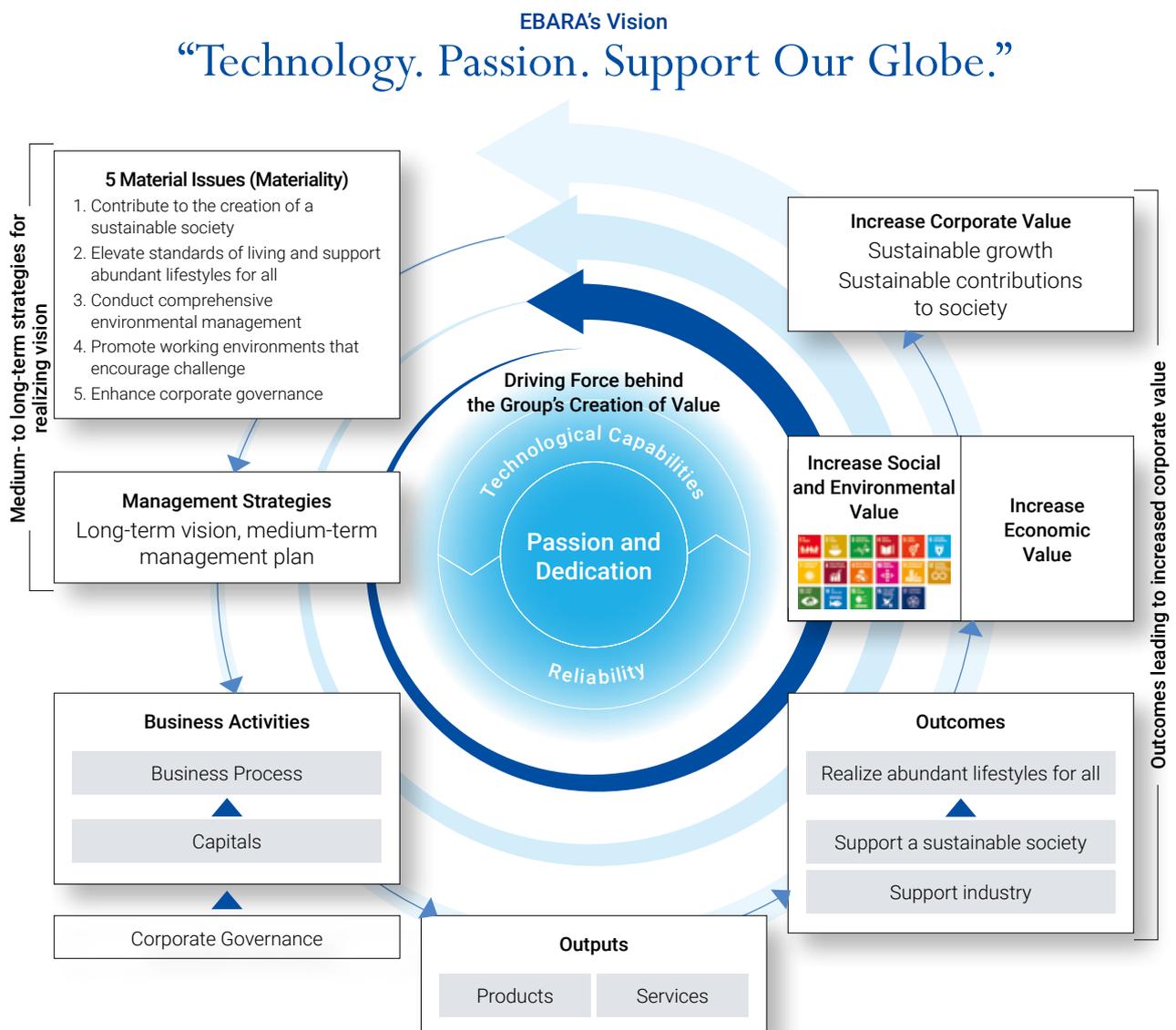
Masao Asami  
President and Representative Executive Officer



## Value Creation Story

# “Technology. Passion. Support Our Globe.”—A Mission to Be Fulfilled Based on the “EBARA Way”

Guided by the core of the “EBARA Way,” the Founding Spirit of “*Netsu to Makoto*” (Passion and Dedication), the EBARA Group has continued to contribute to the resolution of social issues with the strengths of its technological capabilities and reliability throughout its 108-year history. We will further build on these strengths while advancing business activities based on our desired vision for EBARA. This is the approach we will take in supporting the globe into the future and ensuring that EBARA can continue to grow over the next century.



## Key Points for the EBARA Group's Value Creation Story

### Medium- to Long-Term Strategies for Realizing Vision

Looking ahead toward the upcoming era in which people frequently live to be 100 and the global environment that can be projected therein, it can be anticipated that people's lifestyles will undergo substantial transformations going forward. Factors driving this transformation will include more severe weather abnormalities and natural disasters stemming from global warming; depletion of food, water, and other resources; and the evolution of the information society. Given this operating environment outlook, our long-term vision, E-Vision 2030, was created based on the belief that meeting this moment in an effective way requires a clear vision for the future with straightforward policies and strategies for realizing that vision. Based on

the slogan of "Technology. Passion. Support Our Globe," E-Vision 2030 is oriented around augmenting and leveraging the EBARA Group's strengths to address five issues determined to be material to our business. Meanwhile, E-Plan 2022 is a medium-term management plan formulated through the identification of issues remaining from the previous medium-term management plan in addition to backcasting from E-Vision 2030. We aim to generate a cycle of improvement in social, environmental, and economic value and ultimately achieve greater corporate value through the implementation of the basic policies laid out in this plan.

### Driving Force behind the Group's Creation of Value

#### "Netsu to Makoto"

"Netsu to Makoto" (Passion and Dedication) was the motto of EBARA founder Issey Hatakeyama, and he was constantly advocating these principles to employees. This spirit lives on in the EBARA Group of today, forming the foundation for attitudes toward the work ethic and behavior of our people. When we go about our work with passion, exercise originality and ingenuity, and maintain a dedication to completing the tasks at hand, our technological capabilities and reliability grow stronger.

#### Technological Capabilities

In the more than a century since its founding, the EBARA Group has continued to provide the products and services desired by customers and society, accumulating the technologies necessary to offer support across the entirety of our product life cycles. Currently, our technological capabilities lie in our diverse accrument of the core technologies of our products from our five main business segments.

We aim to make our fluid technologies, numerical analysis techniques, materials, analysis, and other foundational technologies the very best in the world. By incorporating advanced techniques and methodologies based on these technologies, we will work to further enhance the core technologies that go into our products while developing the technologies for the future.

#### Reliability

The passion and dedication all employees exercise in their work and the tenacity they exhibit in the face of adversity have won EBARA a strong reputation for reliability among its customers. We continue to build upon this reputation of being a reliable and steadfast partner by remaining true to our spirit of passion and dedication and by proactively solving issues customers may be facing. Strengthening our trust-based relationships with customers and other stakeholders will unlock new possibilities for EBARA.

#### Value Created through Reliability

Co-creation of value with customers	Excellence in new business creation made possible by solid customer network	Realization of new value through strong relationships with diverse business partners
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## Vision for 10 Years into the Future

# Recognition as an Excellent Global Company with Greater Corporate Value Achieved through Resolution of Social Issues

By enacting the value creation story described on the following pages, the EBARA Group will aid in the creation of a sustainable society through management based on ESG factors and contributions to the accomplishment of the SDGs while simultaneously increasing social, environmental, and economic value. We believe this undertaking will earn us greater corporate value and recognition as an excellent global company.

### Outcomes of Efforts to Address Five Material Issues (Materiality)

Under the slogan of "Technology. Passion. Support Our Globe," E-Vision 2030 puts forth five material issues to be addressed by the EBARA Group leading up to 2030. By responding to these material issues through our business activities, we aim to invite outcomes that result in improvements in our social, environmental, and economic value.

**Five Material Issues (Materiality)**

 <p><b>1. Contribute to the creation of a sustainable society</b></p> <p>We will utilize our technologies to passionately support the creation of a sustainable, environmentally friendly world with ample food and water, and safe and reliable social infrastructure.</p> 	 <p><b>2. Elevate standards of living and support abundant lifestyles for all</b></p> <p>We will utilize our technologies to passionately support economic development that enables the world to end poverty and realize ever-evolving and abundant lifestyles.</p> 	 <p><b>3. Conduct comprehensive environmental management</b></p> <p>We will promote the reduction of CO<sub>2</sub> emissions from our business operations and maximize our use of renewable energy to move toward a carbon-neutral world.</p> 	 <p><b>4. Promote working environments that encourage challenge</b></p> <p>We will promote a corporate group culture of competition and challenge, and provide diverse employees with meaningful work and comfortable working environments.</p> 	 <p><b>5. Enhance corporate governance</b></p> <p>We will lay out a vision for and pursue growth through offensive and defensive governance that supports high-level management capabilities.</p>
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**Targeted Outcomes**

 <p><b>Reduced GHG Emissions</b></p> <p>Reduce GHG emissions from business operations</p> <ul style="list-style-type: none"> <li>■ Reduce amount of energy used in production</li> <li>■ Develop more energy-efficient products</li> <li>■ Improve the power generation efficiency of municipal solid waste treatment facilities</li> </ul>	 <p><b>Safe and Reliable Living</b></p> <p>Support development of resilient infrastructure that helps resolve environmental issues associated with urbanization and deliver water all over the world</p>	 <p><b>Smarter Living</b></p> <p>Contribute to the development of high-spec semiconductors necessary to answer the increasing demand for ICAC5 technologies (IoT, cloud technologies, AI technologies, automated driving technologies, and 5G communications technologies) through the provision of cutting-edge semiconductor manufacturing equipment</p>
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## Enhance Corporate Value through Increasing Social, Environmental, and Economic Value

E-Vision 2030 delineates policies and strategies for growing EBARA while addressing the five material issues through business activities. By implementing these strategies, we will seek to realize the outcomes described on the preceding page, simultaneously increase social, environmental, and economic value and achieve greater corporate value to push us toward our vision for the future.

### Increase Social and Environmental Value

Goal

#### Solve Social Issues through Our Business



#### Reduced GHG Emissions

**Reduce GHG emissions in an amount equivalent to around 100 million tons of CO<sub>2</sub>**

The EBARA Group aims to reduce GHG emissions in an amount equivalent to around 100 million tons of CO<sub>2</sub> through the use of its products based on its net sales target of roughly ¥1 trillion for the fiscal year ending December 31, 2030. Reductions in CO<sub>2</sub> emissions will be pursued through our business activities as well as through the business activities of customers via highly efficient EBARA Group products.



#### Safe and Reliable Living

**Deliver water to 600 million people worldwide**

Capitalizing on its accumulated technological capabilities, the EBARA Group seeks to deliver water to 600 million people worldwide through the provision of a wide range of services. These services will not be limited to the traditional domain of our pumps business, moving water, but will rather extend to domains such as creating clean water.



#### Smarter Living

**Contribute to development of ICAC5 technologies and accommodate 14Å era**

As the progress of ICAC5 technologies stimulates semiconductor demand around the world, it can be expected that astoundingly swift increases will be witnessed in the performance of semiconductor chips. It is therefore anticipated that state-of-the-art semiconductor devices will have entered into the 14Å (angstrom, one ten-billionth of a meter) era by around 2030. The EBARA Group is committed to evolving its technologies to contribute to this trend.

### Increase Economic Value

Goal

#### Sustainable Growth and Efficient Management

#### ROIC of 10.0% or more

E-Vision 2030 targets ROIC of 10.0% or more, compared with the figure of 6.5% posted in the fiscal year ended December 31, 2019. Earnings capacity increases will be pursued accordingly.

#### Roughly ¥1 trillion in net sales

E-Vision 2030 sets a target of roughly ¥1 trillion in net sales, twice the figure from the fiscal year ended December 31, 2019, to be achieved by launching new businesses and growing sales in existing businesses.

### Increase Corporate Value

Sustainable Growth / Sustainable Contributions to Society

**Target: ¥1 trillion in market capitalization**

The target of ¥1 trillion in market capitalization has been set to gauge the improvement of corporate value in 2030. In pursuit of this target, EBARA will seek to earn recognition as an excellent global company by simultaneously improving social, environmental, and economic value.

### End Goal of E-Vision 2030

To support our globe with technology and passion and earn recognition as an excellent global company

## Discussion between Key Sustainability Committee Figures

# In-Depth Look at Sustainability and EBARA's Future

The EBARA Group announced the E-Vision 2030 long-term vision and the E-Plan 2022 medium-term management plan in February 2020, marking its embarkment on a new journey to achieve sustainable growth from a future-oriented, long-term perspective. To respond to this milestone, Eiichiro Adachi, advisor to the Sustainability Committee, and Masao Asami, President, Representative Executive Officer, and chairperson of the Sustainability Committee sat down to discuss sustainability and EBARA's future while touching upon the feelings encapsulated by E-Vision 2030 and the issues needing to be tackled to achieve ongoing growth.

This discussion took place with both individuals wearing masks and practicing social distancing in light of the COVID-19 pandemic.

### View toward Sustainability

**Asami:** I am incredibly grateful that you honored us by joining the CSR Committee (currently the Sustainability Committee) in 2019, Mr. Adachi. The input you offer from a viewpoint completely different than ours is most appreciated. At EBARA, there is an entrenched belief that, the Company has existed for a century, our ongoing survival is practically guaranteed. I believe that this type of complacency is something that we need to disrupt, and I have been stressing this since I became president. Your addition to the committee has certainly changed things for the better, as your insightful comments have stimulated deeper discussion among the members resulting in better, more meaningful discussions.

**Adachi:** Everyone on the CSR Committee is earnest and incredibly serious in how they go about reports and discussions. Of course, I mean this as a compliment. Independent Directors, also, do not seem hesitant to make themselves heard. It is also clear to me that the roles and responsibilities of each member are clear on a functional level, and there is an effective plan-do-check-act (PDCA) cycle in place with regard to the direction that EBARA should take going forward. However, I do see room for improvement with regard to how visions of the future and the exciting new prospects of this future are incorporated into management.

**Asami:** Previously, our discussions were often focused on determining how to complete our short-term "to-do list" well, and so it was rare to get into the more exciting discussions of what we could or should do in the future.

In the 1980s, EBARA attempted to branch out in a number of new directions. Unfortunately, many of these ventures were financially unsuccessful. On top of that, a number of compliance issues were uncovered at EBARA around this time as well. Because of this, for a long time it was hard to actively market the contributions EBARA was making to society through its business. Today, we have finally been able to push past that situation, and can view ourselves in a new light.

**Adachi:** The struggles EBARA has overcome are an important part of the Company's history and demonstrate its understanding of the fundamental principles of business, that a company exists because of its ability to generate sales and profits. The experiences EBARA has had on its path to recovery will be vital in overcoming the increasingly opaque business environment as the world battles the COVID-19 pandemic. It is my hope that the Company will be able to utilize this history to create future success. Companies that have a clear legacy



### Eiichiro Adachi

Counselor, The Japan Research Institute, Limited

#### Abbreviated Career History

Eiichiro Adachi arrived at his current position of counselor at The Japan Research Institute, Limited, after working in this company's corporate strategy and technology research divisions. At Japan Research Institute, he oversees industry research and corporate evaluations from the perspective of CSR. He has also been serving as an advisor to the CSR Committee (currently the Sustainability Committee) of EBARA CORPORATION since 2019.



**Masao Asami**

President, Representative Executive Officer

employees understand and empathize with generally prove to be strong in the face of economic downturns or other such difficulties. Moreover, an even greater degree of strength can be witnessed when ESG issues and sustainability become the core of employee motivation and engagement. I have high expectations for EBARA in this regard.

### Background for and Evaluation of the E-Vision 2030

#### Long-Term Vision

**Asami:** EBARA was originally a small venture company spun off from a university. This venture company was lucky enough to find success by supplying something that was needed by the society of the time. We continued to meet contemporary needs by providing the agricultural pumps necessary for reconstruction after World War II and then the fans and chillers that were required during the postwar period of economic growth. Similarly, as increasing volumes of waste became an issue, EBARA worked to provide waste incinerators to combat the problem. This history of supplying products that meet the needs of society makes the conviction of EBARA's forebears very clear, that contributing to society is how EBARA most fully exercises its strengths. I find this unwavering conviction to be impressive.

The question then becomes: What do we need to do now to be able to continue making contributions to society over the next 50 to 100 years? At the moment, it can be expected that population growth in Asia and Africa will create conditions like those that Japan experienced during the period of its economic miracle. If this does indeed occur, EBARA may be able to contribute by tailoring the solutions it supplied to Japan to match the needs of these countries. It was by looking 10 years in the future through this lens that we arrived at the E-Vision 2030 long-term vision.

It is, of course, important to raise profitability of our existing businesses. For example, our pumps business is undeniably an important business. However, if asked if we are No. 1 in the world when it comes to pumps, we would have to say "no," which can make us feel trapped. It is vital to rekindle the pumps business.

The DNA of EBARA and its corporate culture is one that takes its role of contributing to society seriously. When it comes to profit, however, I cannot deny that there are entrenched feelings that make us sometimes prioritize contributions to society to the detriment of profitability. Independent Directors have noted this situation by stating that it is not acceptable for a company to have a weighted average cost of capital (WACC) that exceeds ROIC. However, if we are able to adjust our corporate culture, we will find ourselves poised to contribute to society without reservations. Based on this recognition, we designed E-Plan 2022 to include the tasks that absolutely need to be addressed in the first stage of E-Vision 2030.

**Adachi:** Many Japanese companies state that their companies exist for the benefit of society, even going so far as to indicate this in company policies. However, the number of companies that actually declare their vision for an ideal society, the society they aim to build, is much, much smaller. Usually, when I mention this to corporate managers, their response is humble, stating that companies are meant to serve customers so they should primarily focus on addressing customer needs as opposed to putting forth a vision of the society they hope to build. However, I feel that declarations of commitment to



social contributions without a clear vision for the society one wants to realize lack persuasiveness in the current era, which is characterized by the rapid emergence of new societal issues to tackle.

With this regard, E-Vision 2030 has a clear focus, looking to contribute to the resolution of climate change and water issues while helping evolve our very lifestyles. I have great praise for this focus, and I think EBARA has made strides forward by backing these goals with concrete numerical targets. If I were to nitpick, I would have to say that EBARA has yet to make the path to accomplishing these goals clear. If management has envisioned some roadmap for accomplishing these goals, I think it would be prudent to explain it to external stakeholders.

I also got the impression that E-Vision 2030 is an extension of EBARA's current business portfolio. Considering the drastic changes to society anticipated over the next decade, I think the Company's long-term vision would be even more appealing if it addressed fields that do not yet exist, fields that EBARA predicts will come into existence or that it is committed to creating itself.

**Asami:** Areas that are not an extension of EBARA's existing business and product portfolio would entail something unprecedented to the world.

**Adachi:** Companies can be prone to falling into ruts characterized by the following situations: (1) They have an existing business that promises ongoing sales. (2) Everyone involved in that business recognizes that it is essential to society. (3) As that business was forged over an incredibly long period of time, it strongly leans toward existing products and existing markets. In other words, as the company is achieving success with those existing products and markets, it has become inoculated against external stimulation. For a company that has fallen into such a rut, it can be difficult to create a situation that inspires employees to look for market needs in new locations or to seek to use their company's technologies to tackle previously unsurmountable challenges. You mentioned that EBARA branched out in a lot of different directions in the 1980s. It is certainly a problem if a company overextends in this manner, but it is also troublesome if a company is void of such aspirations.

**Asami:** After we overextended, the trauma silenced such ambition for a little while. We are now at a point where we have rebuilt our management constitution to a sufficient degree, and are thus poised to tackle new challenges once again. I also feel that the current trends of society, such as the growing emphasis on ESG factors and the SDGs, are things that match EBARA's corporate culture and herald significant opportunities for us. There is a need to create an ever-evolving, sustainable society, and at EBARA, we hope to tackle new challenges in order to realize this. We have started asking employees to consider what they want to do with EBARA from a long-term Groupwide perspective in internal training sessions in order to spark that drive in employees. In turn, we have seen an increase in promising projects proposed by employees that exercise EBARA's strengths.

One such project was the establishment of a new business development division three years ago. This division is engaged in various initiatives to facilitate the exploration of new businesses. For example, it has launched an open application system for soliciting new business ideas from within the Company. We hope to gather various ideas from throughout the organization and transform them into actual businesses based on judging by external experts and Independent Directors and on votes by employees. I anticipate that this process will help employees feeling trapped break out of their mental shackles to embrace the new idea that, while we cannot just do anything willy-nilly, there is a road to realizing business ideas that allow for EBARA to exercise its strengths in line with E-Vision 2030. In this manner, I hope to inspire change by communicating to employees that work is more than just repeating the same routine as it has been laid out; thinking up new ideas is also a part of everyone's job.

**Adachi:** Let me be frank in saying that internal changes like that cannot be seen from the outside. However, I am relieved to hear that such changes are going on inside of EBARA. I expect that EBARA will be reporting on the progress of E-Vision 2030 and E-Plan 2022 to shareholders and other investors in the future. When making these reports, I think it would be beneficial to go beyond simply looking at numbers and KPIs to introduce such initiatives as the internal open application system for new business ideas as one of the milestones of E-Vision 2030. There might be some pretty critical investors, but I believe that you, President Asami, can win them over with your conviction. ESG-minded investors tend to turn their attention to companies like EBARA that are highly sensitive to social transformation. Conversely, companies that are not proactive in addressing market fluctuations fail to pique the interests of such investors.

As for EBARA's strong focus on existing product lines, I suspect that EBARA's in-house company system is partially responsible. Under an in-house company system, the in-house companies tend to preface their activities on their established products and business models. This mentality can make it even more difficult to generate innovative ideas, and leads to the issue of having to make the extra effort of injecting stimulation in these companies.

**Asami:** I often find myself explaining how important it is to encourage a premium valuation through market-oriented synergies between businesses, rather than falling subject to a conglomerate discount. We need to take action based on this sentiment going forward.

### Importance of Incorporating Receptiveness and Problem Awareness of Overseas Employees

**Adachi:** I have served as an advisor to the CSR Committee for a year now. Over this period, I have felt that discussions, as well as the Company's PDCA cycle framework, have been overly biased to the business activities in Japan, when considering the ratios of overseas sales and employees. Considering the scale of EBARA's overseas operations it seems like there should be more focus on the engagement and motivation of overseas Group members, especially those that were incorporated into the Group through M&A activities. Up until now, it has been very common for Japanese companies to think of overseas bases and domestic bases as separate, resulting in double standards regarding management procedures and other aspects of operation. In these cases, if there is not an active and shared attempt to move toward a single standard for all bases, it invites the threat of corporate scandals. Even if a company advocates abstract concepts like sustainability and ESG-focused management, it is not unheard of for overseas bases to feel disconnected from these concepts. For this reason, as well as for the purpose of increasing the motivation and engagement of overseas employees, it is crucial to avoid the creation of internal double standards. If we follow this line of thinking to its logical conclusion, we arrive at the need for a universally understood language, such as English, to be used for the company's books and all internal communications. I believe that Japanese companies that assume this is the direction of the future and start to take action in preparation for this will eventually be able to cast off the label of "Japanese company," and finally be recognized as a true "global company."

Furthermore, it is not uncommon for overseas employees to be more forward-thinking and receptive than those in Japan. For example, EBARA has bases in emerging countries. Awareness of societal issues in emerging countries eclipses that of Japan. If people in such countries bring their receptiveness and problem awareness as well as the issues they face in their everyday lives to work, it will likely stimulate discussions of how EBARA can address such issues. This discussion would lead to incredibly grounded, realistic initiatives, which have the capability to drive EBARA's transformation into a total solutions provider. I have high expectations for the management of overseas bases.

**Asami:** In 2020, EBARA appointed its first non-Japanese executive officer, Michael T. Lordi. In addition, eight years ago we launched a global human resource project through which employees around their 10th year at the Company are dispatched overseas for one to two years. When speaking with employees that were sent overseas, I have felt that their awareness of societal issues truly differed from that of employees who have worked solely in Japan. Overseas, these employees are driven by a determination to do everything themselves so that they can lead their non-Japanese colleagues. When these employees return to Japan, the large degree to which they have grown inspires others to request overseas assignment, and we have seen an increase in such employees in recent years. I recognize this as a clear sign that EBARA is changing.

### Broader Examination of How to Tackle Issues

**Asami:** Today's discussion with you, Mr. Adachi, made me realize anew the importance of changing how we view fields



other than those we are currently engaged in to look at them with a sense of excitement. If we adopt this approach and view the world from a broader perspective, thinking about what we can accomplish over the long term, I am sure we can bring out the best in EBARA.

**Adachi:** You are exactly right. There are a lot of different ways that excitement can be stimulated and brought to fruition. The overseas dispatch system you just mentioned could be one such way. Another would be generating ideas for preempting customer trends by identifying means of using EBARA's pump technologies to address the needs of customers or the trends in government policy in areas unrelated to pumps ever before. There is a lot of potential for growth using pumps alone. For example, there might be use for a pump that can fixate CO<sub>2</sub> underground. It would be a good idea to install frameworks for internally facilitating such discussions throughout the organization. Moreover, if people outside of the Company were to hear of such efforts, they might be inspired to consult EBARA. When forming new contact points with a new market, it is important to broaden one's perspective beyond looking at what will sell to considering the societal issues faced in that market. The extreme seriousness of people at EBARA can lead to a narrow perspective, which is why I want to emphasize the importance of broadening perspectives throughout the Company. I also would like to see EBARA being more proactive in broadcasting the partners it looks to ally with and the projects to be undertaken with these partners.

**Asami:** EBARA is a little bad at self-promotion. A previous supervisor of mine once said that not voicing your opinions is the same as not having any thoughts at all. At EBARA, we have a strongly ingrained culture of valuing dedication and refraining from boastfulness. However, there are certainly cases in which aggressive self-promotion is viable.

**Adachi:** Companies have been increasingly welcoming non-Japanese employees in recent years. These employees bring with them different languages and sensibilities. Given this fact, I think silence is a problem also from the perspective of diversity.

**Asami:** That is true. We will look to be more proactive in communication, both inside and outside of the Company. Thank you for speaking with me today.

Special Feature: New Businesses

# Development of New Businesses to Address Future Social Needs

The EBARA Group has put forth a business strategy policy of optimizing its business portfolio in order to maximize its corporate value with an eye to 2030. In accordance with this policy, we are creating new businesses based on the issues gleaned from our outlook for the world of the future and on a global, market-oriented perspective. We aim to earn greater corporate value by leveraging EBARA's strengths and helping resolve the material issues defined in E-Vision 2030. In this special feature, we will provide an overview of efforts to create new businesses along with examples of specific initiatives in fields pertaining to food and the elimination of oil dependency.



New Business Initiative 1

Preventing Oceanic Pollution and Resolving Food Issues through Development of Inland Aquaculture Technologies



New Business Initiative 2

Ending Dependence on Oil with Fossil-Fuel Free Biotechnologies



Background for New Business Creation

## New Forward-Looking Ambition Sparked by Rekindling the Founding Spirit

EBARA traces its roots back to a start-up company launched from a university that was established for the purpose of manufacturing Inokuty-type volute pumps. In the years that followed, EBARA employees continued to ambitiously tackle new challenges, driven by the Founding Spirit of "Netsu to Makoto" (Passion and Dedication) that has inspired us to embrace originality and ingenuity since the Company was founded through the practical application of Japan's first domestically manufactured pump. This ambition spurred us forward to engage in fields such as fuel cells and wind power generation before their popularization. Unfortunately, we also experienced many failures, as we were unable to successfully steer these businesses to growth and were eventually forced to retreat from them altogether. We cannot deny that the trauma of past failures lingers in the EBARA of today in the form of an,

albeit small, aversion toward new businesses. Meanwhile, EBARA has launched E-Vision 2030, which calls on us to address five material issues and maximize corporate value with a view of the world a decade from now. Realizing this vision will require a rekindling of the Founding Spirit in employees to spark new ambition for tackling emerging social issues through new businesses. We are taking measures to stimulate interest in the development of new businesses among all EBARA employees by soliciting ideas through an open application system and recruiting staff volunteers. The creation of new businesses is imperative to awakening our dormant spirit of ambition throughout the Company and is a core pillar of the business strategies that will be key to the realization of E-Vision 2030. Based on this recognition, we are seeking out means of providing new, future-oriented solutions.

Steps for New Business Creation

## Development of New Businesses Utilizing Internal and External Strengths

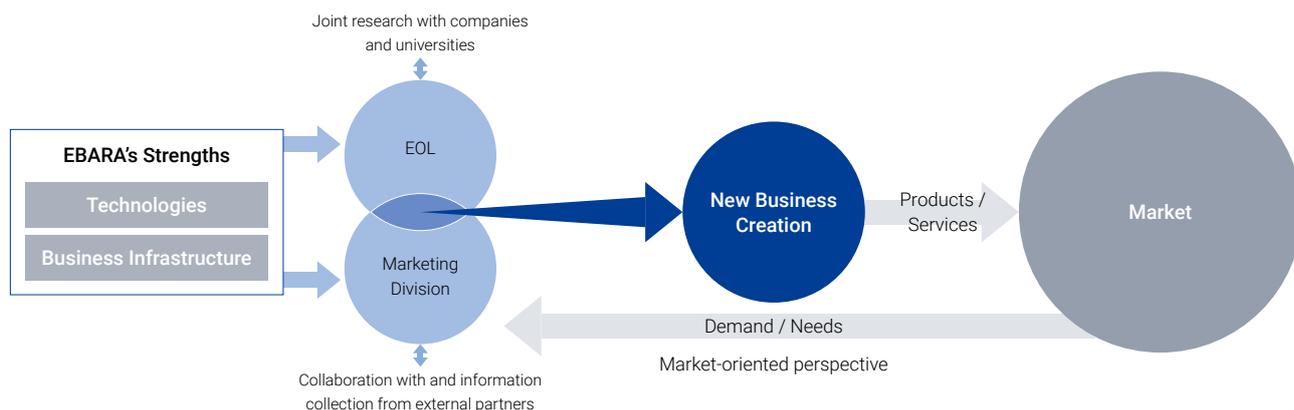
Our basic strategy toward developing new businesses is to utilize EBARA's technologies to provide solutions to customers based on an understanding of global social needs founded on a market-oriented perspective. The first step in this process will be to search out new needs and potential business ideas. We then will identify the types of products and services that will meet these needs and examine the technological and infrastructure strengths that EBARA can utilize to realize practical application of these products and services from a global, Groupwide perspective. Next, we will need to reinforce our business structure in terms of marketing and R&D functions in order to link the identified needs and business ideas to solutions for customers. Technologies and strengths contained within the Company will form the foundation for these efforts. However, if there is a need to supplement these assets with additional technologies and insight necessary for commercialization requirements and ideas, we will not hesitate to look outside of the Company. In this manner, we intend to take a flexible and proactive

approach toward collaborating with, investing in, and acquiring external research institutions, start-ups, and other companies. Through the Ebara Open Laboratory (EOL)\*, we perform prototyping in research and development jointly with external research institutions and small and medium-sized corporations. We are also enacting frameworks in which EBARA's Marketing Division works in conjunction with the EOL to promote joint development projects with external partners as well as other development projects.

Our future plans entail engaging in joint projects with start-ups and other companies and universities during the period of E-Plan 2022. In the first half of this period, we will work on creating research successes and applying for patents with regard to these successes. In the second half of the plan, we will look to transform these successes into actual businesses and grow their sales.

\* A corporate research organization that enables exchanges among researchers and open sharing of research themes in-house

### New Business Creation Process



New Business Initiative 1



**Targeted Global Issues**

**Limited Food Access and Oceanic Pollution**

It is estimated that approximately 800 million people worldwide (one in every nine people) suffer from a chronic lack of food. Aquaculture has been proving to be a popular approach to secure stable supplies of food, seen in the continuous increase in production volumes globally. Aquaculture now accounts for half of the total production of all aqua products.

However, fish excretions and feed residue from aquaculture operations can accrue on the seafloor, polluting the site of operations and adversely impacting the surrounding ocean areas. This situation is becoming a serious problem. The world is thus pressed with the need to address the crises facing its sources of aqua products and to develop sustainable fishing and aquaculture approaches.

**Preventing Oceanic Pollution and Resolving Food Issues through Development of Inland Aquaculture Technologies**

**Project Commencement and Business and Capital Alliance with University-Launched Start-Up**

The EBARA Group has commenced a project to develop an inland recirculating aquaculture system to address oceanic pollution issues arising from conventional offshore aquaculture. This is especially important as these issues are compounded by the global rise in aqua product demand and the expansion of aquaculture businesses.

On this front, we commenced a capital and business alliance with Regional Fish Institute, Ltd. (RF), after receiving a third-party allocation of shares. RF is a food tech start-up established as the core proponent of the efforts of Kyoto University and Kinki University to develop selective breeding techniques for marine life. Through open innovation activities with RF, EBARA seeks to develop a next-generation aquaculture system that combines selective breeding techniques (to speed up aquaculture processes) with smart aquafarming (automated farming). We thereby aim to help alleviate worldwide protein deficiencies (SDG Goal 2: Zero Hunger), contribute to the reconstruction of

Japan's fishing industry and to regional development (SDG Goal 8: Decent Work and Economic Growth), and prevent oceanic pollution (SDG Goal 14: Life Below Water).

EBARA's decision to form a business and capital alliance with RF was inspired by our support for its approach toward addressing environmental issues.

**Future Business Initiatives**

We aim to create a sustainable inland recirculating aquaculture system that can produce aqua products in sufficient quantity with reliable quality, which is friendly to the environment and safe from infection by pathogens. We will utilize technologies EBARA has fostered since its founding, such as fluid and heat control and others, to help realize this. With this system at its core, we will move forward with the development of new businesses and contribute to the advancement of inland aquaculture technologies and the protection of the ocean from pollution.

**Inland Recirculating Aquaculture System (RAS)**

RAS entails the cultivation of aqua products in inland areas by artificially creating necessary environments. This approach is garnering attention for its potential to contribute to improved quality and productivity in aquaculture, as people will be able to more effectively manage cultivation environments, while helping reduce environmental impacts. Conversely, there are disadvantages to inland aquaculture such as high initial equipment costs and significant running costs due to factors such as large electricity consumption volumes. There is thus demand for sustainable aquaculture systems that eliminate these disadvantages.



Ocean free from pollution

## New Business Initiative 2



## Targeted Global Issue

## Oil Dependence

The vast majority of the plastics and fibers that are indispensable to our daily lives are made from petroleum. The fossil fuels used to make these items are a finite, non-renewable resource. If we continue to consume fossil fuels at the current pace, it is estimated that we will deplete our global supply within the next 40 years. Moreover, fossil fuels are viewed as problematic as substantial amounts of GHGs are emitted throughout all stages from the excavation to the use of these resources.

Society must eliminate its dependence on oil if it is to achieve sustainability and prevent global warming.

## Ending Dependence on Oil with Fossil-Fuel Free Biotechnologies

## Business Alliance with Non-Petroleum Material Pioneer

In January 2020, EBARA invested ¥1.0 billion in Spiber Inc. and embarked on the joint development of biotechnologies to support the elimination of oil dependency. Spiber develops and manufactures Brewed Protein™, which are sustainable protein materials produced from plant-derived biomass gaining attention as next-generation key materials.

Together with Spiber, we are currently working to address obstacles toward the mass production of materials created by Brewed Protein™ and the reduction of the costs associated with the manufacturing processes. EBARA technologies are being employed to increase the efficiency of manufacturing processes in order to remove these obstacles. In addition, we are working to improve the functionality of EBARA products by utilizing Brewed Protein™ materials as replacement materials and additives for these products.

## Future Business Initiatives

Ending society's dependence on oil requires the global popularization of biotechnologies that can create various materials from brewed proteins. However, the high costs of production processes are presenting a major obstacle to the practical application of these materials. Eliminating this obstacle is our first priority. We will also continue working closely with Spiber to gather insight into the brewing process and to develop new businesses in the biotechnology field, an as yet unexplored area for the EBARA Group. Leveraging existing know-how and future discoveries of the Group, we aim to innovate related manufacturing processes and propose solutions in new fields.

## Brewed Protein™

Brewed Protein™ refers to protein materials produced from plant-derived biomass using Spiber's proprietary fermentation process. This production process does not rely on oil or other fossil fuels for its main raw materials. The characteristics of Brewed Protein™ can be modified according to end-product needs through an ongoing process of molecular-level refinements that is not dissimilar to the process of evolution. These materials have substantial potential to help industries eliminate their dependence on microplastic and animal-derived substances while also addressing the needs of the transportation field to reduce the weight of transported articles.



Brewed Protein™ materials



Brewed Protein™ manufacturing facility

# Three Businesses Supporting Social and Industrial Infrastructure

Fiscal year ended December 31, 2019

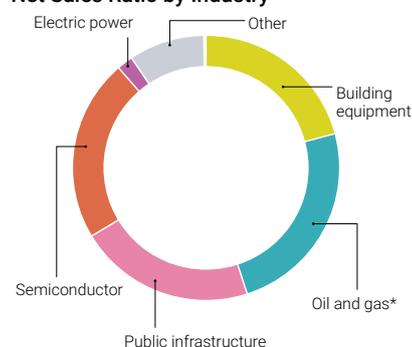
## Consolidated Net Sales

¥522.4 billion

## Consolidated Operating Income

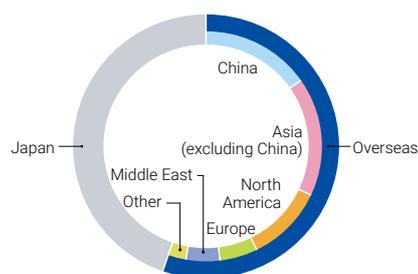
¥35.2 billion

### Net Sales Ratio by Industry

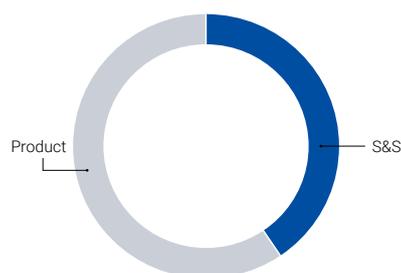


\* Mostly downstream businesses

### Net Sales Ratio by Region



### S&S Sales Ratio



## Fluid Machinery & Systems Business → P.35-38

### Pumps Business

Offers large-scale, high-pressure custom pumps for use in sewage facilities, rainwater drainage systems, petrochemical plants, and other facilities as well as standard pumps for use in high-rise buildings, condominiums, industrial facilities, and others

### Compressors and Turbines Business

Provides compressors and turbines for oil refineries and petrochemical plants

### Chillers Business

Handles chillers, cooling towers, and related systems for use in the air-conditioning equipment of buildings and large-scale commercial facilities

### Other Businesses

Provides fans for use in applications such as tunnel ventilation as well as electricity, telecommunications, and energy control equipment

## Environmental Plants Business → P.39-41

Uses EBARA's incinerator and gasification plant technologies to perform processes encompassing the design, construction, operation, and maintenance of municipal solid waste incineration plants and other waste treatment facilities

## Precision Machinery Business → P.42-44

### Net Sales

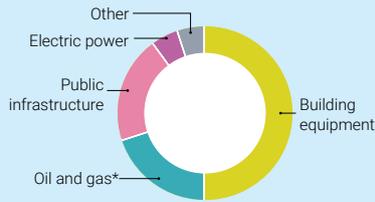
Components	¥58.9 billion
CMP Systems	¥62.6 billion
Others	¥6.6 billion

Provides products that contribute to the manufacturing processes of semi-conductors, flat panel displays, and other devices indispensable to a super-smart society including the dry vacuum pumps that create the required vacuum environments and the CMP systems that can polish semiconductor wafers with nano-level precision

Net Sales Ratio

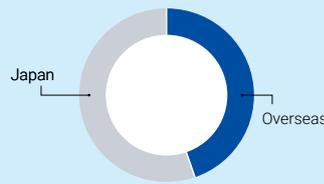


Net Sales Ratio by Industry

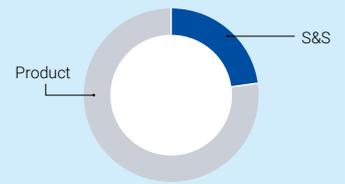


\* Mostly downstream businesses

Net Sales Ratio by Region



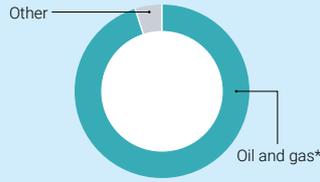
S&S Sales Ratio



Net Sales Ratio

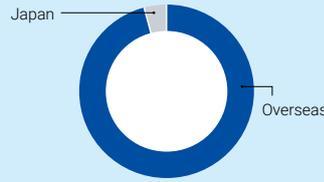


Net Sales Ratio by Industry

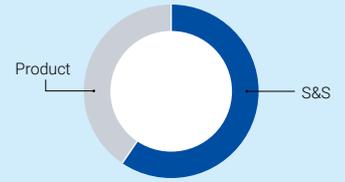


\* Mostly downstream businesses

Net Sales Ratio by Region



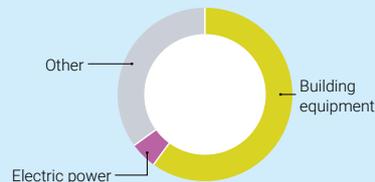
S&S Sales Ratio



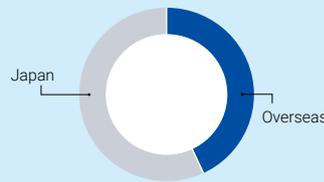
Net Sales Ratio



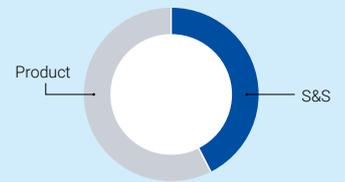
Net Sales Ratio by Industry



Net Sales Ratio by Region



S&S Sales Ratio



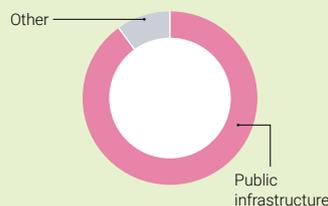
Net Sales Ratio



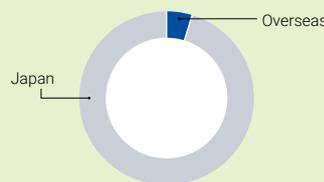
Net Sales Ratio



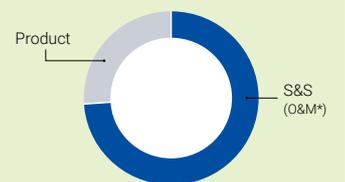
Net Sales Ratio by Industry



Net Sales Ratio by Region



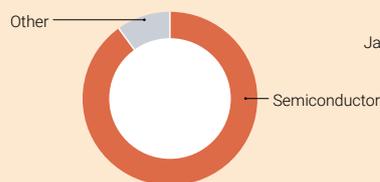
S&S Sales Ratio



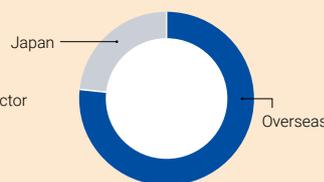
Net Sales Ratio



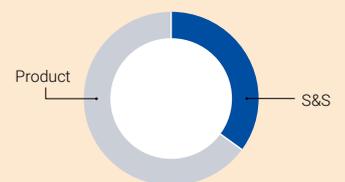
Net Sales Ratio by Industry



Net Sales Ratio by Region



S&S Sales Ratio



\* Operation and maintenance

# Fluid Machinery & Systems Business

We will reform the business structures of the Fluid Machinery & Systems Business to improve our presence in overseas markets and generate appropriate profits.



**Nobuharu Noji**  
Executive Officer  
President, Fluid Machinery & Systems Company

### Strategic Points

- In the standard pumps business, focus on markets and regions with the potential for growth while bolstering sales networks and product lineups and reinforcing supply chains.
- In the custom pumps and the compressors and turbines businesses, improvements in profitability will be pursued, as opposed to growth in the sales of base products, through S&S enhancements and business structure reforms.
- In all businesses, create products matched to the needs of customers in unexplored and other markets with an emphasis on market-oriented product development and the establishment of a leading position in niche areas.

In the fiscal year ended December 31, 2019, net sales in the Fluid Machinery & Systems (FMS) Business increased over the same period last year as a result of brisk investment in the oil and gas markets of China. Operating income also improved thanks to the benefits of ongoing process reforms in domestic standard pumps operations as well as the favorable performance of S&S operations for compressors and turbines.

Under E-Plan 2019, the previous medium-term management plan, we enacted the basic policies of working to improve our profitability and market share in Japan and to expand the scale of our operations overseas. In Japan, we commenced the operation of automated standard pump assembly lines with the aim of creating an efficient production system. Overseas, meanwhile, we established new standard pumps sales bases and reorganized cryogenic pumps operations.

In terms of the KPIs for our ESG initiatives, we were unable to achieve our targets regarding lower electricity consumption and reduced weight for our products as they are tied to the amount of those products sold. However, we were close to achieving our target for increasing the number of S&S bases.

E-Plan 2022, the new medium-term management plan, calls on us to further improve our overseas presence in the standard pumps business while developing operations in which profits are not affected by market fluctuations in the custom pumps and compressors and turbines businesses. At the same time, we will explore new fields and markets as we strive to create high-value-added products that capitalize on the Group's fundamental technologies.

## Review of the Fiscal Years Ended December 31, 2017–2019

### Material ESG Issue Action Policies and Major KPIs (E-Plan 2019 Final Year Results)

#### Action Policy 1 Provide products and services that minimize the use of energy and resources

KPI: Reduce electricity consumption of certain products in comparison to prior offerings	Progress toward Target 
KPI: Reduce the weight of certain products in comparison to prior offerings	Progress toward Target 

#### Action Policy 2 Expand the service and support (S&S) business, maximize product life, and minimize any product downtime

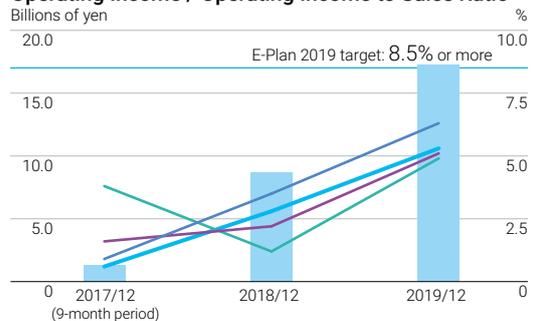
KPI: Increase S&S sales	Progress toward Target 
KPI: Increase number of S&S bases	Progress toward Target 

### Numerical Targets of E-Plan 2019 (Consolidated)

#### Operating income to sales ratio of 8.5% or more

Pumps Business	8.0% or more
Compressors and Turbines Business	11.0% or more
Chillers Business	7.0% or more

#### Operating Income / Operating Income to Sales Ratio



Bar graph: Operating income (left scale)  
Line graph: Operating income to sales ratio (right scale)  
— Fluid Machinery & Systems Business — Pumps  
— Compressors and Turbines — Chillers

## SWOT Analysis of Fluid Machinery & Systems Business

<ul style="list-style-type: none"> <li>Fluid, numerical analysis, material, analytical, and other fundamental technologies cultivated over the years (entire FMS Business)</li> <li>Propensity for developing highly efficient, high-quality, and highly reliable products (entire FMS Business)</li> <li>Diverse, global employee base and network (entire FMS Business)</li> <li>Presence in Asia (entire FMS Business)</li> </ul>	<ul style="list-style-type: none"> <li>Lacking presence in Europe and the United States (pumps, chillers)</li> <li>Insufficient lineup of products matched to overseas specifications (pumps)</li> <li>Dependence on highly volatile markets (compressors and turbines)</li> </ul>
<b>S</b> Strengths	<b>W</b> Weaknesses
<ul style="list-style-type: none"> <li>Increases in infrastructure investment in conjunction with rising water demand attributable to population growth and urbanization in emerging countries (pumps)</li> <li>New opportunities arising from industrial structure changes occurring in conjunction with progress in 5G, IoT, and other technologies (pumps, chillers)</li> <li>Growing demand for EBARA products in tandem with growth in demand for LNG, hydrogen, and other forms of clean energy (pumps, compressors and turbines)</li> </ul>	<ul style="list-style-type: none"> <li>Intensification of price competition stemming from domestic market contraction (pumps, chillers)</li> <li>Increased competition due to maturity of technologies and improvement of technological capabilities of manufacturers in emerging countries (entire FMS Business)</li> </ul>
<b>O</b> Opportunities	<b>T</b> Threats

## E-Vision 2030 and E-Plan 2022 Business Strategies

### Business Vision (E-Vision 2030)

Become a top-class industrial machinery manufacturer that continues to advance into new fields supported by the fundamental technological prowess forged over years of operation

### E-Plan 2022

Business Strategies

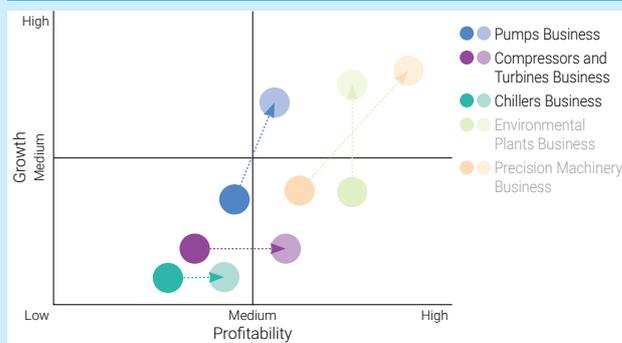
- Establish business structure that ensures reliable profits
- Improve presence in the overseas market
- Create products matched to customer needs in unexplored and other markets

Operating Income to Sales Ratio Targets

**FMS Business 7.0% or more**

Pumps Business	6.5% or more
Compressors and Turbines Business	8.0% or more
Chillers Business	5.0% or more

### Target Business Portfolio



### Measures by Market

Market	Overall Trend	Principal Businesses	Major Measures
Building equipment	Domestic: ↘ Overseas: ↗	Pumps Chillers	<ul style="list-style-type: none"> <li>Improve operational efficiency and reduce labor requirements with AI and robotic process automation (RPA) (Japan)</li> <li>Expand sales network (overseas)</li> <li>Expansion of product model lineup (overseas)</li> <li>Reinforce supply chains (Japan, overseas)</li> <li>Launch high-value-added products (Japan, overseas)</li> </ul>
Water infrastructure	Domestic: → Overseas: ↗	Pumps	<ul style="list-style-type: none"> <li>Develop technologies for extending lifespans of aged equipment (Japan)</li> <li>Launch products matched to regional needs (Japan, overseas)</li> </ul>
Oil and gas	Domestic: → Overseas: →	Pumps Compressors and turbines	<ul style="list-style-type: none"> <li>Expand regional base network coverage to accommodate S&amp;S increases through collaboration between custom pumps and compressors and turbines businesses (overseas)</li> <li>Bolster production capacity through installation of new cryogenic pump test stand (overseas)</li> </ul>

## Social Contributions through Business

### Water Supply Unit Contributing to Effective Space Use and Easy Installation

## Stable Water Supply from Optimal Water Supply Equipment

#### Relevant SDGs



In December 2019, we commenced sales of 10 different models of the new FRESHER 3100 NEO (BN-MG-Type) feed water pump in Japan. Such water supply units are crucial to realizing stable water supplies in buildings, condominiums, and other structures and in factory equipment. The FRESHER 3100 NEO (BN-MG-Type) is equipped with an inverter-integrated permanent magnet motor that combines an EBARA inverter with a permanent magnet motor boasting Ultra Premium Efficiency (IE5), the highest class for motor efficiency, making this offering one of the smallest in the industry, weighing roughly 44 kg less than prior models and requiring approximately 32% less space. Furthermore, the direction of water outputs and the location of control panels can be chosen on-site, making it possible to freely arrange the layout for easier maintenance. These features help realize optimal water supply facilities that contribute to effective space utilization and shorter installation and maintenance times for buildings, condominiums, and other structures.



#### FRESHER 3100 NEO (BN-MG-Type)

Standard pumps have a wide range of uses ranging from water supply in buildings, condominiums, and other structures to conveying fluids in industrial plants. The FRESHER 3100 NEO (BN-MG-Type) is an energy-efficient, resource-saving product that can be used for realizing efficient manufacturing processes to deliver optimal levels of convenience.

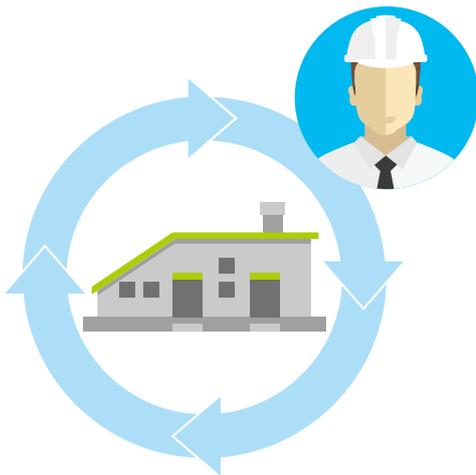


\* BN-MG-Type is an EBARA model number.

### Provision of S&S Matched to Customers

## Contributions to Reliable Operation of Customer Infrastructure

#### Relevant SDGs



The EBARA Group has a robust global track record of custom pump deliveries to oil, gas, and water infrastructure and to power markets in the Middle East, Southeast Asia, and other parts of the world. This track record is particularly strong in Saudi Arabia, where we have delivered more than 5,000 custom pumps to date. To ensure that these products can continue to be operated reliably after delivery, we are developing customer-rooted service systems at overseas service bases.

To this end, we have sales representatives and engineers perform proposal-based sales activities while on-site field service engineers supply parts and overhaul services. Going forward, we will continue to respond to customer needs by delivering components as well as repair and maintenance services as we seek to offer S&S that spans the entirety of product life cycles.



#### Saudi Arabian Service Shop

Through the provision of S&S tailored to customers, we support the stable operation of infrastructure by extending the lifespans of delivered products and thereby contributing to the reduction of waste. Moreover, maintenance proposals that realize energy-efficient operations contribute to the reduction of environmental impact.

## Cryogenic Pumps Underpinning Safe and Secure Transportation of Natural Gas Support for Supply of Chemical Products and Energy

### Relevant SDGs



Primarily used in the LNG industry, cryogenic pumps are indispensable to the transportation and storage of LNG. Harvested in forms such as shale gas, natural gas takes a gaseous form under normal temperatures and pressures. Efficient transportation of natural gas is achieved by cooling it to  $-162^{\circ}\text{C}$  to shrink it to approximately 1/600th of its normal volume, and cryogenic pumps are used in this process. These pumps have high technological requirements to ensure that their structure can prevent leaks of vaporized flammable gas from LNG and that they are able to operate under temperatures ranging from normal to ultralow. Looking ahead, it can be expected that natural gas demand will increase in conjunction with the economic growth to be seen largely in China, India, and other parts of Asia. In light of this demand, Elliott Group Holdings, Inc., will contribute to the stable supply of energy through the safe and secure transportation of natural gas using cryogenic pumps.



### Supplier of the Cryogenic Pumps Supporting the LNG Industry

Elliott Group Holdings designs and manufactures the compressors and turbines that form the hearts of petroleum refineries and petrochemical plants while also supplying related after-sales services. Over a history spanning more than a century, this company has pursued engineering innovations, produced highly reliable products, and thereby won customer satisfaction. The compressors and turbines business of EBARA CORPORATION, the parent company of Elliott Group Holdings, was transferred to this company in 2000 followed by its cryogenic pumps business in 2019.



Cryogenic pump test stand

## New Turbo Chiller Installed in the Japan National Stadium Helping to Combat Global Warming

### Relevant SDGs



### Turbo Chiller Delivered to the Japan National Stadium

An ERS turbo chiller using AGC's refrigerant was delivered for use in the cold source equipment for the air-conditioning system in the Japan National Stadium in 2019. (Photograph provided by Taisei Corporation)



EBARA REFRIGERATION EQUIPMENT & SYSTEMS Co., LTD. (ERS), has developed an eco-friendly high-efficiency Model RTBA centrifugal chiller designed for non-fluorinated gases that uses the eco-friendly AMOLEA™ 1224yd refrigerant produced by AGC Inc. This chiller has been delivered to a variety of facilities, including commercial and lodging facilities as well as chemical plants. Recognized for its excellent performance and undeniable track record, this chiller received a special judges committee award in the 21st Ozone Protection and Global Warming Prevention Awards, and has been adopted for use in the Japan National Stadium. In addition, we provide partial upgrade services to renovate prior chiller models to be compatible with the AMOLEA™ 1224yd refrigerant. These services enable customers to introduce eco-friendly products that help combat global warming without making substantial upfront investments.

Initially established as the chillers business division of the Company, ERS is a pioneer in the manufacture and sale of large-scale cold source equipment, having delivered the first domestically produced turbo chiller 90 years ago in 1930. This division was spun off as its own company in 2002, and has been developing the Group's chillers business in Japan and overseas since. ERS delivers comprehensive solutions in the heat energy field through its chillers, cooling towers, and accompanying S&S operations. Going forward, ERS will continue to supply its products to various facilities and further its efforts to contribute to the prevention of global warming.

\* Model RTBA is an ERS model number.

\* AMOLEA™ is a registered trademark of AGC Inc.

# Environmental Plants Business

The Environmental Plants Business aims to grow into a resource circulation solutions provider that contributes to the development of sustainable communities.



**Atsuo Ohi**  
Executive Officer  
President, Environmental Engineering Company

### Strategic Points

- Continue contributing to the development of sustainable communities through close cooperation with local communities.
- Pursue reductions of CO<sub>2</sub> emissions through facility energy efficiency improvements and effective utilization of CO<sub>2</sub>.
- Utilize proprietary technologies to effectively reuse plastic waste and address issues regarding marine microplastic issues.
- Make ongoing improvements to product and service lineups to support the continuous implementation of the aforementioned initiatives.

The EBARA Group kicked off E-Plan 2022, its new medium-term management plan, with the fiscal year ending December 31, 2020.

Under E-Plan 2019, the previous medium-term management plan, we sought to elevate the level of our area management practices in the waste treatment field. We thereby succeeded in streamlining operating procedures by ramping up the sharing of information between existing facilities.

In creating E-Plan 2022, we reviewed the period of E-Plan 2019 in addition to defining a long-term vision for the Group in 2030. Through this process, we were able to clearly define our commitment to contributing to the development of a sustainable society through management based on ESG factors and measures for helping accomplish the objectives of the SDGs in the waste treatment field. E-Plan 2022 has been positioned as our first step toward realizing the vision indicated in E-Vision 2030. Under this plan, the Environmental Plants Business aims to grow into a resource circulation solutions provider. In this capacity, we will develop business centered on the construction and operation of waste treatment plants that primarily serve local governments. We will also seek to help resolve environmental and social issues and deliver a wide range of services that contribute to the development of a sustainable society.

## Review of the Fiscal Years Ended December 31, 2017–2019

### Material ESG Issue Action Policies and Major KPIs (E-Plan 2019 Final Year Results)

#### Action Policy 1 Provide products and services that minimize the use of energy and resources

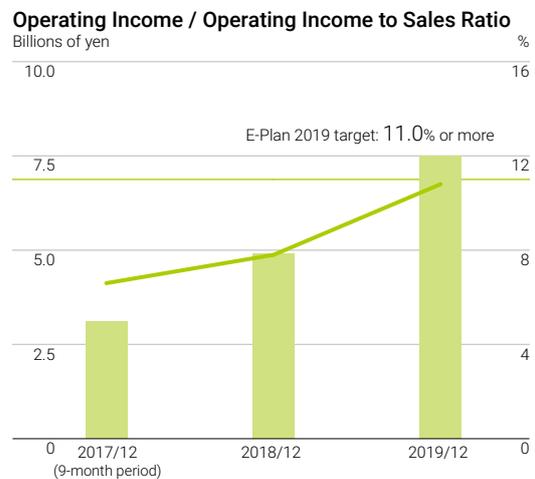
KPI: Waste-to-energy generation volume	Progress toward Target 
KPI: Power generated by biomass-related power generation facilities	

#### Action Policy 2 Expand the service and support (S&S) business, maximize product life, and minimize any product downtime

KPI: Increase number of Operation and Maintenance (O&M) contracting facilities	Progress toward Target 
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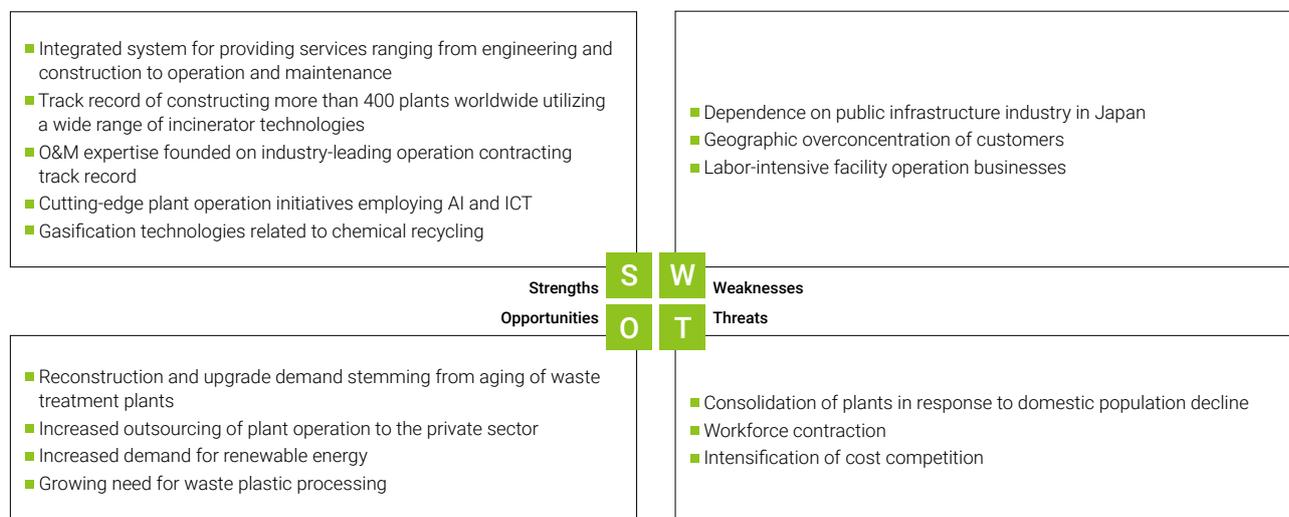
### Numerical Targets of E-Plan 2019 (Consolidated)

Operating income to sales ratio of **11.0% or more**



Bar graph: Operating income (left scale)  
Line graph: Operating income to sales ratio (right scale)

### SWOT Analysis of Environmental Plants Business



### E-Vision 2030 and E-Plan 2022 Business Strategies

#### Business Vision (E-Vision 2030)

Expand business to become a resource circulation solutions provider with operations centered on waste treatment plant construction and operation that provides integrated engineering, procurement, and construction (EPC) services primarily to local governments

#### E-Plan 2022

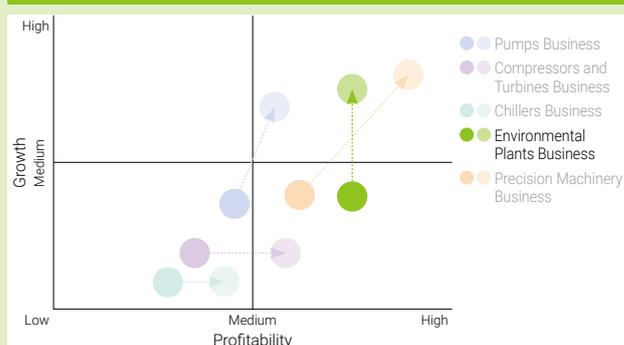
Business Strategies

- Reinforce core operations
- Develop new businesses
- Step up waste treatment equipment liquidation and sales activities in China and promote offshore trading
- Improve non-price evaluation of design, build, and operate (DBO) projects

Operating Income to Sales Ratio Target

Environmental Plants Business **9.5% or more**

#### Target Business Portfolio



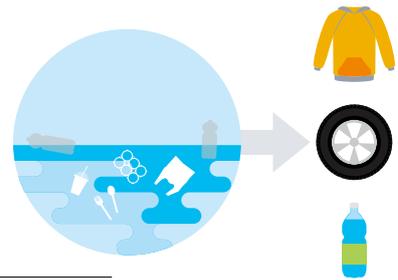
#### Measures by Market

Market	Overall Trend	Major Measures
Waste incinerator planning, engineering, and construction	Domestic: → Overseas: ↗	<ul style="list-style-type: none"> <li>• Improve new EPC and DBO order acquisition success rates through enhancement of non-price proposal capabilities (Japan)</li> <li>• Bolster production capacity of Chinese manufacturing sites and promote offshore trading of equipment (Overseas)</li> </ul>
O&M services	Domestic: →	<ul style="list-style-type: none"> <li>• Reduce maintenance and management costs and improve plant performance using AI and ICT (Japan)</li> </ul>
Other	Domestic: ↗ Overseas: ↗	<ul style="list-style-type: none"> <li>• Construct chemical recycling business model (Japan)</li> </ul>

## Social Contributions through Business

### Plastic Waste Gasification Chemical Recycling

## Quest to Address Marine Microplastic Issues through New Collaborative Business Model



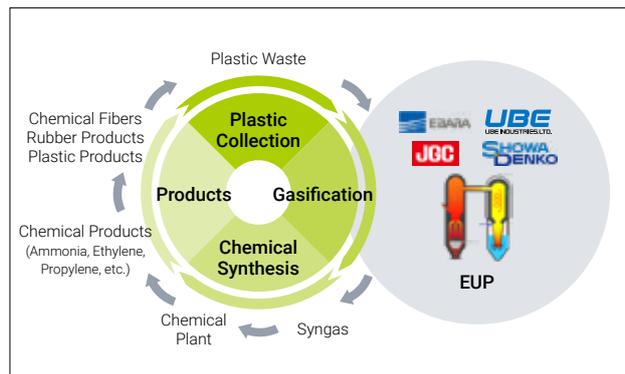
**Relevant SDGs**



In July 2019, Ebara Environmental Plant Co., Ltd., concluded a confidentiality agreement with JGC Corporation (currently JGC CORPORATION), Ube Industries, Ltd., and Showa Denko K.K., with regard to the promotion of plastic waste chemical recycling using the Ebara Ube Process (EUP). We also began examining possibilities for collaboration at this time, and are currently looking at introducing the EUP to the market.

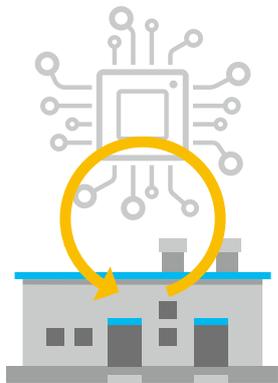
The goal of this project is to promote plastic waste chemical recycling as a solution for helping address climate change and oceanic pollution issues stemming from plastic waste, which have recently been garnering attention on a global scale.

EUP is a two-phase gasification system developed jointly by Ube Industries and EBARA Environmental Plant. This system can be used to convert plastic waste into a syngas (H<sub>2</sub>+CO) through thermal decomposition and ultimately enable this gas to be reused as a material for producing ammonia or other chemical products.



**Plastic Waste Recycling Process**

Gasification chemical recycling of plastic waste is capable of decomposing a mixture of various kinds of plastics and impurities, which presents difficulties for other recycling methods, at the molecular level, to be recycled as various chemical materials. This process is anticipated to contribute to substantial improvements in recycling ratios.



### Automatic and Continuous Boiler Pipe Thickness Measurement Using Small Traveling Robots

## Further Evolution of Safe and Secure Plant Operation through Technological Capabilities

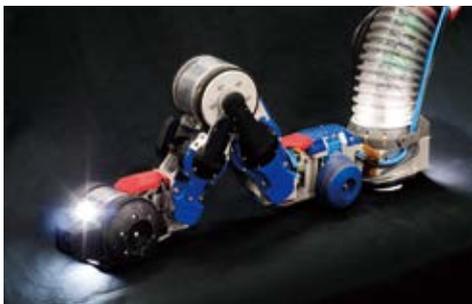
**Relevant SDGs**



At Ebara Environmental Plant, we regularly measure the pipes of fuel gas heat recovery boilers in waste treatment plants to assess the amount of corrosive and other wear in order to promote longer lifespans of our plants.

Conventional methods for measuring the thickness of pipes from inside entailed inserting small sensors into the narrow pipes. However, this method required a portion of the pipes to be severed, in addition to other cumbersome preparations.

To address this issue, we began joint development of small traveling robots that can move through small spaces, such as narrow pipes, with HiBot Corporation, a company that boasts cutting-edge development technologies. Working together, we were able to complete a successful field test of the automatic and continuous measure of boiler pipe thickness using these robots.



### Small Traveling Robots for Automatic and Continuous Boiler Pipe Thickness Measurement

We have successfully developed small traveling robots that can move through narrow pipes and other small spaces. However, Ebara Environmental Plant is committed to always striving for better and will be undertaking new development projects for technologies and other breakthroughs to make ongoing contributions to the creation of sustainable recycling-oriented cities.

# Precision Machinery Business

Accelerate growth in all of our businesses by bolstering product cost-competitiveness and reconstructing business structures centered on the automation of dry vacuum pump assembly lines



**Tetsuji Togawa**  
Executive Officer  
President, Precision Machinery Company

### Strategic Points

- Transition from a supplier of standalone equipment to a solutions provider.
- In the components business, transform into a comprehensive exhaust-related equipment provider for vacuum processes.
- In the CMP systems business, evolve into a CMP process solutions provider centered on equipment.
- Create new businesses with new technologies at their core.
- Pursue highly efficient management and develop operations on a global scale.

During E-Plan 2019, the Precision Machinery (PM) Business began construction on automated dry vacuum pump assembly lines and a development and verification test facility, built overhaul bases in the Kyushu and Chubu regions, and started full-fledged operation of a new building in its CMP system mass production factory. We also promoted further procurement and component production capabilities of overseas bases. As a result, during the period of E-Plan 2019, we achieved a three-year average operating income to sales ratio of 11.5%. This is unfortunately lower than the target of 12%. Major issues to be tackled in our business include the optimization of production systems, through further increasing the number of automated assembly lines; the expansion of our share in the growth-promising Chinese market; and the swift achievement of profitability in new business ventures. Meanwhile, we will continue to develop energy- and resource-efficient products in line with KPIs pertaining to action policies for addressing material ESG issues. We will thus contribute to reducing the environmental impacts of customers' business activities.

It is projected that semiconductor demand will be buoyed by the ICAC5 technologies sparking swift increases in the performance of semiconductor chips thereby allowing state-of-the-art semiconductor devices to enter into the 14Å (angstrom, one ten-billionth of a meter) era by around 2030. In light of this, the PM Business's vision for E-Vision 2030 is to contribute to the development of society through partnership and distinctive technologies while helping create a more enriched world through endeavors in new fields.

## Review of the Fiscal Years Ended December 31, 2017–2019

### Material ESG Issue Action Policies and Major KPIs (E-Plan 2019 Final Year Results)

#### Action Policy 1 Provide products and services that minimize the use of energy and resources

KPI: Reduce electricity consumption of certain products compared to 2017 models	Progress toward Target 
KPI: Reduce the weight of certain products compared to 2017 models	Progress toward Target 

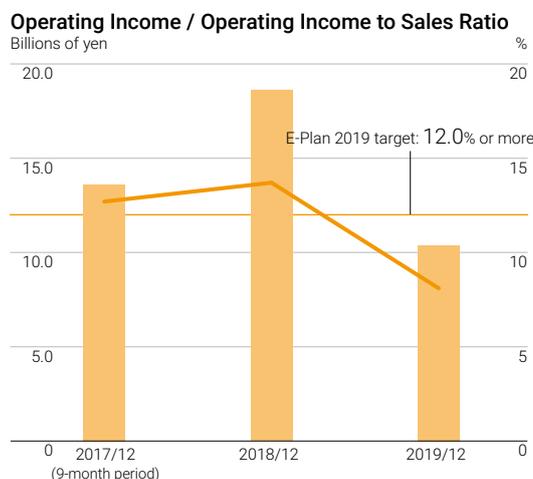
#### Action Policy 2 Expand the service and support (S&S) business, maximize product life, and minimize any product downtime

KPI: Increase S&S sales	Progress toward Target 
KPI: Shorten overhaul* delivery periods	Progress toward Target 

\* Overhaul: Inspections and repairs involving disassembly

### Numerical Targets of E-Plan 2019 (Consolidated)

Operating income to sales ratio of **12.0%** or more



Bar graph: Operating income (left scale)  
Line graph: Operating income to sales ratio (right scale)

### SWOT Analysis of Precision Machinery Business

<ul style="list-style-type: none"> <li>Rotating machinery, fluid equipment, machine control systems, gas decomposition and abatement, and energy conservation technologies</li> <li>Sophisticated technological capabilities and manufacturing technologies that contribute to resource conservation</li> <li>Bases positioned near customers worldwide</li> <li>Flexible, high-quality customer support capabilities</li> <li>Long-term employee retention contributing to technology accumulation and transfer</li> <li>Diverse base of technically skilled employees around the world</li> <li>Robust supply chain</li> </ul>	<ul style="list-style-type: none"> <li>Lack of optimization of production systems (i.e., fully automated plants, etc.)</li> <li>Faltering share expansion in growth-promising Chinese market</li> <li>Slow launches to new business initiatives</li> </ul>
<p><b>S</b> Strengths</p>	<p><b>W</b> Weaknesses</p>
<ul style="list-style-type: none"> <li>Spread of IoT, AI, and automated driving technologies</li> <li>Diversification of work styles through teleworking and other methods utilizing cloud and communications technologies</li> <li>Growth in semiconductor demand in conjunction with the technological development of a super-smart society</li> <li>Aggressive semiconductor investment in China</li> <li>Consistent capital investment demand in Taiwan, South Korea, and Japan</li> </ul>	<ul style="list-style-type: none"> <li>Fluctuations in semiconductor demand and inconsistent pace of semiconductor capital investment following slowed pace of semiconductor complexity increases</li> <li>Diminishment of market share due to supply chain issues and other factors leading to insufficient production capacity</li> <li>Impacts of trade dispute between the United States and China</li> <li>Effects of economic stagnancy following prolongation of the COVID-19 pandemic</li> </ul>
<p><b>O</b> Opportunities</p>	<p><b>T</b> Threats</p>

### E-Vision 2030 and E-Plan 2022 Business Strategies

#### Business Vision (E-Vision 2030)

Contribute to the development of society through partnership and distinctive technologies centered on the semiconductor field while helping create a more enriched world through endeavors in new fields

#### E-Plan 2022

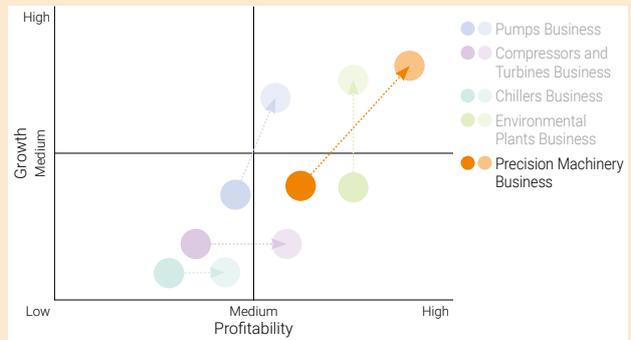
Business Strategies

- Transition from a supplier of standalone equipment to a solutions provider
- Create new businesses with new technologies at their core
- Pursue highly efficient management and develop operations on a global scale

Operating Income to Sales Ratio Target

Precision Machinery Business **13.0%** or more

#### Target Business Portfolio



#### Measures by Market

Market	Overall Trend	Major Measures
Components	Domestic: ↗ Overseas: ↗	<ul style="list-style-type: none"> <li>Launch new dry pump models</li> <li>Improve production efficiency by reducing model numbers, constructing fully automated plants, etc.</li> <li>Optimize domestic and overseas S&amp;S systems</li> <li>Bolster Chinese market-specific sales capabilities</li> </ul>
CMP systems	Domestic: → Overseas: ↗	<ul style="list-style-type: none"> <li>Develop process solutions proposals and upfront development systems</li> <li>Deploy models matched to wide-ranging customer needs</li> <li>Ramp up in-base S&amp;S activities through increased coordination and component information sharing with consumable manufacturers, expand after-sales support service lineup, and make proactive proposals to customers</li> <li>Bolster Chinese market-specific sales capabilities</li> </ul>
New businesses	Domestic: ↗ Overseas: ↗	<ul style="list-style-type: none"> <li>Launch new models for next-generation applications</li> <li>Establish dedicated organization specializing in development</li> </ul>

## Social Contributions through Business

### New Gas Abatement Systems Matched to Customer Needs

## Contributions to Reduction of Environmental Impacts of Semiconductor Manufacturing Processes

#### Relevant SDGs

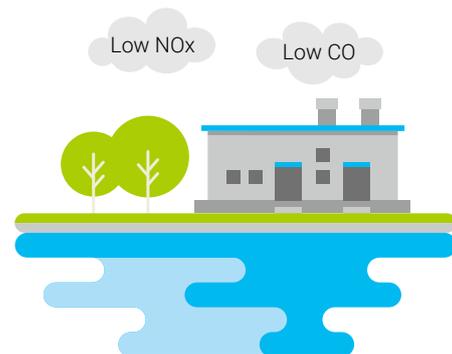


In November 2019, EBARA launched new gas abatement systems for use in semiconductor manufacturing processes, namely Model TND-Single (burn + wet) and Model TND-Single Plus (wet + burn + wet).

These models are equipped with new burners to reduce heat energy loss for more efficient incineration and to lower NOx and CO emissions. In addition, these models feature improved performance that contributes to extended maintenance intervals (three to more than six times longer than prior EBARA products\*). We anticipate that these new models will have an important role to play in the realization of E-Vision 2030.

As communication and robot technologies advance rapidly in conjunction with the progress of the IoT and AI technologies, demands such as for higher efficiency in gas abatement and extended maintenance intervals through deposit measures in semiconductor manufacturing processes are increasing. Having developed the new Model TND Series of gas abatement systems matched to customer needs, we will proceed to deploy highly reliable EBARA brand products to locations centered on Japan, North America, and Taiwan.

\* Comparisons were made using prior EBARA products under the same conditions. Results may vary based on conditions.



#### Model TND-Single Gas Abatement System

Gas abatement systems treat and release exhaust gas from incineration and other processes in a manner that prevents impacts on the surrounding environment. EBARA's gas abatement systems are primarily used to treat the toxic gases emitted during semiconductor manufacturing processes. Going forward, we will continue to support global advancements in digital technologies with EBARA's sophisticated technologies amid the ongoing rise in semiconductor demand.



### Awards from Customers

## Contributions to Sustainable Business Activities for Customers as a Reliable and Sustainable Supplier

#### Relevant SDGs



TSMC Excellent Performance Award ceremony



Intel 2019 Supplier Achievement Award

EBARA is constantly refining its technological capabilities to ensure that it can live up to customer expectations by providing finely tuned support. This diligence has made reliability one of our greatest strengths, and has won us several awards in the fiscal year ended December 31, 2019.

For example, Taiwan-based Taiwan Semiconductor Manufacturing Co., Ltd. (TSMC), has presented EBARA CORPORATION with the Excellent Performance Award for eight consecutive years. Each year, TSMC awards select suppliers that have exhibited outstanding performance through the provision of service and support with this honor. Three achievements were cited as reasons for EBARA winning the most recent award: Exceptional supply of products to match the expansion of production volumes at TSMC factories, extensive support for R&D activities, and the proactive localization of major CMP components. In addition, subsidiary Ebara Precision Machinery Taiwan Incorporated, received a letter of appreciation in the spare parts standalone awards category sponsored by TSMC's production equipment buying division. This letter cited thanks for Ebara Precision Machinery Taiwan's contributions to improved efficiency through the localization of production in Taiwan and to the increased supply of products by TSMC via heightened supply capabilities.

Also in the fiscal year ended December 31, 2019, EBARA CORPORATION was presented with the Supplier Achievement Award by Intel Corporation. This honor is presented to suppliers that have achieved especially excellent performance in areas emphasized by Intel and thus indicates that these companies are playing an important role in leading the industry. EBARA was presented with this award in reflection of a high evaluation from the perspective of sustainability. Major points considered included our business continuity plan (BCP) and other systems as well as the stability of our operations.

The Precision Machinery Company, which develops EBARA's core semiconductor manufacturing equipment and component business, will continue to support customer business activities with products and services that help improve productivity, cut overall costs, and reduce environmental impacts.

# Financial Strategies as Explained by the Executive in Charge of Finance



**Akihiko Nagamine**

Executive Officer  
Division Executive, Finance & Accounting Division

## Review of the Financial Strategies of E-Plan 2019

E-Plan 2019, EBARA's previous medium-term management plan, called on us to conduct growth investments totaling ¥105.0 billion under the slogan of "Unlimited challenge toward growth." Guided by this plan, we sought to achieve the targets of ROIC of 8.0% or more and an operating income to sales ratio of at least 9.0%.

Overall, investment amounts were in line with plans, when including investments for establishing bases, as we approved capital investments totaling ¥66.1 billion, higher than targeted, and R&D investments of ¥29.4 billion, slightly lower than the target. However, we were unable to fully realize the benefits of these investments due to delays in the construction of automated assembly lines and the lack of large-scale M&A activity. In addition, the realization of profitability improvements is taking more time than expected in reflection of how overly optimistic our market outlooks were and how insufficient our business structure reforms were.

As for shareholder returns, we issued dividends totaling ¥16.3 billion and conducted ¥20.0 billion worth of share buybacks during the period of E-Plan 2019. The consolidated total return ratio greatly surpassed our target in the fiscal year ended December 31, 2019, coming to 88.8%. We also sold cross-shareholdings from the perspective of economic rationality, thereby improving capital efficiency. Regardless, ROIC and the operating income to sales ratio fell below targets due to the aforementioned delays in profitability improvements.

## Financial Strategies and Shareholder Returns under E-Plan 2022

The slogan of E-Plan 2022, the new medium-term management plan, is "Reconstruct the foundations of growth." Based on this slogan, we will advance financial strategies focused on growth potential and capital efficiency.

In terms of **growth potential**, we will conduct capital investments to the tune of ¥100.0 billion, an amount exceeding that of the previous medium-term management plan. Specific targets of this investment will include the expansion and strengthening of S&S operations, the exploration of new markets, and the bolstering and optimization of production capabilities. We will also invest in an ERP system and other digital transformation initiatives to boost work efficiency and realize more sophisticated management. R&D investments are also set to surpass the previous medium-term management plan with a target amount of ¥40.0 billion. In this regard, we will invest in the launch of high-value-added products while conducting upfront investment in creating and developing new businesses. Furthermore, we will continue to look for M&A opportunities with the potential to buoy topline sales, and a proactive yet flexible approach will be taken toward business alliances and financing for uncovering new needs or burgeoning new technologies. In this manner, investments for fueling future growth will be conducted to an extent exceeding that of the previous medium-term management plan. Of course, financial discipline will be maintained through this process.

Moving on to **efficiency**, we will continue to target ROIC of 8.0% or more, with an emphasis on WACC, as we seek to strengthen portfolio management. At the same time, we will work to heighten our ROIC through a focus on improving KPIs such as by-business receivable and inventory turnover periods and fixed asset turnover. Meanwhile, we will categorize our operations into growth businesses and profitability improvement businesses. In growth businesses, we will institute measures targeting topline growth. In profitability improvement businesses, we will implement exhaustive profitability improvement measures, including efforts to optimize production systems. The period of E-Plan 2022 will thus see us investing in growth businesses and conducting upfront investments in new businesses while accelerating our efforts to build a strong balance sheet enabling future growth that were kicked off under the previous medium-term management plan.

## Results of E-Plan 2019 and Targets of E-Plan 2022

		Targets of E-Plan 2019	Results of E-Plan 2019	Targets of E-Plan 2022
Growth investments	Capital investments	¥60.0 billion or more	¥66.1 billion (three-year total)	Approx. ¥100.0 billion
	R&D investments	¥35.0 billion or more	¥29.4 billion (three-year total)	Approx. ¥40.0 billion
	M&A activities	¥10.0 billion	1 sales base in South Africa	Proactive stance
Shareholder returns	Consolidated total return ratio	30% or more	88.8% (2019)	· Consolidated dividend payout ratio: 35% or more · Consolidated DOE: Minimum of 2.0%
	Share buybacks	Flexible stance	¥20.0 billion (three-year total)	Flexible stance

As for **shareholder returns**, our basic policy will be to target a consolidated dividend payout ratio of 35% or more. However, we will also set a minimum of 2.0% for consolidated dividend on equity (DOE) to prepare for temporary downturns in performance. More than one-third of the earnings from our business will be allocated to shareholder returns while an amount exceeding two-thirds of business earnings plus depreciation and amortization will be invested in capital investments, R&D investments, and M&A activities. Meanwhile, a flexible approach will be taken toward share buybacks. We do not intend to increase internal reserves more than necessary. However, we do plan to exercise a sufficient focus on financial health and to maintain a credit rating of A in order to prepare for extreme circumstances.

**Corporate Value for Realizing E-Vision 2030**

When formulating our vision for EBARA a decade from now, we determined the Company’s economic value should be reflected in ROIC of 10.0% or more and net sales of roughly ¥1 trillion. Rather than focusing purely on capital efficiency, we believe the simultaneous pursuit of capital efficiency and topline growth will allow for even greater improvements in economic value. Our stock price, meanwhile, is a representation of how we are evaluated and not something that we can affect directly through our own efforts. However, we have reached the conclusion that if we adopt an optimistic and rational outlook, with time, our stock price will approach the theoretically appropriate value, and it would not be irrational for us to target market capitalization of ¥1 trillion as the yardstick for gauging corporate value. This amount is what we have judged to lie down the path we will walk through our steadfast efforts to grow our business and improve capital efficiency.

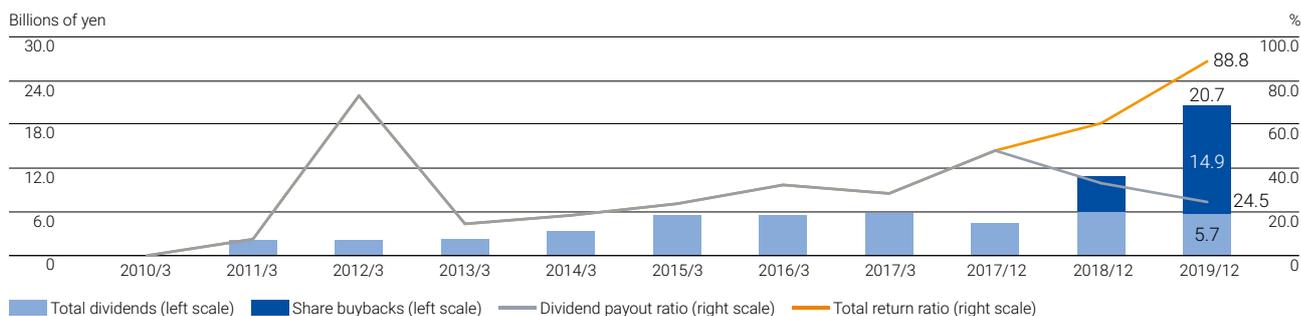
**Countermeasures for Emergency Risks and Financial Strategies for New Business Models**

The global COVID-19 pandemic has reaffirmed the importance of **safety** in finances. If we are to contribute to society and improve EBARA’s corporate value by helping solve social issues through our business activities, it is essential that EBARA continue to survive as a company. A healthy financial base is a prerequisite to this survival. Accordingly, we will continue striving to secure on-hand liquidity while maintaining creditability.

As the pandemic spreads on a global scale, we were forced to halt operations at the factories of certain overseas subsidiaries. Nevertheless, we were able to prepare and disclose fiscal year ending December 31, 2020 first-quarter financial statements for all consolidated subsidiaries. We are also promoting electronic accounting to create an even more robust accounting foundation. Meanwhile, we have ascertained that the paper bills and checks used for deposits and payments in Japan present an obstacle to teleworking for both the Company and its business partners. We therefore intend to take this opportunity to push ahead with digitization and digital transformation to strengthen our resilience to emergency situations.

Going forward, we will seek to support business continuity at EBARA with a highly resilient financial base and a sufficient emphasis on safety as the underlying foundation for our operations, even as we pursue growth and efficiency.

**Shareholder Returns**



**Shareholders' Equity and Credit Ratings**



# Human Resource Strategy

We are committed to increasing engagement with all EBARA Group employees worldwide in order to build a corporate culture that encourages competition and embraces challenge.

The fiscal year ending December 31, 2020, saw the appointment of EBARA's first non-Japanese executive officer. For diverse employees maximizing their abilities, we will continue to create an environment where everyone can work comfortably and feel rewarded. We will realize this by selecting human resources capable of competing on the global stage, hiring non-Japanese and mid-career employees. At the same time, we will foster workplace environments that are comfortable and accommodating for all to allow diverse employees to exercise their talents to the fullest. We are also examining new ways of developing our workplaces along with new work styles with an eye to the society after the global COVID-19 pandemic. In our pursuit of further corporate growth, we are committed to increasing engagement with all EBARA Group employees worldwide by building a corporate culture that encourages competition and embraces challenge.



**Shu Nagata**  
Executive Officer  
Division Executive, Corporate Strategic Planning Division and Human Resources Division

REFERENCE Personnel Affairs and Human Resource Development Policy

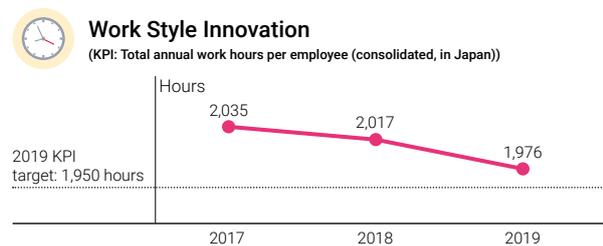
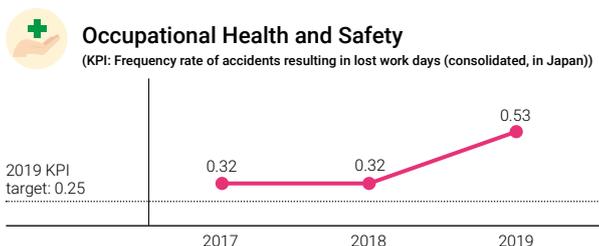
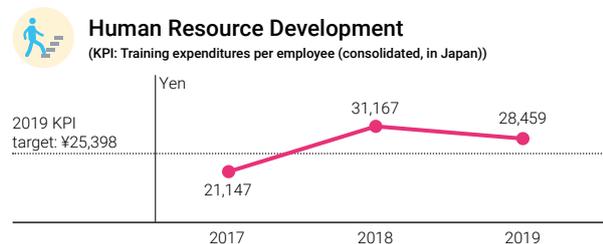
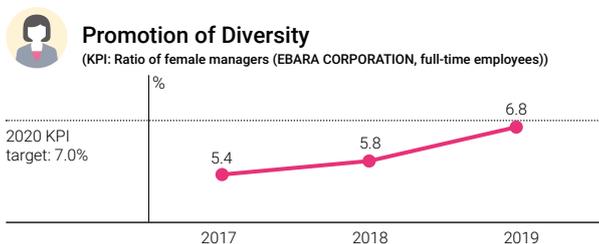
<http://www.ebara.co.jp/en/about/csr/social/environment/index.html#anc1209051>

## Review of E-Plan 2019

Major Measures	Accomplishments
Human resource system reforms	<ul style="list-style-type: none"> <li>Introduced new human resource systems (eliminated groups of occupations such as "professional grades" and "operating grades," drastically changed promotional examination for management-level positions, etc.)</li> <li>Instituted succession management program</li> <li>Promoted optimal positioning of human resources based on merits as opposed to years of service</li> </ul>
Promotion of diversity and work style innovation	<ul style="list-style-type: none"> <li>Monitored work hours and implemented work style innovations at business sites through the Work Style Innovation Committee (reduced total average work hours per employee in FY2019, to 1,976 hours, down 59 hours from FY2017)</li> <li>Introduced new attendance management system in FY2019, to track work hours and ensure compliance with the Labor Standards Act</li> </ul>
Human resource development	<ul style="list-style-type: none"> <li>Launched management candidate development program for appointing and cultivating future president candidates → Performed group training sessions, coaching, and assessments aimed at improving interpersonal skills necessary of managers</li> <li>Instituted referral recruitment program to enable employees to seek out and recommend individuals they would like to work with in order to recruit diverse and talented human resources given the seller's market</li> </ul>

## Material ESG Issue Action Policy and Major KPI Progress

**Action Policy 6** Enhance diversity, improve work environments to empower employees to develop to their full potential, and provide opportunities to develop necessary skills → P. 81-82





## Targets of E-Vision 2030 and Strategies of E-Plan 2022

### Targets of E-Vision 2030



#### Material Issue 4

Promote working environments that encourage challenge

### Strategies of E-Plan 2022

Relevant E-Plan 2022 Measures	Human Capital Strategies	Concrete Measures
Improve management quality	Evolve work style innovations	<ul style="list-style-type: none"> <li>• Encouragement of paid leave acquisition</li> <li>• Reduction of excessive work hours</li> <li>• Implementation of awareness reforms</li> <li>• Reduction and streamlining of workflow processes</li> </ul>
Reinforce and support business activities	Recruit, develop, and position diverse human resources	<ul style="list-style-type: none"> <li>• Introduction of talent management system</li> <li>• Employment of diverse human resources</li> <li>• Improvement of engagement</li> </ul>
	Promote health management	<ul style="list-style-type: none"> <li>• Enhancement of workplace environments</li> <li>• Support for safe and secure workplaces</li> </ul>

## TOPICS

### Appointment of Executive Officers

EBARA seeks to appoint the highly specialized human resources necessary for the implementation of its business strategies. Effective March 27, 2020, Hiroyuki Kowase, Division Executive of the Information & Communication System Division, and Michael T. Lordi, who is responsible for the Compressors and Turbines Business, Fluid Machinery & Systems Company, were appointed to positions as Executive Directors. Mr. Kowase boasts specialized insight pertaining to digital transformation while Mr. Lordi has experience as the CEO of an overseas subsidiary. When appointing executive officers, we choose individuals with sufficient insight and experience in the relevant areas, regardless of their geographic location and whether or not they are currently a member of the Group.

### Talent Management System

An important human resource-related measure in the fiscal year ended December 31, 2019, was the introduction of a talent management system. This system was introduced with the aim of accelerating human resource development and strategically allocating the right person to the right position by visualizing various information pertaining to human resources. We intend to deploy this talent management system throughout our global operations in the fiscal year ending December 31, 2020, and beyond going forward.

### Global Engagement Surveys

EBARA is implementing measures aimed at improving employee motivation. To this end, we conducted our first global engagement survey for all EBARA Group employees worldwide in the fiscal year ended December 31, 2019, to solicit employee input regarding the organization and work. Based on the findings of this survey, action plans are being formulated and implemented centered on division heads to improve employee engagement.

#### Results of 2019 Global Engagement Survey (Excerpt)

Survey Item	Ratio of Employees Indicating Agreement
I feel strong support for the goals and targets of the Company.	86%
The Company provides workplace environments free of discrimination and harassment.	78%
I am able to report to a Company representative at the appropriate level on any misconduct or unethical practices without fear of reprisal.	75%

# R&D and Intellectual Property Strategy

Based on our successes over the past decade, we will reinforce our systems for contributing to the resolution of social and environmental issues through our business.

In the decade since the closure of EBARA Research Co., Ltd., in 2009, we have proceeded to build upon our R&D activities and intellectual properties based on a unique approach guided by the basic intellectual capital management policy of BRDIP,\*1 which promotes coordination among businesses, research and development, and intellectual properties, and the basic strategy of ABA,\*2 which encourages collaboration among academia, businesses, and associations. As a result of these efforts, we have been able to improve the awareness of our R&D and intellectual property divisions, step up coordination with business divisions, and accelerate joint research with outside entities. In this manner, we have achieved substantial improvements in research success and efficiency in comparison to the days of EBARA Research. Looking ahead, we will further evolve and develop the distinctive R&D and intellectual property activities advanced thus far from a medium- to long-term perspective in order to continue making contributions to the resolution of social and environmental issues through our business.



**Hiroshi Sobukawa**  
Executive Officer  
Responsible for Technologies, R&D & Intellectual Property  
Division Executive, Advanced Technology Division, Precision Machinery Company

\*1 BRDIP: An original EBARA Group acronym created from "businesses," "R&D," and "intellectual properties"  
\*2 ABA: An original EBARA Group acronym created from "academia," "businesses," and "associations"

REFERENCE Technologies

<https://www.ebara.co.jp/en/about/technologies/index.html>

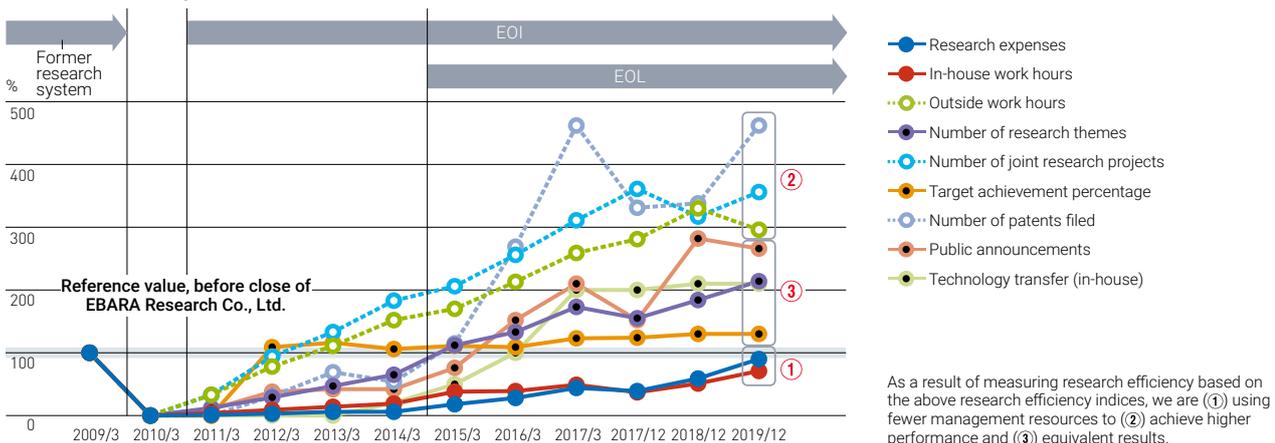
## Review of E-Plan 2019

Major Measures	Accomplishments
<p><b>Technologies, R&amp;D</b> Conduct R&amp;D activities that are fully integrated with intellectual property activities aimed at supporting competitiveness and growth strategies</p>	<ul style="list-style-type: none"> <li>• Launched owner system*3 for effective and timely linkage of R&amp;D successes to business activities</li> <li>• Began establishing and enacting research roadmaps for priority areas for the next decade aimed at ensuring ongoing enhancement of technological competitiveness</li> <li>• Established data science research system and supported various businesses with AI, big data, virtual reality (VR), augmented reality (AR), and digital transformation technologies</li> <li>• Further shaped technologies for realizing massive improvements in pump processes spanning from order receipt to engineering and manufacturing through advancement of EIX (new business field research) projects</li> <li>• Continued to advance activities tying research themes to the SDGs starting in 2017, thereby disseminating social and environmental contribution awareness among researchers</li> </ul>
<p><b>Intellectual Property</b> Promote strategic intellectual property activities that fully utilize the Group's intellectual properties</p>	<ul style="list-style-type: none"> <li>• Shifted intellectual property focus from volume to higher-quality, more strategically viable intellectual properties through implementation of pre-litigation strategies, etc.</li> <li>• Advanced technology branding activities ("eDYNAMiQ" standard pump technology brand, etc.)</li> <li>• Developed intellectual property management systems at overseas Group companies and implemented subsequent follow-up activities</li> </ul>

\*3 The owner system is designed to promote the transference of R&D successes to business jurisdiction. By sharing information on successful R&D themes and their timing with business divisions and the EOL framework, the owner system facilitates the timely provision of the R&D advancements needed by business divisions through the EOL framework.

## Progress in Priority Strategies (Fiscal year ended December 31, 2019)

### Research Efficiency Indices



## Targets of E-Vision 2030 and Strategies of E-Plan 2022

### Targets of E-Vision 2030



**Material Issue 1**  
Contribute to the creation of a sustainable society



**Material Issue 2**  
Elevate standards of living and support abundant lifestyles for all

### Strategies of E-Plan 2022

Relevant E-Plan 2022 Measures	Concrete Measures
R&D	<ul style="list-style-type: none"> <li>• Support for business divisions via augmentation of strategically important core technologies</li> <li>• Deployment of profitability improvement-related EIX (new business field research) successes to business segments and acceleration of development</li> <li>• Promotion of new research theme creation and research activities linked to new business development</li> <li>• Diversification of R&amp;D staff</li> </ul>
Intellectual Property	<ul style="list-style-type: none"> <li>• Drafting of product-specific intellectual property strategies</li> <li>• Conclusion of strategic intellectual property contracts by setting policies on an individual-contract basis</li> <li>• Sharing of information and proposals for contributing to management and business decisions and investor relations (IR) activities</li> <li>• Utilization of intellectual property from inside and outside of the Group via in and out licensing</li> </ul>

### Topics: Overview of Research Frameworks and Major Activities

Research at EBARA is advanced through its unique Ebara Open Innovation (EOI), Ebara Open Laboratory (EOL), and Ebara Innovation for "X" (EIX) frameworks. In addition, we have in place the Ebara Open for Supplier (EOS) framework for enhancing prototyping functions and the Ebara Hi-tech University (EHU) program for fostering human resources capable of supporting technological advancement. By fully capitalizing on these frameworks through coordination with internal and external institutions and Group business divisions, we will seek to bolster EBARA's product competitiveness and create new businesses.

Framework / Program	Overview	E-Plan 2022 Activity Policies
Ebara Open Innovation	An original open innovation framework that fosters young researchers at outside research institutions by conducting joint research to resolve advanced technological issues	Continue to advance EOL activities in Japan, Europe, the United States, and Asia and engage in joint research; contribute to the resolution of social issues through participation in the UTokyo Future Society Initiative of the University of Tokyo
Ebara Open Laboratory	A corporate research organization that enables exchanges among researchers and open sharing of research themes in-house	Promote sharing of recognition of and timely incorporation into businesses of R&D successes through owner system introduced in FY2019; facilitate sharing of product and core technology insight within EOL framework by having business division product development representatives contribute to EOL themes; create virtuous cycle of research and business advancement through owner system and deepening of mutual understanding
Ebara Innovation for "X"	An R&D system for business creation	Respond to technological progress while continuing initiatives for creating new businesses through coordination with research functions from a perspective unbound by existing technologies
Ebara Open for Supplier	A term referring to both a framework and activities for open exploration of the suppliers of the components and prototypes necessary for R&D activities that is not limited to existing suppliers	Increase speed and efficiency of research-phase prototyping; create opportunities for exchanges with small and medium-sized companies participating in EOS framework to drive mutual technology improvements
Ebara Hi-tech University	A program aimed at bolstering the technical capabilities of Group researchers and engineers and providing inspiration by giving them an opportunity to learn about the latest technological information and trends	Arrange cutting-edge technology lectures and technical human resource development programs; contribute to internal and external technological advancement by positioning EOI International Symposium*4 as a forum for industry-academia co-creation linking industry and academia across technological fields

\*4 The EOI International Symposium is a technology-themed symposium held by EBARA CORPORATION to which experts from fields related to the Company's business are invited.

# Digital Transformation Strategy

The EBARA Group is aggressively promoting digital transformation to spur its further growth and augment its competitiveness.

The EBARA Group is aggressively promoting digital transformation to advance its business on a global scale and to drive its development as a sustainable industrial machinery manufacturer. Specific initiatives to this regard include work style reforms and the provision of information platforms for supporting revolutionary productivity improvements by automating and streamlining business processes to the greatest degree possible. In addition, we are utilizing data and digital technologies in our response to the rapidly changing operating environment and innovating our products, services and business models based on customer and social needs. We aim to contribute to the transformation of our current business segments while also supporting initiatives for advancing into new business fields.



**Hiroyuki Kowase**  
Executive Officer  
Division Executive, Information & Communication System

## Targets of E-Vision 2030 and Strategies of E-Plan 2022

### Targets of E-Vision 2030



**Material Issue 1**  
Contribute to the creation of a sustainable society

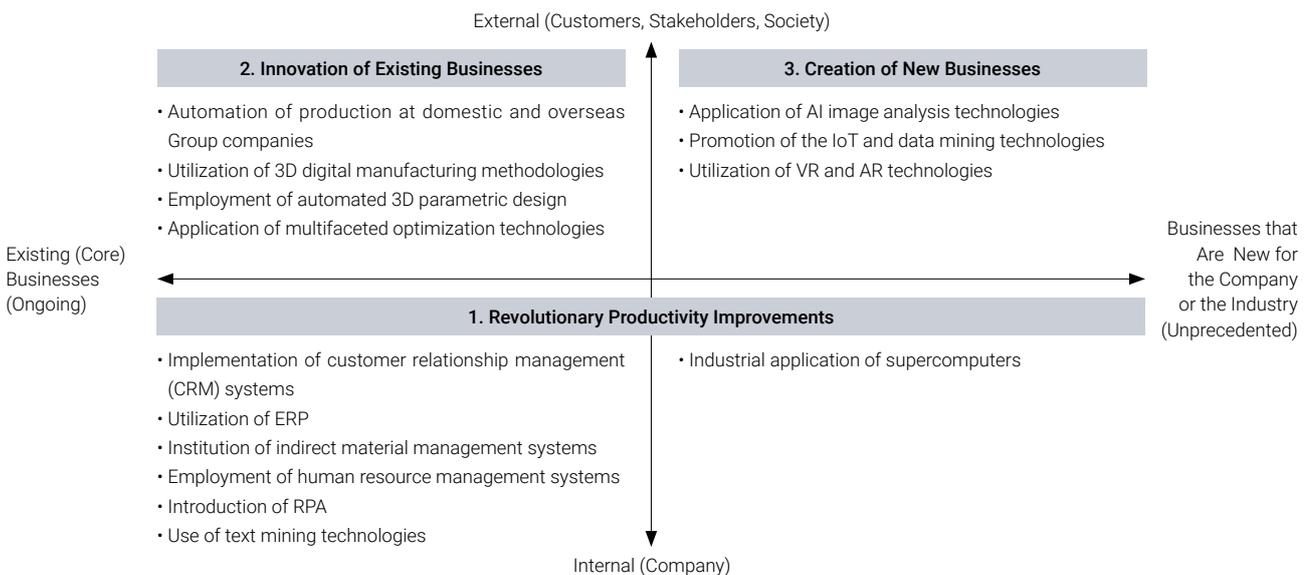


**Material Issue 2**  
Elevate standards of living and support abundant lifestyles for all

### Strategies of E-Plan 2022

The EBARA Group is committed to proactively developing and accumulating the technologies necessary for accomplishing its mission, which is expressed in the slogan of E-Vision 2030, "Technology. Passion. Support Our Globe," while fostering the human resources that will contribute to the accomplishment of this mission. With this pursuit as our foundation, we will aim to lead the industry in terms of efficiency in management and business operations through digital transformation in our business. We will, therefore, be utilizing data and digital technologies to innovate products, services, and business models on a global scale. Moreover, we will introduce the ERP system needed to support these undertakings on a Groupwide basis to enhance information infrastructure while optimizing business process flows and business rules.

### Overview of Digital Transformation Initiatives





## Digital Transformation Initiatives

# Aggressive and Preparative Digital Transformation

### Aggressive Digital Transformation:

## Product and Experience Creation Innovations via 3D Digital Technologies

By incorporating computer and computational science methodologies, which decouple in speed every three to four years, as well as data science and other cutting-edge technologies, the EBARA Group is looking to innovate its business in terms of both product creation and experience creation. We are currently undertaking a variety of efforts to innovate work processes. Examples of these efforts include achieving the practical application of AI powered waste identification systems using image analyses, text mining approaches for facilitating the better use of technological assets and deciphering technical documents, and transforming product creation processes through the use of multiobjective optimization, automated 3D parametric design, and 3D digital manufacturing methodologies for fluid machinery and systems. In addition, we will be pursuing the industrial application of supercomputers and other high-speed computers. To this end, we will be utilizing and evolving engineering practices based on scientific approaches in a wide range of business fields. Other initiatives will include the provision of product diagnosis

systems using IoT and big data analysis technologies and applying VR and AR to experience creation in sales, research and development, S&S operations, and a variety of other fields to accelerate the creation of customer value.



3D engineering utilizing xR (VR / AR technology)

### Preparative Digital Transformation:

## Construction of Information Platforms to Support Globally Integrated Operations

The EBARA Group seeks to practice truly global management. This type of management goes beyond international management, which involves overseas bases operating their businesses separately, to achieve low-cost operations, enhance governance, and optimally position human resources by not installing separate administrative functions in each base. However, realizing this type of management requires the global standardization business. For this reason, we are undertaking the global standardization of business processes, business rules, KPIs, and codes and constructing information platforms through the implementation of a Groupwide ERP system.

As the first step of this process, we will establish a center of excellence team based on members from the head office to develop standardized business process templates via ERP systems and deploy these templates throughout the EBARA Group's global operations. We will also globally track management information to shorten management cycles on a worldwide basis and supply information platforms that enable swift responses to management issues.

### Current Processes and Systems

Businesses	Subsidiaries	EBARA CORPORATION (Non-Consolidated)						
		Operations	Design	Sales	Procurement	Production management	Services	Accounting
A	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■
B	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■
C	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■

Lack of consistency in processes and systems

### Processes and Systems after Introduction of ERP

Businesses	Subsidiaries	EBARA CORPORATION (Non-Consolidated)						
		Operations	Design	Sales	Procurement	Production management	Services	Accounting
A	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■
B	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■
C	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■	■ ■ ■ ■ ■

Inherently linked processes and systems

# Environmental Initiatives

The EBARA Group is united in its efforts to advance environmental initiatives aimed at minimizing energy consumption and industrial waste emissions.



### Toru Nakayama

Executive Officer  
 Division Executive, Legal, Internal Control and Risk Management and  
 General Affairs Division  
 Chairman, Environmental Control Committee

Until recently, the EBARA Group has been conducting environmental management with a strong focus on domestic Group companies. However, with more than 50% of our net sales coming from overseas, the time has come to shift to a more global stance, and we are taking measures to enhance environmental management globally.

In July 2019, the EBARA Group Environmental Policy was revised to be applicable to the entire Group and further emphasize the importance of improving environmental performance. In accordance with this policy, we are implementing measures to minimize the environmental impacts of business activities at domestic and overseas operating sites, increase the environmental performance of our products, and reduce emissions of GHGs. Additionally, E-Vision 2030 defines a long-term CO<sub>2</sub> emissions reduction target to be accomplished by December 31, 2030. In the fiscal year ending December 31, 2020, we estimated medium-term targets for reducing non-CO<sub>2</sub>-related environmental impacts and identified initiatives to accomplish these targets.

REFERENCE Environmental Management

<https://ebaraco.jp/en/about/csr/environment/management/index.html>

REFERENCE FY2020 Environmental Targets and FY2019 Results

[https://www.ebara.co.jp/en/about/csr/environment/targets\\_data/index.html](https://www.ebara.co.jp/en/about/csr/environment/targets_data/index.html)

## Targets of E-Vision 2030 and Strategies

### Targets of E-Vision 2030

Address E-Vision 2030 Material Issues 1. Contribute to the creation of a sustainable society, 2. Elevate standards of living and support abundant lifestyles for all, and 3. Conduct comprehensive environmental management

#### Targets for the Fiscal Year Ending December 31, 2030

Contribute to the reduction of GHG emissions equaling approx. **100 million tons of CO<sub>2</sub>** through use of EBARA Group products  
 (target corresponds with projected sales of products for FY2030)

Reduce GHG emissions from EBARA Group business activities **26%**  
 (compared with Scope 1 and 2 emissions from FY2018)

### Major Strategies

Targets	Measures
Contribute to the reduction of GHG emissions equaling approx. 100 million tons of CO <sub>2</sub> through EBARA Group products	<ul style="list-style-type: none"> <li>• Improve energy efficiency of products and systems</li> <li>• Increase maintenance proposals aimed at facilitating energy-efficient operation (in conjunction with global expansion of S&amp;S operations)</li> <li>• Utilize renewable energy and refine power generation technologies</li> <li>• Increase volume of GHGs from semiconductor production that is treated with EBARA products</li> </ul>
Reduce GHG emissions from EBARA Group business activities 26%	<ul style="list-style-type: none"> <li>• Perform timely upgrades, operation, and maintenance of equipment with heavy energy consumption</li> <li>• Increase solar power generation capabilities of EBARA facilities</li> <li>• Procure power from low-CO<sub>2</sub> emission sources</li> <li>• Practice extensive global environmental management</li> <li>• Reduce environmental impacts from domestic and overseas operating sites</li> </ul>

## Climate Change Response Measures

As one facet of its climate change response measures,



EBARA announced its endorsement of the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) in May 2019. We have since joined Japan's TCFD Consortium with the aim of sharing information with various industries.

### Climate Change Governance

The Sustainability Committee, which is chaired by the President and Representative Executive Officer, is responsible for promoting awareness among all members of management of the fact that responding to climate change is a material issue defined by E-Vision 2030 and therefore an important task for management. This committee also formulates activity policies and action plans and manages their progress.

The Company adopts a framework in which climate change response measures are first discussed by the Sustainability Committee and then reviewed by the Board of Directors.

In addition, the Environmental Control Committee, which is chaired by the executive officer responsible for risk management, promotes ongoing improvements to climate change response and other environmental management activities on a Groupwide basis.

### Climate Change-Related Risks and Opportunities

In formulating E-Vision 2030, EBARA performed a macroeconomic analysis in relation to climate change. We will continue to examine the circumstances pertaining to climate change by referencing the framework recommended by the TCFD to develop a more detailed understanding of the risks and opportunities that climate change may create for the EBARA Group.

### Examples of Climate Change-Related Risks

Category		Major Phenomena	Impact on the EBARA Group
Transition risks	Policy and legal	New and rising carbon costs	• Reduced opportunities to sell products and services to the oil and gas market amid decreasing use of fossil fuels
	Market	Higher electricity prices due to climate change	• Higher production costs due to increases in electricity prices • Reduced demand for semiconductor manufacturing equipment with low energy efficiency
		Divestment from businesses with high GHG emissions	• Reduced opportunities to sell products and services to the oil and gas market amid decreasing use of fossil fuels
		Decreased waste-to-energy needs	• Reduced demand for waste-to-energy generation facility construction
Physical risks	Acute	Damage to production equipment and halts to factory operations due to flood damages	• Increased maintenance costs associated with flood and structure damage • Decrease in productivity due to damages to suppliers

### Examples of Climate Change-Related Opportunities

Category		Major Phenomena	Impact on the EBARA Group
Opportunities	Energy source	Evolution of energy conservation technologies	• Increased demand for energy-saving products • Improved reputation in public works projects
	Products and services	Popularization of electric vehicles (EVs)	• Increased demand for semiconductor manufacturing equipment in conjunction with growth in demand for automotive semiconductors
		Increased need for disaster preparedness items	• Higher demand for products with disaster preparedness benefits • Rise in demand for semiconductor manufacturing equipment following increased demand for sensors for disaster preparedness purposes
		Advancement of automation using IoT and M2M* technologies	• Higher demand for semiconductor manufacturing equipment due to rise in demand for IoT and M2M devices

\* Machine to Machine (M2M): Framework for network communications and data exchange between machines

### Future Initiatives

Going forward, EBARA will perform more detailed assessments of these risks and opportunities together with climate change scenario analyses to evaluate the financial impact of the risks and opportunities, revise management systems, and define indicators and management targets to be used in Group management strategies.

# Social Initiatives

In its quest to contribute to the realization of a sustainable society, the EBARA Group will strengthen its ties with society through the co-creation of value with its stakeholders.



## Targets of E-Vision 2030 and Strategies of E-Plan 2022

### Targets of E-Vision 2030

Address E-Vision 2030 Material Issues 1. Contribute to the creation of a sustainable society, 2. Elevate standards of living and support abundant lifestyles for all, and 4. Promote working environments that encourage challenge

### Strategies of E-Plan 2022

#### Strengthening of Social Ties in Pursuit of Ongoing Business Growth

The EBARA Group CSR Policy defines our commitment to foster trust with our valued stakeholders by conducting our business with a strong sense of ethics. This policy delineates a dedication to creating and delivering social value by co-creating value with stakeholders for society, industry, and everyday life and supplying safe, reliable, and convenient products and services through our business activities. We also recognize the importance of contributions to community development, respect for human rights, and other ties with society in our business activities.

REFERENCE Stakeholders

<http://ebaraco.jp/en/about/csr/ethics/stakeholders/index.html>

## Collaborative Value Creation Partnerships with Suppliers

### Procurement Policy

The EBARA Group's Procurement Policy encourages partnerships with suppliers of products, materials, and services to pursue the mutual improvement of value through the creation of high-value products and services. In addition, we request that suppliers understand and adhere to the CSR Procurement Guidelines.

REFERENCE Procurement Policy & CSR Procurement Guidelines

<https://www.ebara.co.jp/en/about/csr/social/commitment/index.html#anc119696>

#### COVID-19 Pandemic Response Measures and Impacts

Seeking to fulfill its social responsibility as a provider of social and industrial infrastructure, the EBARA Group is committed to preventing the spread of COVID-19 with the health and safety of its stakeholders as its top priority. As part of our response to the pandemic, we set up a response headquarters in February 2020 to confirm the status of operations across the supply chain. Although factory operation was halted in certain countries based on government instructions, business activities at the EBARA Group and its suppliers were ongoing as of the end of April 2020. However, we cannot become complacent with regard to the potential impacts of the COVID-19 pandemic on our business. Efforts to maintain business continuity together with suppliers will thus be ongoing.

### Major Measures under E-Plan 2022

Under E-Plan 2020, we intend to promote inter-business synergies through collaboration between Groupwide procurement divisions and the S&S divisions of multiple businesses. In the fiscal year ended December 31, 2019, we implemented various measures to this end, including the administration of CSR procurement surveys and the introduction of supplier certification systems, thereby strengthening Groupwide supply chain management. We will continue to advance our current initiatives throughout the period of E-Plan 2022 while also formulating strategies and developing frameworks for optimizing procurement systems and operating economically on a global scale.

#### Material ESG Issue Action Policy and Major KPI Progress

##### Action Policy 4

**Fulfill social responsibilities to supply chain, deliver reliable product quality throughout the product's life cycle, and achieve responsible customer engagement**

CSR procurement survey response rate:	99%
Awareness of CSR Procurement Guidelines (self-reporting basis):	99%

## Respect for Human Rights

The EBARA Group exercises respect for the human rights and diversity of stakeholders as stipulated in the EBARA Group CSR Policy. We have declared our support for and become a signatory of the United Nations Global Compact, and we observe the principles of the International Bill of Human Rights, the International Labour Organization (ILO) Declaration on Fundamental Principles and Rights at Work, and the UN Guiding Principles on Business and Human Rights.

### EBARA Group Human Rights Policy

The EBARA Group Human Rights Policy, unveiled in December 2019, puts forth three core policies along with response policies for enacting these core policies. In addition, the EBARA Group Human Rights Committee has been established to encourage action based on the policy, and we are implementing ongoing improvements to human rights management frameworks pertaining to such areas as human rights due diligence and remediation.

#### Core Policies

1. The EBARA Group respects human rights throughout all business activities.
  - a. We respect and support the United Nations International Bill of Human Rights, the Guiding Principles on Business and Human Rights, and the International Labour Organization's Declaration on Fundamental Principles and Rights at Work.
  - b. We act in compliance with all local laws and regulations and respect and support internationally recognized human rights for all stakeholders when conducting business activities anywhere in the world.
  - c. We expect all directors, officers, and employees of the Group, as well as stakeholders directly linked to the Group's business operations, products, or services, to respect internationally recognized human rights.
2. The EBARA Group conducts human rights due diligence.
  - d. We conduct a series of procedures to identify, prevent, detect, mitigate, and correct adverse human rights impacts linked to our business activities, products, or services.
3. The EBARA Group addresses and corrects any adverse human rights impacts of our business activities.
  - e. We implement mechanisms to enable early response to complaints and direct remediation.
  - f. We resolve complaints through dialogue with those affected.

REFERENCE EBARA Group Human Rights Policy

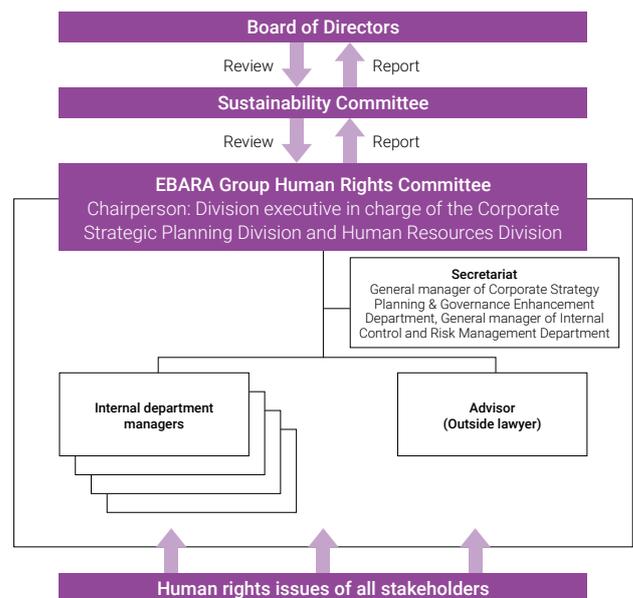
[https://ebaraco.jp/en/about/csr/social/human\\_rights/1209153\\_3116.html](https://ebaraco.jp/en/about/csr/social/human_rights/1209153_3116.html)

### Frameworks for Addressing Human Rights Issues

The EBARA Group Human Rights Committee promotes ongoing improvements to the human rights management frameworks based on the EBARA Group Human Rights Policy. This committee is chaired by the division executive in charge of the Corporate Strategic Planning Division and Human Resources Division and has the division executive in charge of the Legal, Internal

Control and Risk Management and General Affairs Division as its vice chair. Committee members include the heads of divisions related to human resources, procurement, general affairs, legal affairs, whistleblowing systems, risk management, and internal control. In addition, outside lawyers with specialties in human rights and risk management are invited to participate as advisors with the aim of incorporating objective, outside opinions. Reports on the activities of the EBARA Group Human Rights Committee are submitted to the Board of Directors via the Sustainability Committee so that directors can review these activities to drive ongoing improvements in human rights management frameworks.

### Human Rights Management System



### Priority Measures under E-Plan 2022

- Identification of human rights management issues
- Ongoing tracking of human rights risks using existing tools
- Improvement of human rights due diligence

## Dialogue with Shareholders and Other Investors

The EBARA Group recognizes the development of long-term trusting relationships with shareholders and other investors as one of its most important management tasks. The EBARA Group appropriately discloses corporate information necessary for shareholders and other investors to make investment decisions and strives to further strengthen its trusting relationships with these stakeholders on a continuous basis by engaging in IR activities for enhancing its corporate value through constructive dialogue.

REFERENCE IR Basic Policy

[https://www.ebaraco.jp/en/about/ir/information/ir\\_basic\\_policy/index.html](https://www.ebaraco.jp/en/about/ir/information/ir_basic_policy/index.html)

# Message from the Chairman of the Board of Directors



## Role of the Board of Directors in Response to the COVID-19 Pandemic

Sakon Uda

Chairman of the Board of Directors

### E-Vision 2030 and E-Plan 2022

EBARA CORPORATION formulates three-year medium-term management plans, called “E-Plans,” which detail Companywide and business segment-specific policies and targets. In 2019, the final year of E-Plan 2019, we recognized the need for new frameworks to establish effective strategies for the increasingly unpredictable business environment. This resulted in the creation of E-Vision 2030, a framework that details the vision and aspirations of EBARA’s management, and defines five material issues the Group will address in the coming decade. We considered many major global trends in the formulation of E-Vision 2030, including anticipated technological progress and resulting volatility surrounding customers and markets; new possibilities for the Group’s business given the worldwide trend toward ESG issues; and the increasing demands for infrastructure in emerging nations, as well as others. The five material issues defined by E-Vision 2030 are contribute to the creation of a sustainable society, elevate standards of living and support abundant lifestyles for all, conduct comprehensive environmental management, promote working environments that encourage challenge, and enhance corporate governance. E-Vision 2030 illustrates the EBARA Group’s commitment to addressing these issues, while retaining the flexibility to respond to the unpredictable business environment. Announced at the same time as E-Vision 2030,

E-Plan 2022 is a strategic medium-term management plan to realize this vision, covering the first three-year period.

### Role of the Board of Directors in Identifying and Resolving Medium- to Long-Term Issues

The Board of Directors took particular care to ensure sufficient time for rigorous discussion in the formulation of E-Vision 2030 and E-Plan 2022, in pursuit of the primary purpose of the Board of Directors to address medium- to long-term issues. Of course, rigorous discussion requires more than just time, it requires the frank exchange of high-quality comments and opinions from the Board. An important role of the seven Independent Directors, out of the 11 Directors at the time, was to facilitate discussion by posing questions and offering advice from a diverse range of perspectives, thereby preventing discussions from becoming too focused on internal circumstances or viewpoints. The discussions held while formulating E-Vision 2030 and E-Plan 2022 examined the appropriateness of EBARA’s business structure, and its three core businesses, the transformations these structures require to remain relevant, and specific changes necessary to enhance S&S operations. We also discussed our options to provide new value to customers in light of the worldwide shift toward ESG management. The uncertain times we live in will

continue to transform the role of the Board of Directors in contributing to the environment and society and to ensuring corporate sustainability.

### **New Uncertainty Stemming from the COVID-19 Pandemic**

The spread of COVID-19 began escalating around the world just as the rollout of our vision and plan to achieve sustainability began. As of early May 2020, as I write this message, the pandemic has evolved into a public health crisis with more than 3.5 million people infected by the virus and 250,000 people losing their lives. I would like to offer my sincere condolences to everyone who has been impacted by this pandemic.

While the scale of the pandemic in Japan has paled in comparison to overseas, we have still had 15,000 cases and more than 520 reported deaths (as of May 5, 2020). In April, the Japanese government declared a state of emergency, and extended it by another month in early May. It seems ever clearer that COVID-19 will not be a passing threat, but will continue to be a long-term disruption to everyday life. The impacts to the global economy, as well, will be substantial. Many companies have already lowered their performance forecasts or delayed the announcement of forecasts all together, calling into question the true value of these companies and their sustainability.

The global COVID-19 pandemic is transforming corporate management on a fundamental level, not just how we conduct work; it is also forcing us to change how we think about management itself. The management strategies and business plans formulated in the world before COVID-19 may not be an appropriate compass to guide us in a post-COVID-19 world. As we assess the differences between pre-COVID-19 plans and the post-COVID-19 reality, simply contemplating the situation and implementing ad hoc solutions to bridge the gap will not be enough. We must answer the question of what the role of the Board of Directors is in this unprecedented crisis and reconsider the role of management free of preconceived notions.

### **Roles of Executive Team and Board of Directors in the Face of Unprecedented Crisis**

It has been especially important that the executive team obtain current and accurate information in order to take swift responsive action as the Group has major bases in China, Italy, and the United States, all regions impacted heavily by the pandemic. Regarding specific impacts on the Group, in the beginning of 2020, operations at major factories in China were suspended, which disrupted the flow of logistics for a time. In Italy, pump factories had some stoppages, but there was not any significant impact on the supply of EBARA products in Europe. In the United States, Precision Machinery Business subsidiaries and compressor and turbine manufacturer Elliott saw some impacts from the pandemic and ensuing lockdowns. Overall, the Group was successful in limiting damage to business by taking measures to protect employee safety, maintain job security, and continue business activities. In these extreme circumstances, I believe the Board of Directors must prepare and implement business continuity response measures with the worst-case scenario in mind. There is also a need to evaluate the post-COVID-19 world, and promote necessary business transformation or investment.

### **Corporate Governance in the Post-COVID-19 World**

The discussions that led up to the formulation of E-Vision 2030 have put us in a better position to think about management in the post-COVID-19 world. The situation may have changed but the Group's commitment to addressing the five material issues defined in E-Vision 2030 is unwavering. I anticipate that investors will be placing additional weight on social meaningfulness when assessing the value of companies going forward. At the same time, the expectations for business strategies, organizational operation, human resource development, and corporate governance will likely undergo substantial changes.

Looking ahead, this new normal brought on by the pandemic and subsequent restrictions on the movement of people will clearly have considerable impact on not only service industries but also industries related to transportation such as automobile and aircraft. Eventually making its way down to the crude oil market, the fuel that powers these modes of transportation. It is likely that these conditions will prolong the global economic recession. We must also pay heed to the impacts of geopolitical uncertainty and growing international tensions on global supply chains. Especially in the case of worsening relations between the United States and China, with the origin of the COVID-19 virus being a point of contention. In the meantime, the experience gained with internet venues, contactless options, and automation in our daily lives will transform not only work styles at companies but also social and industrial structures. I project a rapid increase in demand pertaining to digital transformation. The current conditions are casting light on unnecessary work processes and redundant organizational elements, which will further make the divide between companies with superior efficiency and productivity and those lagging behind even clearer. Moreover, the need for human resources capable of autonomous thought and problem solving has certainly increased, simultaneously prompting a reexamination of the meaning of leadership.

It is crucial that EBARA's Board of Directors reckon with the potential for massive changes to the business environment. More than ever, Independent Directors must have problem-solving skills and the ability to cultivate collective understanding emphasizing multiple perspectives in addition to specialized insight and experience. We will need to maintain a sense of crisis in operational execution, envisioning the worst-case scenario, while evaluating the changes to be seen in the post-COVID-19 society and the meaning of these changes. EBARA is committed to seeking out corporate governance approaches that will enable it to achieve its performance goals in spite of the projected protracted economic recession and emerge as a leader in the post-COVID-19 business environment. This undertaking will include promoting forward-looking digital transformation investments, global management that accounts for geopolitical risks, drastic work style reforms prefaced on online and remote operations, the cultivation of human resources capable of exercising leadership, and other radical transformations.

# Composition of the Board of Directors

To ensure the Board of Directors effectively fulfills its roles and responsibilities, the Company shall make up the Board with directors of sufficient knowledge and experience inside and outside the Company in areas related to business management. Knowledge and experience important to the Company are defined as the areas of “legal affairs and risk management,” “personnel and human resource development,” “finance, accounting, and capital policy,” “auditing,” “management of

individual businesses (in the Company),” “corporate management and management strategy,” “research and development,” “the environment,” “social,” and “internal control and governance.” In addition to having appropriate knowledge in all of these areas, the Company appoints nominees for Director positions by specifying areas in which the Company particularly expects them to contribute.

The chart below details the areas in which the Company

## Basic Policies

- Appoint less than 15 Directors of whom one-third or more and at least five are Independent Directors
- Maintain a majority of Independent Directors and Non-Executive Inside Directors
- Assign an Independent Director or Non-Executive Inside Director as the Chairman of the Board of Directors

## Corporate Governance System at a Glance (As of March 27, 2020)

Format	Company with Three Committees
Chairman of Board of Directors	Independent Director
Number of Directors	10
Of whom are Independent Directors	7
Number of Independent Directors*1	7
Term of Directors	1 year

## Ratio of Independent Directors to Total Directors

Independent Directors	7
Inside Directors	3



## Ratio of Non-Executive Directors to Total Directors

Directors not concurrently serving as Executive Officers	9
Of whom are Independent Directors	7
Directors concurrently serving as Executive Officers	1



## Number of Female Directors

Female Directors	2
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## Composition of Three Committees

	Nomination Committee	Compensation Committee	Audit Committee
Number of members	3	3	4
Of whom are Independent Directors	2	3	3
Of whom are Inside Directors	1	0	1

\*1 Independent Directors as designated under the Tokyo Stock Exchange (TSE) listing rules.

## Overview of the Board of Directors (As of March 27, 2020)

Name		Classification Committee positions	
Toichi Maeda	Director, Chairman of the Company, Member of the Nomination Committee	Non-Executive Nomination Committee	
Masao Asami	Director, President and Representative Executive Officer		
Sakon Uda	Independent Director, Chairman of the Board of Directors, Member of the Nomination Committee	Independent Nomination Committee	
Hajime Sawabe	Independent Director, Chairperson of the Compensation Committee	Independent Compensation Committee	
Shozo Yamazaki	Independent Director, Member of the Audit Committee	Independent Audit Committee	
Hiroshi Oeda	Lead Independent Director, Chairperson of the Nomination Committee	Independent Nomination Committee	
Masahiro Hashimoto	Independent Director, Member of the Compensation Committee and the Audit Committee	Independent Compensation Committee Audit Committee	
Junko Nishiyama	Independent Director, Member of the Audit Committee	Independent Audit Committee	
<span style="border: 1px solid black; padding: 2px;">NEW</span> Mie Fujimoto	Independent Director, Member of the Compensation Committee	Independent Compensation Committee	
Tetsuji Fujimoto	Director, Chairperson of the Audit Committee	Non-Executive Audit Committee	

Non-Executive Non-Executive Inside Director  
Independent Independent Director with notification submitted to Tokyo Stock Exchange  
Nomination Committee Member of the Nomination Committee  
Compensation Committee Member of the Compensation Committee  
Audit Committee Member of the Audit Committee

expects the Directors appointed for the fiscal year ending December 31, 2020, to contribute based on these policies. In the fiscal year ended December 31, 2019, the number of Directors that serve concurrently as Executive Officers was reduced to one, and an Independent Director was appointed as the

Chairman of the Board of Directors. These changes were implemented to bring the Board of Directors to an ideal size and better clarify execution and oversight functions.

REFERENCE Reasons for the selection of individual Directors can be found in the proposal for the election of Directors contained in the Notice of the 155th Ordinary General Meeting of Shareholders

[https://www.ebara.co.jp/en/about/ir/stock/shareholdersmeeting/\\_icsFiles/afieldfile/2020/03/25/E6361\\_155r1.pdf](https://www.ebara.co.jp/en/about/ir/stock/shareholdersmeeting/_icsFiles/afieldfile/2020/03/25/E6361_155r1.pdf)

	Attendance at Board of Directors' and committee meetings in FY2019 (Meetings attended / Total meetings)				Areas in which Directors (Non-Executive Directors) are expected to contribute*2								
	Board of Directors	Nomination Committee	Compensation Committee	Audit Committee	Legal affairs and risk management	Personnel and human resource development	Finance, accounting, and capital policy	Auditing	Corporate management and management strategy	Research and development	The environment	Social	Internal control and governance
	14/14	13/13*3											
	10/10*4				—	—	—	—	—	—	—	—	—
	14/14	16/16	1/1*5										
	14/14		10/10										
	14/14			14/14									
	14/14	16/16											
	14/14		9/9*3	14/14									
	10/10*4			10/10*3									
	Appointed in March 2020		Appointed in March 2020										
	14/14			14/14									

\*2 The above table does not represent all of the areas in which Directors possess expertise.

\*3 At the meeting of the Board of Directors convened on March 28, 2019, the individual in question was newly appointed to the given committee. Accordingly, attendance figures pertain to committee meetings held after this date.

\*4 At the 154th Ordinary General Meeting of Shareholders held on March 28, 2019, the individual in question was newly appointed to the position of Director. Accordingly, attendance figures pertain to Board of Directors meetings held after this date.

\*5 Following the conclusion of the meeting of the Board of Directors convened on March 28, 2019, the individuals in question resigned from their position on the given committee. Accordingly, attendance figures pertain to committee meetings held prior to this date.

# Board of Directors

(As of March 27, 2020)



**Hiroshi Oeda** ●  
Lead Independent Director  
Chairperson of  
the Nomination Committee

**Masahiro Hashimoto** ●  
Member of the Compensation  
Committee and  
the Audit Committee

**Sakon Uda** ●  
Chairman of the Board of  
Directors  
Member of the Nomination  
Committee

**Mie Fujimoto** ●  
Member of the Compensation  
Committee

**Toichi Maeda**  
Chairman of the Company  
Member of the Nomination  
Committee



**Hajime Sawabe** ●  
Chairperson of the Compensation  
Committee

**Masao Asami**  
President and Representative  
Executive Officer

**Shozo Yamazaki** ●  
Member of the Audit Committee

**Junko Nishiyama** ●  
Member of the Audit Committee

**Tetsuji Fujimoto**  
Chairperson of the Audit  
Committee

● Independent Director

# Brief Personal History of Directors

(As of March 27, 2020)



## Toichi Maeda

Chairman of the Company,  
Member of the Nomination  
Committee

- Apr. 1981 Joined the Company
- Apr. 2007 Executive Officer
- Apr. 2010 Managing Executive Officer
- Apr. 2011 Head of Business Unit, Custom Pump Business Unit, Fluid Machinery & Systems Company
- Jun. 2011 Director
- Apr. 2012 President, Fluid Machinery & Systems Company
- Apr. 2013 President and Representative Director
- Jun. 2015 President and Representative Executive Officer\*
- Mar. 2019 Chairman & Director (to present)  
Member of the Nomination Committee (to present)



## Masao Asami

Director, President and  
Representative Executive  
Officer

- Apr. 1986 Joined the Company
- Apr. 2010 Executive Officer
- Apr. 2011 Division Executive, Sales and Marketing Division, Precision Machinery Company
- Apr. 2014 Managing Executive Officer
- Jun. 2015 Managing Executive Officer\*
- Apr. 2016 President, Precision Machinery Company
- Mar. 2019 Director (to present)  
President and Representative Executive Officer (to present)



## Sakon Uda

Independent Director,  
Chairman of the Board of  
Directors, Member of the  
Nomination Committee

- Apr. 1981 Joined Nippon Kokan K.K. (currently JFE Holdings, Inc.)
- Aug. 1989 Joined McKinsey & Company
- Feb. 2006 Executive Officer, Japan Post Holdings Co., Ltd.
- Oct. 2007 Senior Managing Executive Officer, Japan Post Holdings Co., Ltd.  
First Executive Officer, Japan Post Service Co., Ltd. (currently Japan Post Co., Ltd.)
- May 2010 Professor, Kenichi Ohmae Graduate School of Business (to present)
- Jul. 2010 Executive Officer, Chief Operating Officer, The Tokyo Star Bank, Limited
- Jun. 2011 Director (to present)
- Sep. 2012 Counselor, Nuclear Damage Liability Facilitation Fund (currently Nuclear Damage Compensation and Decommissioning Facilitation Corporation)
- Apr. 2014 Dean, Faculty of Business Administration Professor, Business Breakthrough University (to present)
- Jun. 2014 Director, Business Breakthrough, Inc. (to present)
- Jun. 2015 Director, Public Utility Fund Japan-North America Medical Exchange Foundation  
Chairperson of the Nomination Committee
- Jul. 2015 Lead Independent Director
- Apr. 2016 Vice President, Business Breakthrough University (to present)
- Sep. 2016 Advisor to Tokyo Metropolitan Government  
Special advisor to the Tokyo Metropolitan Government Political Reform Headquarters
- Jun. 2017 Member of the Compensation Committee
- Jul. 2017 Executive Director, Public Utility Fund Japan-North America Medical Exchange Foundation (to present)
- Mar. 2019 Chairman of the Board of Directors (to present)  
Member of the Nomination Committee (to present)



## Hajime Sawabe

Independent Director,  
Chairperson of the  
Compensation Committee

- Apr. 1964 Joined Tokyo Denki Kagaku Kogyo K.K. (currently TDK Corporation)
- Jun. 1996 Director, Executive Vice President of Recording Device Business, TDK Corporation
- Jun. 1998 President & Representative Director, TDK Corporation
- Jun. 2006 Chairman & Representative Director, TDK Corporation
- Mar. 2008 Outside Director, Asahi Glass Co., Ltd. (currently AGC Inc.)
- Jun. 2008 Outside Director, TEIJIN LIMITED  
Outside Director, Nomura Securities Co., Ltd.
- Jun. 2009 Outside Director, Nomura Holdings, Inc.
- Mar. 2011 Outside Audit & Supervisory Board Member, Nikkei Inc. (to present)
- Jun. 2011 Director, Chairman of the Board & Directors, TDK Corporation
- Oct. 2011 Councilor, Waseda University
- Apr. 2012 Executive Advisor, Japan Management Association
- Jun. 2012 Executive Advisor, TDK Corporation
- Jul. 2014 Vice President, Board of Trustees, Waseda University
- Jun. 2015 Outside Director, Japan Display Inc.  
Director (to present)  
Member of the Compensation Committee
- Jul. 2018 President, Board of Trustees, Waseda University (to present)
- Apr. 2019 Adviser of the Executive Board, Value Creation 21 (to present)
- Mar. 2020 Chairperson of the Compensation Committee (to present)

\* Indicates *shikkou-yaku*, a Japanese legal term which refers to executive officers who are appointed by the Board of Directors to execute company policy and strategy. The role and legal title of such executive officers are described in the Companies Act of Japan, and as such they bear fiduciary duties to the Company.





**Shozo Yamazaki**

Independent Director,  
Member of the Audit  
Committee

- Nov. 1970 Entered Tohatsu Awaki & Co. (currently Deloitte Touche Tohmatsu LLC)
- Sep. 1974 Registered as a certified public accountant (to present)
- Jul. 1991 Representative Partner, Tohatsu & Co. (currently Deloitte Touche Tohmatsu LLC)
- Jul. 2010 Chairman and President, The Japanese Institute of Certified Public Accountants
- Jul. 2013 Advisor, The Japanese Institute of Certified Public Accountants (to present)
- Apr. 2014 Professor, Tohoku University Accounting School
- Feb. 2015 Outside Audit & Supervisory Board Member, Tohoku University Venture Partners Co., Ltd. (to present)
- Jun. 2015 Director (to present)  
Member of the Audit Committee (to present)  
Outside Audit & Supervisory Board Member, Regional Economy Vitalization Corporation of Japan (to present)
- Jun. 2017 Outside Director, Sumitomo Mitsui Financial Group, Inc. (to present)



**Hiroshi Oeda**

Lead Independent Director,  
Chairperson of the  
Nomination Committee

- Apr. 1980 Joined Nisshin Flour Milling Inc. (currently Nisshin Seifun Group Inc.)
- Jun. 2009 Director, Nisshin Seifun Group Inc.
- Apr. 2011 Director and President, Nisshin Seifun Group Inc.
- Apr. 2015 Member of Management Council, Hitotsubashi University (to present)
- Apr. 2017 Director and Executive Advisor, Nisshin Seifun Group Inc.
- Jun. 2017 Corporate Special Advisor, Nisshin Seifun Group Inc. (to present)  
President, Seifun Kaikan Inc. (to present)
- Dec. 2017 Member of the Japanese National Commission for UNESCO (to present)
- Mar. 2018 Director (to present)  
Member of the Nomination Committee
- Jun. 2018 Outside Director, SEKISUI CHEMICAL CO., LTD. (to present)
- Mar. 2019 Chairperson of the Nomination Committee (to present)
- Jun. 2019 President, Hitotsubashi University Koenkai (to present)
- Mar. 2020 Lead Independent Director (to present)



**Masahiro Hashimoto**

Independent Director,  
Member of the  
Compensation Committee  
and the Audit Committee

- Apr. 1972 Joined The Daiwa Bank, Limited (currently Resona Bank, Limited)
- Nov. 1998 President, Bank Daiwa Perdania (Indonesia)
- Jul. 1999 General Manager of International Division, The Daiwa Bank, Ltd.
- Jun. 2001 Managing Director and General Manager of Financial Department, Dainippon Screen Mfg. Co., Ltd. (currently SCREEN Holdings Co., Ltd.)
- Jun. 2004 Senior Managing Director, Dainippon Screen Mfg. Co., Ltd.
- Jun. 2005 Representative Director, President and Chief Operating Officer, Dainippon Screen Mfg Co., Ltd.
- Apr. 2014 Vice Chairman, Dainippon Screen Mfg. Co., Ltd.
- Jun. 2015 Senior Advisor (part-time), Dainippon Screen Mfg. Co., Ltd.
- Apr. 2016 Industrial promotion advisor, Kumamoto Prefecture (to present)
- Mar. 2018 Director (to present)  
Member of the Audit Committee (to present)
- Mar. 2019 Member of the Compensation Committee (to present)



**Junko Nishiyama**

Independent Director,  
Member of the Audit  
Committee

- Apr. 1979 Joined Lion Fat & Oil Co., Ltd. (currently Lion Corporation)
- Mar. 2006 Director, Finished Product Department, Purchasing Headquarters, Lion Corporation
- Mar. 2007 Director, Finished Product Purchasing, Production Coordinating Department No. 2, Production Headquarters, Lion Corporation
- Jan. 2009 Director, Packaging Engineering Research Laboratories, Research & Development, Headquarters, Lion Corporation
- Jan. 2014 Director, CSR Promotion Department, Lion Corporation
- Mar. 2015 Standing Corporate Auditor, Lion Corporation
- Mar. 2019 Advisor, Lion Corporation (to present)  
Director (to present)  
Member of the Audit Committee (to present)
- Jun. 2019 Outside Director, JACCS CO., LTD. (to present)



**Mie Fujimoto**

Independent Director,  
Member of the  
Compensation Committee

- Apr. 1993 Registered as an attorney (to present)  
Joined New Tokyo Sogoh Law Office
- Jun. 2009 Outside Corporate Auditor, Kuraray Co., Ltd.
- Apr. 2015 Joined TMI Associates (to present)
- Jun. 2015 Outside Audit & Supervisory Board Member, SEIKAGAKU CORPORATION (to present)
- Jun. 2016 Outside Audit & Supervisory Board Member, Tokyo Broadcasting System Holdings, Inc. (Outside Audit & Supervisory Board Member, Tokyo Broadcasting System Television, Inc.) (to present)
- Mar. 2019 Outside Director, Kuraray Co., Ltd
- Mar. 2020 Director (to present)  
Member of the Compensation Committee (to present)



**Tetsuji Fujimoto**

Director,  
Chairperson of the Audit  
Committee

- Apr. 1976 Joined the Company
- Apr. 2004 Executive Officer  
Division Executive, Financing & Corporate Accounting, Corporate Group
- Jun. 2007 Director (to present)
- Apr. 2008 Managing Executive Officer
- Apr. 2011 Responsible for Group Management, Finance & Accounting and Internal Control
- Apr. 2012 President and Representative Director of EBARA Environmental Plant Co., Ltd.
- Jun. 2012 Senior Managing Executive Officer
- Apr. 2013 President, Environmental Engineering Company
- Jun. 2015 Chairperson of the Audit Committee (to present)

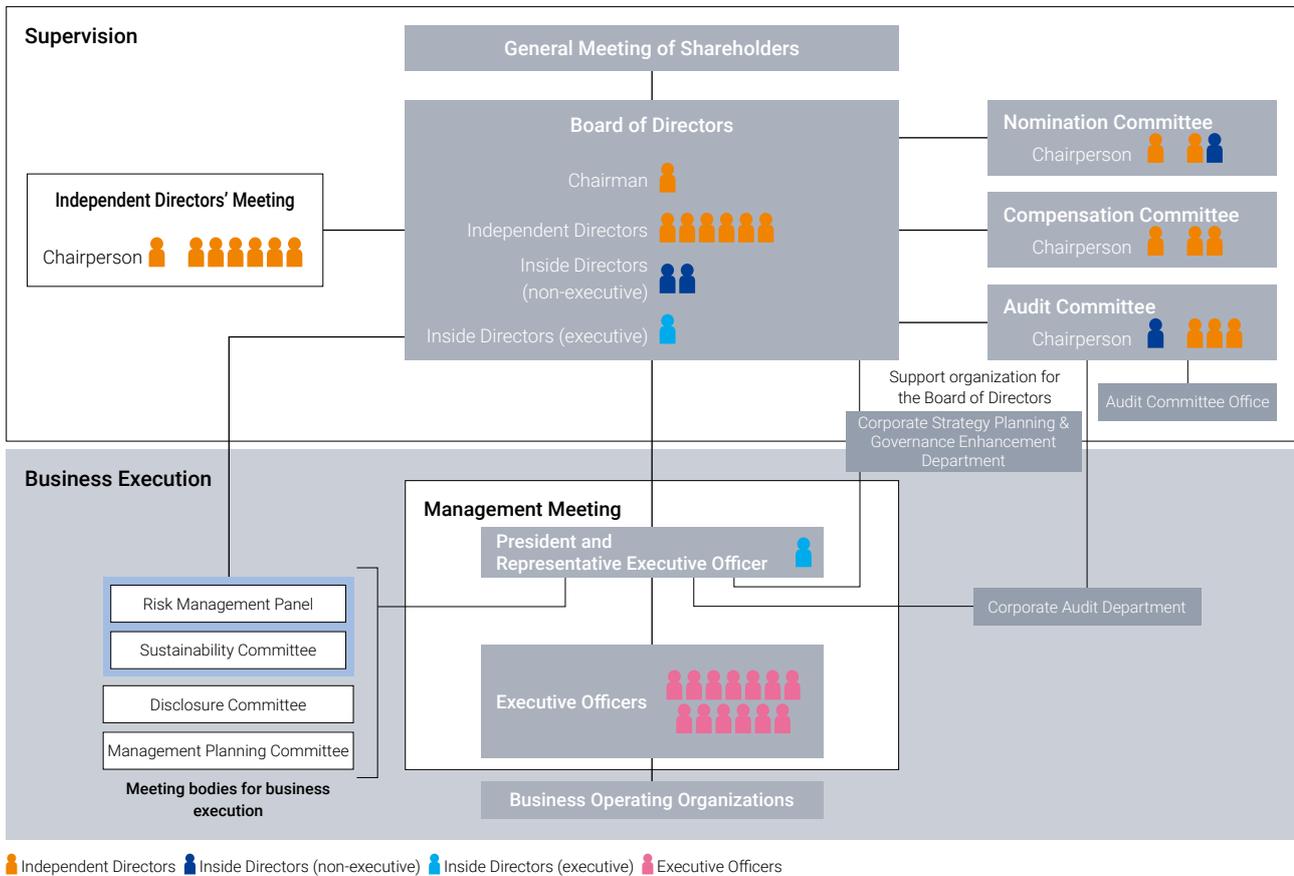


# Corporate Governance

The EBARA Group has established the “EBARA Way,” composed of its Founding Spirit, Corporate Philosophy, and CSR Policy, as the EBARA Group’s identity and set of values to be shared across the Group. Under the “EBARA Way,” the enhancement of corporate value through sustainable business development and sharing the results with all stakeholders, including shareholders, are EBARA’s most important management objectives. To achieve such objectives, we constantly seek the best possible corporate governance systems and strive toward further enhancement.

Based on this policy, Independent Directors play an important role in the corporate governance system of the Company, and the corporate governance system is centered on Independent Directors and Non-Executive Inside Directors. In addition, the Company incorporates the Company with Nominating Committee, etc., structure described in the Companies Act of Japan to ensure the clear separation between supervision and business execution.

## Corporate Governance Systems (As of March 27, 2020)



## Major Initiatives Taken in the Fiscal Year Ended December 31, 2019

Important matters put to deliberation by the Board of Directors in the fiscal year ended December 31, 2019, included the establishment of a long-term vision and a new medium-term management plan. A significant amount of time was devoted to thorough discussion of the directives for the Company to follow over the next decade and the medium-term management

policies and strategies to be implemented over the first three years of this decade. As a result, the Board of Directors was able to engage in effective discussion based on an increased recognition of the important management issues for the Company over the medium to long term.

### Major Items Discussed by the Board of Directors in the Fiscal Year Ended December 31, 2019

- Formulation of long-term vision and new medium-term management plan
- Establishment of annual management plan and KPIs for business segments
- Monitoring of and follow-up on management plan progress of individual businesses
- Medium- to long-term financial strategies and environmental targets
- Cross-shareholdings policies
- IR activity policies
- Evaluation of the effectiveness of the Board of Directors and follow-up

## Initiatives for Strengthening Corporate Governance

Around the turn of the century, the Company reacknowledged the importance and necessity of corporate governance systems. Since then, we have been introducing improvements to our governance systems in phases to facilitate the Company's sustainable growth and fulfill its social responsibilities. We will continue to improve our governance systems as necessary to achieve further improvements and move them toward the ideal state in which the Board of Directors can fully exercise its functions.

### Evolution of EBARA's Corporate Governance System

	Start of corporate governance initiatives	Commencement of governance reforms	Development of frameworks to improve effectiveness	Pursuit of further transparency and impartiality
	April 2002–March 2007	April 2007–March 2015	April 2015–December 2018	January 2019–
Governance				
Organizational format	Company with Board of Company Auditors	Company with Board of Company Auditors	06/15: Company with Three Committees	
Committees		08/08: Voluntary establishment of Nomination / Compensation Advisory Committee 02/09: Membership of: • Nomination Advisory Committee: 2 Inside, 2 Independent • Compensation Advisory Committee: 2 Inside, 2 Independent	06/15: Establishment of Nomination / Compensation / Audit Committee as statutory committees under the Board of Directors 06/17: Membership of: • Nomination Committee: 2 Independent, 1 Inside • Compensation Committee: 3 Independent • Audit Committee: 3 Independent, 2 Inside	03/20: Membership of: • Nomination Committee: 2 Independent, 1 Inside • Compensation Committee: 3 Independent • Audit Committee: 3 Independent, 1 Inside
Chairman of the Board of Directors	President of the Company	06/13: Director, Chairman (Non-Executive Inside Director)		03/19: Independent Director
Separation of supervision and business execution	05/02: Introduction of Executive Officer System 06/02: Reduction of the number of Directors stipulated in the Articles of Incorporation (35 → 20) 06/05: Reduction of the number of Directors stipulated in the Articles of Incorporation (20 → 12)		06/15: Revision of rules of the Board of Directors to delegate greater authority to the business executive team	03/19: Reduction of the number of Executive Inside Directors (3 → 1)
Number of Members of the Board of Directors				
Directors	06/02: 20 → 06/05: 12	06/08: 12 → 06/11: 12	06/15: 14 → 06/17: 13	03/19: 11 → 03/20: 10
Independent Directors (of which, female)		06/08: 2 → 06/11: 4	06/15: 7 (2) → 06/17: 7 (1)	03/19: 7 (1) → 03/20: 7 (2)
Outside Audit & Supervisory Board members	06/01: 2	06/07: 3		
Directors' and Executive Officers' nomination	06/02: Shortening of term of directors from two years to one year	03/08: • Establishment of standards for evaluating independence of Independent Directors • Establishment of basic policies for Directors' and Executive Officers' nominations • Set of tenure limit of Directors and Executive Officers		10/19: Establishment of standards for average Board meeting attendance and number of concurrent positions at other companies held by Directors
Directors' and Executive Officers' compensation		05/09: • Establishment of Basic Policy on Directors' and Executive Officers' Compensation • Abolition of officer retirement benefit system • Introduction of share-based payment stock options	03/18: • Abolition of stock option system • Introduction of restricted stock compensation plan and performance-linked stock compensation plan	
Advisors			06/15: Abolition of the provision regarding advisors in Articles of Incorporation	
Evaluation of Board of Directors' effectiveness			06/16: Start of evaluations of the effectiveness of the Board of Directors 06/17: Addition of individual interviews into procedures for evaluating the effectiveness of the Board of Directors	
EBARA Corporate Governance Basic Policy			11/15: Establishment 11/18: Revision (addition of regulations regarding non-reappointment of President, etc.)	

## Evaluation of the Board of Directors' Effectiveness

The Company believes it is necessary to work toward the best possible corporate governance systems and strive for improvement at all times. Since the fiscal year ended March 31, 2016, annual evaluations of the contributions and effectiveness of the

Board of Directors have been conducted and the results have been disclosed. The Company simultaneously works to resolve any issues that come to light.

## Evaluation of the Board of Directors' Effectiveness in the Fiscal Year Ended December 31, 2019

### Analysis and Evaluation Process

With the cooperation of an independent third-party, the Company had each Director complete a questionnaire and then held individual interviews with all of the Directors based on their responses to the questionnaire. The state and effectiveness of the Board of Directors was analyzed based on the results, and meetings were held in February and March 2020 to confirm the evaluation and future action items. The Company adopted a structure in which an Independent Director serves as the Chairman of the Board of Directors in March 2019. In Japan, it is still rare for Independent Directors to act in the position of Chairman, because of this and the importance of the position, the Company took particular care in performing an in-depth and multifaceted evaluation of the Chairman of the Board of Directors.

### Questionnaires and Individual Interviews

Questionnaires are used to identify overarching trends pertaining to important matters concerning the effectiveness of the Board of Directors and the committees, and more in-depth evaluations of particularly important matters are performed through individual interviews.

#### Major Questionnaire Items

- Roles and functions of the Board of Directors
- Size and composition of the Board of Directors
- Status of operation of the Board of Directors
- Composition and roles of the three committees
- Status of operation of the three committees
- Support systems for Independent Directors
- Relationships with investors and shareholders
- Self-evaluations

#### Major Topics of Individual Interviews

- View of businesses and management (business portfolio transformations, corporate functions)
- Opinions regarding the Board of Directors (discussions, Chairman of the Board of Directors, number and composition of Directors)

### Summary of the Results of Analysis and Evaluation

It was found that the evaluation of the current state of operation of the Board of Directors and the Company's committees was generally high and that adequate discussion is being carried out on important issues at meetings of the Board of Directors and the committees, indicating that they are being operated appropriately. It was judged that recognition is rising with regard to

important medium- to long-term management issues for the Company and that effective discussions are taking place. Grounds for this judgment included initiatives for addressing and improving issues identified in the evaluation conducted in the fiscal year ended December 31, 2018, and the sufficient level of discussion regarding the long-term vision and new medium-term management plan at meetings of the Board of Directors. It was also confirmed that the Board of Directors was of an ideal scale and that the executive and oversight functions were clear. Factors contributing to this result included the decrease in the number of Inside Directors and the reduction of the number of Directors that serve concurrently as Executive Officers to one, namely the President. Furthermore, Independent Directors were determined to have an ideal mix of backgrounds, including corporate managers and legal and accounting specialists, and meetings attended solely by Independent Directors (the Independent Directors' Meeting) were identified as making large contributions to the facilitation of frank, open, and highly meaningful discussions at meetings of the Board of Directors. A high evaluation was also received with regard to the approach of operation of the Board of Directors with an Independent Director appointed as the Chairman of the Board of Directors.

Conversely, improvement was deemed necessary with regard to efforts to address long-term issues and respond to important issues in medium-term management plans. In addition, a need was identified for regular verification and ongoing follow-up of the status of the positioning and development of human resources and of internal systems for responding to the aforementioned issues along with proactive implementation of related measures. There was also a need for more extensive discussion of succession plans for Independent Directors.

### Action to Be Taken

The evaluation of the Board of Directors conducted in the fiscal year ended December 31, 2019, identified a need for ongoing action in the following four areas in order to improve Board effectiveness.

- Redoubling of support for ongoing verification, follow-up, and implementation of measures for addressing long-term issues contributing to the improvement of corporate value and important issues in the medium-term management plan
- Confirmation and verification of status of positioning and development of human resources and of internal systems for the purpose of responding to the aforementioned issues
- Enhancement of discussion on succession plans for Directors
- Periodic reviews of the size and composition of the Board of Directors

## Nomination Committee



Members	3 (2 Independent Directors   1 Non-Executive Inside Director  )
Reason for appointment of chairperson	Hiroshi Oeda possesses a wealth of general corporate management experience, and he was appointed as chairperson of the Nomination Committee so that his substantial insight can be utilized.
Meetings in FY2019	16

**Hiroshi Oeda** Lead Independent Director, Chairperson of the Nomination Committee

The Nomination Committee is mainly responsible for deciding on the proposals to be submitted to the General Meeting of Shareholders concerning the appointment and dismissal of Directors, appointment and dismissal of the Chairman of the Board of Directors and committee members, recommendations to the Board of Directors concerning the appointment and dismissal of Executive Officers, and recommendations to the Board of Directors concerning the appointment and dismissal of Directors with special titles and Executive Officers with special titles (the President and the Chairman of the Company), in addition to succession planning for the President and Representative Executive Officer.

### Succession Plan for the President and Representative Executive Officer

The establishment and implementation of the succession plan for the President and Representative Executive Officer is one of the most important tasks for the Nomination Committee. The Company's succession plan has two major characteristics. The first characteristic is that this plan is formulated primarily by the Nomination Committee, of which the current President is not a member. The second characteristic is that, when selecting the next President, the Nomination Committee coordinates with the executive team to systematically cultivate candidates and select the successor over an extended period of time. The Nomination Committee is comprised of three Non-Executive Directors, including two Independent Directors and the Chairman of the Company. This membership ensures the objective selection of ideal candidates. The Company has a policy stating that excessive terms should be avoided for members of senior management (the President and the Chairman of the Company) and that individuals in these positions should be changed periodically. The upper limit for the term of the President is six years. The current President, who was appointed in March 2019,

was selected through a process of cultivating, evaluating, and narrowing down candidates that began three years prior.

### Cultivation and Selection Process

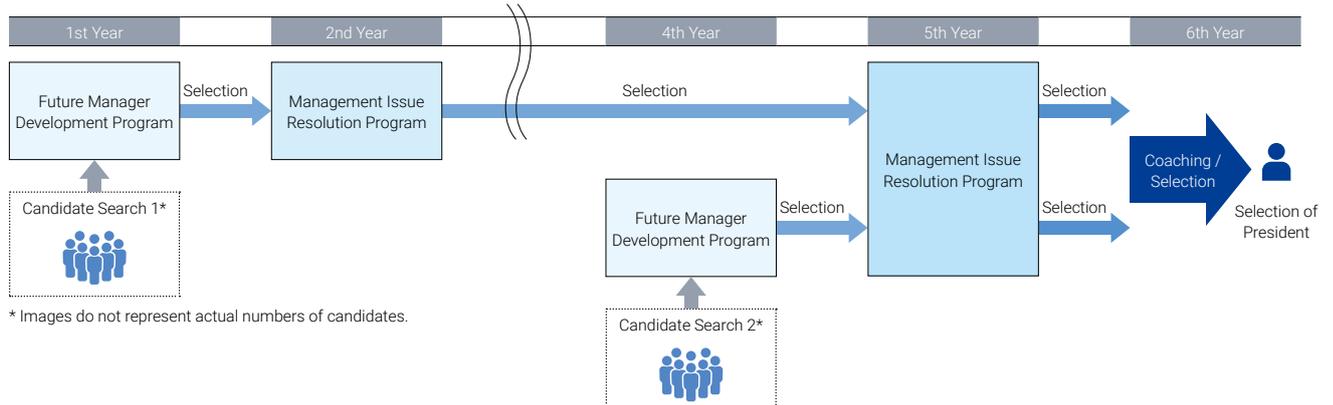
The Nomination Committee has formulated a new six-year succession plan for selecting the next President, and training on the cultivation and selection process for this plan commenced in 2019.

EBARA's succession plan begins with searching for candidates with the potential to fill the position of President in the future. A development program is then conducted to instill in candidates the basic skills expected of executives. This future manager development program includes discussions with managers from Japan and from overseas, coaching from external specialists on introspective thinking, and other provisions designed to cultivate the sense of commitment required of an executive while improving the viability of candidates. During this process, the individuals that will be advanced to the next step are chosen.

The next step of the plan is to have candidates address specific business issues via the management issue resolution program. Candidates who proceed to this stage are placed in positions that take them out of the area in which they have experience or have previously been responsible for through means such as transfer to another division. They are then expected to work to address actual management issues while experiencing various new aspects of business.

The candidates to be submitted to final consideration are selected from among the individuals that have excelled at this step. Final consideration candidates receive coaching on the mindset and thought processes necessary of the President from a professional executive coach and are expected to apply what they learn accordingly. Candidates are evaluated during the coaching process, and the results of these evaluations are reported to the Nomination Committee.

### Six-Year Cultivation and Selection Process



The qualities required in the President include perseverance and passion in addition to other qualities expected of executives. Additional requirements are also defined based on the management circumstances at a given time. The final decision of who will become the next President is made by the Nomination Committee based on the degree to which the required qualities are possessed as well as on qualities such as flexibility and growth potential as decided based on the extent to which the candidate grew before and after receiving coaching.

In the fiscal year ended December 31, 2019, the future manager development program was implemented to foster basic executive skills among candidates as part of the first-year curriculum of the six-year succession plan. The next phase of activities in 2020 will entail a more practical program focused around problem-solving in business settings. The Nomination Committee will take part in and monitor the implementation of this program while offering advice on relocations and other measures for stimulating the growth of participants.

## Compensation Committee



Members	3 (3 Independent Directors  )
Reason for appointment of chairperson	Hajime Sawabe possesses an abundance of experience pertaining to general corporate management, is well versed in corporate planning, and has a rich background of serving as an outside director at other listed companies. He was appointed as chairperson of the Compensation Committee so that he can utilize his wide-ranging insight into various industries as he exercises leadership in the development of the Company's compensation systems.
Meetings in FY2019	10

**Hajime Sawabe** Independent Director, Chairperson of the Compensation Committee

The Compensation Committee decides on policies and amounts of compensation for individual Directors and Executive Officers in addition to making recommendations to the Board of Directors concerning officer compensation systems at affiliates and other companies.

### Revision of Compensation Systems

As one facet of its efforts to develop frameworks for pursuing its E-Vision 2030 long-term vision and implementing its E-Plan 2022 new medium-term management plan, the Company abolished positions such as Executive Officers with special titles, e.g., Managing Executive Officers and Senior Managing Executive Officers, in the fiscal year ending December 31, 2020. This move was designed to facilitate a consistent approach toward positioning and compensating employees based on their merits, instead of length of service or status, throughout the Company. We were thereby able to construct Executive Officer compensation systems attuned to the different roles of the President and Executive Officers comprised of basic compensation, short-term performance-linked compensation, restricted stock compensation, and performance-linked stock compensation.

### Stock Compensation Plan Revision

In the fiscal year ended December 31, 2018, the Company replaced prior stock option plans with a restricted stock compensation plan and a performance-linked stock compensation plan to provide long-term incentives for Directors, Executive Officers, and certain employees of the Company as well as for certain directors and employees of subsidiaries. The restricted stock compensation plan was revised in the fiscal year ending December 31, 2020, to remove the transfer restrictions on applicable shares of stock the moment an individual ceases to hold their position as a director or an officer. This change was designed to encourage directors and officers to hold shares of the Company's stock and increase the degree to which they share the value of shareholders.

**Total Amounts of Compensation for Directors and Executive Officers for the Fiscal Year Ended December 31, 2019**

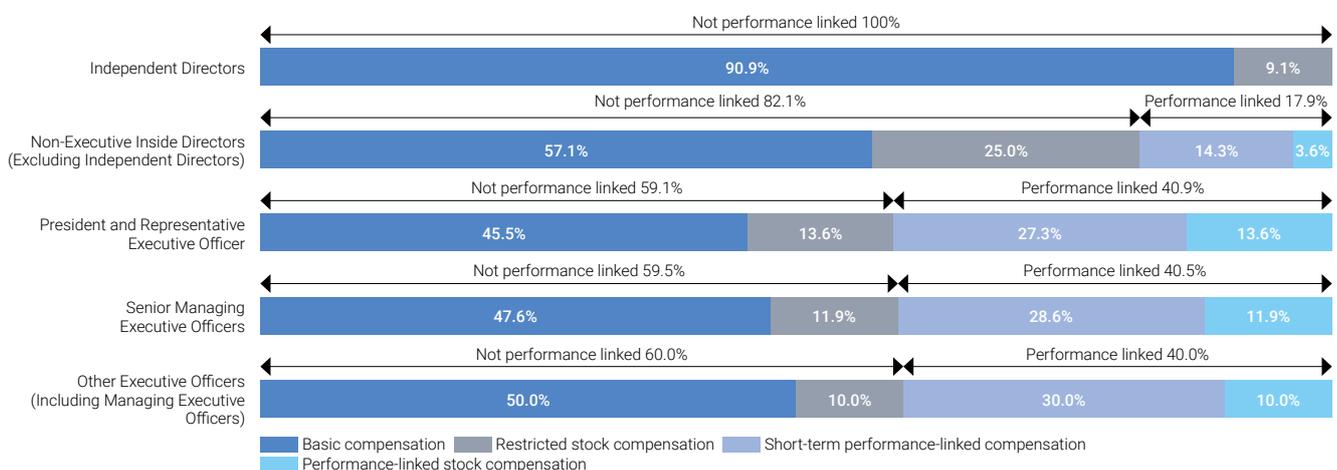
Position	Total compensation (Millions of yen)	Total compensation by type (Millions of yen)									
		Basic compensation		Short-term performance-linked compensation		Stock options		RS		PLS	
		Recipients	Amount	Recipients	Amount	Recipients	Amount	Recipients	Amount	Recipients	Amount
Directors of the Board (excluding Independent Directors)	208	4	114	4	26	4	16	4	45	4	5
Independent Directors	108	8	99	—	—	5	1	8	7	—	—
Executive Officers	749	16	349	14	220	15	30	16	76	16	72
Total	1,065	28	563	18	246	24	48	28	129	20	77

- Notes: 1. Compensation shown is the amount of compensation paid to Directors and Executive Officers in office as of December 31, 2019, for the term of office of each Director and Executive Officer for the fiscal year ended December 31, 2019, and compensation paid to the two Non-Executive Directors among the four Directors who retired at the conclusion of the 154th Ordinary General Meeting of Shareholders held on March 28, 2019, and the two Executive Officers who retired at the conclusion of the meeting of the Board of Directors held on the same day according to their terms of office over the period from January 2019 to the date of their resignation.
2. Compensation paid to Executive Inside Directors is included in the Executive Officers compensation column.
3. The amount of compensation paid to Executive Officers includes ¥103 million in compensation paid by subsidiaries to Executive Officers that serve concurrently as officers at subsidiaries.
4. The basic compensation (limited to the performance-linked portion) of Non-Executive Inside Directors and bonuses of Executive Officers are calculated based on the performance of the EBARA Group, the performance of the relevant division, and an evaluation of the individual's performance in the fiscal year ended December 31, 2019, and amounts are determined individually after deliberation by the Compensation Committee.
5. Short-term performance-linked compensation shown is the total amount of bonuses paid in March 2020 to Executive Officers in office as of December 31, 2019, for the fiscal year ended December 31, 2019.
6. The stock option system was abolished in the nine-month period ended December 31, 2017, and a restricted stock compensation (RS) plan and a performance-linked stock compensation (PLS) plan were introduced in the fiscal year ended December 31, 2018.
7. No new stock options were issued in the fiscal year ended December 31, 2019. However, the amount recorded as expenses during the fiscal year ended December 31, 2019, in association with stock options issued in previous fiscal years is listed.
8. Restricted stock compensation shown combines the amount of restricted stock compensation paid in the fiscal year ended December 31, 2019, and the amount recorded as expenses during the fiscal year ended December 31, 2019, in association with restricted stock compensation paid in previous fiscal years.
9. Performance-linked stock compensation shown is the amount of performance-linked stock compensation paid in May 2020 attributable to the fiscal year ended December 31, 2019.

**Amounts of Compensation for Directors and Executive Officers Receiving Compensation Exceeding ¥100 Million for the Fiscal Year Ended December 31, 2019**

Name	Total compensation (Millions of yen)	Total compensation by type (Millions of yen)				
		Basic compensation	Short-term performance-linked compensation	Stock options	RS	PLS
President and Representative Executive Officer Masao Asami	103	46	30	2	12	11

- Notes: 1. Short-term performance-linked compensation shown is the total amount of bonuses paid in March 2020 for the fiscal year ended December 31, 2019.
2. No new stock options were issued in the fiscal year ended December 31, 2019. However, the amount recorded as expenses during the fiscal year ended December 31, 2019, in association with stock options issued in previous fiscal years is listed.
3. RS shown combines the amount of restricted stock compensation paid in the fiscal year ended December 31, 2019, and the amount recorded as expenses during the fiscal year ended December 31, 2019, in association with restricted stock compensation paid in previous fiscal years.
4. PLS shown is the amount of performance-linked stock compensation paid in May 2020 attributable to the fiscal year ended December 31, 2019.

**Composition of Compensation Paid to Directors and Executive Officers (If 100% of the target for performance-linked compensation is achieved)**

## Audit Committee



Members	4 (3 Independent Directors  1 Non-Executive Inside Director  )
Reason for appointment of chairperson	Tetsuji Fujimoto has been appointed as the chairperson and a full-time member of the Audit Committee with the expectation that he will be able to utilize the experience he gained in positions at the Company in accounting, finance, and business divisions as he maintains an up-to-date and accurate understanding of the circumstances within the Company and quickly reflects changes in the operating environment in the audit activities of the Company to heighten their effectiveness.
Meetings in FY2019	14

**Tetsuji Fujimoto** Chairperson of the Audit Committee (Full-Time Non-Executive Inside Director)

The Audit Committee is responsible for conducting audits to assess whether or not Directors, Executive Officers, and employees of the Company and its subsidiaries are in compliance with legal obligations and internal regulations. In addition, the Audit Committee endeavors to monitor Executive Officers and verify whether they execute their duties in a sound, fair, appropriate, and efficient manner in accordance with basic policies for management and medium- and long-term management plans established by the Board of Directors, such as the E-Vision 2030 long-term vision and the E-Plan 2022 medium-term management plan.

### Activities of the Audit Committee

■ Discussions with Members of Executive Management  
Members of the Audit Committee hold regular meetings with the President and Representative Executive Officer and with representatives of business units and corporate divisions to discuss and share recognition and information pertaining management issues and business risks with the executive branch.

#### ■ Attendance at Important Meetings

Members of the Audit Committee attend meetings of the Management Meeting, the Sustainability Committee, the Risk Management Panel, and other important meetings to improve the effectiveness and efficiency of audits and maintain an accurate and up-to-date understanding of relevant information. Advice is also provided to the executive team as necessary.

#### ■ On-Site Audits

On-site audits are performed at domestic and overseas offices, operating sites, and subsidiaries, and members of the Audit Committee observe audits by the Independent Auditor and internal audit divisions as necessary to confirm that internal control systems are functioning effectively at the Company and across the Group.

#### ■ Major Areas Assessed by the Audit Committee in the Fiscal Year Ended December 31, 2019

Annual audit plans define items requiring intensive auditing alongside items audited every fiscal year. Major areas assessed by the Audit Committee in the fiscal year ended December 31, 2019, include the following.

- Evaluation of results of audits of operational execution by Executive Officers and others
- Evaluation of appropriateness of accounting procedures pertaining to important accounting items
- Identification of issues and confirmation of progress of the medium-term management plan
- Auditing of status of internal control system implementation and operation by the Company and Group companies

### Collaborative Audits by Different Auditing Bodies

■ Coordination with and Evaluation of Independent Auditor  
Members of the Audit Committee coordinate with and confirm that the Independent Auditor is maintaining an independent position and performing effective audits. In addition, Audit Committee members receive reports from the Independent Auditor on the execution and findings of its audits. Furthermore, the Audit Committee conducts efficient audits by holding meetings with the Independent Auditor regularly and as needed for the mutual exchange of information and opinions.

Based on the judgment of the eligibility, independence, and overall capabilities of the Independent Auditor founded on the results of annual assessments of whether or not to reappoint the Independent Auditor, the Audit Committee proposed the reappointment of Ernst & Young ShinNihon LLC as the Independent Auditor for the fiscal year ending December 31, 2020, and examined the appropriate level of compensation.

#### ■ Coordination with Internal Audit Division

The Audit Committee coordinates with the Internal Audit Division and divisions responsible for internal control, risk management, and compliance as well as with the auditors of Group companies.

Specifically, the Audit Committee holds meetings on a regular and as-needed basis to discuss the internal audit plans of the Internal Audit Division and arranges exchanges of information with risk management and compliance divisions. In addition, advice is offered to the executive branch as necessary.

Furthermore, Group Auditor Conferences, which are attended by auditors of subsidiaries, are held twice a year. At these conferences, full-time Audit Committee members and the heads of the Internal Audit Division as well as of internal control, risk management, compliance, and finance and accounting divisions attend to share information and receive business reports from the auditors of subsidiaries when necessary.

## Operational Execution System

Executive Officers are appointed through resolutions by the Board of Directors. Executives are responsible for decisions and duties in the operational execution area assigned to them by the Board of Directors in accordance with the management policies established by the Board of Directors, such as the E-Vision 2030 long-term vision and the E-Plan 2022 medium-term management plan. In the fiscal year ending December 31, 2020, the Company has 14 Executive Officers, all of which are male, with one of them being of non-Japanese nationality. However, the Company is examining the possibility of appointing a female Executive Officer in the future from the perspective of diversity.

### Process for the Appointment and Dismissal of Executive Officers

The Nomination Committee deliberates whether Executive Officer candidates selected by the President and Representative Executive Officer have suitable qualities and capabilities as Executive Officers and present the results of deliberation to the Board of Directors based on the Executive Officer appointment criteria and appointment procedures formulated through discussion by the Nomination Committee and approved by the Board of Directors. The Board of Directors makes decisions after receiving the deliberation results from the Nomination Committee.

Furthermore, in the event the performance of an Executive Officer (other than the President, Representative Executive Officer) does not meet the criteria specified in the Company's regulations, the Nomination Committee will propose to the Board of Directors not to reappoint the current Executive Officer until a specific reason is cited for this lack of performance.

### Meeting Bodies for Business Execution

1. Management Meeting  
The Management Meeting is comprised of all Executive Officers and tasked with performing the deliberation necessary for facilitating decision-making by the President, Representative Executive Officer with regard to important matters concerning the execution of business.
2. Management Planning Committee  
In order to give form to the measures of the medium-term management plan in each fiscal year, the Management Planning Committee, which is chaired by the President, Representative Executive Officer and made up of all Executive Officers, deliberates, determines, and follows up on the budgets and management issue action plans of each organization on a quarterly basis.
3. Risk Management Panel  
The Risk Management Panel, which is chaired by the President, Representative Executive Officer and membered by all Executive Officers, is responsible for overseeing risk management activities and performing deliberations and offering improvement instruction and support for this purpose.
4. Sustainability Committee\*  
The Sustainability Committee conducts deliberations on action policies for business and related support activities, sets KPIs and targets, and confirms results to guide the EBARA Group in contributing the sustainability of society and the environment and thereby improving corporate value through its business activities.
5. Disclosure Committee  
The Disclosure Committee is a cross-organizational committee tasked with facilitating the impartial, timely, and accurate disclosure of corporate information, such as that pertaining to Groupwide occurrences, decisions, and financial information.

\* In April 2020, the name of the CSR Committee was changed to the Sustainability Committee.

## Cross-Shareholdings

In principle, the Company does not hold cross-shareholdings. However, it is possible that the Company will hold shares of other companies only in cases in which it is determined that partnerships with investees through shareholding will contribute to the enhancement of the Group's corporate value. The rationale for cross-shareholding relationships is subject to regular examination by the Board of Directors based on the following items, and shareholdings deemed by the Board of Directors to no longer be rational shall be dissolved when appropriate by disposal or other means.

### Matters Confirmed in Examination of Shareholding Rationale

- Importance of partnership with investee and necessity of continuation of relationship
- Appropriateness of returns and risks associated with the shareholding in comparison to cost of capital

In the fiscal year ended December 31, 2019, of the nine stocks of listed companies held by the Company on January 1, 2019, roughly half of the holdings of two stocks were sold while the remaining seven stocks were sold in their entirety.

In exercising voting rights attached to cross-shareholdings, the Company determines whether to vote for or against each individual agenda item after consideration of whether it contributes to the medium-to-long-term enhancement of the corporate value of the Group and investees. Discussions are held with investees on the content of agenda items as required with particular emphasis placed on the following items.

- Changes to the Articles of Incorporation
- Nomination of Directors
- Anti-takeover measures
- Appropriation of surplus

REFERENCE Cross-Shareholdings

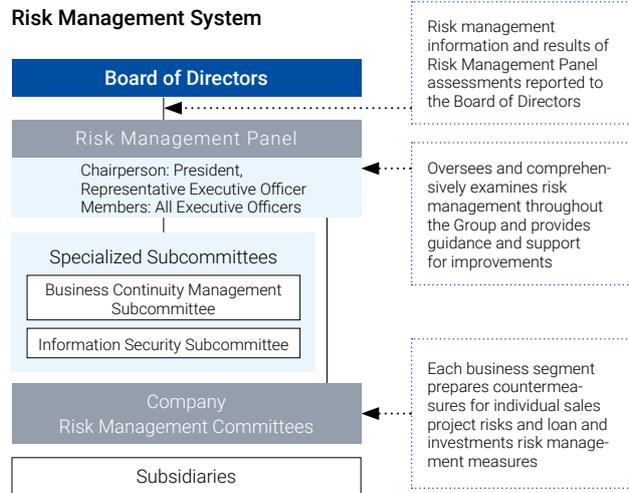
<https://www.ebara.co.jp/en/about/ir/Governance/cross-shareholdings/index.html>

# Risk Management

## Basic Approach

The EBARA Group systematically identifies and assesses risks that may arise from its business operations and implements measures to minimize negative impacts that may impact the ongoing survival and development of the Group. We are shifting from a system that focused on responding ad hoc to individual risks that emerge in the course of business to a more systematic approach that emphasizes continuous implementation of improvements to the system parallel to enacting risk control measures.

REFERENCE Basic Policy on Risk Management  
[https://www.ebara.co.jp/en/about/csr/social/risk\\_management/index.html](https://www.ebara.co.jp/en/about/csr/social/risk_management/index.html)



## Major Risks and Countermeasures

When establishing the E-Vision 2030 long-term vision and the E-Plan 2022 medium-term management plan, the EBARA Group performed analyses of the risks that may occur during the course of its business through a scenario planning approach accounting for medium- to long term changes in social trends and operating environment conditions. In addition, regular Groupwide risk assessments are carried out with regard to the risks currently facing the Group. Through these assessments, we analyze the potential of materialization, degree of impact, and lingering risks likely to remain after the implementation of countermeasures for risks that can be judged to threaten the

Group when considering the characteristics of its business activities.

The projected risks compiled through assessments are clearly reflected into the operations of the divisions with which these risks are associated after reevaluating risk response systems through surveys and interviews with the individuals responsible for relevant businesses.

The major risks for the EBARA Group and the countermeasures being implemented are shown in the tables below organized by short-term and long-term risks and by market.

### Long-Term Fluctuating Risks

Trends	Risks	Countermeasures
Global environmental and climate change	Operating environment changes due to phenomena such as the following: <ul style="list-style-type: none"> <li>Changes in economic conditions due to global warming</li> <li>Intensification of typhoons, forest fires, and other natural disasters</li> </ul>	<ul style="list-style-type: none"> <li>Projection of risks and opportunities and formulation of countermeasures based on diverse, long-term scenario analyses</li> <li>Preparation of BCPs and implementation of drills for responding to natural disasters</li> </ul>
Accelerated globalization	<ul style="list-style-type: none"> <li>Unexpected losses and reputation damages stemming from a lack of management insight and expertise pertaining to overseas transactions and bases</li> </ul>	<ul style="list-style-type: none"> <li>Exhaustive Group governance and internal control measures</li> <li>Global human resource development programs</li> </ul>
Shrinking workforce in Japan	<ul style="list-style-type: none"> <li>Lack of human resources for continuing manufacturing operations and other supply chain risks</li> <li>Product defect risks resulting from an inability to effectively transmit techniques and expertise to new employees</li> </ul>	<ul style="list-style-type: none"> <li>Global human resource recruitment and supply chain optimization</li> <li>Translation of expertise into explicit knowledge stored within organizations rather than solely in the minds of people</li> </ul>



## Short-Term Volatile Risks

Trends	Risks	Countermeasures
Political factors	<ul style="list-style-type: none"> <li>Unexpected restrictions and expenses in business activities due to impacts on economic and trade conditions stemming from intensification of trade friction between the United States and China, conflict in the Middle East, and the United Kingdom's decision to withdraw from the European Union</li> </ul>	<ul style="list-style-type: none"> <li>Development of global supply chains and value chains accounting for risks</li> </ul>
Sudden natural disasters and pandemics	Risks of adverse impacts to lives of employees and others, business continuity, or profit due to the following: <ul style="list-style-type: none"> <li>Earthquakes, volcanic eruptions, and other natural disasters</li> <li>Fast-spreading pandemics</li> </ul>	<ul style="list-style-type: none"> <li>Pre-assessment and preparation of BCPs by utilizing global network</li> <li>Promotion of efficient and flexible work styles</li> <li>Implementation measures to combat pandemics and prevent infection through coordination with industrial physicians</li> </ul>
Foreign exchange rate fluctuations	<ul style="list-style-type: none"> <li>Increased costs as result of foreign exchange rate fluctuations diverging from forecasts</li> </ul>	<ul style="list-style-type: none"> <li>Appropriate foreign exchange risk hedging measures including exchange contracts and foreign currency borrowings</li> </ul>

## Risks by Major Markets and Businesses

Trends	Risks	Countermeasures
Oil and gas markets: Fluid Machinery & Systems Business (pumps business, compressors and turbines business)	<ul style="list-style-type: none"> <li>Rapid impacts on profits due to demand fluctuations stemming from market condition changes or to large movements in prices brought about by monopolies</li> <li>Pressure on earnings arising from surplus production capacity or other factors attributable to drops in order volumes or sales prices amid recessions</li> </ul>	<ul style="list-style-type: none"> <li>Highly accurate resource management made possible through confirmation of leading indicators</li> <li>Reduction of break-even point through lead time shortening, design and manufacturing automation, and other streamlining measures</li> </ul>
Semiconductor market: Precision Machinery Business	<ul style="list-style-type: none"> <li>Risk of diminished market share due to lack of production capacity at EBARA and across the supply chain in times of strong economic conditions</li> </ul>	
Domestic construction equipment market: Fluid Machinery & Systems Business (pumps business, chillers business)	<ul style="list-style-type: none"> <li>Deterioration of earnings following demand reductions and accompanying market contraction after the end of the Tokyo 2020 Olympic and Paralympic Games</li> </ul>	<ul style="list-style-type: none"> <li>Competitive edge maintenance through differentiation of product development, focus on S&amp;S operations, and cost reductions by means of operational streamlining</li> <li>Shifting of resources toward global markets</li> <li>Ongoing compliance education and internal audits</li> </ul>
Domestic public infrastructure market: Environmental Plants Business	<ul style="list-style-type: none"> <li>Reduced orders attributable to consolidation of public facilities among domestic population decline</li> <li>Lack of plant operation staff due to workforce contraction</li> <li>Compliance issues including involvement in government-initiated bid collusion</li> </ul>	

## COVID-19 Response Measures and BCP Initiatives

In response to the global COVID-19 pandemic and the global emergency declaration by the World Health Organization, EBARA established a response headquarters in February 2020. Setting up frameworks to allow management to swiftly gather information, we proceeded to implement measures for halting the advance of the pandemic, such as promoting telework and others. These efforts were based on the instructions of relevant government authorities and had the health and safety of our employees and other stakeholders as their top priority.

When a member of the EBARA Group is found to have been infected with COVID-19, they are requested to comply with the local authorities and to quarantine at home or be hospitalized

for 14 days, in principle, while those deemed to have been in close contact with them are requested to quarantine at home for 14 days, in principle. If the infected member had been working at an EBARA facility, work may only begin again at that location after disinfection and other precautionary measures have been completed.

In the beginning of the pandemic, certain Group companies were forced to temporarily halt operation of their facilities in response to local government orders. However, operations at all facilities have been restarted in compliance with local government orders.

## Global COVID-19 Pandemic Response Measures

Overseas Group Companies and Supply Chains	Domestic Businesses and Supply Chains	Organizations (Governance, Human Resource Divisions, etc.)
<ul style="list-style-type: none"> <li>Development of working frameworks for countries heavily impacted by the pandemic</li> <li>Halting of operations in countries subject to lockdowns (operations resumed at all factories following alleviation of lockdowns)</li> </ul>	<ul style="list-style-type: none"> <li>Entrenchment of pandemic response measure awareness</li> <li>Staggered workhours and other measures at factories</li> </ul>	<ul style="list-style-type: none"> <li>Introduction of staggered workhour systems</li> <li>Rigorous management of daily employee health and pandemic response measures (encouragement of handwashing and disinfection and mask wearing, etc.)</li> <li>Complete prohibition of domestic and overseas business trips except under special circumstances</li> <li>Promotion of teleworking to the greatest degree possible</li> </ul>
<ul style="list-style-type: none"> <li>Exhaustive supplier and process management</li> <li>Securing of local resources to address restrictions on movement of people and employment of third-party inspection firms to perform on-site inspections</li> <li>Project progress tracking and delivery negotiations performed on non-face-to-face basis</li> </ul>		

# Compliance

## Basic Approach

The EBARA Group strives to act as a good corporate citizen that earns the trust of stakeholders. For this reason, the “EBARA Way” and the EBARA Group Code of Conduct are shared among all employees to form a common identity and set of values. With this as the foundation, it is our basic policy to practice legal compliance along with faithful adherence to internal rules, social norms, and common sense and to act with good intentions and integrity.

Our company policies, rules, and regulations relating to risk management, which are based on the principle of spreading compliance awareness, guide us in creating systems for

detecting risks and preventing their realization and in establishing comfortable and open workplace environments.

REFERENCE EBARA Group Code of Conduct

[https://www.ebara.co.jp/en/about/csr/ethics/corporate\\_ethics/index.html](https://www.ebara.co.jp/en/about/csr/ethics/corporate_ethics/index.html)

REFERENCE Compliance System

<https://www.ebara.co.jp/en/about/ir/Governance/governance/index.html>

## Priority Strategies and Progress

Measures implemented leading up to December 2019 included initiatives at domestic Group companies as well as anti-corruption precautions at overseas Group companies, such as

the expansion of external whistleblowing venues and the extension of anti-corruption e-learning programs to all overseas subsidiaries.

Priority Strategies	Principal Measures	FY2019 Progress
Establish frameworks and implement measures for ensuring compliance	<ul style="list-style-type: none"> <li>Implement Anti-Corruption Program across the Group</li> </ul>	<ul style="list-style-type: none"> <li>Monitored status of relevant regulations at Group companies and provided guidance</li> <li>Introduced comprehensive anti-corruption e-learning programs at 36 overseas Group companies</li> <li>Instituted new guidelines at Group companies that incorporated policies for managing third-party entities from the perspective of anti-corruption</li> </ul>
	<ul style="list-style-type: none"> <li>Establish overseas EBARA Group hotlines</li> </ul>	<ul style="list-style-type: none"> <li>Expanded application of whistleblowing hotlines to overseas Group companies lacking external consultation venues (Total: 17 companies) China: 9 companies Vietnam: 1 company Indonesia: 2 companies Thailand: 2 companies Philippines: 1 company Brazil: 1 company (New) Colombia: 1 company (New)</li> <li>Processed 2 reports</li> </ul>
	<ul style="list-style-type: none"> <li>Entrench compliance awareness throughout the Group</li> </ul>	<ul style="list-style-type: none"> <li>Transmitted and shared information through EBARA Group Compliance Network (domestic and Chinese subsidiaries)</li> <li>Conducted trainings sessions for all employees on the “EBARA Way” and the EBARA Group Code of Conduct (participation rates of 99.0% at domestic Group companies and 82.0% at overseas Group companies)</li> </ul>
Implement ongoing initiatives for improving capability of Group companies to independently manage and improve compliance and risk mitigation activities	<ul style="list-style-type: none"> <li>Prevent and quickly detect and address improper activities through swift response to consultations</li> </ul>	<ul style="list-style-type: none"> <li>Processed 49 reports</li> <li>Addressed an increased number of miscellaneous consultations that do not constitute official reports</li> </ul>
	<ul style="list-style-type: none"> <li>Enhance compliance liaison member system to provide familiar workplace consultation venues</li> </ul>	<ul style="list-style-type: none"> <li>Trained 96 compliance liaison members (52 at EBARA CORPORATION, 44 at domestic Group companies)</li> <li>Stepped up communication with compliance liaison members                             <ol style="list-style-type: none"> <li>Integrated responses to consultation issues (8 in FY2019)</li> <li>Upward trend of resolutions for consultation issues spearheaded by liaison members</li> </ol> </li> </ul>
Foster comfortable workplace environments founded on respect for human rights and diversity	<ul style="list-style-type: none"> <li>Promote respect for human rights and diversity in workplaces through activities of specialized divisions and compliance liaison members</li> </ul>	<ul style="list-style-type: none"> <li>Unveiled EBARA Group Human Rights Policy and established EBARA Group Human Rights Committee</li> <li>Posted human rights-related educational content on Company intranet (regarding Human Rights Week, requests for human rights slogans, educational materials, etc.)</li> <li>Continued to participate in Global Compact Network Japan, the Industrial Federation for Human Rights, Tokyo, and other external organizations</li> </ul>

## Priority Strategies and Progress

### Respect for Human Rights

#### ■ Harassment Prevention Measures

The Company is establishing consultation hotlines and spreading understanding regarding these hotlines and their use in order to foster comfortable workplace environments and to heighten its in-house capacity for addressing issues.

REFERENCE EBARA Group Human Rights Policy and Human Rights System

[https://www.ebara.co.jp/en/about/csr/social/human\\_rights/1209153\\_3116.html](https://www.ebara.co.jp/en/about/csr/social/human_rights/1209153_3116.html)

In Japan, compliance consultation hotlines have been installed at Group companies, and consultations are addressed by the site at which the consultation is received (head office, Group company).

At overseas Group companies, we continue to reinforce overseas EBARA Group hotlines, which are designed to contribute to increasing transparency across Group companies, to bolster the internal whistleblowing hotlines of these companies, and to support healthy and autonomous operations.

#### Compliance Consultation Hotline Policies

1. Prevent improper activity from occurring
2. Quickly detect improper activity that may have occurred
3. Create comfortable workplace environments
4. Foster internal capabilities for resolving issues
5. Maintain the confidentiality of and protect those who consult

Consultations can be made by a wide range of stakeholders, including officers, employees and their family members, and business partners. After consultations are received, investigations are performed by internal compliance divisions, and the appropriate response is taken based on these investigations. Matters pertaining to the operation of consultation hotlines are reported to the Sustainability Committee, which sees participation by Directors, on an annual basis to facilitate appropriate oversight. In the fiscal year ended December 31, 2019, a total of two consultations were processed through overseas EBARA Group hotlines, while 49 consultations were processed in Japan, compared with 42 consultations in the fiscal year ended December 31, 2018.

In addition, 45 investigations were completed in the fiscal year ended December 31, 2019, of which 38 pertained to consultations regarding the workplace environment or other issues, 4 related to harassment claims, and 3 were for miscellaneous consultations. More than 80% of all consultations were related to workplace environment or other issues with the potential to lead to compliance risks.

### Reports Processed through Domestic Compliance Consultation Hotlines in the Fiscal Year Ended December 31, 2019

	Reports processed in FY2019
New consultations	49
Consultations continuing from the previous fiscal year	9

■ Issues to continue being investigated in next fiscal year	13
■ Issues closed in FY2019	45



Going forward, the Group will continue its efforts to track risk information as promptly as possible and to prevent the occurrence or spread of damages. Particularly, we will focus on internally correcting potential legal violations.

### Anti-Corruption

■ Implementation of Anti-Corruption Program across the Group From the perspective of preventing corruption issues, the Anti-Corruption Program is being advanced primarily through the deployment and implementation of anti-corruption measures at Group companies.

In the fiscal year ended December 31, 2019, the anti-corruption e-learning programs that previously only targeted overseas subsidiaries in areas with high corruption risks were extended to all overseas subsidiaries in order to provide anti-corruption training tailored to specific corruption risks. These programs comprehensively targeted the members of management and employees of sales and other divisions to which corruption risk awareness was most pertinent and offered education on risks, such as those associated with interactions with government officials. We look to complete training for all applicable employees within the fiscal year ending December 31, 2020.

### Anti-Corruption Training Statistics

	2018/12	2019/12
Applicable companies	21	36*1
Applicable employees	1,645	1,946
Rate of participation	98.9%	86.0%*2

\*1 Number of companies at which training is to be completed within the fiscal year ending December 31, 2020

\*2 Rate of participation as of December 31, 2020, training not yet completed as of May 31, 2020

REFERENCE Anti-Corruption Programs and Other Activities Concerning Anti-Corruption

<https://www.ebara.co.jp/en/about/csr/social/commitment/index.html>

### ■ Expansion of Overseas EBARA Group Hotlines

The number of companies with access to overseas EBARA Group hotlines increased to 17 in the fiscal year ended December 31, 2019, and we intend to expand the scope of applicable areas and enhance the operational status of these hotlines going forward.

### Number of Overseas EBARA Group Hotlines

	2016/3	2017/3	2017/12	2018/12	2019/12
Total number of companies with hotline access	3	7	10	15	17

# Executive Officers

(As of March 27, 2020)



## 1 Masao Asami

President and Representative Executive Officer

Apr. 1986 Joined the Company  
 Apr. 2010 Executive Officer  
 Apr. 2011 Division Executive, Sales and Marketing Division, Precision Machinery Company  
 Apr. 2014 Managing Executive Officer  
 Jun. 2015 Managing Executive Officer\*  
 Apr. 2016 President, Precision Machinery Company  
 Mar. 2019 Director (to present)  
 President and Representative Executive Officer (to present)

## 2 Nobuharu Noji

Executive Officer,  
President, Fluid Machinery & Systems Company,  
Responsible for Chillers Business, Fluid Machinery &  
Systems Company

Apr. 1984 Joined the Company  
 Apr. 2006 Division Executive, Components Division, Precision Machinery Company  
 Apr. 2008 Executive Officer  
 Apr. 2011 Managing Executive Officer  
 Apr. 2013 Division Executive, Standard Pump Business Division, Operations of Technology and Production, Fluid Machinery & Systems Company  
 Jun. 2013 Director  
 Apr. 2014 Division Executive, Standard Pump Business Division, Fluid Machinery & Systems Company  
 Jun. 2015 Managing Executive Officer  
 Responsible for Chillers Business, Fluid Machinery & Systems Company (to present)  
 Apr. 2017 Division Executive, Standard Pump Business Unit, Fluid Machinery & Systems Company  
 Mar. 2018 Director  
 Senior Managing Executive Officer  
 President, Fluid Machinery & Systems Company (to present)  
 Mar. 2020 Executive Officer\* (to present)

## 3 Yoshiaki Okiyama

Executive Officer,  
Division Executive, Standard Pump Business Division,  
Fluid Machinery & Systems Company,  
Chairman, Ebara Machinery (China) Co., Ltd.

Apr. 1983 Joined the Company  
 Apr. 2011 Executive Officer  
 Apr. 2017 Division Executive, Strategy and Technology Management Division, Fluid Machinery & Systems Company  
 Mar. 2018 Executive Officer  
 Division Executive, Standard Pump Business Division, Fluid Machinery & Systems Company (to present)  
 Chairman, Ebara Machinery (China) Co., Ltd. (to present)  
 Mar. 2019 Managing Executive Officer  
 Mar. 2020 Executive Officer\* (to present)

## 4 Hideki Yamada

Executive Officer,  
Division Executive, Custom Pump Division,  
Fluid Machinery & Systems Company,  
Chairman, EBARA MACHINERY ZIBO CO., LTD.

Apr. 1985 Joined the Company  
 Apr. 2008 General Manager, Global Sourcing Department, Custom Pump Business Division, Fluid Machinery & Systems Company  
 Apr. 2011 General Manager, Procurement Control Department, Custom Pump Business Division, Fluid Machinery & Systems Company  
 Apr. 2013 Executive Officer  
 Apr. 2015 Deputy Division Executive, China and East Asia Department, Strategy and Technology Management Division, Fluid Machinery & Systems Company  
 Chairman, EBARA GREAT PUMPS CO., LTD.  
 Apr. 2016 Division Executive, China and East Asia Department, Strategy and Technology Management Division, Fluid Machinery & Systems Company  
 Jan. 2019 Division Executive, Industrial Pump Division, Fluid Machinery & Systems Company  
 Oct. 2019 Managing Executive Officer  
 Division Executive, Custom Pump Division, Fluid Machinery & Systems Company (to present)  
 Jan. 2020 Chairman, EBARA MACHINERY ZIBO CO., LTD. (to present)  
 Mar. 2020 Executive Officer\* (to present)

## 5 Akihiro Kida

Executive Officer,  
Division Executive, System Business Division,  
Fluid Machinery & Systems Company

Apr. 1984 Joined the Company  
 Apr. 2011 Executive Officer  
 Deputy Head of Domestic Sales, Marketing & Service Business Unit, Fluid Machinery & Systems Company  
 Jun. 2016 Executive Officer\* (to present)  
 Head of Domestic Sales, Marketing & Service Business Unit, Fluid Machinery & Systems Company  
 Apr. 2017 Division Executive, System Business Division, Fluid Machinery & Systems Company (to present)

## 6 Michael T. Lordi

Executive Officer,  
Responsible for Compressors and Turbines Business,  
Fluid Machinery & Systems Company,  
Director CEO, Elliott Group Holdings, Inc.,  
CEO, Elliott Company

Apr. 2016 COO, Elliott Group Holdings, Inc.  
 COO, Elliott Company  
 Jan. 2019 Director CEO, Elliott Group Holdings, Inc. (to present)  
 CEO, Elliott Company (to present)  
 Mar. 2020 Executive Officer\* (to present)  
 Responsible for Compressors and Turbines Business, Fluid Machinery & Systems Company (to present)

\* Indicates *shikkou-yaku*, a Japanese legal term which refers to executive officers who are appointed by the Board of Directors to execute company policy and strategy. The role and legal title of such executive officers are described in the Companies Act of Japan, and as such they bear fiduciary duties to the Company.



7

**Atsuo Ohi**

Executive Officer,  
President, Environmental Engineering Company,  
Chairman and Representative Director of EBARA  
Environmental Plant Co., Ltd.

- Apr. 1981 Joined the Company
- Apr. 2008 Executive Officer
- Oct. 2008 Division Executive, Corporate Strategy Planning Division
- Apr. 2010 Managing Executive Officer
- Apr. 2011 Head of Business Unit, Global Marketing & Sales Business Unit, Fluid Machinery & Systems Company
- Apr. 2012 Vice President, Fluid Machinery & Systems Company, Head of Business Unit, Global Pump Business Unit, Fluid Machinery & Systems Company
- Jun. 2012 Director (to present)
- Apr. 2013 President, Fluid Machinery & Systems Company
- Apr. 2014 Senior Managing Executive Officer
- Jun. 2015 Senior Managing Executive Officer
- Mar. 2018 President, Environmental Engineering Company (to present)  
President and Representative Director of EBARA Environmental Plant Co., Ltd.
- Jan. 2019 Chairman and Representative Director of EBARA Environmental Plant Co., Ltd. (to present)
- Mar. 2020 Executive Officer\* (to present)

8

**Tetsuji Togawa**

Executive Officer,  
President, Precision Machinery Company

- Apr. 1986 Joined the Company
- Apr. 2013 New Business Development Department, Precision Machinery Company
- Apr. 2014 Executive Officer
- Mar. 2019 Senior Managing Executive Officer  
President, Precision Machinery Company (to present)
- Mar. 2020 Executive Officer\* (to present)

9

**Seiji Katsuoka**

Executive Officer,  
Division Executive, Equipment Division,  
Precision Machinery Company

- Apr. 1994 Joined the Company
- Apr. 2009 Executive Officer
- Apr. 2011 Division Executive, CMP Division, Precision Machinery Company (to present)
- Jun. 2016 Executive Officer\* (to present)
- Jan. 2020 Division Executive, Equipment Division, Precision Machinery Company (to present)

10

**Shu Nagata**

Executive Officer,  
Division Executive, Corporate Strategic Planning and  
Human Resources Division

- Apr. 1990 Joined the Company
- Oct. 2008 Managing Director of Ebara Pumps Europe S.p.A
- Apr. 2017 General Manager, Global Sales and Marketing Department, Standard Pump Business Division, Fluid Machinery & Systems Company
- Mar. 2018 Executive Officer\* (to present)  
Division Executive, Corporate Strategic Planning Division (to present)
- Mar. 2019 Division Executive, Human Resources Division
- Jan. 2020 Division Executive, Corporate Strategic Planning and Human Resources Division (to present)

11

**Toru Nakayama**

Executive Officer,  
Division Executive, Legal, Internal Control and Risk  
Management and General Affairs Division

- Sep. 2014 Joined the Company
- Jan. 2018 Division Executive, Internal Control and Risk Management Division
- Mar. 2018 Executive Officer\* (to present)  
Division Executive, Legal, Internal Control and Risk Management and General Affairs Division (to present)

12

**Akihiko Nagamine**

Executive Officer,  
Division Executive, Finance & Accounting Division

- Apr. 1982 Joined EBARA DENSAN LTD.
- Jun. 2006 Director of EBARA DENSAN LTD.
- Jul. 2010 Joined the Company General Manager, Investment and Affiliates Supervision Department, Finance & Corporate Accounting Division
- Apr. 2014 Division Executive, Finance & Accounting Division (to present)
- Apr. 2015 Executive Officer
- Jun. 2015 Executive Officer\* (to present)  
Responsible for Finance & Accounting, Group Management, and Internal Control

13

**Hiroyuki Kowase**

Executive Officer,  
Division Executive, Information & Communication  
System Division

- Apr. 2014 Executive Officer and CIO General Manager, IT Promotion Headquarters, LIXIL Corporation
- Dec. 2015 Senior Managing Executive Officer and CIO General Manager, Information Systems Headquarters, LIXIL Corporation
- Jul. 2018 Deputy Chief Global Information Technology Officer, Department Director, ICT Strategy & Platform Department, Shiseido Company, Limited
- Dec. 2018 Joined the Company
- Apr. 2019 Division Executive, Information & Communication System Division (to present)
- Mar. 2020 Executive Officer\* (to present)

14

**Hiroshi Sobukawa**

Executive Officer,  
Responsible for Technologies, R&D & Intellectual  
Property, Division Executive, Advanced Technology  
Division, Precision Machinery Company

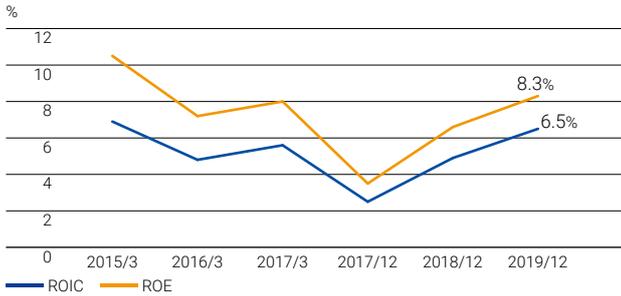
- Apr. 1987 Joined the Company
- Apr. 2015 Executive Officer  
Division Executive, Advanced Technology Division, Precision Machinery Company (to present)
- Apr. 2017 Division Executive of Technologies, R&D Division
- Mar. 2019 Executive Officer\* (to present)  
Responsible for Technologies, R&D & Intellectual Property (to present)

# Performance Highlights

Data coverage for financial indicators includes EBARA CORPORATION and consolidated subsidiaries (fiscal year ended March 31, 2015–fiscal year ended December 31, 2019). The occurrence of the irregular nine-month period ended December 31, 2017, is the result of a change in the settlement date used by the Company.

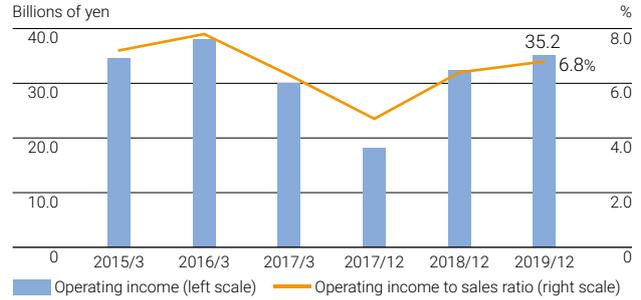
## Financial Indicators

### ROIC\*1 / ROE\*2



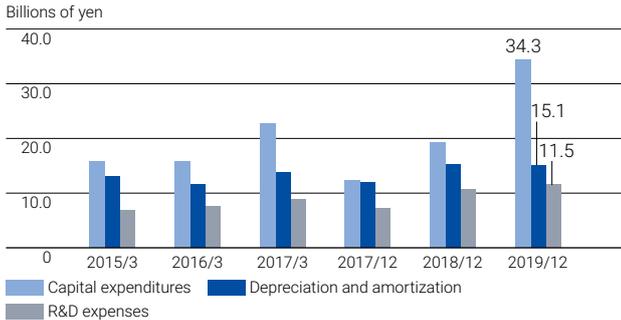
In the fiscal year ended December 31, 2019, ROIC was 6.5% while return on equity (ROE) was 8.3%. Although we failed to accomplish the targets of E-Plan 2019, improvements were seen with regard to these indicators nonetheless. The Company has put forth the policy of achieving ROIC of 8.0% or more, a debt-to-equity ratio of 0.3 times–0.5 times, and ROE of 11.0% or more in E-Plan 2022.

### Operating Income / Operating Income to Sales Ratio



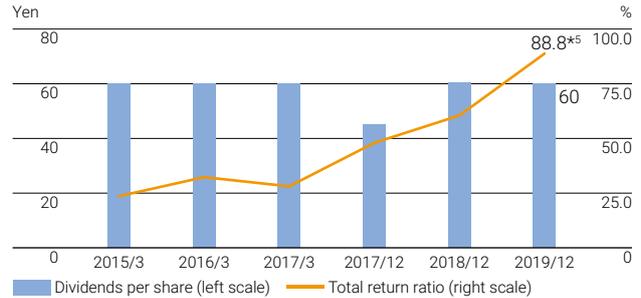
The operating income to sales ratio was 6.8% in the fiscal year ended December 31, 2019, lower than the level targeted by E-Plan 2019. The inability to meet this target can be attributed to the heavy impacts of market conditions on the Fluid Machinery & Systems Business and the Precision Machinery Business. The Environmental Plants Business, meanwhile, practically achieved its target. E-Plan 2022 sets an operating income to sales ratio target of 8.5% or more for the fiscal year ending December 31, 2022.

### Capital Expenditures / Depreciation and Amortization / R&D Expenses



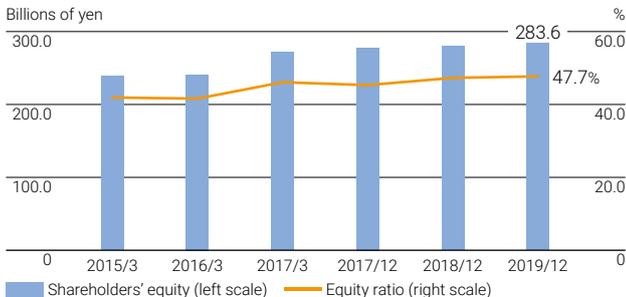
Aggressive growth investments were conducted over the period of E-Plan 2019. Specific targets of this investment included the construction of fully automated standard pump production lines in the Fluid Machinery & Systems Business as well as the construction of fully automated dry vacuum pump production lines and components verification test development facilities in the Precision Machinery Business.

### Dividends per Share\*3 / Total Return Ratio\*4



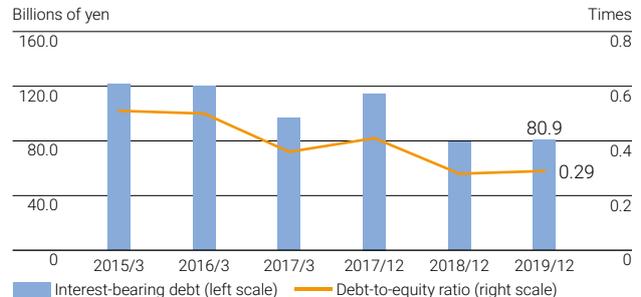
In addition to issuing shareholder returns in the form of consistent dividends, the Company performed its first share buybacks during the period of E-Plan 2019, acquiring ¥5.0 billion worth of treasury stock in the fiscal year ended December 31, 2018, and ¥15.0 billion worth in the fiscal year ended December 31, 2019, which resulted in a total return ratio that greatly exceeded the target. Under E-Plan 2022, the Company will target a consolidated dividend payout ratio of 35% or more. In addition, a lower limit of 2.0% has been set for the consolidated DOE.

### Shareholders' Equity\*6 / Equity Ratio



An equity ratio of 47.7% was posted in the fiscal year ended December 31, 2019, indicating ongoing stability.

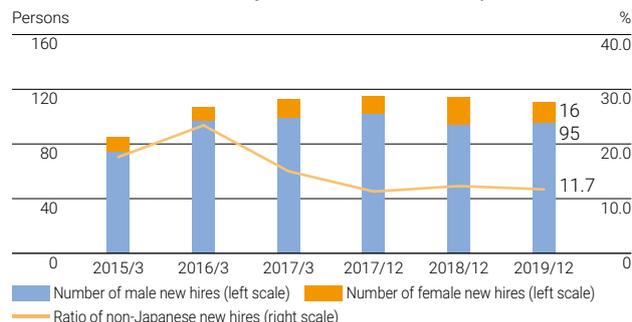
### Interest-Bearing Debt / Debt-to-Equity Ratio



On December 31, 2019, the debt-to-equity ratio was 0.29 times, lower than the level of 0.40 times–0.60 times targeted over the period of E-Plan 2019. During the period of E-Plan 2022, we will target a debt-to-equity ratio of 0.30 times–0.50 times.

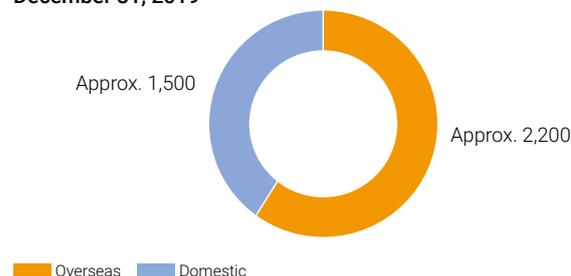
## Non-Financial Indicators

### Number of Men and Women among New Hires and Ratio of Non-Japanese New Hires\* 7



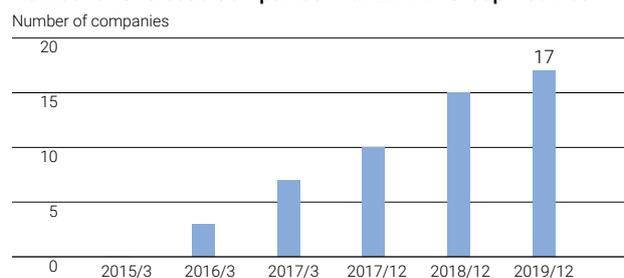
The EBARA Group believes that diversity is essential for innovation and that the employment of human resources with diverse backgrounds will contribute to improved business performance. In the fiscal year ended December 31, 2019, the Company hired 111 new employees, of which 16, or 14%, were women and 13, or 12%, were of non-Japanese. These figures surpassed the targets for the respective KPIs.

### Number of Patents Held in the Fiscal Year Ended December 31, 2019



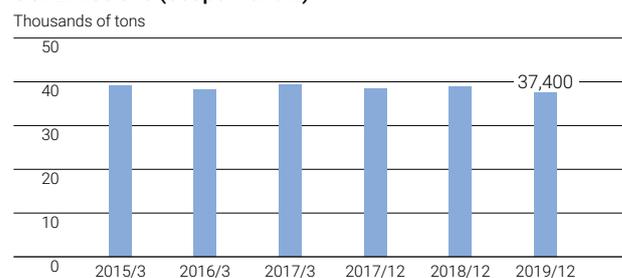
The number of patents held grows each year, and the ratio of overseas patents to total patents continues to rise as the Group seeks to acquire the intellectual properties in each business that are necessary on a global basis. In the fiscal year ended December 31, 2019, the ratio of overseas patents to total patents was around 60%.

### Number of Overseas Companies with EBARA Group Hotlines



As part of the effort to reinforce the Anti-Corruption Program launched in 2016, we have been establishing compliance hotlines at overseas Group companies. As of December 31, 2019, we had completed extending these hotlines to 17 overseas Group companies. Through these efforts, compliance is becoming entrenched as the underlying assumption for our business activities among all EBARA Group employees worldwide.

### CO<sub>2</sub> Emissions (Scope 1 and 2) \*8



Ongoing reductions of CO<sub>2</sub> emissions are one of the EBARA Group's FY2020 Environmental Targets. In the fiscal year ended December 31, 2019, emissions from domestic business activities were down 4.0% year on year. The Company will continue efforts to minimize environmental impact as it grows its business in the future.

## Contributions to the Environment through Business Activities

### Energy-Efficient Standard Pumps' Environmental Benefits (Fiscal Year Ended December 31, 2019):

**28,590 MWh** reduction in electricity use

In the fiscal year ended December 31, 2019, standard pumps applicable for monitoring in relation to KPIs regarding electricity usage produced reductions in electricity use during operation of 28,590 MWh when compared to prior models.\*9 This equates to an annual reduction in CO<sub>2</sub> emissions of approximately 14,600 tons, equivalent to the CO<sub>2</sub> emitted by 3,000 automobiles over the period of one year. Going forward, we will continue to reduce the electricity consumption of our pumps in order to lower the overall CO<sub>2</sub> emissions of the factories and buildings where they are used.

### Environmental Plants Business Environmental Benefits (Fiscal Year Ended December 31, 2019):

**732,313 MWh** of electricity generated

The effective use of renewable energy from waste-to-energy generation has been defined as a priority measure for the Company leading up to 2030. Accordingly, we are contributing to reductions in CO<sub>2</sub> emissions through generation efficiency improvements and aggressive promotion of local production and consumption of power. By generating power at municipal solid waste treatment facilities and returning this power to the community, we generated enough electricity to power approximately 240,000 households in the fiscal year ended December 31, 2019.

\*1 ROIC: Profit attributable to owners of parent / (Interest-bearing debt (Average between beginning and end of period) + Shareholders' equity (Average between beginning and end of period))

\*2 ROE: Profit attributable to owners of parent / Shareholders' equity (Average between beginning and end of period)

\*3 EBARA conducted a consolidation of common shares at a rate of one share for every five shares with an effective date of October 1, 2016. Figures for dividends per share have been adjusted based on the assumption that this consolidation was conducted on April 1, 2015.

\*4 When the annual dividend of ¥36.00 for the fiscal year ended March 31, 2017 (including an interim dividend of ¥6.00), is converted after the consolidation of shares, it is equivalent to ¥60.00 per share, consisting of an interim dividend of ¥30.00 and a year-end dividend of ¥30.00. Accordingly, the total return ratio is calculated based on an annual dividend of ¥60.00 per share.

\*5 In the fiscal year ended December 31, 2019, share buybacks were conducted in amounts of ¥15.0 billion, and 6.9 million shares of treasury stock were cancelled.

\*6 Shareholders' equity: Total net assets - (Subscription rights to shares + Non-controlling interests)

\*7 Figures represent the total for EBARA CORPORATION, EBARA Environmental Plant Co., Ltd., and Elliott Ebara Turbomachinery Corporation.

\*8 Figures are on a consolidated basis combining Scope 1 and Scope 2 emissions for the Company and domestic Group companies. The base year for emissions targets is the fiscal year ended March 31, 2001. The Company uses the emissions coefficient of 0.357 kg/kWh prescribed in the Order for Enforcement of the Act on Promotion of Global Warming Countermeasures in 2000.

\*9 Based on a preliminary calculation by the Company



## Major KPIs and Progress toward Targets in Final Year of E-Plan 2019

Fluid Machinery & Systems Business → P.35	Environmental Plants Business → P.39	Precision Machinery Business → P.42
<ul style="list-style-type: none"> <li>• In-use energy reduction for applicable standard pump products Progress toward target: 65% (sales basis)</li> <li>• In-use energy reduction for applicable custom pump products Progress toward target: 36% (sales basis)</li> </ul>	<ul style="list-style-type: none"> <li>• Waste-to-energy generation at Company-operated waste incineration plants Progress toward target: 100%</li> </ul>	<ul style="list-style-type: none"> <li>• CMP systems and dry vacuum pumps in-use energy and resource use reduction Progress toward target: 56%</li> </ul>

Fluid Machinery & Systems Business → P.35	Environmental Plants Business → P.39	Precision Machinery Business → P.42
<ul style="list-style-type: none"> <li>• S&amp;S sales Progress toward target: 98%</li> <li>• Standard pump on-call processing time*<sup>1</sup> Progress toward target: 100%</li> <li>• Number of countries with custom pump and chillers S&amp;S bases Progress toward target: 100%</li> </ul>	<ul style="list-style-type: none"> <li>• Number of O&amp;M contracting facilities Progress toward target: 80%</li> </ul>	<ul style="list-style-type: none"> <li>• S&amp;S sales Progress toward target: 53%</li> <li>• Number of overhauls*<sup>2</sup> performed Progress toward target: 80%</li> <li>• Rate of on-time overhaul shipments (Company-wide average) Progress toward target: 81%</li> </ul>

\*1 On-call processing time: The time required to document and relay requests to relevant divisions after conclusion of inquiry

\*2 Overhauls: Inspections and repairs involving disassembly

- Scope of global data collection: 96% of consolidated net sales
- GHG emissions: Down 4.0% year on year
- Material recycling rate: 97.9%

For more information regarding our environmental goals for the period of E-Vision 2030, please refer to pages 53 and 54.

- CSR procurement survey response rate: 99%
  - Awareness of CSR Procurement Guidelines (self-reporting basis): 99%
- ➡ P.55–56

REFERENCE Procurement Policy & CSR Procurement Guidelines

<https://www.ebara.co.jp/en/about/csr/social/commitment/index.html#anc119696>

- Number of Independent Directors: 7 of 10 Directors (as of March 27, 2020)
  - Rate of participation in CSR training: 93%\*<sup>3</sup>
  - Number of companies that conducted compliance (anti-corruption) training: All 36 applicable companies
- ➡ P.57–78

\*<sup>3</sup> Targets for KPIs pertaining to Action Policy 5 have only been set for the rate of participation in CSR training. Performance with regard to corporate governance indicators is disclosed, but targets have not been set.

- Range of diversity indicators: 99%
  - Workhours: 99%
  - Workplace safety: 57%
  - Human resource development: 100%
- ➡ P.47

# 11-Year Financial Summary

EBARA CORPORATION and consolidated subsidiaries (Fiscal year ended March 31, 2010–Fiscal year ended December 31, 2019)  
The occurrence of the irregular nine-month period ended December 31, 2017, is the result of a change in the settlement date used by the Company.

	2010/3	2011/3	2012/3	2013/3	2014/3
<b>Financial Results:</b>					
Orders	¥426,622	¥430,992	¥394,921	¥428,540	¥512,276
Net sales	485,889	401,675	412,076	426,302	448,657
Operating income	18,953	31,541	23,266	25,084	32,194
Ordinary income	16,749	28,750	21,086	25,663	31,311
Profit attributable to owners of parent	5,441	28,191	2,889	15,303	18,973
Depreciation and amortization	15,274	13,523	12,764	12,355	12,117
Capital expenditures	19,484	8,189	12,316	12,302	18,152
R&D expenses	4,977	4,066	3,827	5,025	6,465
<b>Financial Position*3:</b>					
Total assets*4	¥522,540	¥507,898	¥488,964	¥504,576	¥530,211
Total net assets	132,665	154,939	154,653	191,788	215,048
Shareholders' equity*5	129,805	151,950	151,060	186,885	208,037
Interest-bearing debt	177,859	160,412	143,617	138,914	119,672
Retained earnings	12,567	40,759	41,750	53,886	70,629
<b>Cash Flows:</b>					
Cash flows from operating activities	¥ 23,581	¥ 26,604	¥ 12,588	¥ 34,014	¥ 26,615
Cash flows from investing activities	(17,127)	10,996	(8,837)	(33,130)	3,540
Cash flows from financing activities	(5,436)	(14,096)	(19,997)	3,265	(25,336)
Free cash flow	6,454	37,601	3,750	883	30,155
Cash and cash equivalents at end of period	81,711	104,002	87,294	93,792	102,341
<b>Share Data*6:</b>					
Number of issued shares (1,000 shares)	422,725	459,245	422,899	465,118	465,187
Cash dividends (yen and U.S. dollars)	¥ —	¥ 5.00	¥ 5.00	¥ 5.00	¥ 7.50
Total return ratio (%)*7	—	7.5	73.0	13.9	18.4
Earnings per share (EPS) (yen and U.S. dollars)*8	12.89	66.78	6.85	35.93	40.86
Book value per share (BPS) (yen and U.S. dollars)*8	307.46	360.01	357.79	402.41	448.05
<b>Financial Indicators:</b>					
Return or invested capital (ROIC) (%)*9	1.8	9.1	1.0	4.9	5.8
Return on equity (ROE) (%)*10	4.3	20.0	1.9	9.1	9.6
Debt-to-equity ratio (times)	1.37	1.06	0.95	0.74	0.58
Operating income to sales ratio (%)	3.9	7.9	5.6	5.9	7.2
Equity ratio (%)	24.8	29.9	30.9	37.0	39.2
Overseas sales ratio (%)	39.3	44.1	44.0	50.6	52.8
<b>Major Non-Financial Indicators:</b>					
Number of employees (persons)	13,800	14,007	14,695	15,170	15,168
Number of overseas employees	5,894	6,081	6,816	7,264	7,336
Overseas employee ratio (%)	43	43	46	48	48
CO <sub>2</sub> emissions (thousands of tons)*11, 12	41.3	41.5	40.7	38.6	37.4
Material recycling rate (%)*11	95.8	96.7	98.6	98.6	92.6
Landfill disposal rate (%)	3.6	2.6	1.2	1.2	7.0
Water consumption (thousands of m <sup>3</sup> )*11	642	576	574	608	628

\*1 The U.S. dollar amounts are included solely for convenience and have been translated as a matter of arithmetical computation only at the rate of ¥109.56=US\$1, the rate of exchange prevailing on December 30, 2019.

\*2 At the 152nd Ordinary General Meeting of Shareholders held on June 23, 2017, it was resolved to change the Company's settlement date from March 31 to December 31. As a result, 2017/12 represents an irregular nine-month period aggregating performance from April 1 to December 31, 2017, for EBARA CORPORATION and consolidated subsidiaries that previously had a settlement date of March 31, and from January 1 to December 31, 2017, for consolidated subsidiaries that previously had a settlement date of December 31.

\*3 Effective January 1, 2019, the Company adopted "Partial Amendments to Accounting Standard for Tax Effect Accounting" (Accounting Standards Board of Japan (ASBJ) Statement No. 28, revised on February 16, 2018). Accordingly, figures for the fiscal year ended December 31, 2018, have been restated to reflect the adoption of this standard.

\*4 The provisional accounting treatment concerning business combinations implemented in the fiscal year ended March 31, 2016, was finalized in the fiscal year ended March 31, 2017, and the finalized details of the provisional accounting treatment have been reflected in total assets for the fiscal year ended March 31, 2016.

\*5 Shareholders' equity: Total net assets – (Subscription rights to shares + Non-controlling interests)

\*6 EBARA CORPORATION conducted a consolidation of common shares at a rate of one share for every five shares with an effective date of October 1, 2016.

\*7 When the annual dividend of ¥36.00 for the fiscal year ended March 31, 2017 (including an interim dividend of ¥6.00), is converted after the consolidation of shares, it is equivalent to ¥60.00 per share, consisting of an interim dividend of ¥30.00 and a year-end dividend of ¥30.00. Accordingly, the total return ratio is calculated based on an annual dividend of ¥60.00 per share.

Millions of yen						Thousands of U.S. dollars*1	
2015/3	2016/3	2017/3	2017/12*2	2018/12	2019/12	2019/12	
¥487,553	¥491,280	¥ 477,956	¥ 413,569	¥ 575,576	¥ 552,225	\$5,040,389	
482,699	486,235	476,104	381,993	509,175	522,424	4,768,383	
34,567	38,011	29,995	18,115	32,482	35,298	322,180	
36,258	36,471	28,464	16,529	31,281	35,571	324,671	
23,580	17,254	20,587	9,531	18,262	23,349	213,116	
13,038	11,610	13,739	11,923	15,266	15,132	138,116	
15,846	15,729	22,675	12,386	19,364	34,364	313,700	
6,754	7,632	8,758	7,218	10,698	11,530	105,239	
¥570,392	¥579,860	¥ 588,457	¥ 612,919	¥ 591,582	¥ 595,239	\$5,432,996	
247,553	250,444	277,509	284,788	286,778	291,827	2,663,627	
239,058	241,016	271,356	277,955	279,640	283,651	2,589,001	
121,500	120,126	96,531	114,592	79,137	80,986	739,193	
91,815	102,446	117,883	121,321	135,715	141,675	1,293,127	
¥ 11,296	¥ 21,528	¥ 33,816	¥ 44,157	¥ 34,610	¥ 26,720	\$ 243,885	
(15,894)	(14,344)	(18,563)	(7,906)	(15,927)	(24,077)	(219,761)	
(7,044)	(9,655)	(15,102)	11,296	(46,412)	(20,188)	(184,264)	
(4,597)	7,184	15,252	36,250	18,682	2,643	24,124	
95,604	91,185	90,683	139,102	110,556	93,351	852,054	
465,644	466,044	101,736	101,783	101,957	95,129		
¥ 12.00	¥ 12.00	¥ 36.00	¥ 45.00	¥ 60.00	¥ 60.00	\$ 0.548	
23.6	32.3	28.1	48.0	60.5	88.8		
50.77	37.12	213.71	93.84	179.94	241.79	2.207	
514.38	518.16	2,672.19	2,735.94	2,795.72	2,981.91	27.217	
6.9	4.8	5.6	2.5	4.9	6.5		
10.5	7.2	8.0	3.5	6.6	8.3		
0.51	0.50	0.36	0.41	0.28	0.29		
7.2	7.8	6.3	4.7	6.4	6.8		
41.9	41.6	46.1	45.3	47.3	47.7		
53.6	52.2	52.7	60.1	55.0	55.3		
16,030	16,270	16,317	16,219	16,556	17,080		
8,165	8,438	8,319	8,343	8,678	9,148		
51	52	51	51	52	54		
39.0	38.3	39.3	38.4	38.9	37.4		
98.7	97.2	98.8	97.8	96.7	97.9		
1.1	2.3	0.9	1.6	2.4	1.6		
555	631	623	462	524	518		

\*8 EPS is based on the average number of shares outstanding (excluding treasury stock) during the fiscal year. BPS is calculated using the number of shares outstanding (excluding treasury stock) as of the end of the fiscal years.

\*9 ROIC: Profit attributable to owners of parent / (Interest-bearing debt (Average between beginning and end of period) + Shareholders' equity (Average between beginning and end of period))

\*10 ROE: Profit attributable to owners of parent / Shareholders' equity (Average between beginning and end of period)

\*11 Figures are for EBARA CORPORATION and domestic consolidated subsidiaries.

\*12 The Company uses the emissions coefficient of 0.357 kg/kWh set in 2000.

# Analysis of Business Results, Financial Position, and Cash Flows

## Operating Environment

During the fiscal year ended December 31, 2019, the global economy saw investment continue at a certain level in the oil and gas market. Investment in the semiconductor market entered into an adjustment phase, however, moves to resume capital investment were seen in certain companies. In Japan, public works investment was firm, and private capital investment ran at the same level as in a typical year. Overall, conditions in major markets for the Company remained steady.

## Business Results

Net sales increased ¥13.2 billion year on year, to ¥522.4 billion. This increase was due in part to a rise in custom pump sales and compressors and turbines business S&S sales in conjunction with demand growth in the oil and gas market, a principal market for the Fluid Machinery & Systems Business. Another factor was smooth growth in the sales of operation and maintenance services in the Environmental Plants Business.

Operating income rose ¥2.8 billion year on year, to ¥35.2 billion. Factors behind this increase included higher profit in the Fluid Machinery & Systems Business and the Environmental Plants Business stemming from sales growth as well as the benefits of the steady implementation of operational streamlining and cost of sales reductions measures.

Ordinary income was up ¥4.2 billion year on year, to ¥35.5 billion, due to a rise in share of profit of entities accounted for using equity method and a decrease in foreign exchange losses and other elements of non-operating expenses.

Income before income taxes rose ¥7.8 billion year on year, to ¥35.1 billion, following reductions in provision for loss on litigation and in impairment loss on fixed assets associated with the closure of the Tochigi Plant.

These income-increasing factors resulted in a ¥2.4 billion rise in the combined total of current and deferred income taxes. Meanwhile, profit attributable to non-controlling interests was up ¥0.3 billion year on year. As a result, profit attributable to

owners of parent increased ¥5.0 billion year on year, to ¥23.3 billion.

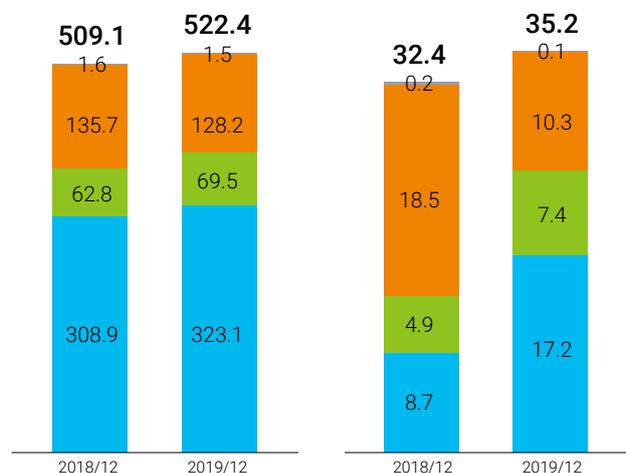
### Net Sales

Billions of yen



### Operating Income

Billions of yen



Legend: Fluid Machinery & Systems Business (blue), Environmental Plants Business (green), Precision Machinery Business (orange), Other (grey)

## Segment Performance

Segment	FY2019 (Figures in parentheses ( ) represent year-on-year comparisons)	Overview
Fluid Machinery & Systems Business	Orders: ¥331.6 billion (up ¥5.3 billion) Net sales: ¥323.1 billion (up ¥14.1 billion) Operating income: ¥17.2 billion (up ¥8.5 billion)	<p>Pumps: <b>Higher sales and income</b></p> <ul style="list-style-type: none"> <li>Robust demand in the oil and gas market in China seen along with benefits of operational streamlining and price revisions in the standard pumps business in Japan</li> </ul> <p>Compressors and turbines: <b>Higher sales and income</b></p> <ul style="list-style-type: none"> <li>Higher S&amp;S sales coupled with favorable performance in the cryogenic pumps business</li> </ul> <p>Chillers: <b>Higher sales and income</b></p> <ul style="list-style-type: none"> <li>Contributions from introduction of new products into Chinese market and steady incorporation of upgrade demand in the domestic market</li> </ul>
Environmental Plants Business	Orders: ¥91.4 billion (down ¥15.5 billion) Net sales: ¥69.5 billion (up ¥6.6 billion) Operating income: ¥7.4 billion (up ¥2.5 billion)	<ul style="list-style-type: none"> <li>Historically high orders in FY2018 due to receipt of multiple large-scale orders through DBO contracts and long-term operation and maintenance contracts, high level of orders maintained in FY2019 due to acquisition of three DBO contracts</li> <li>Increased long-term comprehensive contracts, facility lifespan extension projects, and other orders in FY2018 and reduced cost of sales</li> </ul>
Precision Machinery Business	Orders: ¥127.6 billion (down ¥13.0 billion) Net sales: ¥128.2 billion (down ¥7.4 billion) Operating income: ¥10.3 billion (down ¥8.1 billion)	<ul style="list-style-type: none"> <li>Impacts felt from sluggish investment centered on memory manufacturers, but orders and requests for ahead-of-schedule delivery were received late in the third quarter, indicating a return to capital investment among certain customers</li> <li>Reductions in sales combined with profitability declines associated with the CMP system business project mix and increases in development project and personnel expenses</li> <li>Increases in development project and overseas base staff</li> </ul>

## Financial Position

### Assets

Total assets as of December 31, 2019, were ¥595.2 billion, ¥3.6 billion higher than on December 31, 2018. Principal changes in asset items included a decrease of ¥16.5 billion in cash and deposits, an increase of ¥11.7 billion in buildings and structures, net, and an increase of ¥6.1 billion in construction in progress. The increases in buildings and structures and construction in progress were mainly due to growth investments such as those for the construction of domestic factories in the Precision Machinery Business.

Assets by business segment were ¥313.0 billion in the Fluid Machinery & Systems Business, an increase of ¥2.8 billion; ¥52.4 billion in the Environmental Plants Business, an increase of ¥10.2 billion; ¥141.9 billion in the Precision Machinery Business, an increase of ¥10.7 billion; and ¥27.2 billion in Others, an increase of ¥1.7 billion.

### Liabilities

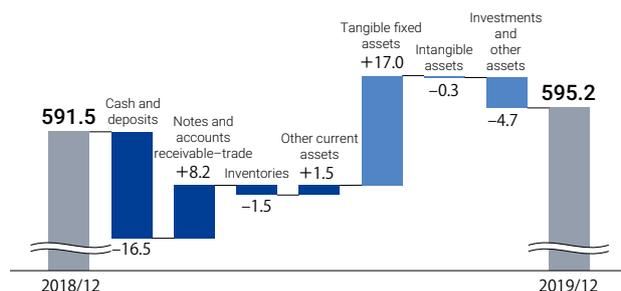
Total liabilities as of December 31, 2019, were ¥303.4 billion, ¥1.3 billion lower than on December 31, 2018. Principal changes in liability items included an increase of ¥6.7 billion in current liabilities (other items such as accounts payable–facilities), a decrease of ¥2.7 billion in notes and accounts payable–trade, a decrease of ¥3.0 billion in electronically recorded obligations, and a decrease of ¥2.3 billion in long-term loans payable.

### Net Assets

Net assets as of December 31, 2019, amounted to ¥291.8 billion, ¥5.0 billion higher than on December 31, 2018. Principal changes affecting net asset items were purchase of treasury shares of ¥15.0 billion, cash dividends paid of ¥5.8 billion, and profit attributable to owners of parent of ¥23.3 billion. Shareholders' equity amounted to ¥283.6 billion and the equity ratio was 47.7%.

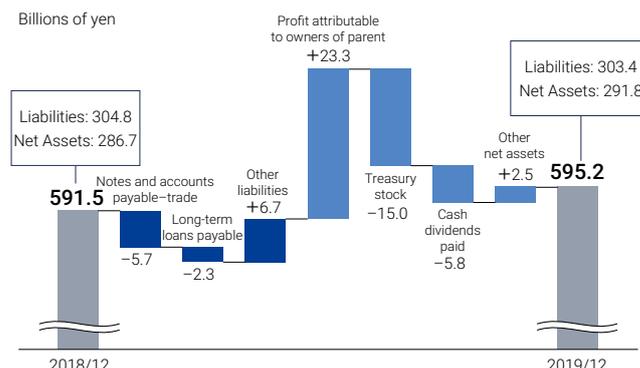
### Assets

Billions of yen



### Liabilities / Net Assets

Billions of yen



## Cash Flows

Net cash provided by operating activities was ¥26.7 billion, a decrease of ¥7.8 billion year on year. This outcome was primarily due to the strong performance centered on the Fluid Machinery & Systems Business.

Net cash used in investing activities was ¥24.0 billion, an increase of ¥8.1 billion from the previous fiscal year. This increase was largely due to growth investments such as those for the construction of domestic factories in the Precision Machinery Business.

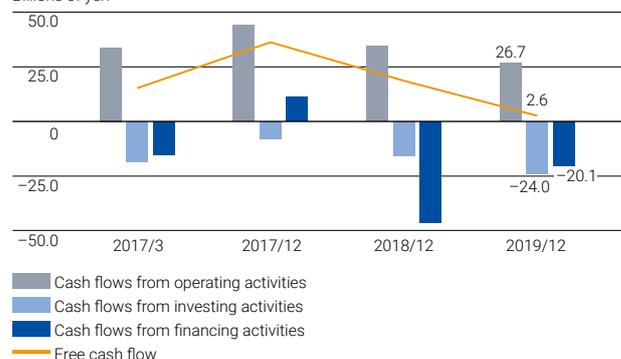
Free cash flow, calculated by combining net cash provided by operating activities and net cash used in investing activities, was a positive ¥2.6 billion, a decrease of ¥16.0 billion year on year.

Net cash used in financing activities was ¥20.1 billion, down ¥26.2 billion compared with the previous fiscal year. This decrease primarily reflected purchase of treasury shares of ¥15.0 billion and cash dividends paid of ¥5.8 billion.

As a result, cash and cash equivalents at end of period decreased ¥17.2 billion, amounting to ¥93.3 billion on December 31, 2019.

### Consolidated Cash Flows

Billions of yen



# Consolidated Financial Statements

## Consolidated Balance Sheets

	Millions of yen				2019/12
	2016/3	2017/3	2017/12*1	2018/12*2	
<b>ASSETS</b>					
Current Assets					
Cash and deposits	¥ 89,589	¥ 90,381	¥138,475	¥110,610	¥ 94,014
Notes and accounts receivable—trade	216,310	202,874	169,298	176,895	182,944
Electronically recorded monetary claims	727	4,511	6,021	6,990	9,218
Securities	4,599	2,498	2,411	1,668	1,097
Merchandise and finished goods	13,060	12,716	15,191	18,082	18,386
Work in process	47,163	56,569	60,993	65,845	70,082
Raw materials and supplies	28,740	28,041	33,353	38,731	32,633
Deferred tax assets	12,505	11,644	10,484	8,309	—
Others	13,994	17,419	14,954	14,714	15,659
Allowance for doubtful accounts	(3,233)	(3,250)	(3,694)	(3,308)	(2,107)
Total current assets	423,458	423,407	447,491	438,540	421,929
Fixed Assets					
Tangible fixed assets					
Buildings and structures, net	41,781	46,431	47,005	44,269	56,022
Machinery and equipment, net	26,823	28,974	28,632	28,599	27,960
Land	21,265	21,153	20,904	19,810	19,607
Construction in progress	7,960	5,207	5,830	7,558	13,665
Others, net	7,341	8,364	7,853	7,640	7,642
Total tangible assets	105,171	110,131	110,227	107,879	124,898
Intangible assets					
Goodwill	2,638	2,279	1,831	1,148	774
Software	5,755	8,275	7,370	6,584	6,496
Others	2,806	2,679	2,879	2,937	3,072
Total intangible assets	11,200	13,234	12,080	10,670	10,343
Investments and other assets					
Investment securities	26,662	26,202	25,226	22,301	19,666
Long-term loans receivable	802	263	262	153	144
Defined benefit asset	31	118	3,202	3,038	5,017
Deferred tax assets	5,921	2,660	1,742	4,572	9,475
Others	11,411	17,237	17,088	9,623	9,205
Allowance for doubtful accounts	(4,800)	(4,799)	(4,403)	(5,187)	(5,442)
Total investments and other assets	40,029	41,683	43,120	34,503	38,067
Total fixed assets	156,401	165,049	165,428	153,052	173,309
Total Assets	¥579,860	¥588,457	¥612,919	¥591,592	¥595,239

\*1 The occurrence of the irregular nine-month period ended December 31, 2017, is the result of a change in the settlement date used by the Company.

\*2 Effective January 1, 2019, the Company adopted "Partial Amendments to Accounting Standard for Tax Effect Accounting" (ASBJ Statement No. 28, revised on February 16, 2018). Accordingly, figures for the fiscal year ended December 31, 2018, have been restated to reflect the adoption of this standard.

	Millions of yen				2019/12
	2016/3	2017/3	2017/12*1	2018/12*2	
<b>LIABILITIES</b>					
Current Liabilities					
Notes and accounts payable–trade	¥ 68,905	¥ 64,155	¥ 61,756	¥ 63,320	¥ 60,580
Electronically recorded obligations	47,550	55,922	57,869	62,854	59,847
Current portion of bonds	—	—	10,000	—	—
Short-term loans payable	77,714	62,789	70,470	46,766	50,965
Income taxes payable	4,128	4,598	1,697	4,598	3,233
Deferred tax liabilities	—	3	0	—	—
Bonus payment reserve	9,200	9,172	5,460	6,263	6,629
Directors' bonus payment reserve	311	314	250	344	348
Reserve for losses on construction completion guarantees	3,889	3,836	3,279	4,873	3,369
Reserve for product warranties	3,506	3,481	4,086	5,118	3,658
Reserve for construction losses	7,748	8,666	10,038	12,374	12,901
Reserve for expenses related to the sales of land	254	254	254	254	—
Others	36,391	41,022	45,529	51,782	58,547
Total current liabilities	259,600	254,217	270,691	258,550	260,082
Long-Term Liabilities					
Bonds payable	10,000	10,000	10,000	10,000	10,000
Bonds with share acquisition rights	19,988	—	—	—	—
Long-term loans payable	9,870	21,520	22,161	20,730	18,340
Deferred tax liabilities	745	808	1,898	25	504
Reserve for directors' retirement benefits	160	153	122	116	107
Provision for loss on litigation	6,457	6,464	6,464	—	—
Defined benefit liability	16,681	12,556	11,841	10,681	9,362
Asset retirement obligations	1,899	1,969	2,214	2,245	2,401
Others	4,011	3,257	2,734	2,464	2,612
Total long-term liabilities	69,815	56,730	57,439	46,264	43,328
Total Liabilities	329,416	310,948	328,131	304,814	303,411
<b>NET ASSETS</b>					
Shareholders' Equity					
Common stock	68,760	78,764	78,815	79,066	79,155
Capital surplus	72,691	81,205	81,256	80,296	74,848
Retained earnings	102,446	117,883	121,321	135,715	141,675
Treasury stock	(408)	(425)	(431)	(5,439)	(174)
Total shareholders' equity	243,490	277,428	280,962	289,639	295,504
Accumulated Other Comprehensive Income					
Net unrealized gains (losses) on investment securities	2,739	2,692	2,564	381	233
Deferred gains (losses) on hedges	(12)	(1)	10	(57)	(24)
Translation adjustments	5,878	745	2,628	(1,226)	(2,891)
Remeasurements of defined benefit plans	(11,080)	(9,507)	(8,210)	(9,096)	(9,168)
Total accumulated other comprehensive income	(2,473)	(6,071)	(3,007)	(9,999)	(11,852)
Subscription Rights to Shares	952	1,361	1,163	1,152	1,132
Non-Controlling Interests	8,475	4,791	5,668	5,985	7,043
Total Net Assets	250,444	277,509	284,788	286,778	291,827
Total Liabilities and Net Assets	¥579,860	¥588,457	¥612,919	¥591,592	¥595,239

## Consolidated Statements of Income

	Millions of yen				
	2016/3	2017/3	2017/12*	2018/12	2019/12
Net Sales	¥486,235	¥476,104	¥381,993	¥509,175	¥522,424
Cost of Sales	353,344	350,032	285,261	376,021	385,736
Gross Profit	132,891	126,072	96,732	133,154	136,688
Selling, General and Administrative Expenses					
Sales commission	3,954	3,578	2,503	3,385	3,817
Packing and transportation	5,904	5,554	4,575	6,909	6,971
Sales promotion	1,827	1,781	1,620	1,510	1,307
Provision of allowance for doubtful accounts	2,147	447	185	616	(227)
Personnel expenses	40,929	40,584	33,847	43,373	43,664
Bonus payment reserve expenses	3,499	3,572	2,106	2,263	2,369
Directors' bonus payment reserve expenses	291	280	233	324	345
Retirement benefit expenses	1,146	1,380	1,107	1,543	2,007
Provision for directors' retirement benefits	40	30	25	34	34
Traveling and transportation expenses	3,881	3,671	3,253	3,945	3,848
Taxes and dues	2,183	3,011	2,446	2,931	3,031
Depreciation and amortization	3,819	4,188	3,656	4,704	3,967
Amortization of goodwill	351	587	416	345	325
R&D expenses	7,632	8,758	7,218	10,698	11,530
Others	17,271	18,646	15,420	18,087	18,396
Total selling, general and administrative expenses	94,879	96,076	78,616	100,672	101,389
Operating Income	38,011	29,995	18,115	32,482	35,298
Non-Operating Income					
Interest income	223	216	273	311	335
Dividends income	489	559	169	752	261
Share of profit of entities accounted for using equity method	1,108	796	—	565	749
Others	535	509	495	1,000	1,447
Total non-operating income	2,357	2,082	937	2,629	2,794
Non-Operating Expenses					
Interest expenses	1,205	1,184	1,136	1,517	1,444
Share of loss of entities accounted for using equity method	—	—	148	—	—
Foreign exchange losses	1,845	1,070	49	1,452	657
Others	846	1,358	1,188	861	419
Total non-operating expenses	3,897	3,613	2,523	3,830	2,521
Ordinary Income	36,471	28,464	16,529	31,281	35,571
Extraordinary Income					
Gain on sales of fixed assets	77	409	2,209	401	374
Gain on sales of investment securities	380	1,978	1,352	804	713
Reversal of reserve for expenses related to the sales of land	1,589	—	—	—	—
Gain on sales of investments in capital	—	289	—	—	—
Others	1	—	—	—	—
Total extraordinary income	2,049	2,677	3,561	1,205	1,087
Extraordinary Loss					
Loss on sales of fixed assets	15	25	176	319	11
Loss on retirement of fixed assets	99	126	269	827	203
Impairment loss	260	—	952	2,627	1,112
Loss on sales of investment securities	—	56	33	0	143
Loss on valuation of investment securities	—	435	103	—	—
Loss on valuation of investments in capital	—	—	—	128	0
Provision for loss on litigation	6,457	—	—	1,257	—
Others	2	—	1	22	2
Total extraordinary loss	6,834	645	1,537	5,183	1,473
Income before Income Taxes	31,686	30,497	18,554	27,303	35,184
Income Taxes—Current	9,581	5,546	6,324	7,148	7,268
Income Taxes—Deferred	3,207	3,299	1,908	468	2,777
Total Income Taxes	12,789	8,845	8,232	7,617	10,045
Profit	18,896	21,651	10,322	19,685	25,139
Profit Attributable to Non-Controlling Interests	1,642	1,063	790	1,423	1,789
Profit Attributable to Owners of Parent	¥ 17,254	¥ 20,587	¥ 9,531	¥ 18,262	¥ 23,349

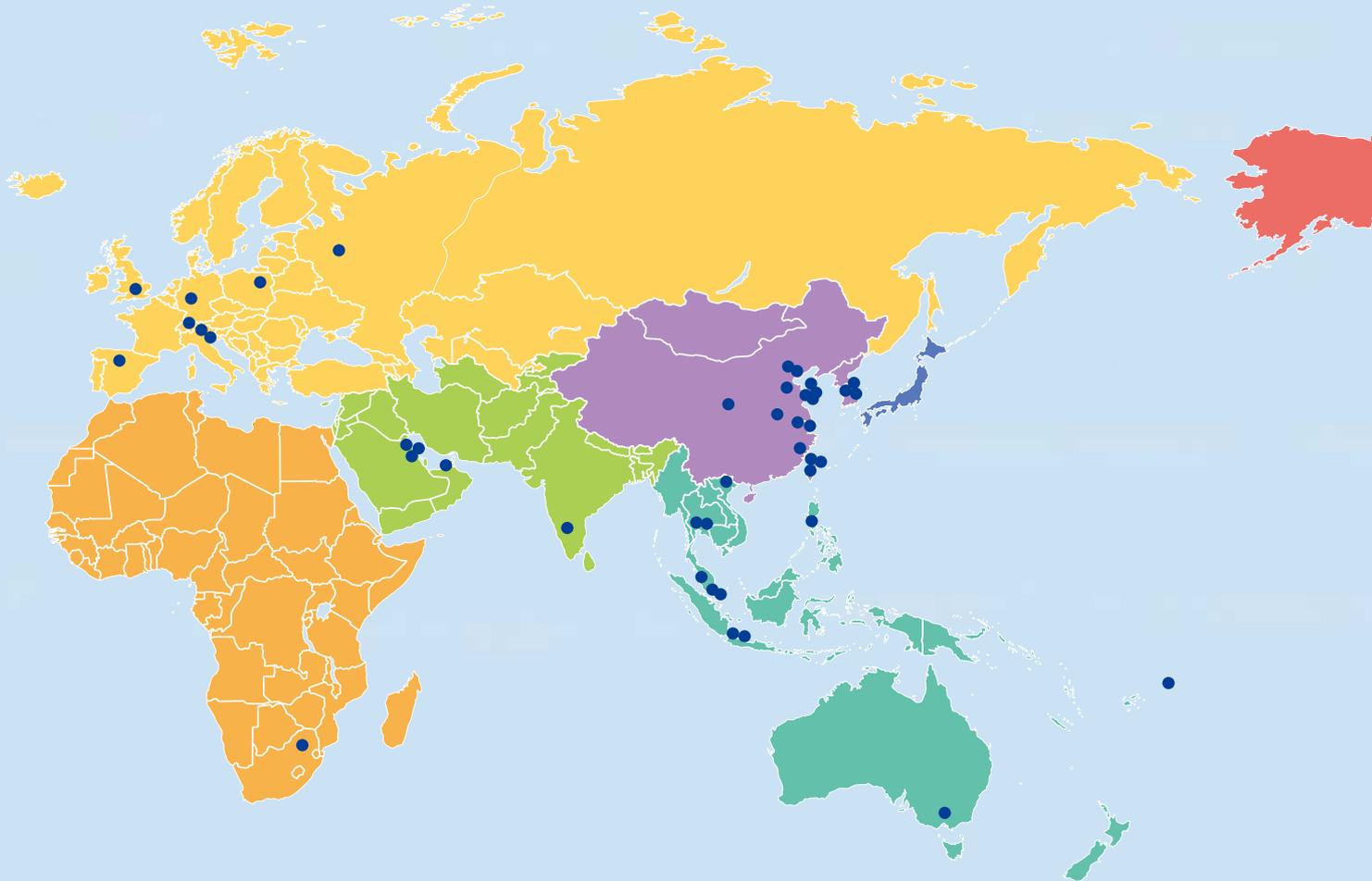
\* The occurrence of the irregular nine-month period ended December 31, 2017, is the result of a change in the settlement date used by the Company.

## Consolidated Statements of Cash Flows

	Millions of yen				
	2016/3	2017/3	2017/12*	2018/12	2019/12
<b>Cash Flows from Operating Activities</b>					
Income before income taxes	¥ 31,686	¥ 30,497	¥ 18,554	¥ 27,303	¥ 35,184
Depreciation and amortization	11,610	13,739	11,923	15,266	15,132
Impairment loss	260	—	952	2,627	1,112
Loss (gain) on sales of securities and investment securities	(380)	(1,922)	(1,318)	(803)	(569)
Loss (gain) on sales of investments in capital	—	(289)	—	—	—
Increase (decrease) in reserve	8,516	744	(2,339)	48	(3,110)
Increase (decrease) in net defined benefit liability	(3,594)	(2,242)	(3,456)	(2,571)	(1,009)
Loss (gain) on sales of fixed assets	(61)	(384)	(2,032)	(81)	(362)
Interest and dividends income	(713)	(775)	(442)	(1,064)	(596)
Interest expenses	1,205	1,184	1,136	1,517	1,444
Decrease (increase) in notes and accounts receivable—trade	(9,858)	7,344	33,728	(10,674)	(8,457)
Decrease (increase) in inventories	(10,071)	(9,136)	(11,403)	(14,854)	1,192
Increase (decrease) in notes and accounts payable—trade	6,126	3,430	(188)	6,774	(4,963)
Increase (decrease) in other assets / liabilities	(5,951)	(3,784)	7,634	15,795	373
Other loss (gain)	(1,010)	771	1,049	563	(258)
<b>Subtotal</b>	<b>27,763</b>	<b>39,175</b>	<b>53,798</b>	<b>39,847</b>	<b>35,111</b>
Interest and dividends received	716	1,181	1,133	1,064	588
Interest expenses paid	(1,264)	(1,202)	(1,183)	(1,529)	(1,429)
Income taxes paid	(5,686)	(5,338)	(9,590)	(4,771)	(7,550)
<b>Net cash provided by operating activities</b>	<b>21,528</b>	<b>33,816</b>	<b>44,157</b>	<b>34,610</b>	<b>26,720</b>
<b>Cash Flows from Investing Activities</b>					
Purchase of fixed assets	(12,498)	(21,591)	(12,380)	(18,570)	(28,040)
Proceeds from sales of fixed assets	109	550	2,400	1,738	540
Purchase of securities and investment securities	(10,846)	(8,797)	(3,523)	(4,578)	(3,678)
Proceeds from sales and redemption of securities and investment securities	11,166	12,086	5,543	5,568	7,115
Payments into time deposits	(1,048)	(2,637)	(1,982)	(1,946)	(2,055)
Proceeds from withdrawal of time deposits	1,047	1,839	1,906	1,902	2,041
Payments of loans receivable	(317)	(117)	(19)	(155)	(101)
Collection of loans receivable	459	762	108	167	29
Proceeds from or payments for purchase or sales of shares of subsidiaries resulting in change in scope of consolidation	(2,130)	—	—	—	—
Others	(285)	(661)	40	(54)	71
<b>Net cash used in investing activities</b>	<b>(14,344)</b>	<b>(18,563)</b>	<b>(7,906)</b>	<b>(15,927)</b>	<b>(24,077)</b>
<b>Cash Flows from Financing Activities</b>					
Net increase (decrease) in short-term loans payable	(1,349)	2,501	7,083	(22,498)	1,874
Proceeds from long-term loans payable	4,678	14,079	3,026	689	2,585
Repayment of long-term loans payable	(5,110)	(19,615)	(2,078)	(2,462)	(2,108)
Proceeds from issuance of bonds	—	—	10,000	—	—
Redemption of bonds	—	(22)	—	(10,000)	—
Proceeds from issuance of common stock	0	0	0	0	0
Proceeds from disposal of treasury shares	0	0	0	—	0
Purchase of treasury shares	(10)	(17)	(5)	(5,008)	(15,004)
Cash dividends paid	(6,623)	(5,582)	(6,093)	(4,575)	(5,877)
Cash dividends paid to non-controlling interests	(465)	(458)	(4)	(414)	(687)
Payments from changes in ownership interests in subsidiaries that do not result in change in scope of consolidation	—	(5,169)	—	(1,333)	—
Others	(775)	(817)	(631)	(809)	(970)
<b>Net cash provided by (used in) financing activities</b>	<b>(9,655)</b>	<b>(15,102)</b>	<b>11,296</b>	<b>(46,412)</b>	<b>(20,188)</b>
<b>Effect of Exchange Rate Changes on Cash and Cash Equivalents</b>	<b>(1,948)</b>	<b>(1,187)</b>	<b>871</b>	<b>(1,324)</b>	<b>(346)</b>
<b>Increase (Decrease) in Cash and Cash Equivalents</b>	<b>(4,419)</b>	<b>(1,037)</b>	<b>48,419</b>	<b>(29,054)</b>	<b>(17,891)</b>
<b>Cash and Cash Equivalents at Beginning of Period</b>	<b>95,604</b>	<b>91,185</b>	<b>90,683</b>	<b>139,102</b>	<b>110,556</b>
<b>Increase (Decrease) in Cash and Cash Equivalents Resulting from Change in Scope of Consolidation</b>	<b>—</b>	<b>536</b>	<b>—</b>	<b>507</b>	<b>686</b>
<b>Cash and Cash Equivalents at End of Period</b>	<b>¥91,185</b>	<b>¥90,683</b>	<b>¥139,102</b>	<b>¥110,556</b>	<b>93,351</b>

# EBARA Group's Global Network

(As of December 31, 2019)



## Europe

● EBARA PUMPS IBERIA, S.A.	□◇
● Elliott Turbomachinery Limited	□△
● Elliott Turbomachinery S.A.	□△
● Ebara Precision Machinery Europe GmbH	□△
● Ebara Pumps Europe S.p.A.	□◇△
● Sumoto S.r.l.	□◇△
● Ebara Pompy Polska sp. z o.o.	□
● EBARA Pumps RUS Limited Liability Company	□△

## Africa

● EBARA PUMPS SOUTH AFRICA (PTY) LTD	□△
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## Middle East & South Asia

● ELLIOTT GAS Services Saudi Arabia Limited	□△
● EBARA PUMPS SAUDI ARABIA LLC*	□△
● Elliott Ebara Middle East Maintenance S.P.C.	△
● Ebara Pumps Middle East FZE	□△
● Elliott Ebara Turbomachinery India Pvt. Ltd.	□△

## Middle East & South Asia

● Ebara (Thailand) Limited	□△
● Ebara Thermal Systems (Thailand) Co., Ltd.	□△
● Ebara Pumps Malaysia Sdn. Bhd.	□△
● Ebara Engineering Singapore Pte. Ltd.	□△
● Elliott Ebara Singapore Pte. Ltd.	□△
● PT. Ebara Indonesia	□◇△
● PT. Ebara Turbomachinery Services Indonesia*	△
● Ebara Vietnam Pump Company Limited	□◇△
● Ebara Pumps Philippines, Inc.	□◇△
● Ebara Pumps Australia Pty. Ltd.	□△
● Ebara Densan (Taiwan) Samoa Mfg. Co., Ltd.	○

## East Asia

● Xian Ebara Precision Machinery	□△
● Ebara Machinery (China) Co., Ltd.	□◇△
● Elliott Turbomachinery Services (Tianjin) Co., Ltd.	△
● HEFEI EBARA PRECISION MACHINERY	□△
● Ebara Machinery Zibo Co., Ltd.	□◇△
● Ebara Densan (Qingdao) Technology Co., Ltd.	□◇△
● Ebara Densan (Kunshan) Co., Ltd.	□△
● Ebara Great Pumps	□◇△
● Ebara Qingdao	□◇△
● EBARA REFRIGERATION EQUIPMENT & SYSTEMS (CHINA) Co., Ltd.	□◇△
● Yantai Ebara Fan Co., Ltd.*	◇
● Shanghai Ebara Precision Machinery	□△
● Ebara Precision Machinery Taiwan Incorporated	□△
● Ebara-Elliott Service (Taiwan) Co., Ltd.	△
● Ebara-Densan Taiwan Manufacturing Co., Ltd.	□◇△
● Ebara Fluid Machinery Korea Co., Ltd.	□△
● Elliott Korea Co., Ltd.	□◇△
● Ebara Precision Machinery Korea Incorporated	□△

● Overseas base

● Fluid Machinery & Systems Business

● Environmental Plants Business

● Precision Machinery Business

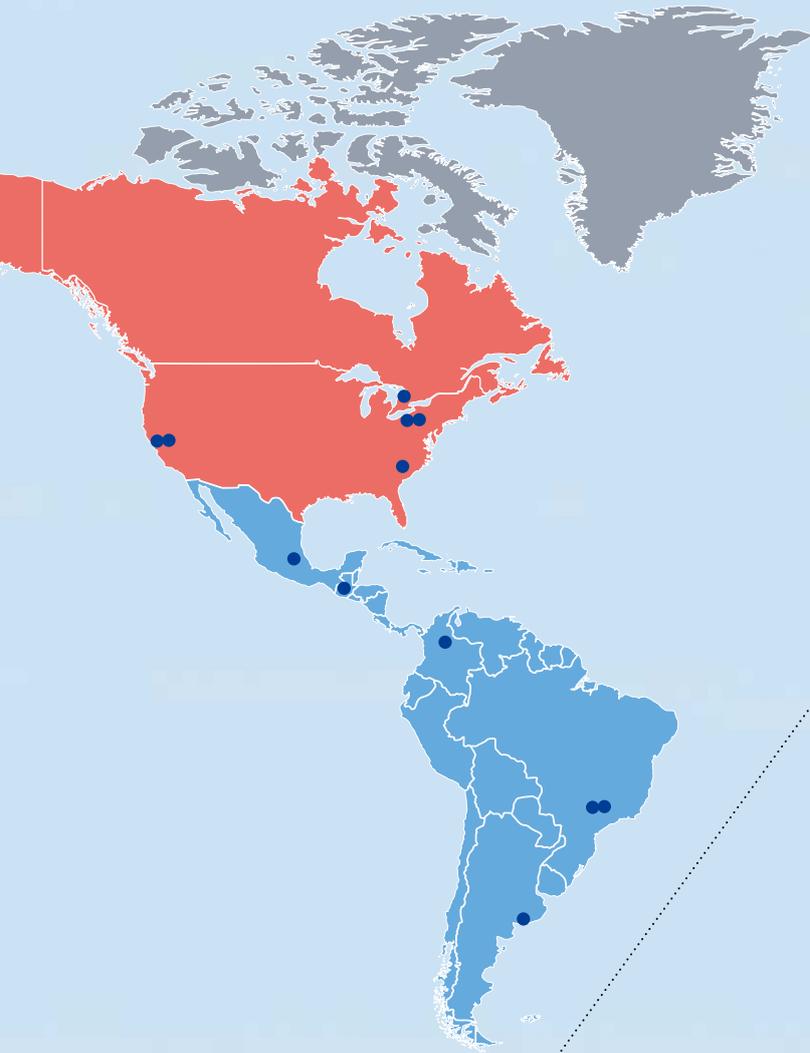
□ Sales

◇ Manufacturing and engineering

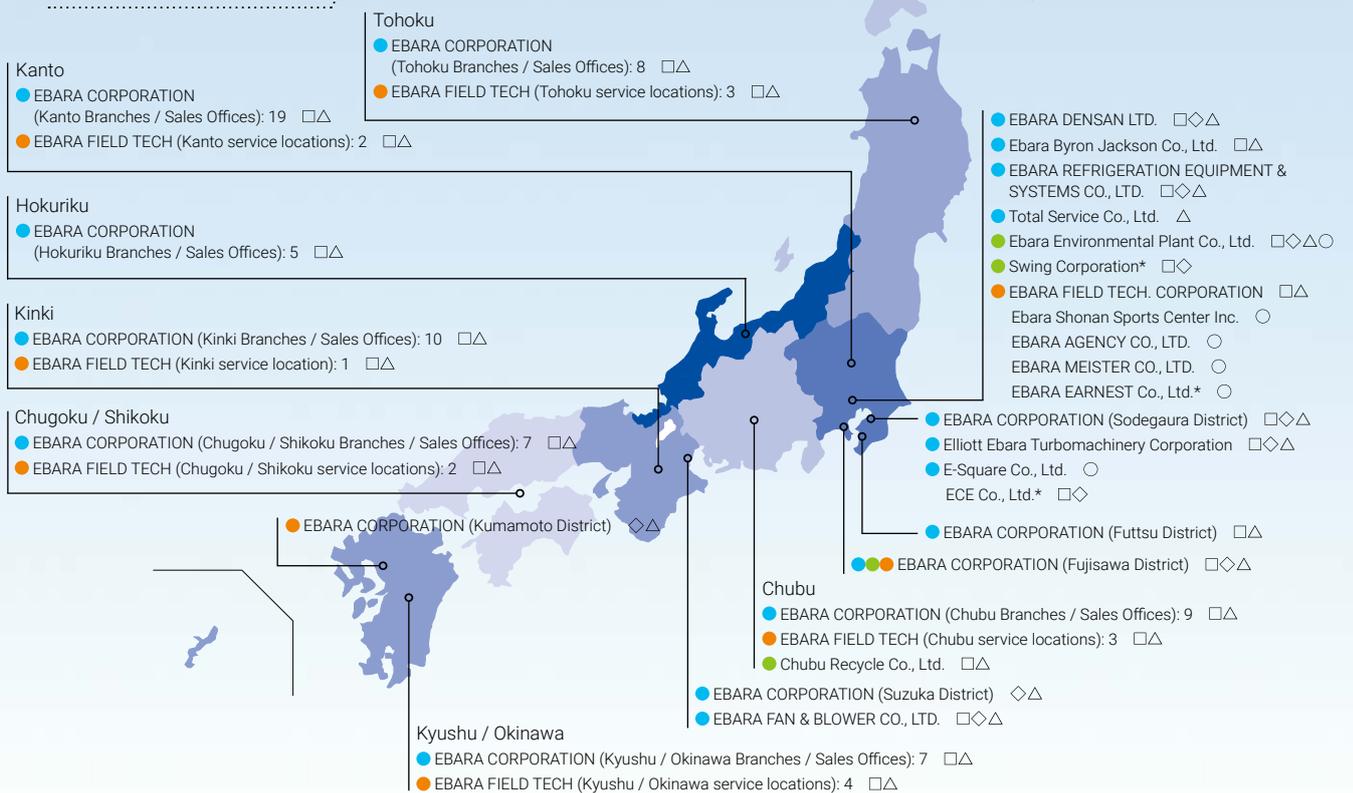
△ S&S

○ Other

\* Non-consolidated



North America	
Ebara America Corporation	○
Ebara Technologies Incorporated	□△
EBARA PUMPS AMERICAS CORPORATION	□△
Elliott Company	□◇△
Elliott Overseas Corporation	○
Elliott Turbomachinery Canada, Inc.	△
Latin America	
Elliott Turbomachinery S.A. de C.V.	△
Elliott Turbocharger Guatemala, S.A.	△
Ebara Bombas Colombia S.A.S.	□△
EBARA BOMBAS AMÉRICA DO SUL LTDA.	□◇△
Elliott Ebara Servicios para Equipamentos Rotativos Ltda.	□△
ELLIOTT SERVICE COMPANY S.A.	△



# Corporate Profile / Stock Information

(As of December 31, 2019)

## Corporate Profile

Company Name: EBARA CORPORATION  
 Foundation: November 1912  
 Head Office: 11-1, Haneda Asahi-cho, Ota-ku,  
 Tokyo 144-8510, Japan  
 Phone: + 81-3-3743-6111  
 URL: <https://www.ebara.co.jp/en/>  
 Paid-in Capital: ¥79,155 million  
 Number of Employees  
 (Consolidated): 17,080

## External Recognition Based on ESG Factors

EBARA CORPORATION has been selected for inclusion in several ESG indexes by various domestic and overseas ESG ratings institutions.



2020 CONSTITUENT MSCI JAPAN  
EMPOWERING WOMEN INDEX (WIN)

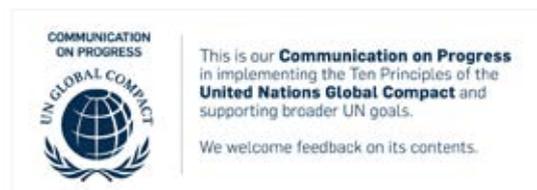
2020 CONSTITUENT MSCI JAPAN  
ESG SELECT LEADERS INDEX

Note: THE INCLUSION OF EBARA CORPORATION IN ANY MSCI INDEX, AND THE USE OF MSCI LOGOS, TRADEMARKS, SERVICE MARKS OR INDEX NAMES HEREIN, DO NOT CONSTITUTE A SPONSORSHIP, ENDORSEMENT OR PROMOTION OF EBARA CORPORATION BY MSCI OR ANY OF ITS AFFILIATES. THE MSCI INDEXES ARE THE EXCLUSIVE PROPERTY OF MSCI. MSCI AND THE MSCI INDEX NAMES AND LOGOS ARE TRADEMARKS OR SERVICE MARKS OF MSCI OR ITS AFFILIATES.



## United Nations Global Compact

The EBARA Group joined the United Nations Global Compact (UNGC) on June 30, 2009, and we have continued to exercise and pursue improvement based on the spirit of the UNGC's Ten Principles thereafter. In this report, we provide information on our initiatives pertaining to the areas of human rights, labour, environment, and anti-corruption.



## Stock Information

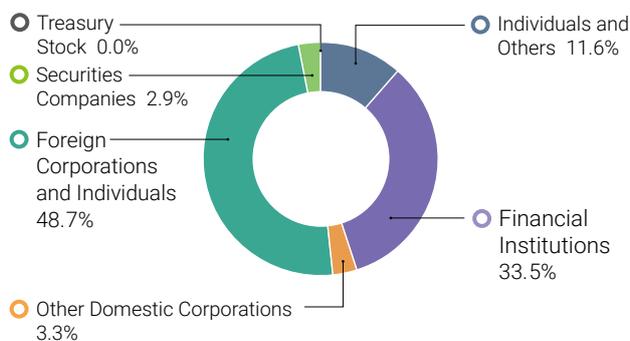
Stock Information Securities Code: 6361 (Japan)  
 Number of Shares Issued: 95,129,853  
 Number of Shareholders: 20,551  
 Stock Listing: Tokyo Stock Exchange  
 Number of Shares Constituting One Unit: 100  
 Transfer Agent and Registrar: Sumitomo Mitsui Trust Bank, Limited,  
 1-4-1, Marunouchi, Chiyoda-ku, Tokyo 100-8233, Japan  
 Accounting Auditor: Ernst & Young ShinNihon LLC  
 Major Indices: Nikkei 225

## Major Shareholders

Shareholders' name	Shareholding ratio (%)
Japan Trustee Services Bank, Ltd. (Trust Account)	10.4
ICHIGO TRUST PTE. LTD.	10.0
Japan Trustee Services Bank, Ltd. (Trust Account)	7.0
THE BANK OF NEW YORK MELLON 140042	4.3
NORTHERN TRUST CO. (AVFC) RE SILCHESTER INTERNATIONAL INVESTORS INTERNATIONAL VALUE EQUITY TRUST	2.5
HSBC TRINKAUS AND BURKHARDT AG RE: DE-CLTS A/C RE AIF	2.0
Japan Trustee Services Bank, Ltd. (Trust Account 5)	1.8
JP MORGAN CHASE BANK 385151	1.6
Japan Trustee Services Bank, Ltd. (Trust Account 7)	1.6
J.P. MORGAN BANK LUXEMBOURG S.A. 1300000	1.5

Note: Treasury stock has been eliminated from the total number of shares issued in calculating the shareholding ratio.

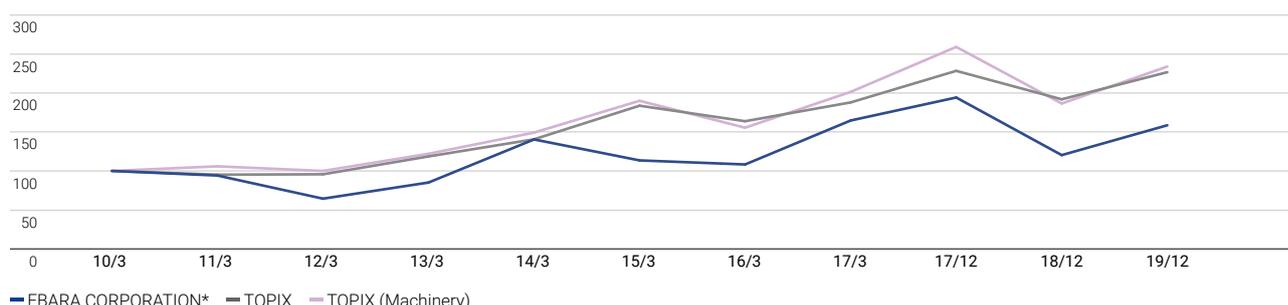
## Composition of Shareholders



## 10-Year Total Shareholder Return Data

Stock / Index	1 year	3 years	5 years	10 years
EBARA CORPORATION*	37.0%	(4.0)%	42.4%	58.6%
TOPIX	18.1%	20.6 %	23.4%	126.7%
TOPIX (Machinery)	25.4%	16.1 %	23.1%	133.9%

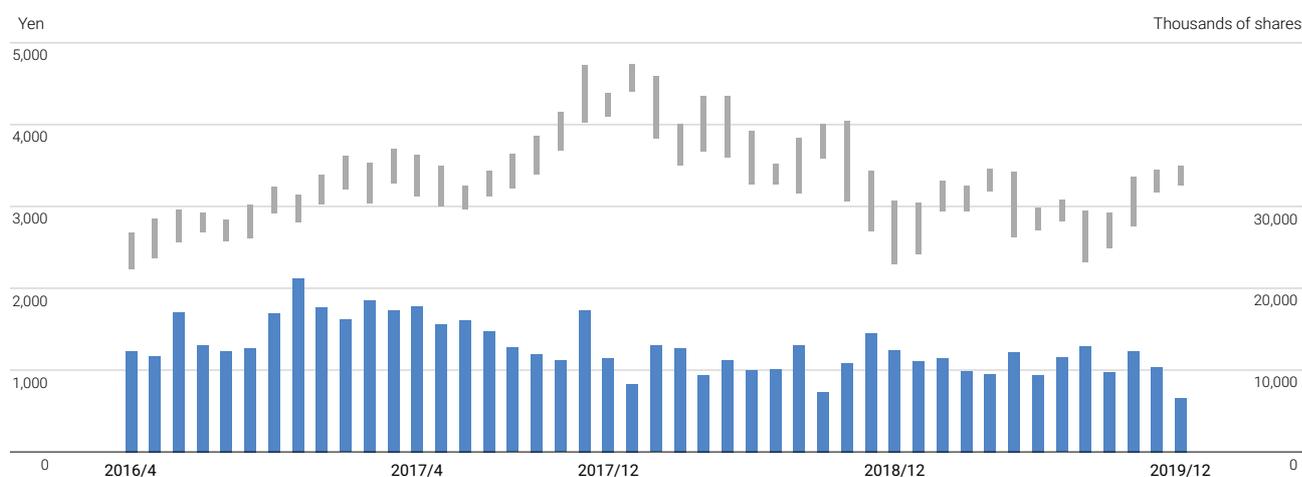
## Stock Price Including Dividends and Stock Price Indexes (Closing price on March 31, 2010, indexed to 100)



■ EBARA CORPORATION\* ■ TOPIX ■ TOPIX (Machinery)

Note: The above graph displays total shareholder return reflecting dividends and stock price gains for investments commenced on March 31, 2010, over the period ending with December 31, 2019. For investment performance accounting for dividends and stock price gains from EBARA CORPORATION, investment amount on March 31, 2010, is indexed to 100. For indexes displayed for comparison (TOPIX and TOPIX (Machinery)), projected dividend data is used and the same indexing method is employed.

## Stock Price and Trading Volume\* ■ Stock price (left scale) ■ Trading volume (right scale)



	Yen				
	16/3*	17/3*	17/12	18/12	19/12
Stock price at end of fiscal year	2,350	3,635	4,295	2,471	3,325
High	3,215	3,700	4,725	4,745	3,500
Low	2,090	2,806	2,964	2,293	2,321
Trading volume (millions of shares)	219	187	129	133	127
	Yen				
	16/3*	17/3*	17/12	18/12	19/12
Price-earnings ratio (times)	12.7	17.0	45.8	13.7	13.8
Price-to-book ratio (times)	0.9	1.4	1.6	0.9	1.1
Number of issued shares (thousands of shares)	93,209	101,736	101,783	101,957	95,129
Market capitalization at end of fiscal year (millions of yen)	219,041	369,811	437,159	251,938	316,307

\* Figures have been restated to reflect a consolidation of common shares at a rate of one share for every five shares conducted with an effective date of October 1, 2016.

Looking ahead,  
going beyond expectations  
*Ahead*  *Beyond*



**EBARA** CORPORATION

**Head Office**

11-1, Haneda Asahi-cho, Ota-ku, Tokyo 144-8510, Japan  
URL: <https://www.ebara.co.jp/en/>