

Sustainability Strategy








Approach to Sustainability and Initiatives

Takuma's Management Principles state, "Takuma will strive for social contribution, corporate value enhancement, long-term corporate development and the satisfaction of all stakeholders by providing goods and services that are needed and recognized as valuable in society." Vision 2030, our long-term vision for the year 2030, includes this statement: "Aim to maintain our role of being an indispensable presence in society as a leading company in the field of renewable energy utilization and environmental protection by realizing sustainable growth alongside our customers and society through implementation of ESG management." In addition, the 14th Medium-Term Management Plan, too, calls on the Group to practice ESG management as it implements the long-term vision, and we are advancing sustainability initiatives through measures specified in the plan in accordance with the Management Principles and the long-term vision.

Governance and Risk Management

In identifying key issues, we followed the process described on pages 14–15 under the supervision of the Executive Manager of the Corporate, Planning & Administration Division, the executive in charge of formulating the Medium-Term Management Plan. Progress in each process is reported to management in a timely manner, and finally to the Board of Directors after deliberation by the Committee of Executive Officers and approval by the President. The Board of Directors receives a report on performance against KPIs annually and oversees sustainability initiatives. In addition, the Committee of Executive Officers receives reports on the status of initiatives in the Medium-Term Management Plan of each division and Group company, and evaluates and supervises sustainability-related risks and opportunities, while outside directors supervise through reports from directors who are also standing Audit & Supervisory Committee Members. Key issues are reviewed for their appropriateness every three years at the time of formulating the Medium-Term Management Plan.

Seven Key Issues (Materiality)

	Helping combat climate change	<ol style="list-style-type: none"> 1. Promoting renewable energy (non-fossil energy) 2. Improving energy efficiency 	P. 40
	Conserving resources and protecting the environment	<ol style="list-style-type: none"> 1. Conserving resources and reducing environmental impacts 2. Making effective use of unutilized resources 	P. 42
	Strengthening relationships of trust with customers and communities	<ol style="list-style-type: none"> 1. Pursuing customer satisfaction 2. Ensuring the stable, continuous operation of plants and equipment 3. Recycling local resources and creating new value for communities 	P. 46
	Pursuing partnerships and innovation	<ol style="list-style-type: none"> 1. Utilization of digital technologies (AI, IoT, robots, etc.) 2. Developing open partnerships 3. Pursuing innovation 	P. 48
	Promoting activities of human resources	<ol style="list-style-type: none"> 1. Securing and training human resources 2. Promoting diversity 3. Improving employee satisfaction 	P. 50
	Ensuring safety and health	<ol style="list-style-type: none"> 1. Ensuring occupational safety and health 2. Managing employee health 3. Creating a comfortable working environment 	P. 54
	Strengthening corporate governance	<ol style="list-style-type: none"> 1. Strengthening corporate governance 2. Strengthening risk management 3. Ensuring compliance 	P. 56

Environmental Initiatives

In response to efforts to alleviate the global issue of climate change and to conserve resources and the environment, the Takuma Group will contribute to the realization of a sustainable society by working to spread renewable energy (non-fossil energy), improve energy efficiency, conserve resources and reduce environmental impacts, and use unutilized resources effectively through technologies for effectively utilizing energy and protecting the environment that we have developed since our founding.

Takuma Environmental Policy

Our company has established the Takuma Environmental Policy as follows, aiming to ensure employees contribute to global environmental conservation. This policy applies to the activities of all company departments.

Environmental Philosophy

Takuma is committed to preserving the environment and realizing an affluent society through business activities under the Company Motto: “Value Technology, Value People, Value the Earth.”

Operational Guidelines

1. All Takuma Group companies will recognize the importance of maintaining a balance between preservation of the environment and business activities.

2. Continuously develop activities to preserve the environment that comply with applicable environmental laws and ordinances, and ensure environmental control and assessment systems conform to international environmental standards.

3. Promote development of improved technologies and products for society that preserve the environment.

4. Address resource conservation, energy efficiency, recycling, and minimization of waste generated by all business activities.

5. Enhance employees’ awareness and understanding about the importance of preserving the environment through environmental education and internal promotional activities.

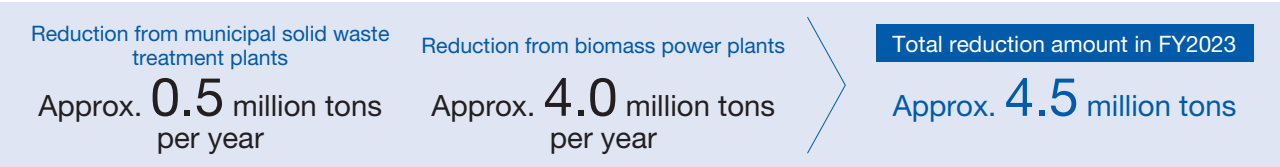
6. Provide the community with information on the activities of Takuma to preserve the environment.

Environmental Management (ISO 14001 certifications)

The Harima Factory has earned ISO 14001 certification, and it practices environmental management activities in accordance with an environmental management system that is designed to comply with international standards. Our Group companies Nippon Thermoener Co., Ltd.; Takuma Technos Co., Ltd.; Hokkaido Sanitary Maintenance Co., Ltd.; and Dan-Takuma Co., Ltd., have also acquired ISO 14001 certification.

Previous Contributions to Reducing CO2 Emissions

Conversion of waste and biomass into energy by municipal solid waste treatment plants and biomass power plants supplied by Takuma helps reduce CO₂ emissions by about 4.5 million tons per year.



* With regard to the municipal solid waste incineration plants and biomass power plants delivered by Takuma, the former is calculated from the Ministry of the Environment’s Survey on the Generation and Disposal of Municipal Solid Waste and the latter is calculated for plants delivered in the past 30 years.

Disclosure Based on TCFD Recommendations

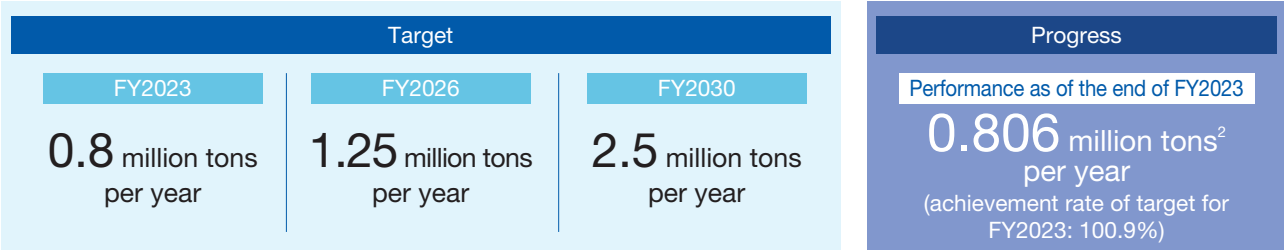
1. Basic approach

Vision 2030, our long-term vision for the Takuma Group 10 years in the future established in 2021, includes this statement: “Aim to maintain our role of being an indispensable presence in society as a leading company in the field of renewable energy utilization and environmental protection by realizing sustainable growth alongside our customers and society through implementation of ESG management.” Because the direction we are pursuing in our businesses accords with the general thrust of social pressure for reducing greenhouse gases and bolstering the resilience of infrastructure as natural disasters grow more severe, we have identified helping combat climate change as one of the key issues (materiality) that deserve to be addressed on a priority basis. Moreover, in April 2022, we announced our support for the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD). As the Group works to realize its Corporate Vision, we will strive to enhance initiatives that help realize a sustainable society by resolving issues faced by customers and society through the provision of products and services and by reducing our own CO₂ emissions. In addition, we will work to enhance our approach to climate change and our information disclosure initiatives through dialogue with stakeholders.

2. Indicators and targets

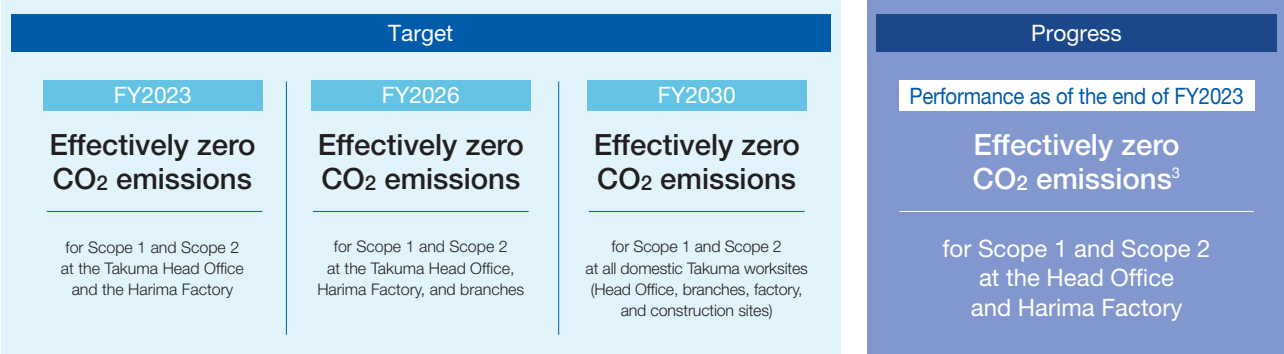
As we work to realize both net-zero GHG emissions by 2050 and Vision 2030, Takuma’s long-term vision, we will resolve issues faced by customers and communities by proposing products and services that contribute to energy savings and decarbonization while working to reduce our own CO₂ emissions.

CO2 emission reduction targets¹ and progress through our own products and services



1. The amount of CO₂ emissions that can be reduced by newly delivered power plants (biomass and waste-to-energy plants to be delivered between FY2021 and FY2030).
2. Calculated based on available generating capacity (renewable energy) from the month after delivery for plants delivered from FY2021 to FY2023 (four waste treatment plants, two sewage sludge plants, and 15 biomass plants).

In-house CO2 emissions reduction targets and progress



* The Scope 1 target includes offsets using environmental value such as J-credits.
* The Scope 2 target is calculated using post-adjustment emission factors.
* FY2030 targets including Group companies remain under consideration.
* CO₂ emissions from procured products and use of Takuma products by customers (Scope 3) also remain under consideration.

3. In FY2023, we purchased J-Credits equivalent to our Scope 1 emissions. We achieved our FY2023 target of net zero CO₂ emissions for Scope 1 and Scope 2 at the Takuma Head Office and Harima Factory.



Helping Combat Climate Change

In order to realize a decarbonized society, many of our stakeholders are promoting various climate change countermeasures. To capture these opportunities, the Group will contribute to climate change measures, and by extension the realization of a decarbonized society with the supply of electricity generated from biomass and waste through EPC for biomass plants.

Promoting Renewable Energy (Non-Fossil Energy)

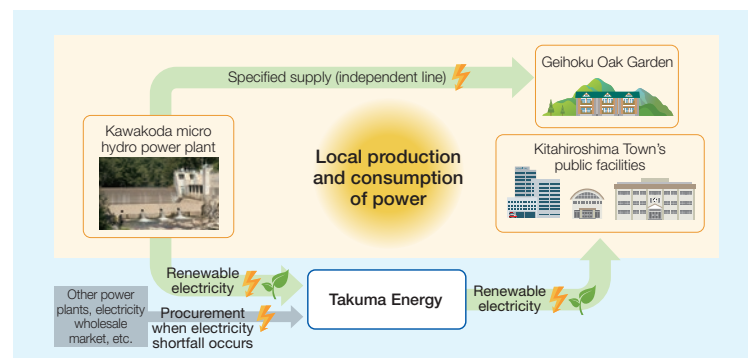
As a pioneer in the boiler industry, the Group has delivered a large number of boilers and energy plants of many types, and has improved technologies for the effective use of renewable energy and non-fossil energy. We will continue to utilize this technology to provide plants that use non-fossil fuels such as biomass and RPF, and we will work to promote renewable energy (non-fossil energy) by supplying power generated from biomass and waste through Takuma Energy Co., Ltd.

1. Initiatives through Takuma Energy Co., Ltd.

Local production for local consumption of electricity from micro hydro power plants and conclusion of an agreement for a comprehensive partnership

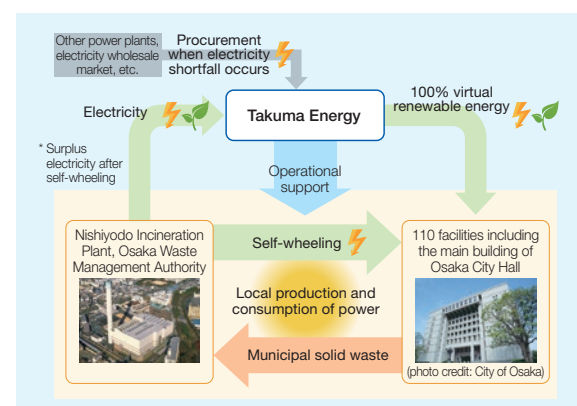
In August 2023, we started a project for the local production of power for local consumption to supply surplus power generated at the Kawakoda Micro Hydro Power Plant in Kitahiroshima Town, Yamagata District, Hiroshima Prefecture to public facilities in Kitahiroshima Town, including a water treatment center and library.

Following this project, we concluded a comprehensive partnership agreement to contribute to the sustainable development of the local community toward the realization of Kitahiroshima Town's goal of becoming a zero-carbon town by 2050. Based on this agreement, we have begun various initiatives such as supporting the establishment of a regional energy management business entity for the town.



Commencement of a project for the local production and consumption of power, including electricity wheeled for self-use by Osaka City and Osaka Waste Management Authority

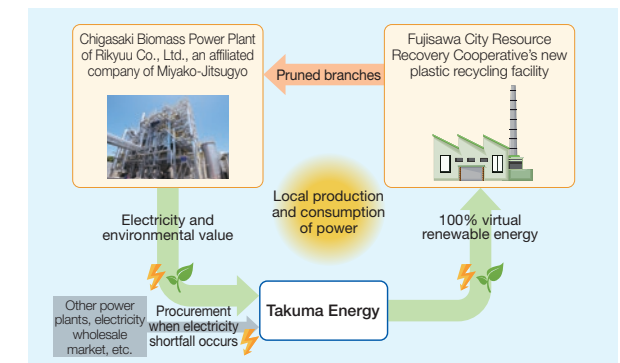
In April 2024, we started a local production for local consumption project to supply surplus power generated by the power generation plant of the Osaka Waste Management Authority's Nishiyodo Plant, which we delivered in 1995, to 110 facilities in the city, including the main building of Osaka City Hall. In addition to supplying power through wheeling and self-consuming, this project is an initiative in which Takuma Energy Co., Ltd. supplies power from 100% effectively renewable energy during times when it cannot be covered by wheeling and self-consuming. This project will greatly contribute to the realization of "Zero Carbon Osaka." In addition, this project will be one of the largest in the Kansai Region in the local production for local consumption of power using wheeling and self-consuming.



Commencement of local production and consumption of power generated from 100% effectively renewable energy through public-private partnership

In March 2024, Takuma Energy Co., Ltd. purchased environmental value and the power generated by the Chigasaki Biomass Power Plant delivered to Rikyuu Co., Ltd. by Takuma Co., Ltd., and based on the purchase, it started local production and consumption of power business to supply power from 100% effectively renewable energy to the facilities of the Fujisawa City Resource Recycling Cooperative.

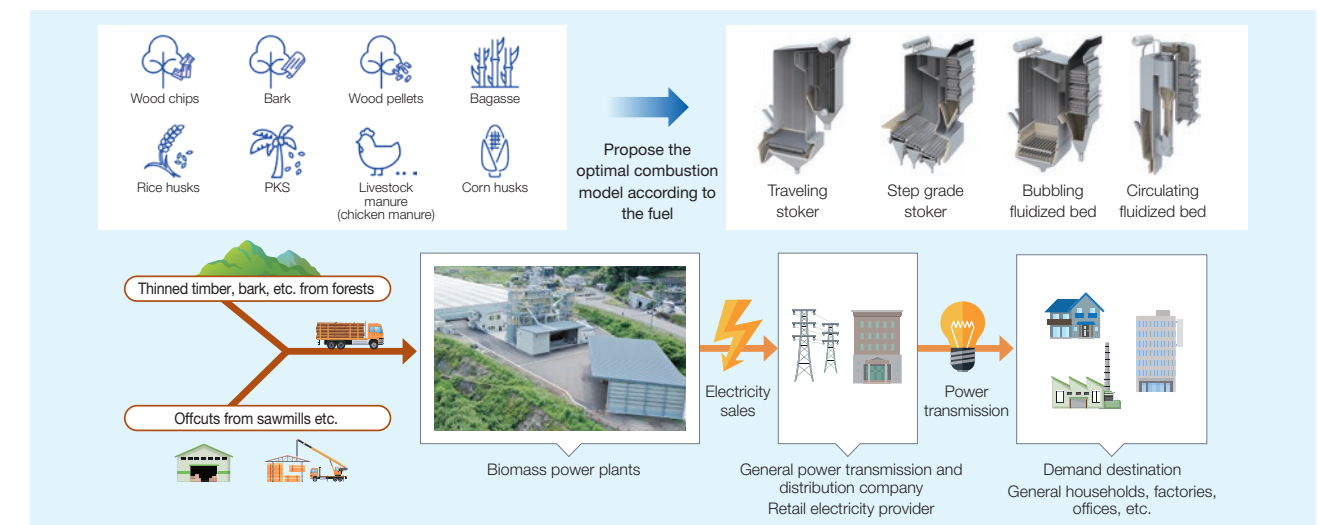
This project is a public-private partnership scheme between a private company developing a biomass power generation business that is our customer and a local municipality, and through this scheme, it will be possible to further promote the formation of a regional recycling-oriented and decarbonized society.



2. Initiatives through our Energy Plant Business

Provision of biomass plants using a wide variety of biomass fuels

Amid the various biomass fuels available, we select and propose the most suitable plant for the customer's plan from four combustion models based on the technology we have cultivated over many years and our extensive track record. In this manner, we are able to meet the needs of our customers and at the same time contribute to the promotion of renewable energy.



Improving Energy Efficiency

In order to maintain a decarbonized society, it is necessary for the plants we deliver to continue to operate with stable and high performance for a long period of time. The Group is working to improve energy efficiency through after-sales services such as maintenance and energy-saving proposals that contribute to the long-term stable operation of plants. In order to maintain the high performance of our plants and achieve stable operation over the long term, we plan periodic inspections and maintenance, propose and implement preventive maintenance, as well as promote functional improvements and energy-saving proposals based on operation data, analysis, and evaluation of inspection results.



Plant maintenance (inspections and cleaning)





Conserving Resources and Protecting the Environment

Conserving Resources, Reducing Environmental Impacts and Making Effective Use of Unused Resources

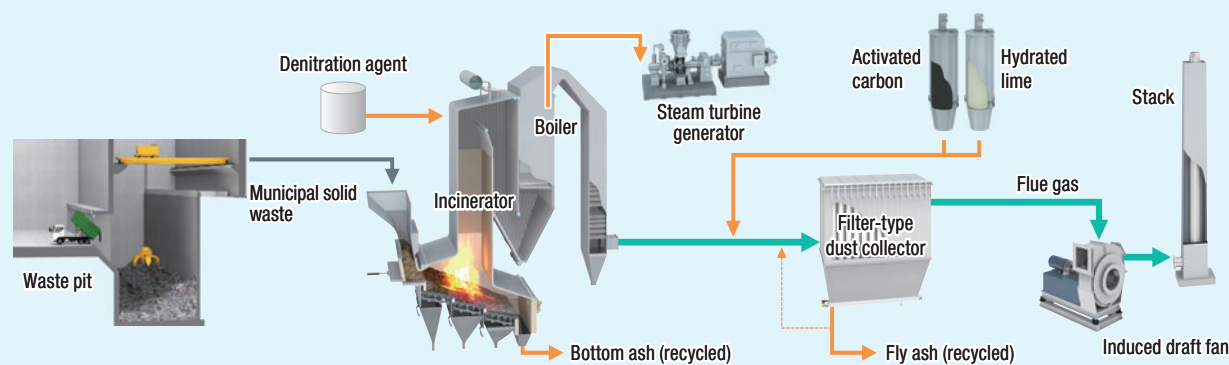
Reducing environmental impact, such as measures against global warming and pollution, along with the effective use of limited resources, are vital to initiatives for conservation of resources and the environment for realizing a sustainable society. The Group has accumulated many technologies and achievements in the field of environmental conservation, including waste treatment, water treatment, pollution control, effective utilization of energy through highly efficient heat use and power generation, and reduction of greenhouse gas emissions. Not only in Japan, but also overseas, we will promote initiatives and provide these technologies that help improve the sanitary environment and prevent environmental pollution.

Initiatives through our Municipal Solid Waste Treatment Plant Business

Stoker-type incinerator

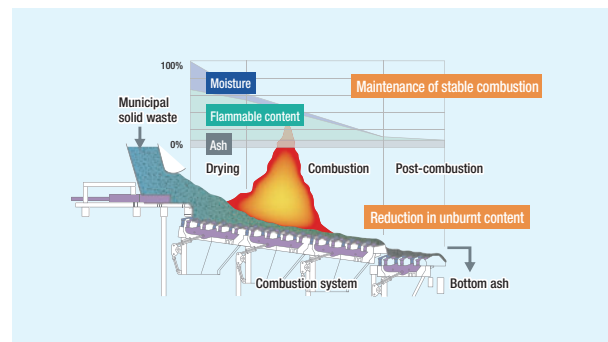
Since delivering Japan's first 24-hour operating waste incineration plant in 1963, Takuma has delivered around 370 municipal solid waste treatment plants, the most of any manufacturer in Japan. Most of the treatment technologies used by plants are the result of in-house R&D by Takuma, which continues to embrace the highest standards of excellence while working to refine its technologies so that they can accommodate the changing needs of society over time. This includes improvement of sanitation environment, prevention of pollution, effective use of waste-to-energy, and reduction of CO₂ emissions.

Flow of municipal solid waste treatment plant (waste incineration plant)



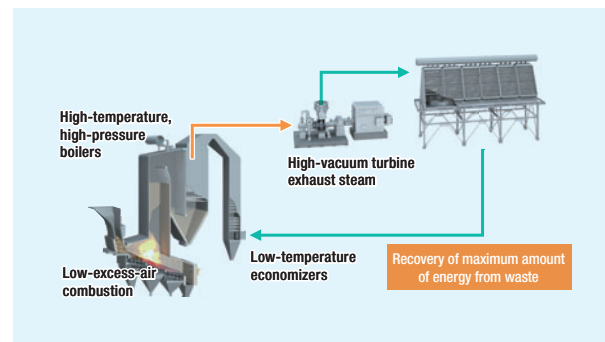
High-performance stoker furnace

Our strength lies in our combustion technology (high-performance stoker furnace) that can maintain stable combustion even amid the changing properties of waste, utilizing the ingenuity and improvements we have cultivated through our achievements and experience as Japan's top provider. Stable combustion makes the incineration ash homogeneous and leaves little burnt residue, making it possible for this ash to be utilized in cement.



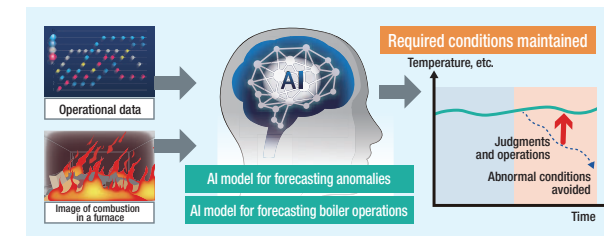
High-efficiency power generation system

High-efficiency power generation systems that use technologies such as high-temperature high-pressure boilers, low-excess-air combustion, low-temperature economizers, and high-vacuum turbine exhaust steam contribute to make the most effective use of energy from waste.



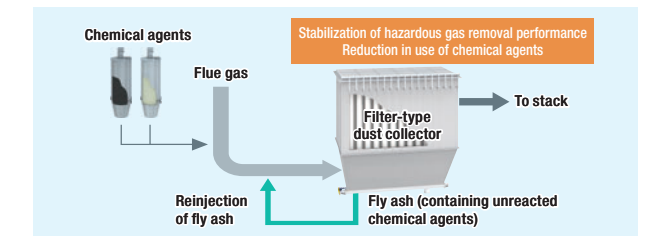
AI-enabled combustion control system

This is a next-generation combustion control system that delivers even more stable combustion. By using AI to reproduce the operation technology of skilled operators who accurately predict combustion fluctuations peculiar to waste incineration and determine and implement appropriate responses, it is possible to maintain a stable combustion state at all times, even amid medium- to long-term fluctuations in the properties of waste.



Fly ash circulation system

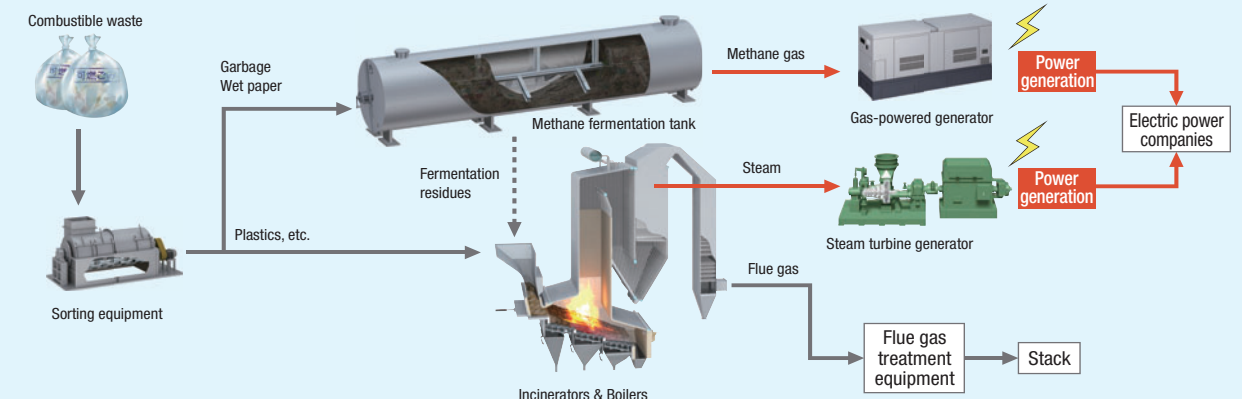
Through a system that effectively uses chemicals (hydrated lime and activated carbon) contained in fly ash collected by filtration dust collectors that still have the ability to remove harmful substances, we reduce the amount of chemicals used and fly ash generated.



Biogas recovery plants

This plant ferments organic waste such as food waste, wet paper, and other waste that is difficult to burn, and uses the resulting methane gas to generate biogas power. In addition, we are actively developing a combined system that combines a biogas recovery plant and a stoker-type incinerator. This system will generate two types of electricity: steam turbine power generation and biogas power generation, respectively, by processing waste suitable for incineration in an incinerator and waste suitable for methane fermentation in a biogas recovery plant. Compared to a stoker-type incinerator alone, it can achieve highly efficient energy recovery even in a small facility, further reducing CO₂ emissions.

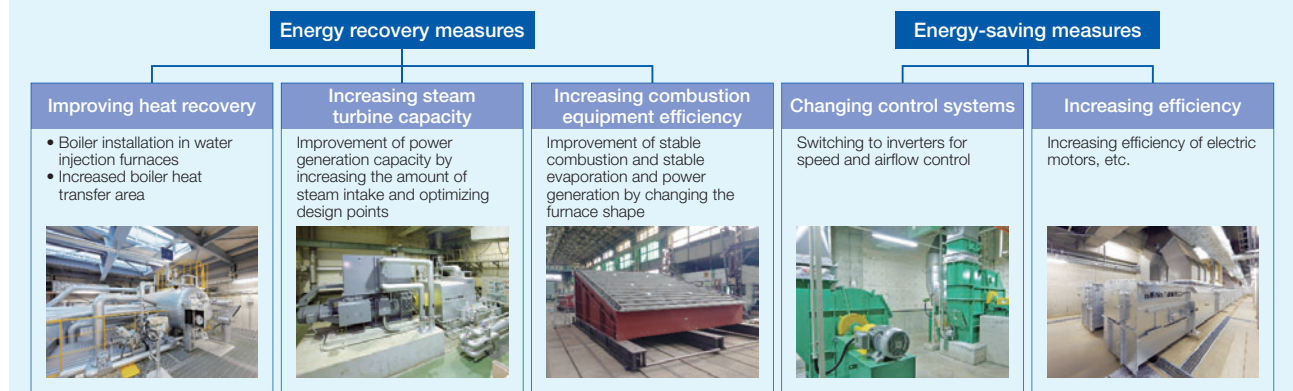
Flow of a combined system by methane fermentation and incineration



Primary equipment improvement

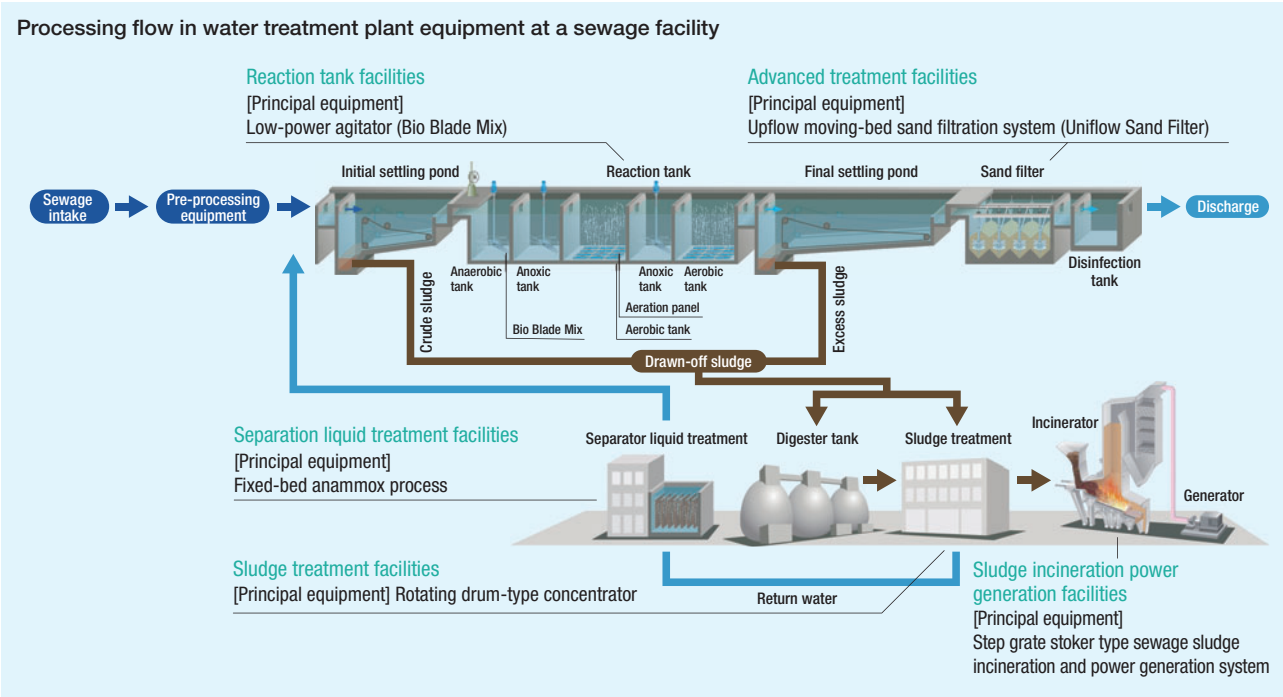
The general service life of a municipal solid waste treatment plant is said to be 15 to 20 years. In recent years, however, from the perspective of stock management, there has been a growing need to replace aging main equipment while maintaining buildings with a long service life to restore functions and operate plants for a longer period of time, as well as to further reduce CO₂ emissions by introducing energy-saving technologies and improving the energy recovery rate. Based on the advanced technologies we have cultivated over the years, such as combustion technology and heat recovery technology, we will carry out large-scale modification work with high added value.

Example of primary equipment improvement project



Initiatives through Our Water Treatment Plant Business

Since entering the water treatment business in 1962, Takuma has manufactured a variety of water treatment equipment over the course of more than 60 years while working to protect the water resources required by society and the greater water environment. In recent years, local governments in the sewage business face increasing social needs involving priorities such as energy conservation, energy creation, and Life Cycle Cost (LCC) reductions. In response, we will help realize sustainable sewage systems by taking advantage of the reliable technology and extensive experience we have developed to date.



Upflow moving-bed sand filtration system (Uniflow Sand Filter)

This system removes Suspended Solids (SS) from water, and is primarily used for final treatment at sewage treatment plants to allow clean, treated water to be released into rivers. Some treated water is also reused at the facility, helping to mitigate environmental impacts. Uniflow Sand Filter systems boast the top domestic market share in moving-bed sand filtration systems, and we have delivered a total of more than 2,900 of these long-selling products, which feature water quality purification technology, in Japan. In recent years, sales of new high-speed models that deliver two to three times the water treatment volume with the same area as conventional fixed-bed sand filtration systems have been brisk. These systems are also being adopted by local governments including Tokyo Metropolis, Ibaraki Prefecture, and Kyoto Prefecture, among others.

Step grate stoker type sewage sludge incineration and power generation system

Sludge generated in the sewage treatment process is a type of biomass and a promising resource for the renewable energy sector. Conventional sludge incinerators were net consumers of energy because they required auxiliary fuel and used large amounts of electricity. This product is an energy-creating system that draws on Takuma's core technologies of combustion technology and boiler technology to generate more power than the incinerator consumes while using sludge as fuel, as long as it operates at or above a certain scale of sludge processing capacity. In 2022, this system won the New Energy Award of the New Energy Foundation (Agency for Natural Resources and Energy Director-General's Award) and the Society Award (Technology Category) of The Japan Institute of Energy. In recent years, it has been adopted by local governments such as Tokyo Metropolis, Sapporo City, and Osaka Prefecture.

Environmental Reporting

Takuma reports the environmental impact of its business activities as well as the manner in which it takes environmental considerations into account in accordance with the Environmental Reporting Guidelines issued by the Ministry of the Environment. This environmental reporting program includes not only environmental information extracted from our overall business activities from an environmental standpoint, but also information about related economic and social aspects of those activities.

Environmental data (non-consolidated)

We will continue with our efforts to promote resource and energy conservation, reduce waste, and lower greenhouse gas emissions. Although we do not use a large number or volume of chemical substances in our business, we do use several types of designated chemical substances. Therefore, we report and register substances subject to the PRTR Law with administrative agencies in accordance with the law. These substances are used in anti-corrosion coatings for boiler structures and other applications.

	2019	2020	2021	2022	2023
Total energy use (GJ per year)	47,902	50,927	53,982	51,685	52,845
Total production of waste, etc. (tons per year)	507	731	671	671	471
Amount of recycling (tons per year)	314	558	495	472	321
Final waste disposal volume (tons per year)	120	113	101	107	66
Greenhouse gas emissions (tons-CO ₂ per year)	1,914	2,032	2,137	553	602
Water use (m ³ /year)	25,176	25,258	31,387	27,033	37,814

PRTR designated substance emissions	2019	2020	2021	2022	2023
Dichloromethane (CAS No. 75-09-2) (tons per year)	0.08	0.00	0.00	0.11	0.00
Ethylbenzene (CAS No. 100-41-4) (tons per year)	1.34	1.41	1.51	1.02	1.67
Toluene (CAS No. 108-88-3) (tons per year)	0.09	0.07	0.13	0.12	0.07
Xylene (CAS No. 1330-20-7) (tons per year)	1.47	1.54	1.62	1.05	1.80

Environmental accounting

Environmental accounting is the process by which companies and other entities recognize the cost of environmental conservation in their business activities as well as the effects of those activities and measure and communicate them in as quantitative a manner as possible (either in terms of monetary amounts or amounts of materials) with the goal of pursuing environmental conservation initiatives in an efficient and effective manner while maintaining a good relationship with society so as to facilitate sustainable development. We have disclosed our own environmental accounting system since FY2006 when we introduced it based on Environmental Accounting Guidelines 2005 issued by the Ministry of the Environment. As our business activities mainly involve environmental conservation plants and their equipment, Takuma Group employees have a significant awareness of the need for environmental conservation, and we have been implementing approaches toward such issues within the Takuma Group.

Environmental conservation cost

Item	Investment (thousand yen)	Expense (thousand yen)
Business area costs		
Pollution prevention costs	181,571	248,742
Global environmental conservation costs	105,441	163,476
Resource circulation costs	—	13,809
Administration costs	—	52,065
R&D costs	67,988	2,352,809
Social activity costs	—	11,800
Total	355,000	2,842,701

Environmental conservation costs, defined as investments and expenses related to the prevention, reduction, and/or avoidance of environmental impact, removal of such impact, restoration following the occurrence of damage, and other activities, are measured in monetary value.

Economic benefits of environmental conservation measures

Breakdown of benefits	
Income from the sale of waste for recycling, etc. (thousand yen)	6,195

Economic benefits of environmental conservation measures, defined as contributions to the profit of a company or other entity derived from having pursued environmental conservation measures, are measured in monetary value.

Environmental conservation effect

Item	FY2022	FY2023
(1) Environmental conservation benefit related to resources input into business activities		
Total energy input volume (GJ)	100,685	93,544
Water input volume (m ³)	46,094	61,880
(2) Environmental conservation benefit related to waste or environmental impact originating from business activities		
Volume of greenhouse gas emissions (tons-CO ₂)	2,626	2,326
Total production of waste, etc. (tons)	1,198	1,059
Final waste disposal volume (tons)	149	179
Wastewater volume (m ³)	46,183	61,880

Environmental conservation effects, defined as effects obtained from the prevention, reduction, and/or avoidance of environmental impact, removal of such impact, restoration following the occurrence of damage, and other activities, are measured in physical units.

Period covered: April 1, 2023 to March 31, 2024
Scope of statistics: The following companies are included in these statistics. Domestic: Takuma Co., Ltd. (Head Office; other offices, including overseas sites; and the Harima Factory); Nippon Thermoener Co., Ltd.; Takuma Technos Co., Ltd.; Hokkaido Sanitary Maintenance Co., Ltd.; Takuma Technos Hokkaido Co., Ltd.; Sunplant Co., Ltd.; Takuma Engineering Co., Ltd.; Takuma System Control Co., Ltd.; Dan-Takuma Co., Ltd.; Kyoritsu Setsubi Co., Ltd.; Kankyo Sol-Tech Co., Ltd.; Takuma Plant Co., Ltd.; and TECHNO LINKS Inc. Overseas: Taiden Environtech Co., Ltd., and Siam Takuma Co., Ltd.



Strengthening Relationships of Trust with Customers and Communities

Our products and services function as infrastructure that supports local communities and customers' businesses in a stable, long-term manner. In order for the Group to maintain and expand its business, it is essential to continuously provide safe, high-quality products and services and build relationships of trust with customers and local communities. We will continue to maintain and strengthen relationships of trust with customers and local communities through initiatives such as the pursuit of customer satisfaction, the stable and continuous operation of plants and equipment, the recycling of local resources, and the creation of new value for communities.

KPIs

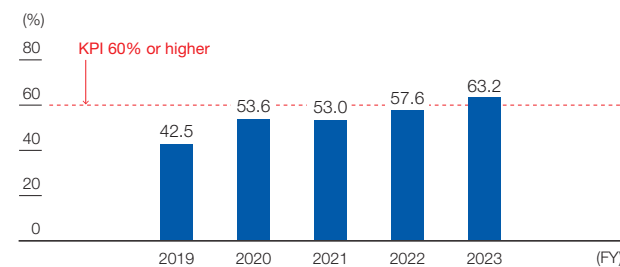
For FY2024 onward, we have set KPIs related to customer satisfaction.

Customer satisfaction

Number of responses with the highest rating*: **60% or more**

* The percentage of responses with the highest rating for questions (on a 4-point scale) about customer service and overall product quality in the Customer Satisfaction Survey.

Trend in the number of responses with the highest rating



Quality Policy

We have adopted the following Quality Policy in order to provide satisfying products that meet customer expectations and earn a high level of trust while continuously improving the effectiveness of our quality management system.

Quality Policy

Manufacturing products that result in customer satisfaction

In keeping with this above Quality Policy, we have identified the three priority areas listed below. On the basis of these priorities, we are undertaking a variety of initiatives to increase the quality of products and business processes in sales, planning, design, procurement, manufacturing, construction, and management.

1. Priority items

Creating value to earn customer satisfaction	Ascertaining customer needs and making improvements based on past experience
Carrying out risk management	Addressing changes in the business environment and human error
Implementing human resources management	Implementing human resource development and ensuring skills are passed down to younger employees

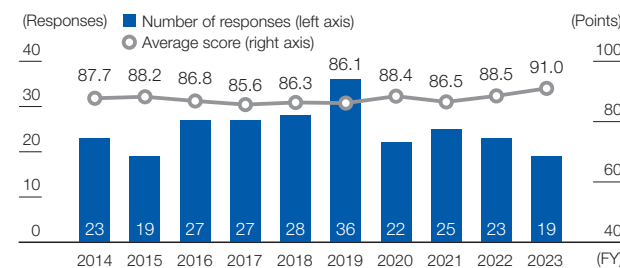
2. Principal initiatives to improve quality

Establishing quality targets for each division's processes; monitoring, measuring, and evaluating implementation status	Twice a year
Holding QM Committee meetings (quality management reviews)	Twice a year
Holding internal quality audits to evaluate the status of management systems in individual divisions' processes	Once a year
Using an Operational Skill Achievement Checklist designed to improve employees' operational skills	Once a year

3. Customer satisfaction survey

We administer questionnaires to customers upon completion of our construction work for them, asking them to assess the overall experience, including the nature of the work performed, suitability of the delivered equipment, and the level of service provided by Takuma staff. Based on this feedback from our customers, our QM Committee promptly analyzes the general situation and studies measures for improving quality. These findings are then deployed horizontally as part of our efforts to improve the quality of the products we supply to customers and of our own internal operations.

4. Average score of customer satisfaction survey (out of 100)



Takuma has been rated positively for the last decade, with scores averaging higher than 85 points.

Pursuing Customer Satisfaction

It will be necessary not only to increase the quality of products, but also to improve management of operations and quality in each process from plant planning to delivery (including sales, planning, design, procurement, manufacturing, construction, and management) and employees' operational capabilities so that we can supply products and plants that satisfy customers. To that end, our Head Office and branch offices have earned certification under ISO 9001 (Quality Management Systems), and our Harima Factory has earned certification under ISO 9001 and ISO 14001 (Environmental Management Systems). We are working to improve the quality of operations, products, and business processes in accordance with the latest 2015 editions of those standards.

Ensuring the Stable, Continuous Operation of Plants and Equipment

The Takuma Group manages facilities under contract from many local governments as part of its DBO projects and other long-term comprehensive operation business, which offer combined operation and maintenance management services for municipal solid waste treatment plants. In addition to sharing the status of operations in real time with Solution Lab, our remote monitoring/operation support center attached to the Head Office, for each facility we operate, we centrally manage the operation and maintenance status of equipment using the Plant Optimization Comprehensive Support System called POCSSYS and provide the analyzed data to facilities to ensure stable operation and improve operational quality. We are also promoting the digitization and visualization of maintenance technologies. In this way, we are actively working to further improve the quality of operations and ensure long-term continuity.



Remote monitoring and operation support through Solution Lab

Recycling Local Resources and Creating New Value for Communities

Takuma and its group companies strive to deliver safe, trustworthy facilities that allow local residents to live with peace of mind by disclosing information in an appropriate manner, participating in local activities, and actively seeking interactions with local residents, for example by staging clean-up activities in the areas near facilities, hosting events at which local residents can gather, and orchestrating evacuation exercises envisioning natural disasters.

Anan High Trust Co., Ltd.

Eco Park Anan, which is contracted to operate the facility, holds the Summer Vacation ECO Event every August. In FY2023, in addition to plant tours, work experience tours, and parent-child hands-on learning classes such as coaster making, the event also included a fair featuring a candy store and super bowl scoop, making it an event for parents and children to learn and enjoy. There was also a flea market for recycled and handmade goods, as well as a food truck area, with the event attended by many local residents.



Kashihara High Trust Co., Ltd.

The Niizawa Clean Campaign is held around May every year in the Niizawa area around Clean Center Kashihara. FY2023 marked the ninth time that we participated in a cleanup activity, cleaning up and mowing grass around local facilities (elementary school and community center). Kashihara High Trust Co., Ltd. will focus on activities that contribute to the local community to serve as an indispensable presence in the community by playing a central role in local cleanup activities and events, as well as offering safe and stable facility management as a supporter in the local community.





Pursuing Partnerships and Innovation

Working through initiatives to utilize digital technologies and promote open partnerships and innovation, the Takuma Group will look to further bolster its competitiveness by adapting to changes in the social environment, focusing on proposals based on customers' needs, R&D to facilitate them, and technological improvements.

Utilization of Digital Technologies (AI, IoT, Robots, etc.)

Progress in the Fourth Industrial Revolution and the development of information and communications technologies is rapidly transforming conventional products and services. Plant Engineering, Procurement, and Construction (EPC), operation management, and maintenance are no exception, and the transition to digital technologies will only accelerate going forward against the backdrop of trends including labor shortages. Takuma is pursuing development and other initiatives from a medium- and long-term perspective so that we can create added value, for example by realizing technologies facilitating remote operation of plants and realization of fully automated operations using AI, streamlining and reducing labor requirements for operations by utilizing data, and strengthening competitiveness in the areas of EPC and after-sales services.

1. Increases in the added value of facilities and plants

Solution Lab, our remote monitoring/operation support center that utilizes the latest IoT solutions, provides 24-hour plant monitoring and operation support. We are also working to achieve stable plant operation by reducing manual operation of waste incinerators with the introduction of the ICS AI-based combustion control system as well as strengthening and utilizing the functions of POCSYS, a system that collects and analyzes operation data of each plant.



Solution Lab

2. Strengthening of competitiveness in EPC operations, operation management, and maintenance services

Since our founding, we have been providing high-quality EPC and operation management and maintenance services based on our extensive experience and accumulated skills. In order to ensure that these experiences are passed on to the next generation, we are working to share knowledge and convert it into formal knowledge with digital technology. In this way, we aim to improve the capabilities of each individual and the quality of our services, as well as improve efficiency and reduce costs with the introduction of digital tools, and strengthen our competitiveness in EPC and after-sales services. As an example, we are promoting various initiatives, such as using 3D scanners to understand the latest conditions in plants and improve the accuracy of design and maintenance.



3D scan of the inside of the incinerator

Open Partnerships

At a time when society is changing rapidly, it is necessary to develop businesses quickly and in a way that transforms those changes into opportunities. By deepening partnerships with other companies and organizations so that we can consistently provide the products and services that customers demand, we will strengthen our ability to propose solutions to customers and accelerate R&D.

1 Expanding resources

We are promoting collaborations, alliances, and M&A with related companies in order to bolster functions such as strengthening the EPC business and recurring revenue model businesses and expanding the number of personnel.

2 Initiatives to contribute to the maintenance and expansion of existing businesses

With a focus on the Domestic Environment and Energy, we aim for the expansion of business domains by growing peripheral businesses, and we are considering M&A and alliances toward this end.

3 Initiatives to create new businesses by promoting open innovation

In addition to joint research with universities and other companies, we are working with other companies to develop new businesses as well as decarbonization technologies.

Pursuit of Innovation

In recent years, the problem of climate change has sparked calls to realize a decarbonized society through carbon-neutral technology and to promote further environmental conservation. Takuma is focused on pursuing R&D and technological improvements in order to develop technologies and products that are sought by society and customers.

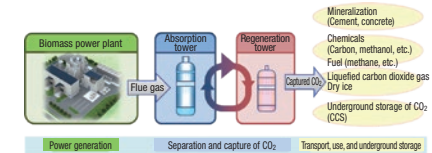
1. Effective use of CO₂ in combustion gas in agriculture

We have commercialized and delivered a CO₂ supply system (t-CarVe®) that directly uses CO₂ in the combustion gas generated in biomass power plants to grow crops and a trigeneration system that also supplies heat and electricity to greenhouses in addition to CO₂. These systems are now in use. With the cooperation of Machida City and in collaboration with Aeon Agri Create Co., Ltd., we are currently conducting a demonstration project in which this technology is applied to combustion gases generated from the Machida City Bioenergy Center (municipal solid waste treatment facility) (combustion gas from incineration facilities and combustion gases from bio-gas engines at biogasification facilities) to evaluate the growth of crops (strawberries) in greenhouses and to evaluate the safety of harvested crops.



2. Technology for capturing CO₂ (chemical absorption method)

Working with the National Institute of Advanced Industrial Science and Technology, we are conducting joint research to develop technology for capturing CO₂ using a chemical absorption method that utilizes non-water absorbent for use with CO₂ in flue gases from biomass power plants and municipal solid waste treatment plants. This technology is expected to yield energy savings and downsizing of equipment. Under the Research, Development and Demonstration Project of CCUS Technology, which Takuma carried out with Nippon Paper Industries Co., Ltd., under contract from the New Energy and Industrial Technology Development Organization (NEDO), we researched the technology. Going forward, we will look to use the absorbent to treat plant flue gases in the future as we evaluate its performance and work to commercialize it.



3. Conversion of CO₂ in flue gas into solid carbon

This technology manufactures solid carbon using CO₂ captured from the flue gases from municipal solid waste treatment plants as the raw material and energy from the same plant. This solid carbon is expected to be used as a raw material in fine carbon and other chemical products. In FY2023, this technology was selected by the Ministry of the Environment for the Project to Promote the Construction of a Regional Circular and Ecological Sphere Concept with a Waste Treatment Facility as the Core, and a feasibility study was conducted for its commercialization. We are currently conducting R&D under the technical guidance of Shizuoka University.



4. Biomethanation, which also can be used as natural gas

This technology generates high-concentration biomethane from biogas from the methane fermentation of garbage and other waste and CO₂ contained in flue gases by adding hydrogen and relying on a microbial process to convert the mixture into methane. It is characterized by low facility energy consumption and high operational stability. The technology offers a high level of versatility since biomethane can be used as a fuel to generate electricity or as natural gas, and we are currently conducting joint research with Kyoto University, Hokkaido University, the National Institute for Environmental Studies, Toho Gas Co., Ltd., and Ebara Jitsugyo Co., Ltd.





Promoting Activities of Human Resources

In the 14th Medium-Term Management Plan, which is the second step toward realizing our long-term vision “Vision 2030,” we aim to strengthen our management foundation through promoting human resources measures linked to management strategy, improving employee abilities and skills, and increasing their engagement. As such, we are investing in human resources based on the following policy.

KPIs

As human resource measures linked to our management strategy, we will work to secure diverse human resources, develop human resources, and further improve job satisfaction and pleasant work experience. KPIs for measures are defined as following.

Number of main career track and management positions filled by women

35¹ or more

Percentage of eligible employees utilizing parenting support programs

25%² or greater

Employee engagement

Highest rating 50% or more
(newly established in FY2024)³

1. Cumulative total for April 1, 2021 to March 31, 2026.

2. Average for FY2021 (ended March, 2022) to FY2025 (ending March, 2026).

3. The percentage of respondents giving the highest rating for each question (on a 5-point scale) on job satisfaction and pride in the Company in the Employee Attitude Survey.

Human Capital Initiatives

Policy on Human Resource Development

In an effort to precisely identify changes in the market environment and diversifying customer needs and contribute to the long-term, sustained development of society through the resolution of issues our customers may face, we will hire human resources with diverse values and backgrounds, improve employees' skills, provide opportunities for them to use those skills, and encourage their growth.

Policy on Takuma's Internal Environment Improvement

We are working to put in place human resources programs and a workplace environment that boost motivation while making it easy for employees to do their jobs so that a diverse workforce can pursue careers at Takuma over the long-term.



Securing and Training Human Resources

1. Securing human resources

To realize Vision 2030, our long-term vision, we are employing human resources with the goal of about 25 new-graduate hires and about 35 mid-career hires as part of efforts to strengthen our management foundation. With regard to new-graduate hires, we have implemented a variety of measures at each stage—forming a pool of prospective applicants, motivating them to apply, and screening their applications. In particular, we are working to motivate prospective applicants to apply and join Takuma by communicating topics such as our businesses, corporate culture, working style, and what we consider ideal employee characteristics via various means in order to raise Takuma's visibility.

For example, we are using YouTube; visiting universities, vocational schools, and high schools; participating in campus seminars and joint job fair; offering internships; hosting “work experience” days; participating in corporate research activities sponsored by local governments; and posting advertisements. With regard to mid-career hires, we are strengthening our initiatives and diversifying our recruiting routes, for example, by implementing scouting and employee referrals as recruitment methods, even as third-party recruitment services remain the principal channel through which we find new employees.

2. Putting in place educational systems

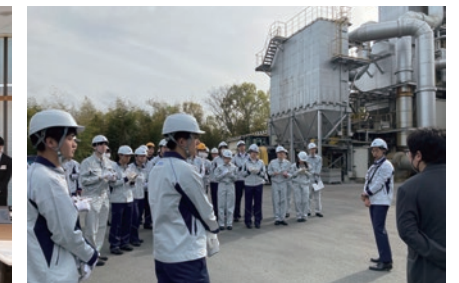
We are working to put in place and enhance educational programs in an effort to advance employees' abilities, for example by improving their skills and management capabilities across a broad range of levels, including new-graduate and mid-career hires as well as management candidates. As both the number of new graduates and mid-career employees have been growing in recent years, which brings diverse values, we are focusing training on improving communication skills in order to strengthen mutual understanding among employees, increase internal collaboration, and improve work efficiency.



New employee training
(wastewater treatment facility tour)



New employee training
(group activity presentation)



New employee training
(energy plant tour)

Topics

Recruiting catalog cover page design competition by new graduate employees

Since FY2021, we have been conducting new graduate employee training with recruiting catalog design as one of the topics. New graduate employees work in groups on designing the cover page in a competition format. This fosters a deeper understanding of the Company among new graduate employees as well as encourages new graduate employees to send a message to prospective employees who are students from a youthful perspective.



Cover page from past fiscal years based on the work of new graduate employee design competition

Initiatives to support career development

At Takuma, we perform self-reporting every three years. This enables employees to directly inform the Human Resources Dept. of their wishes for career development, job transfer or relocation, skills development, etc. If the employee wishes to do so, they will also be interviewed by the General Manager of the Human Resources Dept., the Executive Manager of the Corporate Services Div., and the Executive Manager in charge of their current division or center. In addition, starting FY2023, we conduct interviews between third year employees and the General Manager of the Human Resources Dept. to listen to any concerns or requests regarding one's work. Details from these reports and interviews are utilized for future job assignment and career development in efforts to improve employee motivation.

Introduction of GLTD to promote a worker friendly and reassuring working environment

In April 2024, Takuma enrolled in the Group Long-Term Disability insurance as a company (all employees included) as a means to ensure stability in livelihood even in the event of reduced income due to loss of work from illnesses or injuries. We are committed to ensuring a worker friendly and reassuring work environment for our employees and strive to improve employee engagement.

Promoting Diversity

As the population is declining in Japan, in order to maintain and expand our business, it is important to secure diverse human resources regardless of age, gender or nationality and develop a workplace environment that enables long-term and active participation by a variety of workers. Going forward, the Takuma Group will strive to establish various human resource structures and develop the workplace environment for its continued growth.

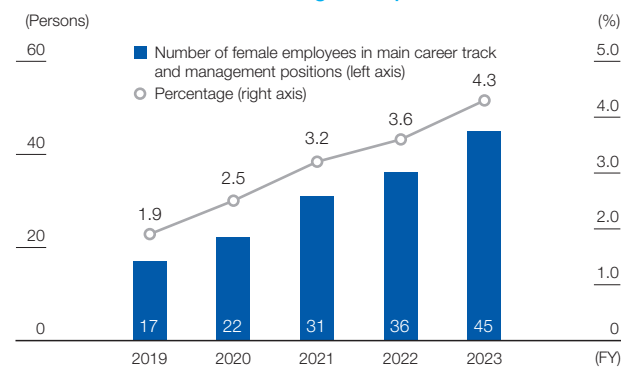
1. Increasing female participation

We have set a cumulative goal for FY2021 to FY2025 of adding at least 35 new female employees by hiring women for main career track and management positions and by promoting female employees currently in general positions. This is part of our general employer action plan under the Act on the Promotion of Women's Active Engagement in Professional Life and as a key performance indicator (KPI) for our Key Issues (Materiality).

As we strive to achieve these targets, we have worked to increase our points of contact with female students in connection with new-graduate hiring, for example through participation in corporate research projects for female students organized by local governments, information sessions hosted by women's colleges and universities, and joint information sessions for female students. In terms of mid-career hiring, we are working to increase the number of positions women feel they can thrive in and are working with departments that are seeking to hire new employees with the aim of helping them to hire female workers.

During FY2023, we offered main career track and management positions to a total of 13 women (three new graduates and 10 mid-career applicants), bringing the cumulative total for FY2021 to FY2023 to 29.

Trend in number and percentage of female employees in main career track and management positions



2. Encouraging senior citizen participation

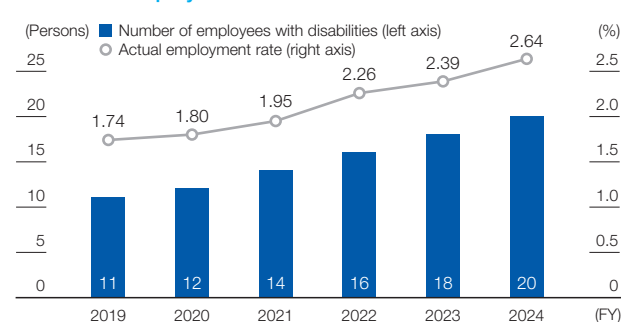
As of April 2024, a total of 43 post-retirement-age employees continued to work at Takuma. To achieve Vision 2030, our long-term vision, we must take advantage of the extensive knowledge and experience of our older employees, and encourage them to play an active role in the Company. Our fifties are a time of transition in areas such as physical strength, health, and family environment, and work life is no exception; even as older employees are able to take advantage of the extensive knowledge and experience they have accumulated, it is also important for them to change their past approaches, ways of thinking, and values as necessary in response to the development of technology and the diversification of values. To that end, we have augmented a review of our human resources programs by offering an educational (e-learning) program designed to facilitate learning and new realizations through self-study so that employees in their fifties can take advantage of the knowledge and experience they have accumulated to date, encounter new ways of thinking and values, and embrace their jobs.

3. Promoting employment of people with disabilities

In addition to establishing a specialized section within the Human Resources Department in April 2020 and assigning staff members to assist with hiring of people with disabilities as part of a focused effort to support such hiring, Takuma is working to make support for hiring of people with disabilities a permanent part of the Company's culture with the assistance of outside organizations dedicated to helping companies hire people with disabilities. As of April 2024, a total of 20 people with disabilities were performing jobs that suited their abilities, including cleaning offices, entering data at the request of various departments, sorting and sending mail and packages, and placing orders for business cards.

We are also working to hire human resources with disabilities by visiting schools for people with disabilities, accepting people for workplace training, and participating in joint interviews.

Trend in the number of employees with disabilities and actual employment rate



Improving Employee Satisfaction

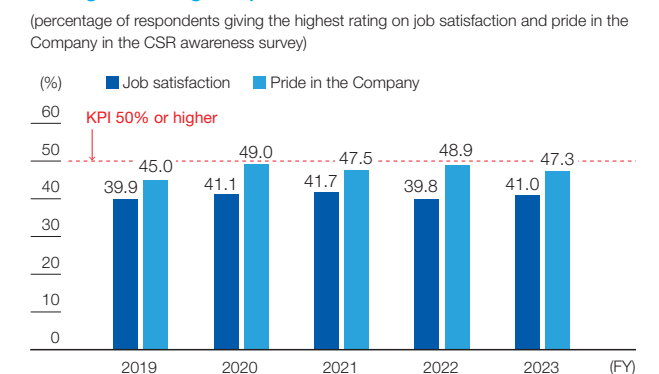
In order for diverse human resources to stay active over a long term and provide products and services that are satisfactory to customers, we must improve the satisfaction of employees. We will work to improve employee satisfaction by using the results of our employee awareness survey to improve our personnel systems and environment.

1. Employee engagement

Starting in FY2024, we have established the target of having at least 50% of respondents giving the highest rating on "job satisfaction," and "pride in the Company" in the annual CSR awareness survey as the KPI for measuring employees' job satisfaction and ease of work.

In an effort to increase the job satisfaction and ease of work for employees, we are continuously implementing a wide range of initiatives based on internal feedback and dialogue with the labor union. For example, we encourage communication between superiors and subordinates to foster mutual understanding, assign and transfer taking into consideration individual aptitude and growth, and enhance training systems. In addition, we review benefits and various systems in place to ensure a stable and secure lifestyle, improve the working environment, support work-life balance for those providing nursing or childcare, and strive to improve acceptance of personnel evaluations.

Trend in percentage of respondents giving the highest rating for questions



2. Respecting human rights and preventing harassment

Our Company sets out its respect for basic human rights and prohibition of discriminatory acts in the Takuma Group Ethics Charter, Takuma Group Code of Conduct, and labor regulations. We are also working to maintain a safe workplace environment and to prevent harassment through regular educational programs (including e-learning and in-person training).

3. Parenting support and promotion of flexible workstyles

We have set utilization of parenting support programs (childcare leave, maternity/paternity leave, flex time, shortened working hours, and telework) of 25% (average for FY2021 to FY2025), which is at least double the figure for FY2020, as a KPI, and we have introduced the programs described below in order to help employees balance their work responsibilities with the demands of parenting and nursing care. Thanks to multipronged efforts to spread awareness of these offerings, for example by offering information about programs to employees with recently born babies on an individual basis, the average utilization rate for FY2021 to FY2023 rose to 44%.

In addition, we are continuing to take advantage of our telework program in order to help employees balance their work and personal responsibilities, including parenting, nursing care, and recovery from illness, while increasing productivity, to ensure employees can work flexibly without regard to time or place.

- Childcare leave and maternity/paternity leave
- Telework
- Nursing-care leave
- Shortened working hours
- Flex-time
- Special leave for husbands whose wives are giving birth

Percentage of eligible male employees utilizing childcare and paternity leave during FY2023

Number of male employees whose spouse gave birth	52
Number of male employees who utilized childcare leave and related programs	24
Percentage of male employees who utilized childcare leave and related programs	46.1%
Number of male employees who took leave for childcare	13
Percentage of leave taken with the purpose of childcare included	71.1%

User feedback (telework)

Since my child is in a lower grade level of elementary school, I am using telework when I need to stay home with my child in the events of sickness that require hospital visits, and school closure due to warnings issued. This system has been very helpful as I can reduce the burden on either the family (child) or work when I am not there.

(Male, 40's, management position)



Ensuring Safety and Health

The Takuma Group will work to further strengthen its core strengths of technology and expertise as well as relationships of trust with customers while improving the quality of its products and services and the trust it enjoys from society by safeguarding workers' physical and mental health and building an environment in which it is easy for employees to do their jobs. Specifically, we will accomplish these goals by ensuring occupational safety and health, managing employee health, and putting in place an employee-friendly workplace environment.

Ensuring Occupational Safety and Health

Since FY2006, we have introduced TK-COHSMS, Takuma's occupational health and safety management system for the construction industry, and worked actively and independently to improve our safety and health activities, in order to ensure the safety and health of workers in the workplace and to develop a comfortable working environment. We believe that among these efforts, the following are particularly noteworthy: (1) safety inspections, (2) mandatory safety and health education (education for construction site representatives), and (3) creation of pre-work safety procedures (SSAs). They have been steadily adopted by all departments and used to consistently improve the level of Takuma's safety and health.

Review of FY2023

We adopted the following safety and health objectives for FY2023: eliminating failures to identify hazards that could lead to serious accidents during safety assessments; providing precisely targeted safety guidance through safety patrols; strengthening guidance during safety and health management activities by worksite managers, foremen, and safety and health managers; and sharing robust safety awareness while strengthening cooperative structures with the Safety and Health Cooperative Association. By working together with involved contractors to fulfill our roles, we worked to energize safety and health activities throughout the Company.

Initiatives in FY2024

For FY2024, we have adopted the following safety and health objectives: thorough detection of danger points that lead to serious accidents in safety inspections and measures to reduce them, participation in various training programs to raise safety awareness, and revitalization of safety and health activities by strengthening cooperation with partner companies. We will pursue further safety and health initiatives to foster a deep awareness of the concept that underlies our safety and health policy—"understanding the need for respecting people and giving top priority to safety and health"—on the part of everyone who is involved in our operations.

Safety and Health Activities and Their Results

1. Safety inspection system

We maintain a system where any construction or installation work starts only after the safety and health manager or other responsible official in each department has conducted a successful safety inspection based on safety and health plans for the construction or installation work as prepared by our primary partner companies. We strive to ensure a safe working environment at all construction sites by eliminating risk factors identified by those inspections before work begins.

Number of safety inspections completed in FY2023	127
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Safety inspection meeting

2. Safety patrols and safety lectures

Based on an annual plan, safety patrols are carried out at worksites by the Safety and Health Committee (comprised of committee members and advisors), Safety Control Department, and Construction Division along with safety lectures in a precisely targeted and efficient manner. Safety patrols focus on identifying and eliminating risks as early as possible, while safety lectures seek to raise employees' safety awareness by covering Takuma's safety and health activities and offering an opportunity to hand out materials such as examples of accidents. Through both programs, we strive to ensure safety at worksites in the field.



Safety patrol

Results of safety patrols in FY2023

By Safety and Health Committee (members, advisors):	95 times
By Safety Control Department:	197 times
By Construction Division:	308 times

3. Safety and health education

(1) Education for construction site representatives

We offer specialized safety and health education to employees and supervisors from partner companies so that they can offer precise safety guidance and fulfill their responsibilities as site supervisors. We are putting in place mechanisms for preventing accidents, including by assigning supervisors with extensive knowledge in areas such as safety and health-related laws and ordinances thanks to an education program that began on April 1, 2004, to individual construction sites.

Period covered: April 2004 to March 2024

Total number of attendees	41,225
Number of trainees passing the completion exam	23,952



Education for construction site representatives (Head Office)

(2) Construction employee education

We offer safety and health education to construction work employees at partner companies so that they can follow fundamental safety rules while working safely.



Inspection of safety and protective gear

(3) Safety and health awards in the Construction Division / Safety and Health Promotion Meeting

Takuma recognizes employees who have worked to prevent occupational accidents at worksites and achieved zero-accident records on the anniversary of the Company's founding. For primary partner companies making similar contributions, we recognize them at the Safety and Health Promotion Meeting. Under the shouts of the representatives of the awarded companies, the meeting was concluded after pointing at and calling out the slogan for the entire company in an effort to raise awareness of safety.



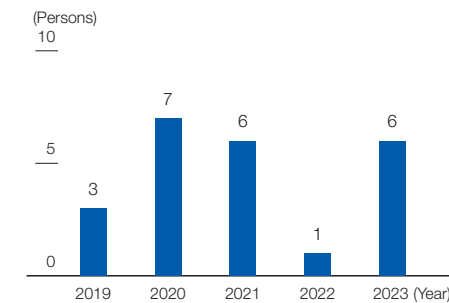
Pointing at and calling out slogan

Occurrence of occupational accidents at Takuma in recent years

(Number of casualties, accident frequency rate, and accident severity rate)

In 2023, total actual working hours were approximately 2.97 million hours, and both the number of occupational accidents and injuries involving work-days lost increased from 2022.

Number of casualties



Frequency rate and severity rate

Year	Accident frequency rate		Accident severity rate	
	Takuma	National average	Takuma	National average
2019	0.87	1.69	2.16	0.29
2020	1.62	1.30	0.03	0.24
2021	1.85	1.39	0.12	0.41
2022	0.27	1.47	0.01	0.22
2023	2.02	1.69	0.02	0.29

Reference: Nationwide average accident frequency and severity rates for the construction industry (general construction)

* Accident frequency rate

Indicates the frequency with which accidents occur as the number of fatalities caused by occupational accidents per 1 million total actual working hours.

$$\frac{\text{Number of casualties due to occupational accidents}}{\text{Total actual working hours}} \times 1,000,000$$

* Accident severity rate

Indicates the seriousness of accidents as the total number of work-days lost per 1,000 total actual working hours.

$$\frac{\text{Total work-days lost}}{\text{Total actual working hours}} \times 1,000$$

Managing Employee Health

To follow up on employees' regular check-ups, we work with industrial physicians to recommend additional testing and treatments to individual employees and provide health guidance from industrial physicians. Additionally, we are working to assist employees who work excessively long hours, for example by assessing the conditions under which they work and their subjective symptoms, recommending they meet with an industrial physician, having the Human Resources Department conduct interviews as necessary, and taking corrective action with regard to supervisors. Furthermore, we have created opportunities to consult with the labor union concerning working hours, and we share information about the topic and exchange views about and discuss associated measures.

Creating a Comfortable Working Environment

As part of our efforts to promote flexible work styles that are not bound by time or location, we have introduced working from home, satellite offices, flextime system, and staggered working hours system with the aim of improving productivity and helping employees achieve work-life balance, including for childcare, nursing care, and medical treatment. In addition to encouraging communication and interactions among employees, we are also working to create an office environment that is comfortable for all. These considerations include providing places where employees can focus on their work.

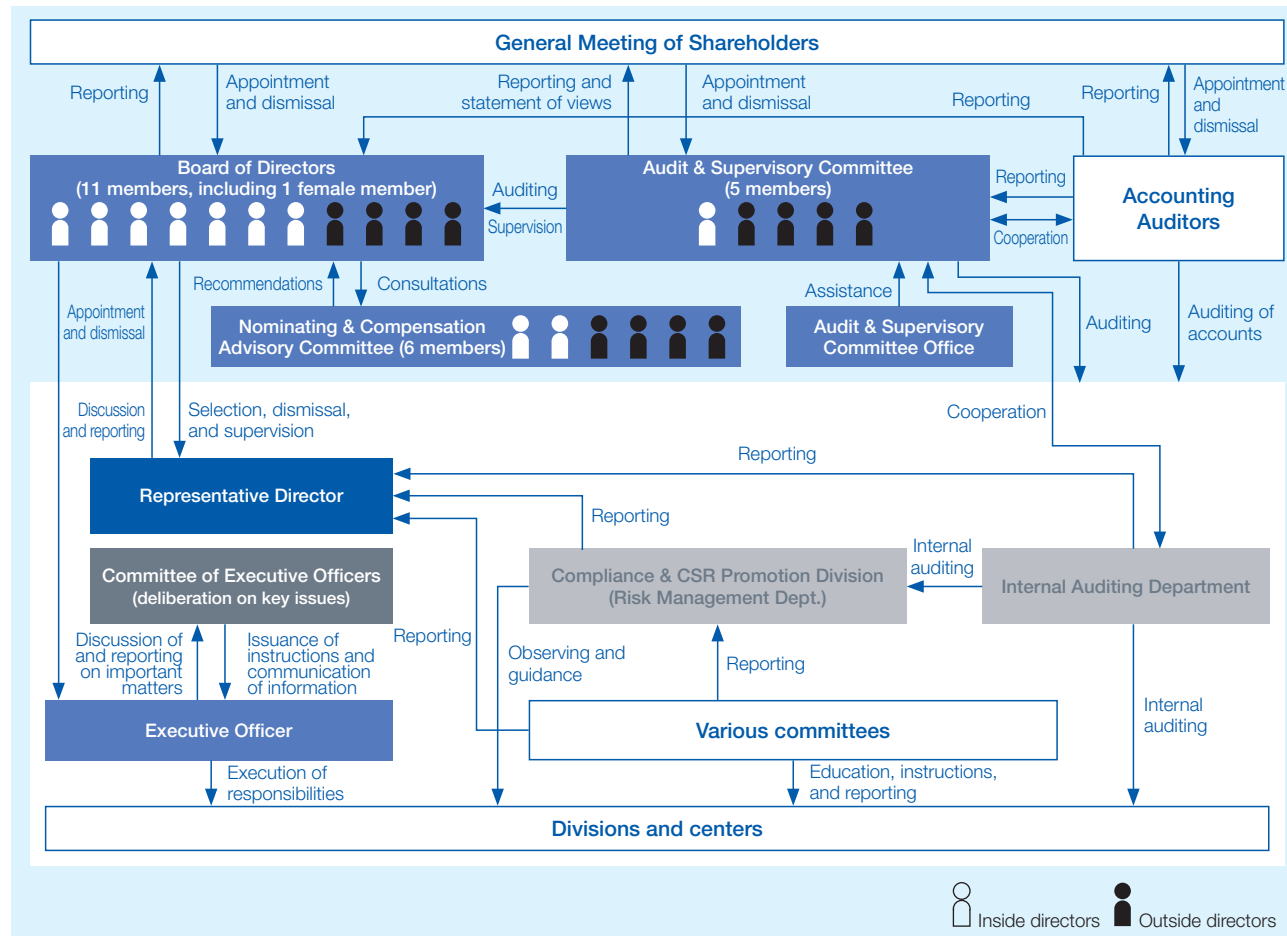


Strengthening Corporate Governance

Our Corporate Governance Structures

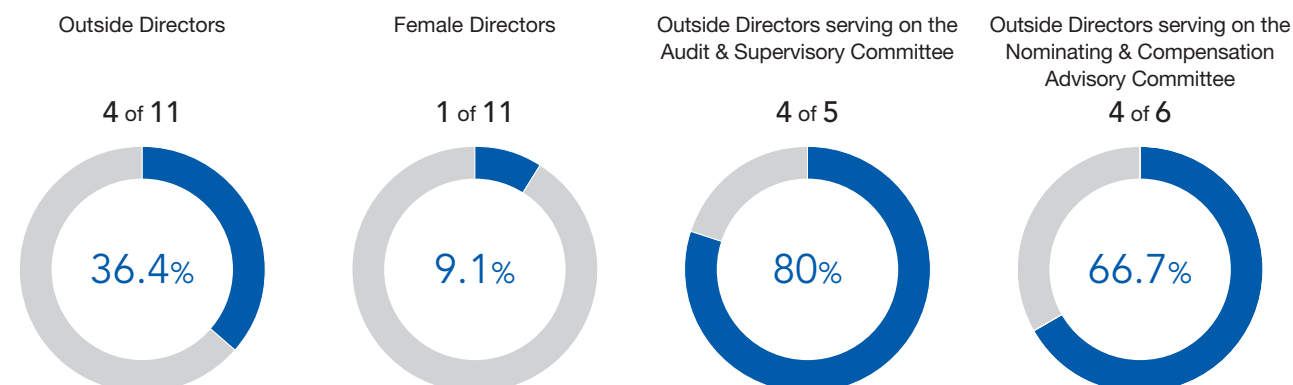
Takuma has established the following governance structures.

(Accurate as of June 25, 2024)



Corporate governance structure overview

Governance structure	Company with an Audit & Supervisory Committee
Chair of the Board of Directors	President and CEO, TAKUMA CO., LTD.
Number of Directors	11
Of which Outside Directors	4
Number of Independent Directors	4



Basic policy on corporate governance

In order to safeguard and steadily increase the Group's corporate value over the long term, it is essential not only that we ensure the development of our businesses, but also that we establish clearly defined governance in our corporate operations. This means ensuring that our shareholders' oversight of operations is carried out appropriately and that our officers fulfill their operational responsibilities by means of clear, rational, efficient, and legally compliant processes. For these reasons, we consider it a top-priority management issue to ensure a Company-wide, appropriate understanding of the official Corporate Governance Code, accompanied by the ability to put it into practice independently and systematically.

Board of Directors

Our Board of Directors comprises 11 directors, five of whom also serve on our Audit & Supervisory Committee (of these, four are outside directors). The Board of Directors holds regular monthly meetings—with alternative or additional arrangements made when required—to make decisions on important business management issues and statutory matters and to oversee the execution of directors' duties.

In order to accelerate management decision-making and clarify areas of management responsibility, we have also adopted an executive officer system. This has involved the appointment of 15 executive officers (including individuals also serving as directors) who are responsible for the Company's execution of its business activities. We have also established a Committee of Executive Officers, which is chaired by our Chief Executive Officer. This committee deliberates on matters brought before the Board of Directors and other important issues related to the execution of our business activities. It also provides accurate communications relating to and direction on Board of Director decisions and any other important matters concerning the execution of business activities to the divisions that will take the relevant action.

Audit & Supervisory Committee

We have established an auditing structure in the form of an Audit & Supervisory Committee. This committee, which consists of five members (four of whom are outside directors), is responsible for accounting and operational audits. Members of this committee attend important meetings, including those of the Board of Directors and the Committee of Executive Officers, and strive to understand and observe all aspects of the Company's business execution as they occur in a timely and appropriate manner. They share their opinions as necessary, lead year-end executive officer self-assessments and evaluations relating to the Company's internal control system and otherwise rigorously audit our directors' execution of business.

We have also established an Audit & Supervisory Committee Office to support the committee in its work, putting in place structures to ensure that Audit & Supervisory Committee members can carry out their duties effectively.

Nominating & Compensation Advisory Committee

We have established a Nominating & Compensation Advisory Committee to increase transparency and objectivity in the selection of candidates for director and executive officer positions and in the determination of compensation, with the aim of enhancing the oversight function of the Board of Directors. This committee comprises a total of six members, the majority of whom are independent outside directors: four independent officers (independent outside directors), a representative director and the executive officer in charge of human resources.

The Nominating & Compensation Advisory Committee discusses topics related to executive appointment, dismissal and compensation, as well as subjects relating to CEO succession planning, and reports its conclusions to the Board of Directors. The Board of Directors gives weight to these reports in its full discussion of these matters, after which it makes all final decisions.

Evaluation of the Effectiveness of the Board of Directors

In order to increase the effectiveness of the Board of Directors, all directors participate in a questionnaire and interviews about the body's effectiveness once a year. Those results are then analyzed, evaluated, reported to the Board by the executive in charge of the evaluation process and discussed by the Board.

In the FY2023 evaluation, the effectiveness of the Board of Directors was analyzed and evaluated from five perspectives: the body's composition, its operation, the responsibilities of its members, its overall effectiveness and the operation of the Nominating & Compensation Advisory Committee, which was established with the goal of enhancing the Board's oversight function. The evaluation found that we have been engaging in ongoing initiatives to increase the Board of Directors' oversight function and ensure its effectiveness (including facilitating more in-depth discussion of our business portfolio, capital policy and more by holding multiple sessions to deliberate on the formulation of our 14th Medium-Term Management Plan, effective from FY2024) and judged Takuma to be successfully ensuring the effectiveness of its Board of Directors.

Skills Matrix

Name	Position at Takuma	Number of years serving as a director	Necessary skill set for Takuma Board of Directors							FY2023 Board of Directors meeting attendance	FY2023 Audit & Supervisory Committee meeting attendance	FY2023 Nominating & Compensation Advisory Committee meeting attendance
			Corporate management	Engineering (technology, quality and cost management)	Sales and business strategies	International operations	Finance and accounting	Human resources, talent development and diversity	Legal affairs, compliance and risk management			
Hiroaki Nanjo	President and CEO	9	✓	✓	✓	✓		✓		17 of 17 (100%)	—	2 of 2 (100%)
Tsuyohito Nishiyama	Director & Senior Managing Executive Officer	8	✓		✓		✓			17 of 17 (100%)	—	—
Hideki Takeguchi	Director & Senior Managing Executive Officer	8	✓	✓		✓				17 of 17 (100%)	—	—
Koji Tanaka	Director & Managing Executive Officer	7	✓		✓	✓		✓	✓	17 of 17 (100%)	—	—
Kunio Hamada	Director & Managing Executive Officer	3	✓	✓			✓			17 of 17 (100%)	—	—
Hiroshi Oishi	Director & Managing Executive Officer	3	✓					✓	✓	17 of 17 (100%)	—	2 of 2 (100%)
Keizo Masugi	Director (Audit & Supervisory Committee Member)	3	✓				✓		✓	17 of 17 (100%)	18 of 18 (100%)	—
Tomomi Fujita	Outside Director (Audit & Supervisory Committee Member)	5	✓				✓		✓	17 of 17 (100%)	18 of 18 (100%)	2 of 2 (100%)
Tetsuya Kaneko	Outside Director (Audit & Supervisory Committee Member)	4	✓			✓	✓			17 of 17 (100%)	18 of 18 (100%)	2 of 2 (100%)
Seiichi Nagatsuka	Outside Director (Audit & Supervisory Committee Member)	2			✓	✓				17 of 17 (100%)	18 of 18 (100%)	2 of 2 (100%)
Masahiro Endo	Outside Director (Audit & Supervisory Committee Member)	2					✓			17 of 17 (100%)	18 of 18 (100%)	2 of 2 (100%)

* The above chart does not include all knowledge and experience brought to Takuma by its directors.

Compensation and Other Remuneration for Directors

Policy for determining compensation and other remuneration

Following a resolution by our Board of Directors, our Policy on Executive Compensation and Other Remuneration stipulates the following basic policies to be followed when determining compensation.

- Compensation and other remuneration will be at a level appropriate for the role and responsibilities of the recipient and will contribute to securing talented human resources
- Our compensation system will take into due account fiscal year performance and the goal of motivating recipients to increase the Company's medium- and long-term corporate value
- We guarantee that compensation and other remuneration will be determined by a highly transparent and objective process that provides accountability to our shareholders and other stakeholders

Compensation system

Compensation for directors and executive officers consists of fixed compensation, bonuses paid according to fiscal year performance and stock compensation (compensation in the form of restricted stock), which is used to motivate recipients to increase medium- and long-term corporate value. Compensation for outside directors and directors who are Audit & Supervisory Committee members consists of fixed compensation only.

Fixed compensation	Fixed compensation is determined by the role and responsibilities of each position and paid on a monthly basis.
Bonuses	Takuma has adopted a set of standards for calculating bonuses based on indicators such as fiscal year performance and achievement of targets. The Board of Directors uses these standards as a guide when determining whether to pay bonuses and, if so, their amount. Bonuses are paid at predetermined times each year. As a general rule, bonuses are capped at a maximum of 40% of (annual) fixed compensation.
Stock compensation	Stock compensation takes the form of restricted stock with vesting conditions. At predetermined times each year, directors are granted monetary compensation rights determined by the role and responsibilities of their position and issued shares in Takuma in exchange for the pay-in of those rights. As a general rule, stock compensation is capped at a maximum of 40% of (annual) fixed compensation, with the percentage increasing with seniority of position.

Procedure for determining compensation

The Nominating & Compensation Advisory Committee, whose membership consists of independent officers, a representative director, and the executive officer in charge of human resources (with independent outside directors constituting the majority), discusses matters related to compensation and remuneration programs, the amount and calculation standard for each director's compensation and other remuneration, and other executive officers' compensation and other remuneration in accordance with our Policy on Executive Compensation and Other Remuneration. The committee reports its conclusions to the Board of Directors. The Board of Directors gives weight to these reports in its full discussion of these matters, after which it makes all final decisions.

In determining the values of individual compensation packages, their suitability is verified on the basis of factors including the Group's performance, compensation levels for executives at other companies, and employee salary levels.

A range for compensation for directors who also serve as Audit & Supervisory Committee members is set by the General Meeting of Shareholders. Directors serving as Audit & Supervisory Committee members discuss and determine their compensation, as well as related matters, within this range.

Particulars of performance-linked compensation

The Group's business operates primarily on a build-to-order basis and it considers consolidated ordinary profit to be its most important management indicator. Consolidated order value and consolidated ordinary profit therefore serve as key performance indicators when calculating bonuses based on fiscal year performance. More specifically, we use a table listing consolidated ordinary profit for the fiscal year in question, the rate of consolidated ordinary profit growth relative to the average consolidated ordinary profit for the preceding three years, the extent to which our consolidated ordinary profit target was achieved, and the extent to which our consolidated order value target was achieved to calculate a coefficient that we then use to determine bonus amounts. (Consolidated ordinary profit performance figures are calculated before deducting executive bonuses at companies included in our consolidated accounting.) The target values used in this evaluation are taken from the performance forecasts featured in our May financial summary.

In order to implement a management approach taking greater account of capital efficiency, with the launch of our 14th Medium-Term Management Plan (beginning FY2024), ROE will be added to consolidated order value and consolidated ordinary profit as our key performance indicators. More specifically, we will use a table listing consolidated ordinary profit for the fiscal year in question, the extent to which our consolidated ordinary profit target was achieved, the extent to which our consolidated order value target was achieved and ROE to calculate a coefficient that we will then use to determine bonus amounts.

Non-monetary compensation and other remuneration

Takuma offers directors stock compensation in the form of restricted stock as a medium- to long-term incentive and as a means of sharing shareholder value. For a period of 30 years from the date on which an individual is allocated Takuma common stock under this system, he or she may not transfer this stock. This restriction is removed at the end of this period, or if the individual in question passes away, completes his or her term, retires, or otherwise ends his or her involvement with the Company before the end of this period for any legitimate reason approved in advance by the Board of Directors.

Total amounts of compensation and other remuneration for directors (FY2023)

Executive category	Total compensation and other remuneration (million yen)	Total compensation and other remuneration by type (million yen)			Number of executives in this category
		Basic compensation	Performance-linked compensation and other remuneration	Non-monetary compensation and other remuneration	
Directors (excluding Audit & Supervisory Committee members)	269	194	35	40	6
Directors (Audit & Supervisory Committee members) (outside directors)	56 (36)	56 (36)	—	—	5 (4)

* Performance-linked compensation and other remuneration consists of bonuses awarded to directors (excluding Audit & Supervisory Committee members).
* Non-monetary compensation and other remuneration consists of shares of restricted stock granted to directors (excluding Audit & Supervisory Committee members).
* Figures shown in parentheses indicate remuneration for outside directors.

Risk Management and Compliance

Strengthening Our Risk Management

In line with the Company's Risk Management Policy, we have created a risk management structure and classify company-wide risks into project risks (related to our core business of plant construction); DBO project risks and DBO project operation, maintenance and management risks (related to our DBO business); and potential risks, actualized risks, and financial reporting risks (related to our other corporate business activities).

Basic purpose of risk management

Risk refers to all phenomena that have the potential to interfere with the Group's ability to achieve its business objectives or that could cause losses or harm to the interests of stakeholders.

The Takuma Group practices risk management with the goal of increasing its corporate value by maximizing returns while minimizing the negative impacts of risk.

Risk management action guidelines

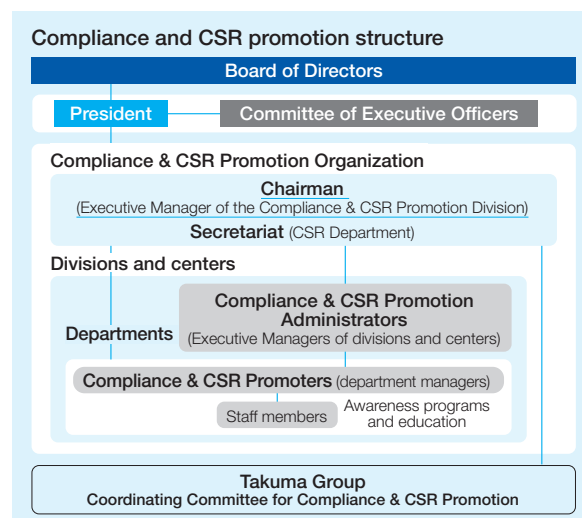
1. The president and CEO will be responsible for risk management at Takuma.
2. All executives and employees will participate in risk management activities.
3. Risk management activities will be carried out in accordance with applicable guidelines such as our Risk Management Code.
4. Risk management activities will be carried out in line with our medium-term management plan and annual plan, and we will work to improve these activities on an ongoing basis.
5. Should a risk materialize, we will respond by taking swift, responsible action to minimize any damage, and by creating any provisional organizational entities required.
6. Group companies will carry out risk management activities in accordance with their own policies and plans, with support from Takuma.

Ensuring Compliance

Takuma has established a Compliance & CSR Promotion Organization to spread awareness of compliance and CSR issues among our employees.

The Compliance & CSR Promotion Organization holds an annual regular meeting at which Compliance & CSR Promotion Administrators discuss compliance and CSR promotion at a company-wide level, and quarterly departmental meetings at which Compliance & CSR Promoters are given training to help them better carry out activities to increase awareness of compliance and CSR within their departments.

Additionally, we have established the Takuma Group Coordinating Committee for Compliance & CSR Promotion, which brings together representatives of group companies to help ensure that compliance and risk management are implemented throughout the Group.



Internal Controls

Takuma has adopted a Basic Policy for the Establishment of an Internal Control System in accordance with the Companies Act. We continue to review and improve this policy in response to any changes in circumstances. As part of our work toward thorough compliance, in FY2006, we also created a company structure for the promotion of compliance, and are implementing awareness programs and educational activities on an ongoing basis in order to increase company awareness of our corporate ethics, including related laws and regulations and our own internal rules. In order to manage the risk of loss, we have also created a Risk Management Code that designates the individuals responsible for managing each separate risk we face. We have also created a company structure for risk management in line with this code. Should an unexpected emergency situation arise, Takuma will establish an emergency unit responsible for crisis management with the Company President as its Executive Manager, act quickly to prevent further damages and put in place structures to minimize them. Further, in response to the provisions of the Financial Instruments and Exchange Act for internal control reporting structures relating to financial reporting, we have created internal controls to prevent any misstatements in our financial reporting, and conduct evaluations of these controls. We share reports testifying to the effectiveness of the Group's internal controls on financial reporting publicly. Going forward, Takuma will continue to work toward full integration of compliance within the Company and enhancement of our risk management, both alongside the efficient and appropriate execution of our business.

Fair Business Practices

Regulatory compliance measures

Initiatives to ensure compliance with the Antimonopoly Act

With the aim of ensuring ongoing compliance with the Antimonopoly Act, Takuma has established and enacted Regulations Concerning Management of the Pledge of Antimonopoly Act Compliance. Under the provisions of these Regulations, individuals falling within their remit submit a written oath in regard to observing the Antimonopoly Act. Takuma has also established and enacted regulations stipulating the procedures to be followed by individuals subject to the aforementioned Regulations in the event of interaction with the sales department of a competitor: Regulations Concerning Management of Interaction with Sales Departments of Competitor Companies. These require that the individual concerned apply for and receive authorization from the Executive Manager of his or her department or center and from the Company's Compliance Management Department prior to any such interaction within the context of the proper execution of his or her duties, and that he or she will report back to these authorities following such interaction.

Utilizing the Company's Compliance Manual

Based on the Takuma Group Ethics Charter and Takuma Group Code of Conduct, we have created a Compliance Manual including an explanation of the rules and standards of conduct to be followed by all of our employees, as well as an FAQ, and made this available on our internal company website. This manual is to be utilized in the course of daily operations and departmental training.

Compliance and CSR promotion education

We offered the following four compliance and CSR promotion education sessions during FY2023.

In addition, in October 2023, we invited an outside expert instructor to give an internal talk on CSR to management.

Session 1: The Antimonopoly Act and Interactions with Sales Departments of Competitor Companies
Session 2: Increased Protection of Confidential Information and Trade Secrets
Session 3: Basics of Security Export Controls 2023
Session 4: The Act on the Protection of Personal Information and Regulations for the Management of Personal Information
Held : Four times annually
Number of participating departments : 49
Total number of attendees : 5,139

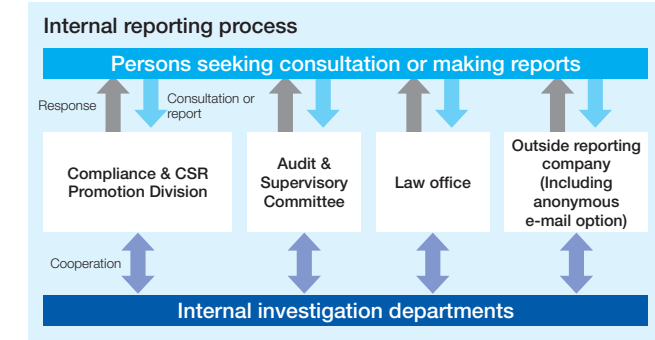
CSR lecture for management

Held	October 25, 2023
Lecture theme	Compliance with the Antimonopoly Act: Addressing and Preventing Bid-Rigging
Lecturer	Mr. Yuki Takei, Partner of Midosuji JPC



Internal reporting system

Takuma has been operating an internal reporting system since FY2006, with the aim of promoting compliance management through early detection of and corrective measures regarding illegal or unfair action. Our Internal Reporting Code and the Takuma Group Code of Conduct declare that no informant shall be subjected to disadvantageous treatment simply because he or she has filed a report or cooperated with an investigation. In order for this system to be correctly understood and utilized, we also distribute a card with information on reporting contact points to all employees.



CSR awareness survey

We conduct an annual CSR awareness survey in order to quantitatively assess levels of compliance and CSR awareness, alongside the effectiveness of related promotional and educational efforts. Survey results are also used when summarizing the activities of each fiscal year and in formulating action plans for the upcoming year, as well as in future compliance and CSR promotion activities. In addition, they are used in various proactive initiatives, including to inform areas for additional education, with a focus on any categories that returned lower scores than in the previous survey.

Executive Profiles

Directors



Hiroaki Nanjo
President and Representative
Director & Chief Executive Officer

April 1982 Joined the Company
April 2013 Executive Officer of the Company
April 2014 Executive Manager of Project Center,
Engineering Group
June 2015 Director of the Company
April 2016 Managing Executive Officer of the Company
Executive Manager of Engineering Group &
Executive Manager of Management Center
April 2018 Senior Managing Executive Officer of the Company
April 2019 President and Representative Director &
Chief Executive Officer of the Company
(up to the present)



Tsuyohito Nishiyama
Director & Senior Managing
Executive Officer
Executive Manager of
Corporate Marketing Group &
Executive Manager of Business
Administration Division

April 1985 Joined the Company
April 2015 Executive Officer of the Company
April 2016 Executive Manager of Corporate Planning &
Administration Division
June 2016 Director of the Company (up to the present)
April 2018 Managing Executive Officer of the Company
April 2019 Senior Managing Executive Officer of the Company
(up to the present)
Executive Manager of Corporate Marketing Group
& Executive Manager of Business Administration
Division (up to the present)



Hideki Takeguchi
Director & Senior Managing
Executive Officer
Executive Manager of
Engineering Group & Executive
Manager of Management Center

April 1985 Joined the Company
April 2015 Executive Officer of the Company
April 2016 Executive Manager of Project Center,
Engineering Group
June 2016 Director of the Company (up to the present)
April 2018 Managing Executive Officer of the Company
(up to the present)
Executive Manager of Engineering Group &
Executive Manager of Management Center
(up to the present)



Koji Tanaka
Director & Managing
Executive Officer
Executive Manager of
International Division,
Corporate Marketing Group

April 1986 Joined the Company
April 2017 Executive Officer of the Company
Executive Manager of Compliance & CSR
Promotion Division, Executive Manager of
Corporate Services Division & General Manager of
Legal Affairs Department
June 2017 Director of the Company (up to the present)
April 2018 Executive Manager of Compliance & CSR
Promotion Division & Executive Manager of
Corporate Services Division
April 2021 Managing Executive Officer of the Company
(up to the present)
Executive Manager of International Division,
Corporate Marketing Group &
Executive Manager of Compliance & CSR
Promotion Division, Corporate Marketing Group
June 2021 Executive Manager of International Division,
Corporate Marketing Group (up to the present)



Kunio Hamada
Director & Managing
Executive Officer
Executive Manager of Corporate
Planning & Administration Division

July 1990 Joined the Company
April 2018 Executive Officer of the Company
Deputy Executive Manager of Corporate Planning
& Administration Division & General Manager of
Corporate Planning Department
April 2021 Executive Manager of Corporate Planning &
Administration Division (up to the present)
June 2021 Director of the Company (up to the present)
April 2022 Managing Executive Officer of the Company
(up to the present)



Hiroshi Oishi
Director & Managing
Executive Officer
Executive Manager of Corporate
Services Division

April 1988 Joined The Dai-Ichi Kangyo Bank, Ltd.
(currently Mizuho Bank, Ltd.)
January 2008 Deputy General Manager of Human Resources
Department, Mizuho Securities Co., Ltd.
January 2013 Deputy General Manager of Corporate Planning
Department, Mizuho Securities Co., Ltd.
April 2013 General Manager of Securities & Trust
Promotion Department, Mizuho Bank, Ltd.
April 2016 General Manager of Customer Service
Department & General Manager of
Management Department,
Mizuho Financial Group, Inc.
August 2019 Executive Officer of the Company
Deputy Executive Manager of Energy Plant
Division, Corporate Marketing Group
April 2021 Executive Manager of Corporate Services
Division (up to the present)
June 2021 Director of the Company (up to the present)
April 2023 Managing Executive Officer of the Company
(up to the present)

Introduction

Our Value Creation Story

Strategy Overview

Sustainability

Corporate Data



Keizo Masugi
Director
(Standing Audit & Supervisory
Committee Member)

January 2001 Joined the Company
April 2021 Assistant General Manager of Audit &
Supervisory Committee Office
June 2021 Director (Audit & Supervisory Committee
Member) of the Company (up to the present)



Tomomi Fujita
Outside Director
(Audit & Supervisory
Committee Member)

October 2004 Registered as Attorney at Law
(Osaka Bar Association)
Joined Kitahama Partners
January 2012 Partner of Kitahama Partners
March 2016 Left Kitahama Partners
April 2016 Founded Innoventier, Partner of Innoventier
(up to the present)
February 2017 Director of Licensing Executives Society JAPAN
April 2018 Lecturer of Kyoto University Law School
June 2019 Director (Audit & Supervisory Committee
Member) of the Company (up to the present)
Outside Auditor of TAIYO YUDEN CO., LTD.
Vice President of Licensing Executives Society
JAPAN (up to the present)
April 2022 Visiting Professor of Kyoto University
Law School
June 2023 Registered Attorney at Law (California, U.S.A.)
March 2024 Retired from position as Visiting Professor of
Kyoto University Law School
April 2024 Outside Auditor of STYLEM TAKISADA-
OSAKA CO., LTD. (up to the present)
June 2024 Outside Director (Audit & Supervisory
Committee Member) of TAIYO YUDEN CO.,
LTD. (up to the present)



Tetsuya Kaneko
Outside Director
(Audit & Supervisory
Committee Member)

April 1981 Joined The Dai-Ichi Kangyo Bank, Ltd.
(currently Mizuho Bank, Ltd.)
September 2000 Deputy General Manager of Singapore Branch,
The Dai-Ichi Kangyo Bank, Ltd.
April 2002 Deputy General Manager of Singapore Branch,
Mizuho Corporate Bank, Ltd.
(currently Mizuho Bank, Ltd.)
November 2004 Associate Director of International
Administration Department,
Mizuho Corporate Bank, Ltd.
April 2005 General Manager of Yokohama Sales
Department, Mizuho Corporate Bank, Ltd.
April 2008 General Manager of International Sales
Promotion Department,
Mizuho Corporate Bank, Ltd.
April 2010 Deputy Director of Human Resources
Management Department,
Mizuho Corporate Bank, Ltd.
July 2010 Deputy Director of Corporate Planning
Department, Mizuho Financial Group, Inc.
Senior Executive Officer; General Manager of
Education Business Department,
Mizuho Research Institute Ltd. (seconded)
November 2010 Senior Executive Officer; General Manager of
Education Business Department,
Mizuho Research Institute Ltd.
May 2011 Left Mizuho Research Institute Ltd.
June 2011 Director of KANEMATSU CORPORATION
June 2014 Managing Executive Officer of KANEMATSU
CORPORATION
June 2019 Retired from position as Managing Executive
Officer of KANEMATSU CORPORATION
Standing Auditor of Yushu Building Co., Ltd.
(currently Yushu Corporation)
June 2020 Director (Audit & Supervisory Committee
Member) of the Company (up to the present)
Representative Director and President of
Yushu Corporation
June 2023 Retired from position as Representative
Director and President of Yushu Corporation



Seiichi Nagatsuka
Outside Director
(Audit & Supervisory
Committee Member)

April 1980 Joined the Ministry of International Trade and
Industry (currently the Ministry of Economy,
Trade and Industry)
September 1984 Studied at graduate school of Economics,
Brown University, U.S.A.
(where he earned a master's degree)
May 1994 Director of Trade Research Office, Trade Policy
Bureau, the Ministry of International Trade and
Industry (currently the Ministry of Economy,
Trade and Industry)
May 1995 Ministry of Foreign Affairs (seconded)
Counselor of the Permanent Mission of Japan to
the International Organizations in Geneva
(with responsibility for the WTO)
June 1998 Director of Trade Research Division, Trade Bureau,
the Ministry of Economy, Trade and Industry
June 1999 Deputy Director of Commerce, Industry, and
Labour Department, Miyazaki Prefectural
Government (seconded)
January 2001 Director of Macro Economic Affairs Division,
Economic and Industrial Policy Bureau,
the Ministry of Economy, Trade and Industry
July 2003 Director of Automobile Division, Manufacturing
Industries Bureau, the Ministry of Economy,
Trade and Industry
September 2005 Trade Negotiator, Trade Policy Bureau,
the Ministry of Economy, Trade and Industry
October 2007 Trustee, Japan International Cooperation Agency
(JICA) (seconded)
August 2009 Deputy Director-General of Manufacturing
Industries Bureau, the Ministry of Economy,
Trade and Industry
July 2010 Director-General, Kansai Bureau of Economy,
Trade and Industry, the Ministry of Economy,
Trade and Industry
August 2011 Director-General, Commerce and Information
Policy Bureau, the Ministry of Economy,
Trade and Industry
June 2013 Retired from the Ministry of Economy,
Trade and Industry
October 2013 Advisor to Mitsui Sumitomo Insurance Co., Ltd.
May 2014 Vice Chairman and Senior Managing Director of
Japan Automobile Manufacturers Association, Inc.
June 2022 Director (Audit & Supervisory Committee Member)
of the Company (up to the present)
May 2024 Retired from position as Vice Chairman and
Senior Managing Director of Japan Automobile
Manufacturers Association, Inc.
June 2024 Outside Director of Sharp Corporation
(up to the present)

Executive officers (excluding those who also serve as directors)

Hidetoshi Tomita
Managing Executive Officer
Executive Manager of Environmental
Plant Division,
Corporate Marketing Group

Keiji Nakamura
Managing Executive Officer
Executive Manager of Construction
Center, Engineering Group

Kiyoshi Shibata
Executive Officer
Executive Manager of Engineering
Center, Engineering Group

Junichi Hashimoto
Executive Officer
Deputy Executive Manager of
Construction Center,
Engineering Group

Takashi Iida
Executive Officer
Deputy Executive Manager of
International Division & General
Manager of International Department,
Corporate Marketing Group

Norio Maeda
Managing Executive Officer
Executive Manager of Project Center,
Engineering Group

Yasushi Enomoto
Executive Officer
Executive Manager of Compliance &
CSR Promotion Division

Masayuki Sugita
Executive Officer
Executive Manager of Energy Plant
Division, Corporate Marketing Group

Kouji Ikeda
Executive Officer
Executive Manager of Technology
Center, Engineering Group

Messages from Outside Directors

We will work to meet challenges with accurate decisions that meet the needs of the market



Tomomi Fujita

Outside Director
(Audit & Supervisory Committee Member)

As one of the few companies specialized in plants for the environment and energy industry, Takuma's strengths are above and beyond those of other companies, such as the expertise we have cultivated over our long corporate history, our ability to provide agile and flexible responses, and our sincere attitude toward our customers. As interest in sustainability and environmental conservation grows worldwide, we believe we can further enhance our industry presence by responding to needs with the development of new technologies, etc. that leverage our strengths.

On the other hand, demand for plants in Japan is expected to decline over the long term due to factors such as the declining birthrate. Given the domestic situation and in order to remain a needed company, it is necessary to strengthen our overseas business structure and customize the expertise we have developed in Japan for the needs of other countries. To strengthen our human capital, it is also important to create a workplace environment and systems that allow employees to work flexibly in line with global trends and to grow through their work. It is also essential to not miss opportunities to integrate domestic players and to continue to develop technologies that meet the needs of society. The Board of Directors will properly manage the progress of these matters and make timely and accurate decisions to solve Takuma's challenges.

During the previous Medium-Term Management Plan, we are pleased that we were able to achieve a certain level of results despite the impacts of COVID-19 and rising costs. In addition to our Engineering, Procurement, and Construction (EPC) business, we believe that strengthening our O&M contracting business, which helps build a recurring revenue model, has been effective in improving services to customers and strengthening our profit structure. On the other hand, we feel that further resources are needed to achieve higher growth. M&A is a possible means to do this, but since we did not conclude this in the previous Medium-Term Management Plan, we recognize it as a matter for future consideration.

The new Medium-Term Management Plan was put together by involving each division after the creation of a Basic Policy to make each measure more tangible. Although earnings currently fluctuate because of many large and long-term projects, we expect to expand our business performance over the medium to long term. To this end, we are investing in human capital and R&D, and operations at the new Harima Factory are steadily progressing. We recognize that the new Medium-Term Management Plan is a three-year period during which will we greatly nurture the seeds planted in the previous plan. We also believe the development of ESG-related technologies that will help climate change countermeasures and environmental conservation will be a key to our future growth, and we plan to deliver returns to shareholders on a larger scale than we have in the past. We believe that, overall, our new Medium-Term Management Plan will meet the expectations of all our stakeholders.

We will grow the seeds planted in our previous Medium-Term Management Plan and meet the expectations of our stakeholders



Tetsuya Kaneko

Outside Director
(Audit & Supervisory Committee Member)

We will contribute to the establishment of overseas business as a pillar of our medium- to long-term growth



Seiichi Nagatsuka

Outside Director
(Audit & Supervisory Committee Member)

Our basic policy is to develop and expand our overseas business, mainly in Southeast Asia, to be one of the pillars of our Group business in the medium to long term. Currently, our overseas business accounts for about 1% of our total sales, but we aim to increase this to 5% by the final year of our long-term plan, "Vision 2030."

In the emerging countries and regions of Asia, population growth and urbanization are expected to spur demand for social infrastructure such as waste treatment and water treatment, so we anticipate significant growth in such environment-related businesses. Takuma has a proven track record of providing products and services that meet the needs of various regions, including EPC and O&M for municipal solid waste treatment plants with a focus on combustion technologies developed through our boiler business. We believe our technology and expertise in municipal solid waste treatment plants can make a significant contribution to solving challenges in overseas markets.

Although the risks of doing business overseas can be high and there is fierce competition from Indian and Chinese companies, we believe it is essential for us to increase our corporate value over the medium- to long-term by maintaining and expanding our business earnings from domestic orders while also positioning and vigorously promoting ourselves as a business with future growth potential. We will further promote the development of our business base in Thailand and Taiwan, and seek to increase orders by differentiating ourselves from our competitors through collaboration with appropriate partners and by adding value through the latest technologies, such as DX, to develop and expand our business as a pillar of growth.

Several days before a Board of Directors meeting, materials are sent out and careful explanations are provided in a question-and-answer format. Because there is sufficient preparation time, it can be said that Takuma has built a system for full participation in Board of Directors meetings. While the executive directors can fully discuss matters in advance in the Committee of Executive Officers, they also participate in the Board of Directors meetings, showing great interest in our opinions and engage in discussions, which has helped to deepen the monitoring functions of outside directors. As outside directors, we hope that our questions and opinions will bring about insights and, since the Board of Directors has the capacity to engage in full discussion, I feel we are in an environment where we can fulfill our responsibilities in this regard.

Although there are currently no pressing governance issues, in general every company goes through both ordinary times and times of crisis, but when a crisis comes boldness and discernment are required in greater measure than monitoring during ordinary times. In addition, the buds of an emergency are often found during activities done in ordinary times, so it is necessary to gather information through everyday monitoring. To build Takuma's corporate value, we will continue to enhance our perspective ask appropriate questions and provide advice and suggestions to deepen the discussions at the Board of Directors.

We will enhance the effectiveness and transparency of the Board of Directors and deepen its monitoring functions



Masahiro Endo

Outside Director
(Audit & Supervisory Committee Member)