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MA CO.

LTD

TAKUMA CO., LTD. **Integrated Report** 2024



Serving the next 50 years of customers Creating the next 100 years of society

Takuma started out as a boiler manufacturing company that was founded in 1938 based on a philosophy of contributing to society through its technology. We have continued to provide services supporting vital aspects of our customers' and communities' daily lives by manufacturing essential facilities that will serve them for more than 50 years, including low-environmental-impact waste processing facilities, biomass power plants, and waste management centers that play a key role in their areas.

What will be required of us in the future?

We must create a sustainable society with a vision that stretches out to 100 years in the future, for example by going beyond conventional approaches to address climate change and realize a cyclical economy, by leveraging technologies and services to manufacture the essential facilities that will serve the next 50 years of customers as a leading company in the area of the environment and energy.

Serving the next 50 years of customers. Creating the next 100 years of society.

That summarizes Takuma's corporate value, and our mission. We will continue to play an essential role for customers and society as a whole by creating essential products and services for the future while embracing a philosophy that has remained unchanged since the days of our founding.



Results for FY2023 (ended March 2024)



Operating profit

JPY 10.2 billion

Net sales Share by Segment



Contribution to Reductions in CO₂ Emissions

FY2023 Reduction of about **4.5** million tons

By harnessing energy from biomass and waste to be used as heat and electricity, we have contributed to reducing Japan's CO2 emissions by approximately 4.5 millions tons (approximately 0.3%).

Core businesses

Municipal Solid Waste Treatment Plants



In this business stream, we provide waste treatment (incineration, recycling, biomass gasification) facilities for local governments. Incineration reduces waste, renders it harmless, and removes odors, while recycling and biomass gasification allow society to make effective use of waste by transforming it into a resource. In addition to preventing the spread of infectious diseases and removing hazardous substances, these facilities contribute to eliminating offensive odors and avoiding soil, water, and air pollution, making them essential infrastructure for maintaining public health and pleasant living conditions.

Our Achievements (Japan)

About 370 facilities

Since the Company's installation of Japan's first largely automated waste incineration plant capable of 24-hour continuous operation in 1963, Takuma has constructed approximately 370 waste incineration plants, more than any other domestic manufacturer. We can boast the largest share in the domestic market for the construction of these plants to date, in terms of both number and scale of facilities. Approximately 120 of these facilities remain in operation today, treating the waste of approximately 24 million people (a sixth of the country's population) and providing support for vital aspects of numerous people's lives.





In this business area, we provide machinery (such as large-scale boilers to supply the heat and electricity required by manufacturing facilities) and industrial waste treatment plants to the private sector. These utilize sawmill and construction waste, unused wood and other biomass, refuse paper and plastic fuel (RPF), industrial waste, and other materials as energy sources, thereby contributing not only to our customers' businesses but also to increased adoption of renewable energies and protecting the environment.



Water Treatment Plants



In this business line, we provide local governments with sand filtration systems for sewage treatment facilities' sand filters and incineration and power generation systems for processing sewage sludge. Both our sand filtration systems, involved in the advanced treatment required to meet high water quality standards, and our sewage sludge incineration and power generation systems, which use sewage sludge produced in the water treatment process to generate heat and energy, support a healthy water environment.





Share in plant delivered (Japan)



Biomass Boilers: Our Achievements (Japan and Overseas)

About 640 units



Upflow Moving-Bed Sand Filtration Systems: Our Achievements (Japan and Overseas)



Takuma's Philosophy

Founding Spirit (from 1938)

Serve society through boiler manufacturing

Our Logo (from 1941)



At the time of the Company's founding (as Takuma Boiler Manufacturing Co., Ltd.), we identified three areas where progress strengthened the foundations of the Company's business: research, manufacturing, and installation works. We then created a stylized version of part of the Company's name ("Takuma") worked into a triangle symbolizing these three principles. The design expresses our constant aim to improve our products and our unchanging desire to offer contributions to our customers and wider society.

Our Company founder Tsunekichi Takuma, one of the ten greatest Japanese inventors of the

Meiji and Taisho eras (1868 to 1926), established a motto for the Company (then Takuma Boiler

Manufacturing Co., Ltd.) that expressed an intent to contribute to society through his business

activities: boiler manufacture, sales, services, and related operations.

Company Motto (from 1992)

Value Technology, Value People, Value the Earth

The previous Company Motto, "Serve society through boiler manufacturing," was replaced with that on the left in 1992, reflecting recognition that the Company was operating a multifaceted business as a manufacturer of not only boilers, but also environmental sanitation systems like waste treatment facilities and water treatment equipment. It captures Takuma's stance of leveraging the personality and ability of each employee to refine technologies that consistently lead the industry and then using them to safeguard the Earth's environment.

Management Principles (from 2006)

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.

Takuma and the Takuma Group integrated the value system encapsulated by the Company's founding spirit, "Serving society through boiler manufacturing," into our management principles, and put our commitment to this concept in writing in 2006. In so doing, we aim to be of service to our customers and, by extension, to wider society through the economic value and services we create. We also feel that these principles relate well to the concept of sustainability, a key issue in business management today.

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Glossary

Term	Explanation			
EPC	EPC is an acronym for "engineering, procurement, construction." Plant engineering, procurement, and construction work.			
O&M	O&M is an acronym for "operation and maintenance." Plant operation projects.			
DBO	30 DBO is an acronym for "design, build, operate." This term refers to a system under which facility design, building, and operation are funded by a public eni or similar body and contracted to a private company as a package (EPC + O			
DBM	DBM is an acronym for "design, build, maintenance." These projects take the form of EPC + long-term maintenance agreements.			
вто	BTO is an acronym for "build, transfer, operate." This term refers to a business method based on a private finance initiative (PFI) in which a private business operator procures funds and engages in EPC of the facility, transfers ownership of the facility to the public upon completion, and then the private business operator operates the facility.			
Primary equipment improvement	A shortened form of "works to improve primary equipment." An approach that aims to restore functionality and extend plant life by replacing or making improvements to aging equipment while maintaining buildings and other elements with long service lives, from the perspective of reducing the life cycle cost of a facility.			

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Editorial Policy

The goal of the Takuma Group Integrated Report 2024 is to provide our stakeholders with information on our consistent efforts to implement environmental, social, and governance (ESG) management, in an accessible format that comprehensively covers both financial and non-financial information, including on the Group's ESG initiatives. This year's Integrated Report builds on the themes of our previous CSR Reports, and we have focused efforts on further clarifying our value creation story and providing a deeper understanding of our initiatives for sustainable growth. We will use this report as a communications tool to deepen dialog with our stakeholders and further increase our corporate value.

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	Corporate Planning & Administration Division
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Term	Explanation			
Recurring revenue model businesses	A business whose revenue source is after-sales services for delivered plants (mainly operation management, maintenance, operation projects, etc.).			
Stock management	A method of effectively utilizing existing facilities (stock) over the long term.			
FIT	FIT is an acronym for "feed-in tariff." A program through which power companies purchase renewable energy at a fixed price.			
FIP	FIP is an acronym for "feed-in premium." A program under which power companies purchase renewable energy at market price plus a defined premium.			
CCUS	CCUS is an acronym for "carbon capture, utilization, and storage." Technologies separating and recovering carbon dioxide from flue gases emitted by thermal power stations and other facilities for use or underground storage.			
RPF	RPF is an acronym for "refuse-derived paper and plastic densified fuel." It is a solid fuel primarily made from wastepaper and plastic waste.			
FY	The abbreviation for "fiscal year," it refers to the fiscal year that ended on March 31.			

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Striving to evolve over the long-term as a leader in the environment and energy by harnessing both our technologies and relationships of trust with customers

> Hiroaki Nanjo President and CEO

Proprietary technological capabilities and relationships of trust with customers built with sincerity

The Group's Management Principles

Takuma was founded by Tsunekichi Takuma, who invented boilers using solely Japanese technology and is known as one of the top ten inventors in Japan during the Meiji and Taisho periods (1868 to 1926). While we started as a boiler manufacturer, we moved into the environmental field in 1963 by leveraging our combustion and engineering technology cultivated through boiler modification and improvement, delivering Japan's first fully continuous mechanical waste incineration plant. Today, we have grown into a corporate group whose main business is plant engineering centered on the environment and energy fields, including waste treatment facilities, energy plants, and water treatment facilities.

Our Value Creation Story

Our Management Principles, which are based on the philosophy of "Serve society through boiler manufacturing" put forth by founder Tsunekichi Takuma, 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." In short, we have embraced a commitment to contributing to our customers and society through our goods and services.

The Group's strengths

With this history, we have two major strengths: our technological capabilities and our relationships of trust with customers. Our technological capabilities encompass proprietary core technology based on our founding business in boiler research and manufacturing such as combustion technology that stably utilizes diverse fuels and heat recovery technology that effectively utilizes thermal energy generated. They also include various technologies derived

Achieving Vision 2030 with recurring revenue model businesses as growth drivers

As for the future environment surrounding the Group, we anticipate demand for measures against labor shortages due to population decline in Japan, consolidation of aging facilities and the effective use of existing facilities. Additionally, demand for energy and waste treatment is expected to increase in emerging countries overseas driven by urbanization. In 2021, we established Vision 2030, which sets forth a longterm vision for the Group as it should exist in 2030 based on these environmental changes. The Vision reads: "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 from boilers. For example, starting with boiler installation, EPC for numerous municipal solid waste treatment plants and biomass plants, followed by plant construction, resulting in plant engineering technology that offers custom-made plants based on a wealth of experience and know-how. Today, we continue to hone our capabilities through business operations and research and development.

Another major strength is that we have built strong relationships with our customers through our earnest approach in our business, which consists of two main categories: EPC business and after-sales services business that provides services after plants are delivered. The EPC business involves multiple processes, from design to production, procurement, construction and test operations to bring a plant to completion. The after-sales services business provides continuous services related to operational management and maintenance for the long-term operation of plants upon completion. There are various issues to be addressed before a plant is completed. We address each one by one through continuous dialogue with the customer, and ultimately over several years build a plant that meets the specifications and performance required. In addition, in the after-sales services business, we continue to respond promptly and sincerely to issues and troubles that arise during the day-to-day operations of our customers. Relationships are cultivated through these efforts, which also lead to new jobs from the customers.

I believe that this approach taken by the Group and its corporate culture of honing our technological capabilities and valuing relationships with our customers is something we should continue to pass on.

sustained growth alongside our customers and society through implementation of ESG management." In addition, it sets forth a goal for ordinary profit of JPY 20.0 billion in FY2030. In addition to further expanding recurring revenue model businesses as growth drivers, we will mainly focus on maintaining and expanding our position in the EPC business, which will increase the number of facilities we delivered that are in operation, and developing the Overseas Business as one of the Group's pillars for the future. In implementing ESG management, we will identify the Group's materiality and address these issues through our business activities.

Recurring revenue model businesses as growth drivers

In order to ensure the stable operation of plants, which play an important role as social infrastructure, it is essential to provide after-sales services that include day-to-day operation control and appropriate maintenance. Generally speaking, the lifespan of a plant is about 20 to 30 years. In recent years, however, from the perspective of existing facility management, customers are considering not only using existing facilities for a longer period of time, but also using core improvement work to extend the life of the main part of the plant while maintaining the building and renewal work to replace all of the plant part only. As a result, there is a growing need for after-sales service and effective use of existing facilities, and we must meet these needs.

Recurring revenue model businesses represent the front line for maintaining and enhancing our strength of "relationships of trust with customers." In addition to proactively proposing improvement measures to address current issues while communicating closely with customers who operate plants and facilities on a daily basis, we respond quickly to and resolve problems if they arise, which not only deepens the relationship of trust with the customer, but also leads to the growth of our employees themselves.

While proactive efforts in recurring revenue model businesses offer the advantage of securing stable earnings

over the long term, we believe that the long-term and careful use of existing facilities is valuable to customers and society from the perspective of effective use of assets, and also leads to the growth of employees and, ultimately, the growth of the Group, which is exactly what our vision calls for.

Creating a foothold for overseas business growth

In anticipation of the possible decline in demand in the domestic market after 2030, we must start building achievements overseas. We aim to continue to receive orders for waste treatment plants and energy plants, which are expected to be in demand due to economic growth and urbanization, mainly in Southeast Asia, where we have a local subsidiary. I have been involved in overseas projects as engineer in the past, and I believe that it is difficult to establish a system that will continue to produce results in the Overseas Business immediately because we must acquire know-how based on laws, systems, cultures, and ways of thinking that differ from country to country when carrying out projects. Going forward, we will solidify the foundation for growth by having our employees continue to gain hands-on experience in the Overseas Business and cultivate their abilities, and in the future, we will establish it as the fourth pillar after the three pillars of municipal solid waste treatment plants, energy plants, and water treatment plants.

Recap of the 13th Medium-Term Management Plan and Policy of the 14th Medium-Term Management Plan

We are working to achieve Vision 2030 based on our Medium-Term Management Plan. First, in the 13th Medium-Term Management Plan ("previous Medium-Term Management Plan") spanning the period from FY2021 to FY2023, in order to respond to stable demand for plant renewal and service life extension in the future, we promoted the recruitment and training of human resources, and reconstructed the Harima Factory, which produces boilers and combustion equipment, the core facilities of plants, and started operations as a new factory in January 2023. In addition to achieving our target of ordinary profit for the three-year period, orders received exceeded our initial plan,



setting the stage for growth.

In the 14th Medium-Term Management Plan, which started this fiscal year and runs from FY2024 to FY2026, we aim to crystallize our growth story to realize our vision based on the achievements and challenges of the previous Medium-Term Management Plan. While continuing to secure and develop human resources, we will prioritize the investment of management resources in the municipal solid waste treatment plant business, accumulate more

Our Value Creation Story

Enhancing corporate value by promoting ESG management

In implementing ESG management as set forth in Vision 2030, we have identified seven key issues (Materiality) and are managing progress using KPIs. The Group's business itself contributes to environmental conservation and climate change countermeasures, and in addition to reducing our own CO₂ emissions, we will continue to contribute to the reduction of CO₂ emissions for our customers and society as a whole through the plants we construct. To continue to provide these products, we must maintain a good relationship with society; that is, we will provide products and services that are useful to our customers and local communities by co-creating technologies that the world needs with various partners and promoting innovation, and build relationships of trust. We will secure and develop human resources who will put this into practice, and it is crucial that we work on employee health and on-site safety management to create a workplace environment so that all employees can play an active role. Additionally, we recognize that the role of corporate governance, which oversees the progress of these initiatives, is extremely important in achieving our vision, and we will conduct risk management and decision-making as appropriate.

Initiatives for key issues of focus in the 14th Medium-Term Management Plan

With regard to "promoting activities of human resources" among other key issues, while the market environment remains strong, the Group's challenge in achieving the targets of the 14th Medium-Term Management Plan is a

Promoting dialogue with stakeholders to implement our Management Principles

While I have explained our Management Principles, our long-term vision called Vision 2030, and our Medium-Term Management Plan, in order to realize these, it is vital that we carefully work and communicate with our stakeholders, including shareholders and investors, customers, and employees. We will continue to do our utmost to increase our value as a company that grows sustainably over the long orders for EPC projects than in the previous Medium-Term Management Plan, and receive orders for after-sales service after completion. In this way, we will realize a virtuous cycle between the EPC business and the recurring revenue businesses, which will lead to growth from the 15th Medium-Term Management Plan onward. As for the three-year cumulative orders received target, we aim to achieve JPY 600 billion, which is significantly higher than the previous Medium-Term Management Plan.

shortage of human resources and other resources. In the previous Medium-Term Management Plan, we actively recruited mainly in the engineering, construction, and maintenance divisions, and on a consolidated basis, we increased our headcount by approximately 350 over the three-year period. We also enhanced training options and the education system, but we were not able to completely eliminate the shortage of resources. Under the 14th Medium-Term Management Plan, we will continue to strive to secure human resources, further expand our resources, and work to further improve job satisfaction and ease of work with the aim of establishing an internal environment where diverse human resources can play active roles over the long term.

With regard to "pursuing partnerships and innovation," which is a key issue related to our strength of "technological capabilities," our strength lies in our technological capabilities backed by past experience and know-how, but in order to further refine these, it is important to actively incorporate and utilize new technologies through repeated trial and error. In particular, the development of digital technology has been striking, and in the 14th Medium-Term Management Plan, we will promote the digital transformation (DX) from both "offensive" and "defensive" perspectives to strengthen competitiveness. In addition, in the field of R&D, we will accelerate research toward the realization of a decarbonized society, including CCUS (carbon capture, utilization, and storage). We aim to put this into practical use as soon as possible by leveraging partnerships with outside parties.

term together with our customers and society, and to satisfy all stakeholders, including shareholders who support us, customers who trust us, partner companies that cooperate with the Group's corporate activities, and executives and employees of the Group. I would like to extend my sincere gratitude to all of our stakeholders for your continued support, and ask for your continued guidance and support in the future.

A History of Our Value Creation

Takuma has been responding to society's needs since the Company's founding. Committed to a philosophy of "Serve society through boiler manufacturing," we have maintained an understanding of the evolving issues that changing times have posed for our customers and wider society, developed new environmental protection and energy use technologies that contribute to solving those problems, and continued to take on new challenges.

Societal needs

Increasing demand for boilers as energy sources for manufacturing facilities.

Urgent need to improve sanitation negatively impacted by urbanization and industrialization.

The 1930s saw a growing demand for producing facility expansions, accompanied by an increased demand for Japanese-made boilers to serve as their energy sources. After World War II, demand fueled by reconstruction projects prompted increased investment in producing facilities, also requiring boilers as energy sources. Once reconstruction-led demand had abated efforts to modernize and streamline facilities to increase productivity progressed, and demand for boilers fueled chiefly by heavy oil rather than coal. as well as that for small-scale boilers, rose.

Progressive urbanization accompanying the country's intense economic growth resulted in an explosive increase in the quantity of waste produced, creating a high volume of garbage truck traffic, leading in turn to unpleasant odors, vermin. and other issues; pressure on landfill disposal sites; and a range of other challenges. Rapid industrialization meanwhile meant that worsening sanitation, including contamination of public waters by industrial wastewater and air pollution as factories released soot and smoke were an issue of public concern, and the creation of sanitation and environmental protection facilities, including for treating waste, sewage collected by pump truck, and sewage collected through municipal sewerage systems (often processed separately in Japan), became a matter of urgency

Action on environmental laws and promotion of energy conservation.

Around 1970, a range of laws and regulations were enacted in response to issues of pollution, heightening demand for flue gas and sewage treatment facilities and for treatment of commercial waste and wastewater. The two major energy crises of the 1970s also increased demand for energy conservation. In the 1980s and 1990s, the dioxins released by waste incinerators became a cause of public concern and the Act on Special Measures against Dioxins, enacted in 1999 meant that renovations of and improvements to waste incineration plants became a central focus around this time

Private contracts for public services and the spread of renewable energies.

The prior focus on renewal of and improvements to incineration plants resulted in a tailing off of demand, the 2008 financial crisis sent the Japanese economy into a downturn, and investment in industry slumped. Against this backdrop, the 2011 Great East Japan Earthquake made expansion of renewable energy sources a matter of urgency. In 2012, Japan's feed-in-tariff (FIT) program (through which power companies purchase renewable energy at a fixed price) was launched and demand for biomass power plants soared. At the same time, the DBO project, under which construction and operation of facilities are contracted to private companies, began to take off within the waste treatment sector.











2001-2020

Takuma's challenges

Invention of Japan's first 100% domestically produced water-tube boiler, founding of the Company, and securing of its position as a boiler manufacturer.

Founder Tsunekichi Takuma invented the first water-tube boiler to be entirely produced in Japan in 1912. The Takuma boiler offered performance that exceeded the imported products of the time, and its reputation spread. Tsunekichi Takuma founded the Company (then Takuma Boiler Manufacturing Co., Ltd.) in 1938 and began manufacturing the new high-performance Tsunekichi boiler. Factories and ships and vessels of all kinds utilized this new product as an energy source. After World War II, the Company developed a variety of different boiler models-still incorporated into our product range today-which it began selling in Japan and overseas. It also established a firm foundation from which to build its position as a boiler manufacturer providing custom boiler design, manufacture, and construction and gained the foothold that would allow it to enter the environmental sector

Entry to the environmental sector (waste and water treatment) and establishment as an environmental health facility manufacturer.

Using the combustion technologies and engineering capabilities the Company had so far amassed, it delivered Japan's first 24-hour waste incineration plant in 1963 and went on to provide waste incineration plants also able to generate power, crushing systems, and more. This laid the groundwork for the Company's position-which it maintains to this day-as leaders in the waste management field. It also leveraged its boiler water treatment technologies to expand into the water treatment sector, beginning delivery of projects for the installation of treatment plants for sewage collected by pump truck in 1963 and of sewage sludge incineration facilities at sewage treatment plants connected to municipal sewerage systems in 1973, as well as other initiatives, thereby establishing its position as a manufacturer of environmental health facilities

Addressing waste management, pollution, and the demand for energy conservation.

The environmental health field became the Company's main area of business, and in 1972 it changed its name to TAKUMA CO., LTD. In 1975, it began sales of a vacuum-type water heater (the Vacotin heater), offering a simpler method of supplying hot water as compared to the boiler. Coinciding with commercial demand for energy conservation and other factors, this product became and remains a longtime best-seller. As a result of a surge in demand for renovations of and improvements to waste incineration plants around 2000 (a response to public concern about dioxins in the 1980s and 1990s), in 2001, the Takuma Group achieved net sales of JPY 170.9 billion and an ordinary profit of JPY 22.0 billion, both Group records

Entry into and withdrawal from overseas markets. Contributing to the rapid spread of renewable energies.

Experiencing a slump in demand as a byproduct of the previous focus on renewal waste incineration plants, the Company attempted to enter the European and other overseas markets. However, as a result of various factors, including the difference in business norms, the Company recorded significant losses and had to streamline and consolidate its business, including domestically. In order to establish a stable earnings base, the Company increased its focus on after-sales services and secured numerous orders for biomass power plants, an area of rapid expansion with the launch of the FIT scheme. It also established internal company structures allowing it to offer a 20-year waste treatment facility management package and responded to recovered demand for waste treatment facility renovations to revive its business in both the environmental and energy sectors.

Transition to a circular economy and achieving carbon neutrality by 2050.

We anticipate demand for renewal to the facilities that uniformly underwent renewal and improvement work around 2000 to continue until 2030. Alongside this, as part of efforts aimed at achieving the global initiative toward net-zero greenhouse gas (GHG) emissions by 2050, we expect to see continuing demand for renewable energies, as well as the emergence of decarbonization products and their integration into waste treatment and other facilities A growing demand for waste incineration technologies aimed at improving sanitation is also predicted in emerging countries now seeing the progressive urbanization as a result of economic growth that Japan experienced in the 1960s.

2021 onward





Taking on the challenges of global decarbonization and environmental protection as a leading company in the environmental and energy fields.

The spread of renewable energies and measures aimed at achieving carbon neutrality form the backdrop to demand for new construction and renewal of a range of plants, as well as that for waste treatment plant renewal. With an understanding of this demand, we will continue to develop our business around our three core areas: municipal solid waste treatment plants. energy plants, and water treatment plants. We also aim to grow our overseas business as a fourth core area, providing Takuma products and technologies aimed at improving sanitation in Southeast Asia, an emerging issue, and the spread of renewable energies. In addition, with the goal of achieving carbon neutrality, we aim to market decarbonization products that will contribute to further reductions in GHGs, explore potential areas of demand, and pursue R&D.

Evolution of Takuma's Technical Capabilities

Starting with the invention of the Takuma boiler, we have developed and improved a variety of equipment utilizing the combustion, heat recovery, and other technologies required by boilers and continued to broaden our range of products and services as a company offering custom plant engineering work that combines this equipment as needed to meet our customers' needs.



Key Issues (Materiality)

In implementing ESG management, in 2021 we identified

Identification Process

Our Value Creation Story

	ST
dentify	/ing

seven Key Issues (Materiality) related to ESG that deserve to be given priority when being addressed through our business activities. Under our 14th Medium-Term Management Plan (MTP), we will continue to promote initiatives through our business activities as set out in our 13th MTP, as well as adding new KPIs (numerical targets) for employee engagement and customer satisfaction.		3	The following process was used to identify key issues. STEP 1 Analyzing the status quo and organizing issues We analyzed a variety of management issues that affect the Company from the dual perspectives of the external and internal environment. We compiled a list of 64 issues by analyzing the external environment from the standpoint of ISO 26000, GRI, SDGs, FTSE, and DJSI indicators and requirements, and the internal environment from the standpoint of indicators provided by the Group's Management Principles, strategies, current initiatives, and other yardsticks. The following process that included steps such as comparisons with other companies and exchanges of views with responsible departments to narrow down the list of Key Issues to 19 that deserved to be addressed by the Group.		STEP 3 Identifying Key Issue Through discussions among members of the Company's executive leadership, seven K Issues to be addressed by the Group were finalized based o 19 issues as described to the	es top open soportion of the environment top open soportion of the environment the envir	Key Issues (Materiality) Identified ng combat climate change erving resources and protecting nyironment gthening relationships of trust with mers and communities aling partnerships and innovation noting activities of human resources ring safety and health gthening corporate governance	
	Materiali	ty and issues	Risks and c	pportunities	Specific initiatives	KPIs	Target	Progress (as of the end of FY2023)
Environmental Initiatives	F.	 Helping combat climate change 1. Promoting renewable energy (non-fossil energy) 2. Improving energy efficiency 	Risks	 Accommodating policies and regulations intended to realize a decarbonized society Changes in customer requirements, for example additional improvements in energy efficiency Reduction in support from policies, for example as a result of the review of the FIT program 	 Supply of biomass power plants Supply of fuel conversion (biomass, RPF, etc.) boilers Supply of renewable energy and CO₂-free electric power Reduction in CO₂ emissions (energy consumption) by Takuma Improvement in energy efficiency at facilities Takuma operates on a contractual basis 	CO ₂ emission reduction targets through our own products and services Magnitude of potential reduction in CO ₂ emissions due to newly delivered power plants	FY2026: 1,250,000 tons per year FY2030: 2,500,000 tons per year	 806,000 tons per year* Calculated based on available generating capacity (renewable encry) as of one month after delivery for plants delivered from FY2021 to FY2023 (lour waste treatment plants, two sewage sludge plants, and 15 biomass plants).
			Opportunities	 Growth in the market for renewable energy and environmental businesses due to strengthening of environmental regulations Growth in energy usage demand for biomass (including waste, sewage sludge, and other resources) in order to alleviate climate change 	Proposal of energy efficiency improvements for customer facilities and equipment P. 40–41	In-house CO ₂ emissions reduction targets *FY2030 targets including group companies remain under consideration.	FY2026: Effectively zero CO ₂ emissions by the Takuma Head Office and the Harima Factory	188 tons per year* (Scope 1 and 2 emissions from the Takuma Head Office, our Harima Factory, and our branches and
	R	 Conserving resources and protecting the environment 1. Conserving resources and reducing environmental impacts 2. Making effective use of unutilized resources 	Risks Opportunities	 Reduction in domestic waste volume due to the shrinking of the population Growth of appropriate treatment of waste and growth in demand for use of energy from waste in emerging nations Growth in expectations towards resource-saving and low-environmental- impact systems and the effective use of unutilized resources 	 Supply of high-efficiency, low-environmental-impact energy from waste plants Supply of sewage sludge-fueled power plants Supply of advanced treatment sand filter systems Establishment of combustion technology for unutilized biomass Development of technology for capture and use of CO₂ P. 42–45 	and use of Takuma products by customers (Scope 3) also remain under consideration. * The Scope 1 target includes offsets using environmental value such as J-credits. * The Scope 2 target is calculated using post-adjustment emission factors.	(Scope 1 and Scope 2) FY2030: Effectively zero CO ₂ emissions by all Takuma worksites in Japan (Head Office, branch offices, factories, and construction sites) (Scope 1 and Scope 2)	* In FY2023, we purchased J-Credits equivalent to the Scope 1 emissions. We achieved our FY2023 target of net zero CC2 emissions from the Takuma Head Office and our Harima Factory (Scopes 1 and 2).
S Social Initiatives		Strengthening relationships of trust with customers and communities 1. Pursuing customer satisfaction 2. Ensuring the stable, continuous operation of plants and equipment 3. Recycling local resources and creating new value for communities	Risks Opportunities	 Loss of trust in the event Takuma fails to provide safe, high-quality products and services Shrinking local government budgets Growth in demand for biomass power generation as a type of energy that can be produced and consumed locally Growth in expectations toward the creation of new value for communities, for example through disaster prevention facilities and energy centers Additional growth in the use of private-sector entities to provide government services 	 Supply of products and services that satisfy customers Improvements in the quality of Takuma's operation and O&M businesses Increasing sophistication of maintenance service Initiatives addressing the Regional Circular and Ecological Sphere (Regional CES), regional use, and decentralized power supplies Initiatives such as PPP that address additional use of private-sector entities 	Customer satisfaction	Number of responses with the highest rating 60 % or more * The percentage of respondents giving the highest rating for questions (on a 4-point scale) about customer service and overall product quality in the Customer Satisfaction Survey.	63.2% * Newly added to 14th MTP
	-`Ċ́- ~~~	Pursuing partnerships and innovation 1. Utilization of digital technologies (AI, IoT, robots, and more) 2. Developing open partnerships 3. Pursuing innovation	Risks Opportunities	 Opportunity loss due to lag in accommodating new technologies such as artificial intelligence (AI) and the Internet of Things (IoT) Growth in demand for efficiency-boosting and labor-saving technologies in plant operation (Remote monitoring and operation, data analysis, maximization of amount of power sold, etc.) Creation of revolutionary technologies and services as well as new business opportunities through the expansion of partnerships 	 Increases in the added value of facilities and plants Strengthening of competitiveness in EPC operations, operation management, and maintenance service Pursuit of open innovation Pursuit of new businesses that contribute to the enhancement of existing businesses and services Development of technologies and products that are sought by society and customers 	Number of main career track and management positions filled by women Percentage of eligible employees utilizing parenting support programs	Cumulative total for FY2021 to FY2025 35 or more Average for FY2021 to FY2025 25% or greater	Cumulative total for FY2021 to FY2023 29 Average for FY2021 to FY2023 44%
	ŝ	Promoting activities of human resources 1. Securing and training human resources 2. Promoting diversity 3. Improving employee satisfaction	Risks Opportunities	 Reduction in competitiveness due to a shortage of employees with specialized skills Discontinuity in the passing down of skills as highly experienced employees reach retirement age and leave the workforce Strengthening of competitiveness through human resources development and management that promotes diversity 	 Hiring of new graduates and mid-career employees Development of optimal human resources programs in response to social changes Development of an effective training system Active hiring of diverse human resources and development of career support programs 	Employee engagement	Highest rating 50% or more ⁺ 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.	High level of job satisfaction 41.0% High level of pride in the Company 47.3% * Newly added to 14th MTP
		Ensuring safety and health 1. Ensuring occupational safety and health 2. Managing employee health 3. Creating a comfortable working environment	Risks Opportunities	 Heduction in productivity and social trust due to problems involving safety and health among employees and affiliates (loss of opportunities for earning orders due to the occurrence of serious occupational accidents, etc.) Improvement in productivity and strengthening of competitiveness through improvements in the workplace labor environment 	Reduction in the occurrence of occupational accidents Prevention of health problems and rectification of overwork Implementation of workstyle reforms P. 54–55	Number of fatal accidents	0	0
Governance Initiatives		Strengthening corporate governance 1. Strengthening corporate governance 2. Strengthening risk management 3. Ensuring compliance	Risks Opportunities	 Reduction in business sustainability due to a lack of appropriate decision-making Cessation of business due to violations of competition or environmental laws or regulations on conduct such as corruption, and associated reduction in social trust Improvement in the ability to create value along with avoidance and reduction of risk as a result of strengthened corporate governance 	 Sustained improvement through practices such as evaluations of the effectiveness of the Board of Directors Continued conduct of appropriate internal audits Additional improvement in the effectiveness of risk management activities Even more thorough project risk management Implementation and ongoing reassessment of business continuity planning (BCP) Ongoing implementation of compliance education 	Number of serious compliance violations	0	0

Extremely important

Value Creation Process

As leaders in the fields of renewable energy usage and environmental protection, the Takuma Group will continue to increase its corporate value by resolving social challenges.



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Six Key Management Resources

Through our plant engineering, procurement, and construction (EPC) and after-sales services, the Takuma Group has amassed a range of technologies and expertise and forged solid relationships of trust with our customers. These forms of capital are handed on to successive cohorts of the Group's diverse human resources. By helping them to thrive, we aim to conduct business that provides value to society, thereby further enhance our various types of capital, and in turn sustainably build corporate value.



Financial Capital

Achieving both a sound financial foundation and capital efficiency

Details

Details

- Capital adequacy ratio: 57.7% (FY2023, ended March 2024)
- **ROE: 8.3**% (FY2023, ended March 2024)

Backlog JPY 482.6 billion (FY2023, ended March 2024; long-term O&M contracts of 10+ years accounted for approx, 50% of total)

Plant EPC and after-sales services are our primary sources of revenue. With the facilities we construct in use for 20 to 30 years, we receive steady revenue from after-sales services (recurring revenue model businesses). At the same time, certain projects-notably plant EPC projects for government agencies-require advance payment of our suppliers (equipment manufacturers and construction companies), meaning that we must maintain a working capital equivalent to two to three months' worth of sales.

Initiatives toward further enhancing value

We will build on a basis of maintaining and improving the sound financial foundation (capital adequacy ratio of 50-59%) and credit rating that have helped us to win customer trust, working to improve our capital efficiency through reducing our cross shareholdings, investment in growth. and shareholder returns, and aiming to improve our ROE (to 11% or more in FY2026, ending March 2027)



Intellectual Capital

Technologies and expertise in the field of renewable energy utilization and environmental protection



- Biomass plants: 640 in Japan and overseas
- Upflow moving-bed sand filtration systems: 2,900

We are a specialized company in the environmental and energy sector, handling all aspects of waste treatment, water treatment, and biomass-related projects. As such, we possess advanced plant engineering and construction capabilities and expertise in aftersale service provision, thanks to the portfolio of technologies-based on tried and tested engineering practices-that we have built up since the Company's founding. We are also advancing R&D in decarbonization and other high-demand fields.

Initiatives toward further enhancing value

We will maintain and scale up the size of our orders to add additional technologies and knowledge to our roster and further enhance our strengths. In addition to utilizing data analysis to increase efficiency in our plant operation projects and thereby contribute to resolving the challenges our customers are facing, we will strengthen our R&D systems and aim to cultivate our technical capabilities and enhance our competitive edge.



Human Capital

Personnel capable of addressing the needs of and issues faced by customers and society

Number of employees (consolidated): 4,278 (As of March 31, 2024)

Employee engagement: high level of job satisfaction - 41.0%, high level of pride in the Company - 47.3% (Proportion of employees giving the highest rating for these questions in our Employee Attitude Survey

Details

Plants are not mass produced in factories; they are tailor-made products that bring together on-site a range of equipment that will enable the desired functionality. Each customer's needs are different, requiring plant engineering company to possess the ability to propose solutions that fulfill those needs and the technical capabilities to implement those solutions. We are working to develop human resources with these skills.

Initiatives toward further enhancing value

We will develop human resources capable of engaging head-on with the work of resolving the challenges facing our customers and able to build relationships of trust with them. Our efforts in this area will include enhancing our human resources programs, arranging working environments for increased job satisfaction, and improving our employees' work experience, as well as initiatives using OJT and expanded Off-JT to increase our technical capabilities and our ability to propose solutions, and sharing knowledge and expertise on a Companywide basis through promotion of knowledge management.



Our Value Creation Story



Natural Capital

Efficient utilization of natural resources

Details

- CO2 emissions: 188 tons (FY2023, Takuma Head Office branches and branch offices, and Harima Factory) * In FY2023, we purchased J-Credits equivalent to our Scope 1 emissions
- Contribution to reduction in CO₂ emissions: 4.5 million tons (Municipal solid waste treatment plants and biomass power plants constructed by Takuma; calculated using the results of the Ministry of the Environment's survey on municipal waste management for the former and covering facilities built in the past 30 years for the latter)

We are promoting efforts to reduce the environmental impacts of our offices, factories, and construction sites, including energy- and resource-saving initiatives and adopting 100% renewable energy. We are also contributing to reducing environmental impacts at a societal level through our products and services, which help our customers to save energy and decarbonize.

Initiatives toward further enhancing value

To secure our role as essential to our stakeholders and the communities we are in contact with, we will work to build relationships of trust with our customers and partner companies through our business, contribute to these communities through community participation and hiring local people and order businesses, and collaborate with a wide range of partners to strengthen our ability to propose solutions to our customers and carry out R&D

technologies and, in turn, work to maintain and improve the quality of the plants we install

Initiatives toward further enhancing value

By continuing to improve the working environments at our construction sites and facility operations offices through occupational health and safety activities, we will work to create safe, secure sites with a target of zero workplace accidents. Renewal constructions at our Harima Factory were completed in 2023 and we are utilizing digital tools and other cuttingedge technologies to work toward productivity improvements, further increase our technical capabilities, and create systems allowing us to manufacture high-quality products.

Initiatives toward further enhancing value

In addition to our existing initiatives, we plan to reduce the environmental impacts of our business activities in a variety of ways, including by increasing the number of our facilities that use energy-saving products and carbon-free electricity. We will continue to contribute to reducing environmental impacts at a societywide level, whether through constructing environmentally-friendly plants and proposing energy-saving equipment upgrades to plants already in operation or R&D of CCUS and other decarbonization technologies.

Our Value Chain

Through our plant engineering, procurement, and construction (EPC) work and our after-sales services, the Takuma Group has met challenges faced by our customers, advanced our technical capabilities, and built solid relationships of trust with our customers. By means of these ongoing efforts, we aim to achieve sustainable growth, together with our customers and wider society.

Sustainable growth alongside our customers and wider society



EPC business	Constructing a plant over approximately 2 to 5 years
Recurring revenue model business	Plant operation and maintenance for 20 to 30 years

Sales	We ensure that we are aware of our customers' opinions on a wide range of aspects, from facility and plant planning and potential challenges to specification and budget requirements. Our Planning & Design Division and other relevant divisions collaborate and establish relationships of trust with external project participants, allowing us to propose solutions that pinpoint our customers' needs with the aim of securing orders.
Planning	Based on the information gathered in the sales phase, we draft plans for facilities and plants that will meet our customers' needs (system flow covering the entire facility, layout, equipment specifications, etc., fulfilling customer conditions and performance requirements) and estimate costs for design, procurement of equipment, and construction based on these plans. Customers receive a competitive quote taking all of the above into account.
Design	Based on the plans proposed in the preceding phase, we hold multiple consultations with the customer to create a detailed plant design. In addition to systems design for the entire plant, our specialist departments design combustion systems, incinerators, boilers, and flue gas treatment equipment – core Takuma technologies – as well as the electrical equipment and instrumentation that will operate and control the plant.
Procurement and manufacturing	Once the necessary equipment and specifications have been determined at the design stage, our Procurement Division selects the optimal vendors, whether domestic or overseas, to meet specification, quality, cost, and completion date requirements. In parallel, our Harima Factory, the Company's manufacturing base, manufactures and produces the combustion systems and boilers that will be core plant components and drivers of plant performance.
Construction	Plant construction is carried out over the course of several years, including installation of the plant equipment we have procured and manufactured ourselves, and plumbing, electrical, and instrumentation works. We select contractors and act as overseers, monitoring progress on each element of the construction project and otherwise managing the site to ensure that these works are completed successfully. This involves managing safety, processes, and budgets on a daily basis.

Frial operation	systems are running without issue. In the second half of the trial opera that there are no issues with combustion performance, power output,
ecurring revenue model business	We ensure stable operations through operation management that allo prevent malfunctions and ensure that plants can operate in a safe and are receiving an increasing number of contracts for operation projects
R&D	We are pursuing R&D that will contribute to strengthening our compet expanding on Takuma's core technologies, including our combustion a such as capturing and utilization of CO ₂ from flue gases, as well as oth
Safety management	When occupational accidents occur, they have the potential to engenc or administrative penalties, such as temporary barring from bidding on working conditions and works to prevent occupational accidents throu-
Quality control	We conduct factory inspections and checks of each piece of equipme from whether it conforms to standards and design specifications, to w problems when installed in the plant. In this way, we confirm that our p

Over a period of several months, we test plant operations to check whether each piece of equipment is functioning properly and whether plant-wide ation period, we add actual waste products and other fuel for combustion to confirm t, and other areas of performance throughout the plant.

> ows facilities to function at their absolute best, regular inspections and maintenance to d stable manner, and large-scale renovations. In the waste treatment facility sector, we s that combine all of the above services.

titive edge from a medium- to long-term perspective. This includes enhancing and and flue gas treatment technologies, and developing decarbonization technologies ther new products for commercialization.

nder terrible costs to society, including loss of life. They may also incur criminal penalties on contracts for a particular body. Our Safety Management Division ensures safe bugh occupational health and safety activities and other initiatives.

ent that goes into our plants. Each aspect of a product's performance is verified, whether it performs appropriately when tested and ensuring that it will not cause any products will fulfill our customers' needs.

Our Long-Term Vision: Vision 2030

In 2021, we formulated Vision 2030, which sets out our long-term vision for the Takuma Group of 2030. Vision 2030 takes into account medium- to long-term trends and the surrounding social climate and details our envisioned engagement with key issues (ESG issues) through business activities that leverage the Takuma Group's strengths, as well as our planned contributions to the building of a sustainable society. We are working toward achieving this Vision through our Medium-Term Management Plan.

External Environment Outlook

Global-scale concerns include a worsening of the problem of climate change, deterioration in sanitation, and growth in energy demand due to rapid population growth and urbanization, particularly in emerging nations. Concerns in Japan include falling

internal demand caused by the shrinking and aging of Japan's population, shortages of human resources and future leaders, fiscal challenges, and aging infrastructure.

Global	 Rising demand for resources, food, water, energy, and waste treatment as the world's population grows Increasingly serious problem of climate change Progress in the Fourth Industrial Revolution and digital transformation (DX)
	 A shortage of human resources and leaders and depopulation of suburban and rural areas as a result of the shrinking and aging of Japan's population Reduced tax revenue due to Japan's shrinking population and tight financial conditions due to measures for addressing natural disasters and infectious diseases
Japan	 Contraction and rationalization of public services and increasing use of private-sector companies due to tight financial conditions
	 Dismantling, consolidation, effective use, and replacement of aging and underutilized infrastructure, buildings, and other facilities

Vision for FY2030

Based on external environmental factors, the Takuma Group will implement ESG management, an approach that consists of addressing key ESG-related issues in an effort to achieve sustainable growth by resolving issues faced by customers and society through business activities.

In pursuing business activities built on a core of ESG management, we will strive to become a great partner for our customers by leveraging the technologies and expertise related to energy utilization and environmental protection that are the Group's strengths, along with the relationships of trust we have

developed with customers over the long term through after-sales service and other interactions. With the useful technologies and services created through innovation by the Group, which carries on the spirit of a tenacious inventor, we will resolve challenges faced by customers and society, with a focus on the fields of renewable energy utilization and environmental protection.

Through the practice of ESG management, we will grow together with customers and society and contribute to the realization of a sustainable society while striving to achieve ordinary profit of JPY 20 billion.



Business Portfolio

As part of our business portfolio strategy, the Takuma Group has categorized various business streams as its "ongoing," "core," "growth," and "future" businesses. We have positioned our recurring revenue model business as the growth business that will act as the driving force propelling the Group forward. We have designated our EPC businesses, the source of our recurring revenue model businesses, as our core business, and will maintain and expand our position as leaders in this field.

Our Value Creation Story



Reflections on the 13th Medium-Term Management Plan

In order to achieve the necessary increase in order volume to fulfill our Vision 2030, Takuma enhanced its recruitment and development of human resources over this period. While this increased our personnel and other expenses, we achieved our 13th Medium-Term Management Plan's ordinary profit target by steadily fulfilling existing EPC project orders and continuing to

Achieved the financial targets the 13th Medium-Term Manag	3-year total ordinary profit Target JPY 36.0 billion Achieve JPY 36.0	target d 4 billion	3-year total orders received Reference JPY 450.0 billion Achieved JPY 521.3 billion	
Securing and development of human resources	EPC business (Jap	oan)	Recurri	ng revenue model businesses
 Employees (consolidated): 3,925 in fiscal year ended March 2021 → 4,278 in fiscal year ended March 2024 Enhancement of training menu and education system by rank and field Effective utilization of diverse human resources and improvement of job satisfaction 	 Municipal solid waste t plants (including primal equipment improvement Energy plants Water treatment plants (order amount of at leas JPY 500.0 million) 	reatment y t) 7 orders received 21 orders received st 9 orders received	 Long-t (numbe) Numbe deliver (since) Power (power ended) 	erm O&M in operation er as of end of March 2024) 23 facilities er of energy plant projects ed start of Japan's FIT program) 65 facilities retail business "supplied in fiscal year March 2024) 216 GWh

We have classed our overseas environment and energy business as our future business, with the plan of developing it into one of the Group's core business areas in the medium- to long-term. Finally, we have positioned our package boilers and equipment and systems business as ongoing business, and plan to continue steadily increasing revenues in these sectors going forward.

 Equipment	t and Systems Business	6.5%	Ongoing business (Steady expansion of revenue)
 Package E	Boilers Business	11.0%	Ongoing business (Steady expansion of revenue)
 Overseas Energy Bu	Environment and siness	5.0%	Future business (Medium- to
Expand primari developing it in	lly in Thailand, Taiwan, and emerging co to a pillar of the Group's business	ountries,	long-term perspective)
Domestic Energy Bu	Environment and siness	77.5%	
EPC Business	Maintenance and enhancement of the position of our businesses as a leading company	35.0%	Core business
 Recurring revenue model businesses	Further expansion as a core driver of growth	42.5%	Growth business (Growth driver)

focus on our recurring revenue model businesses. We maintained a strong performance in securing new orders and successfully laid the groundwork for increases in orders, sales, and profits in the period covered by our 14th Medium-Term Management Plan and beyond.

14th Medium-Term Management Plan

We have launched our 14th Medium-Term Management Plan (MTP), active from FY2024 and the second step in our Vision 2030. As part of this, we aim to increase the order volume of our municipal solid waste treatment plant renewal and primary equipment improvement projects, and maintain and expand our position in the EPC market. By translating this into orders for operation management, maintenance, and long-term O&M projects, we will also establish a revenue model that fully utilizes recurring revenue. These initiatives will be prioritized when allocating management resources. We have set cumulative targets of JPY 600.0 billion for orders received and of JPY 38.0 billion for ordinary profit over the three years of this MTP, as well as a ROE of 11% or more in FY2026 (ending March 2027).

Targets

In addition to a target for ordinary profit, our 14th MTP includes new targets for orders received and return on equity (ROE).

	13th MTP	14th	14th Medium-Term Management Plan				Vision 2030
(Billions of yen)	(3-year total)	3-year total	FY2024 (ending March 2025)	FY2025 (ending March 2026)	FY2026 (ending March 2027)		FY2030 (ending March 2031)
Orders received	521.3	600.0 🕇	230.0	180.0	190.0		
Net sales	425.9	460.0	143.0	152.0	165.0		200.0
Operating profit	33.9	35.6	11.2	11.2	13.2		
Ordinary profit	36.4	38.0 🔻	12.0	12.0	14.0		20.0 🕇
ROE	8.3% (FY2023, ended March 2024)	11% or more 1 (FY2026, ending March 2027)	8.0%	9.0%	11.0%		12% or more 1 (FY2030, ending March 2031)

ROE = Profit / Equity capital : Main target

Business Strategies

Basic policy 1 Maintaining and expanding our market position in the EPC Business	Municipal solid waste treatment plants Increasing the order volume of renewal and primary equipment improvement projects, preparing responses to potential changes in the market • 3 or more renewal project orders per year • Steady response to primary equipment improvement projects • Support for decarbonization models and private sector utilization	Energy plants • Ongoing orders for new small and medium- sized biomass power generation plants and renewal of plants for private consumption and industrial waste treatment plants	Water treatment plants • Acquisition of orders for sewage sludge incinerators and sand filtration facilities • Expansion of share through technological superiority
Basic policy 2 Establishing a revenue model that fully utilizes recurring revenue	Municipal solid waste treatment plants Maintenance and expansion of orders for operation management, maintenance, and long-term 0&M projects • Steady orders for regular maintenance work and DBO projects • Cost reduction and quality improvement with data utilization	 Energy plants Ongoing maintenance orders for delivered projects Enhancement of solution proposals, such as functional improvements and energy savings 	Water treatment plants • Ongoing maintenance orders, including regular maintenance work Power retail business • Expansion of revenue by expanding relative power sources, securing new customers, and expanding service lineup
Basic policy 3 Steadily expanding revenue in the Package Boiler Business and Equipment and Systems Business	Package Boilers • Ongoing orders for renewal projects from expansion of product lineup, including low-carbon and decarbonization products • Strengthening of maintenance business and overseas development	Equipment and Systems Building equipment business (air-conditioning, water, and wastewater equipment installation services) • Strengthening of sales capabilities, securing and development of engineers, and cost reductions	Semiconductor industrial equipment business • Maintenance and expansion of domestic sales and strengthening of overseas sales
Basic policy 4 Building a track record for the future in international business	 Acquisition of orders for biomass power plants Acquisition of orders for energy from waste plant 	through expansion of supported fuels its, primarily in Thailand and Taiwan	
Basic policy 5 M&As and Alliances / New Businesses	 Active consideration of projects that will help us capabilities, and of projects that will expand our both with a focus on our Domestic Environment 	to strengthen our existing business and enhance o peripheral business and lead to new business, with t and Energy Business	ur workforce, with the aim of expanding our the goal of expanding our business domains,

Strengthening the Management Foundation

Basic policy 1 Securing and development of human resources

We will move forward with a variety of human resources-related measures designed to enhance resources available for our recurring revenue model and EPC business, both of which are core drivers of our Company growth. To do this, we will secure human resources able to carry out EPC and maintenance projects, with a focus on our Maintenance, Construction, and Engineering Divisions. We will also build up our human capital by implementing measures to strengthen human resource



1. Non-consolidated basis, main career-track (does not include factory work positions, general positions, or secondment). Each of the figures is for the beginning of the year 2. Cumulative total for April 1, 2021 to March 31, 2026.

3. Average for FY3/2022 to FY3/2026

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

Basic policy 2 Knowledge management

In order to place Takuma in a competitive position in terms of both "offensive" and "defensive" digital transformation (DX), the Group as a whole will be intensifying our efforts in this area. Our "offensive" DX efforts include Solution Lab, our facility providing 24-hour remote monitoring and operational support, and our AI-enabled combustion control system, which uses AI to forecast the combustion fluctuations unique to waste incineration and determine and implement the appropriate responses.

Establishment of competitive advantage using "offensive" and "defensive" approaches

Offensive DX

Digitalization of products and services

Providing new value to customers through the use of digital technology in plant construction, operation, and other businesses



development, through enhancing our training programs, and improve job satisfaction and work conditions.

By implementing these various measures, we also aim to achieve main KPIs relating to the number of female employees brought into career track and management positions, the percentage of eligible employees utilizing parenting support programs, and employee engagement levels.

By utilizing these and other digital technologies in our plant construction and operation business, we will continue to deliver new value and enhance our competitive edge. Our "defensive" DX initiatives include promoting improvements to operational efficiency through knowledge management, automation, and other measures, and working with our limited resources toward increasing productivity and achieving smooth mastery of our technologies by new generations of staff.



Message from Our Finance Officer



Reflections on Our 13th Medium-Term Management Plan and Outlook for FY2024

Over the course of our 13th Medium-Term Management Plan (MTP; FY2021 to FY2023), we engaged in proactive recruitment of human resources, with a focus on our Engineering, Construction, and Maintenance Divisions. With a total increase of approximately 350 staff members over the three-year period covered by this MTP, we have a real sense of having successfully enhanced our resources. In January 2023, we also began operations at our new Harima Factory and at Supply Lab, our after-sales services center, allowing us to establish systems that can respond to our customers' diversifying needs. In addition, we worked to strengthen our management foundation, including by steadily pursuing investment in non-financial capital, such as by expanding our R&D investment, with a focus on decarbonization technologies

In FY2023 (ended March 2024), the final fiscal year of our 13th MTP. we were able to steadily translate the strong demand for waste treatment plants, biomass power plants, and other facilities into orders and achieve excellent results in terms of orders and net sales, with orders received totaling JPY 160.5 billion and net sales of JPY 149.1

billion. Depreciation associated with operation of our new Harima Factory and increases in personnel and R&D expenses contributed to a decrease in profits, with an operating profit of JPY 10.2 billion and an ordinary profit of JPY 11.1 billion. However, cumulative ordinary profit over the three years of our 13th MTP was JPY 36.4 billion, exceeding the Company's initial target of JPY 36.0 billion.

In FY2024 (ending March 2025), the first fiscal year of our 14th Medium-Term Management Plan, we expect to achieve a Company record for total orders received of JPY 230.0 billion. While we forecast a decrease in net sales-predicted to total JPY 143.0 billion-owing principally to changes in our EPC project mix, we anticipate that an improved gross margin will increase operating profit to JPY 11.2 billion and ordinary profit to JPY 12.0 billion. With the Japanese market exhibiting continuing demand for waste treatment plant renovations and improvements to service life, we will prioritize investment of management resources aimed at securing orders. Through this, we plan to materialize our growth story.



Accelerating Agile Investment Through Appropriate Cash Allocation

Our 14th MTP sets out a new cash allocation policy, elucidating our initiatives toward increasing the Company's corporate value.

Takuma's operating cash flow, and particularly that associated with our EPC business, tends to vary significantly from one fiscal year to the next as a result of project scale and contract details. We therefore consider it necessary to maintain a level of cash and deposits approximately equivalent to two to three months' worth of sales (approximately JPY 30.0 to 40.0 billion), for use as working capital and a buffer against business risk. Our 14th MTP establishes this as a baseline and further details our plan to allocate JPY 21.0 billion to investment for growth and JPY 33.0 billion for shareholder returns.

This investment for growth will include JPY 10.0 billion for M&A and investment in our own business. We have established our Domestic Environment and Energy Business, our core business area, as a particular priority. As part of this, we will continue strategic consideration and make agile investment decisions for expanding our plant engineering and construction staff, as well as expanding our business domains in this sector, such as moving into waste recycling. We have set aside JPY 5.0 billion for capital investment, including



ratio of 4.0%



Aiming to Maximize Shareholder Value and Achieve Sustainable Growth

Takuma has a quantitatively-informed dividend policy, according to which we have established a dividend target calculated on the basis of a dividend payout ratio of 50% or a dividend on equity (DOE) ratio of 4.0%, whichever is higher. Based on this policy, we plan to pay an annual dividend per share of JPY 56 in FY2024, an increase of JPY 8 per share and the highest dividend in the Company's history. Alongside this, with the aim of improving capital efficiency, we will repurchase shares totaling approximately JPY 18.0 billion over the three years covered by our current MTP. We will repurchase and cancel shares totaling up to JPY 4.0 billion in FY2024. As a result of these initiatives, we expect our total returns ratio to be 95.7% in FY2024 and remain at around 110%, cumulatively, over the three-year period of our current MTP

By boosting our profitability through proactive investment for

planned investment in digital tools intended to contribute to increased operational efficiency and renovations of our offices. By creating more comfortable work environments in this way, we hope to increase employee engagement, maximize our human capital, and improve productivity

We will invest JPY 6.0 billion in R&D, boosting our research aimed at achieving a decarbonized society, including in CCUS. We believe that we must achieve a certain level of progress toward establishing core CCUS technologies for use in waste incineration facilities by 2030 in order to achieve the global initiative toward net-zero greenhouse gas (GHG) emissions by 2050. Over the period covered by our current MTP, we will accelerate our work to develop these technologies, including by installing pilot equipment at our customers' facilities. Amid today's international efforts toward netzero GHG emissions, we believe that acquiring decarbonization technologies is crucial for the future of Takuma as a company conducting business in the environmental and energy sector. We will move forward with proactive investments to facilitate practical implementation of these technologies as soon as possible.

Enhancing shareholder returns and improving capital efficiency through stable dividends and share repurchase Establish as a target amount whichever is higher calculated based on a dividend payout ratio of 50% or a dividend on equity (DOE)

Share repurchase totaling approximately JPY 18 billion over three years to improve capital efficiency

growth and enhancing our balance sheet efficiency through stable dividends and share repurchase, we aim to achieve a ROE of 11% or more in FY2026 (ending March 2027), the final fiscal year of our 14th MTP, and of 12% or more by FY2030 (ending March 2031). Our calculations suggest a current cost of equity of approximately 6%, but by steadily moving forward with the capital policy set out in our MTP and achieving a higher ROE, we aim to improve the equity spread and maximize shareholder value in turn.

We are conscious of our stakeholders' expectations for the Takuma Group's potential to solve social issues in the environmental and energy sectors. Going forward, we will continue to proactively seek out dialogue with our stakeholders, including through this first issue of our Integrated Report, and reflect their feedback in our management to achieve sustainable growth

Message from Our Marketing Officer



Remaining Competitive by Enhancing Systems That Will Allow Us to Stay Ahead of the Game

In the domestic market for municipal solid waste treatment plants, one of our core business areas, the rising number of aging facilities means a continuing demand for renewals and improvements to service life. We also expect our DBO system (comprehensive contracts covering facility construction, operation management, and maintenance) to generate an ever-growing volume of orders.

However, if we look ahead beyond 2030, consolidation and closing down of facilities in line with Japan's declining population will progress and the domestic market will contract slightly. Despite this, waste treatment facilities are expected to play a multifaceted role in society, including contributing to local disaster prevention and decarbonization. We are aware of the urgent need to enhance our ability to propose solutions in response to this, while continuing our efforts toward cost reduction, if we are to remain competitive. In addition, growing demand for waste treatment and power generation is anticipated in emerging countries, including various Southeast Asian nations, driven by economic growth and urbanization. We must take swift action to develop systems allowing us to make the first moves in these markets. In the market for biomass power and other energy plants, changes to Japan's feed-in-tariff (FIT) program-under which power companies purchase renewable energy at a fixed price-will result in fewer large-scale projects, but we also expect demand for small- and medium-scale projects, an area in which we excel, to remain steady. In the water treatment plant market, meanwhile, demand for upgrades to aging equipment will continue, and there is an increasing requirement for highly environmentally friendly products that will contribute to building a decarbonized society.

Securing Orders to Lay the Groundwork for Achieving Vision 2030

Taking into account the changing market, we believe that our performance over the period covered by our 14th Medium-Term Management Plan (MTP) will be a test case for achievement of the Company's long-term vision, Vision 2030. One of our major strategies toward that aim will be to concentrate our energies on establishing a virtuous circle between our EPC business and our recurring revenue model businesses: steadily winning orders for the EPC projects that

lay the groundwork for our recurring revenue model businesses then successfully translating that foundation into orders for operation management and maintenance. We have set a target for orders received over the three-year period of our current MTP of JPY 600.0 billion, a significant increase over that for the period of our 13th MTP.

Going forward, we will prioritize allocation of human resources, capital, and other management resources toward securing orders for renewals and primary equipment improvements to waste treatment plants within Japan, an area in which we expect high demand. We will strive to remain informed on the demand for decarbonization, cost reduction, and other requirements. In turn, we will make proposals leveraging the technical capabilities that form one of our key strengths to secure three or more orders for renewal projects per year on an ongoing basis. In our Energy Plant Business, we will continue to steadily take on orders for small- to medium-sized biomass power plants. In our Water Treatment Plant Business, meanwhile, we will showcase our technological excellence in environmental friendliness and other areas with the aim of increasing our share of the market in sewage sludge incinerators and sand filtration systems, two of our core products. In our Overseas Business, which we see as presenting a great deal of potential for future business, we will strengthen our collaborations with our local subsidiaries in Thailand and Taiwan and aim to secure orders for power generation from waste and biomass power plant projects, with a focus on the Southeast Asian market.

Working to Strengthen the Relationships of Trust with Our Customers That Underpin **Our Competitive Edge**

The relationships of trust we have built up with our customers over many years in the course of numerous plant construction projects is one of Takuma's strengths and the source of our competitive edge. Our 14th MTP adds customer satisfaction as a new KPI and sets a highestrating target of 60% or more for evaluations of our customer service and overall product quality in our Customer Satisfaction Survey. Going forward, the Corporate Marketing Group will continue to work together as a team to strengthen our relationships of trust with our customers and achieve sustainable growth.

Message from Our Engineering Officer

Executive Manager of Management Center



Strengthening Our Portfolio of Technologies and the Urgent Issue of Labor Shortages

In 1912, Company founder Tsunekichi Takuma succeeded in inventing Japan's first boiler made using only domestic technologies, the Takuma boiler. Since the Company's establishment in 1938, this boiler technology has served as a starting point for our expansion into other business domains with a focus on sectors involved in the adoption of a wide variety of energy sources and environmental protection, including municipal solid waste treatment plants; biomass power and other energy plants; and sewage sludge incinerators, sand filtration systems, and other water treatment equipment. Supporting these products are our core technologies: combustion technologies able to achieve stable combustion of a wide range of fuels and waste materials, heat recovery technologies that efficiently recover the energy generated in this combustion process, flue gas treatment technologies contributing to clean air quality, and more. In the Engineering Group, we ensure that these core technologies are refined and mastered by new generations of workers. At the same time, we work hard as a team and on a daily basis to develop new technologies that will contribute to further increasing the quality of the products we provide.

Meanwhile, global trends concerning the environment are changing rapidly; for example, the growing momentum in favor of decarbonization. Labor shortages due to Japan's declining birth rate and aging population are also predicted to become increasingly severe going forward. These factors will have a significant impact on the plant engineering and maintenance industry, and we recognize action on these issues to be a matter of urgency.

Combining Our Core and Digital Technologies to Advance "Offensive" DX

In our plant operation business to date, we have worked to utilize digital technologies to save energy and labor, and our 14th Medium-Term Management Plan sets out a policy of further promoting "offensive" DX - through adoption of even further-reaching digital technologies-to provide new value to our customers. To give an example, we will work to upgrade our system supporting stable incinerator operation by combining AI technologies with our combustion technologies (one of our core technology areas).

We will also engage with the use of big data in plant operation. As

part of our efforts to ensure customer satisfaction, we will analyze and utilize the large volumes of data we have collected from the numerous plants we have constructed in the environmental and energy sectors to help us deliver high-quality, low-cost plant operation services.

Enhancing Training with "Defensive" DX to Help Each Individual Employee Fulfill Their Potential

As we work to achieve our Vision 2030, we have been enhancing our human resources recruitment and development, with a focus on our Maintenance, Construction, and Engineering Divisions. To help new staff swiftly fulfill their potential, we will promote knowledge management that visualizes and effectively utilizes operational information as a form of "defensive" DX. We hope that these initiatives will help us to address labor shortages and diversifying work styles. To strengthen the manufacturing and engineering capabilities that provide our competitive edge, we will also amplify initiatives to use digital tools to record and analyze the work of our experienced technicians at our new Harima Factory, which manufactures major plant equipment (boilers and combustion equipment), and ensure that their craftsmanship is passed on to our junior workers.

In addition, we will also continue to strengthen our R&D in support of building a decarbonized society. In addition to our own internal initiatives. we will also promote open innovation that leverages partnerships with other corporations and organizations, thereby accelerating the practical implementation of decarbonization technologies.

Takuma has held up a company motto of "Value Technology. Value People, Value the Earth" for many years. In the Engineering Group, we will steadily implement the strategies outlined in the Company's 14th Medium-Term Management Plan and hope to parallel the Takuma motto by improving technologies, working to train people, and, as a result, contributing to solving the challenges facing the Earth.

Domestic Environment and Energy Business

The business contributes to solutions that address issues faced by customers and communities through the construction of plants necessary for the utilization of renewable energy and preservation of the environment and provision of after-sales services. This includes municipal solid waste treatment plants, water treatment plants, and energy plants.

Municipal Solid Waste Treatment Plants





Recycling plant

Biogas recovery plant

Waste incineration plant

Main

- Waste incineration plants
- Recycling plants products
 - Biogas recovery plants, etc.

Strengths	Risks	Opportunities
 Accumulated technology and expertise over 60 years, including core technologies in combustion, heat recovery, and flue gas treatment Our achievements are among the top domestically Domestic total: approximately 370 facilities (1963 to the end of March 2024) Facilities in operation: approximately 120 facilities (as of the end of March 2024) 	Weaker demand associated with population decline and decrease in number of facilities in operation (reorganization)	 Ongoing demand for renewal and extending service life associated with aging plants Increasing demand for decarbonization technologies Increase in O&M contracts and further progress of projects outsourced to the private sector

FY2023 Review

In FY2023, we focused on acquiring orders continuously through business proposals based on diversifying needs of customers and communities. As a result, we received two DBO orders. Both orders involve the Takuma Group representing a group of companies for the construction and operation of the facilities for 20 years upon completion, leading to the growth of our recurring revenue model businesses, which serve as growth drivers. In terms of R&D for decarbonization technology under many themes geared towards the future, we have begun a new

demonstration project in Machida City, Tokyo that involves using the CO₂ in combustion gas generated at waste treatment facilities for growing strawberries. This project is being conducted jointly with Aeon Agri Create Co., Ltd., which operates farms directly managed by Aeon, one of Japan's largest supermarket chains, in cooperation with Machida City. In addition to establishing a trigeneration system for electricity, heat, and CO₂, we aim to expand this initiative to local governments across the country and help reduce domestic CO₂ emissions.

FY2024 Initiatives

Under the 14th Medium-Term Management Plan, we aim to increase orders for EPC projects as the assignment of source of recurring revenue model businesses. In addition to prioritizing the assignment of human resources in the Municipal Solid Waste Treatment Plant Business, we will strengthen our ability to win bids by streamlining the proposal creation process, and create a menu of proposals that will set us apart from other companies.

Through these efforts, we aim to receive orders for at least three renewal projects a year and to steadily address demand for primary equipment improvement projects. Going forward, we will continue to strengthen our competitiveness through research and development of decarbonization technology such as separation and recovery of CO2 and its effective use, as well as digitalization of products and services, such as autonomous plant operation.

Energy Plants



Biomass power plant

RPF plant

· Biomass power and heat utilization plants Main • RPF power generation and heat utilization plants products · Industrial waste treatment plants and similar Strengths Risks · Accumulated technologies and expertise over 80 years, including core technologies in combustion and heat recovery • Weaker demand due to tight market · Our achievements are among the top conditions for biomass and non-fossil fuel domestically · Decreased demand due to government Boilers: over 3,200 units policies or changes in support system Biomass plants: over 640 units * domestic and overseas. as of the end of March 2024

FY2023 Review

Due to the revision of the FIT system, the scope of FIT certification was lowered from power generation output of less than 10MW to less than 2MW in April 2023. In FY2023, we received orders for six FIT biomass power plants, mainly those that were certified by March of the same year. In addition, we also received steady orders for projects other than FIT, such as biomass plants for private consumption that use paper waste, woody biomass, and

FY2024 Initiatives

We expect demand for the construction of new biomass power plants, mainly small and medium-sized (2-10MW), biomass plants for private consumption such as fuel conversion, and projects for the renewal and expansion of industrial waste treatment plants to remain firm. At the same time, we will strive to continuously acquire such orders. We will offer proposals for solutions targeting





Industrial waste treatment plant



RPF as fuel, as well as industrial waste treatment plants. Since the start of the FIT system in FY2012, we have received 84 orders (including 60 FIT orders), of which 65 had started operation by the end of March 2024, helping to spread the use of renewable energy and contributing to customers' energy savings and CO₂ emissions reduction initiatives.

the increasing number of plants we have built each year, including precisely targeted maintenance services, energy savings, power generation output enhancements, improvements in equipment functionality, and extending service life. In this way, we are helping customers both resolve issues and reduce carbon dependency while steadily growing our recurring revenue model businesses.

Water Treatment Plants





Sewage sludge-fueled power plant

Sewage sludge-fueled power plant

Moving-bed sand filtration system (Uniflow Sand Filter)



Sewage sludge-fueled power plants

Moving-bed sand filtration system (Uniflow Sand Filter), etc.

Strengths	Risks	Opportunities
 Accumulated technologies and expertise over 60 years covering various treatments of water and sludge Technical advantages of energy-saving and energy-creating sewage sludge incineration system using unique combustion method (more than 20 units since 1973) Our achievements include a total of over 2,900 units of sand filtration systems delivered since 1979 	• Intensifying competitive environment	 Higher demand for renewal and extending service life associated with the aging of sewage treatment facilities Increased demand for low carbonization in sewage treatment through energy-saving and energy-creation Increasing trend of all-inclusive orders covering plant construction, management and maintenance

FY2023 Review

We received an order for a plant for Osaka Prefecture Chuo Mizu Mirai Center, our fourth sewage sludge incineration plant with power generation facility. The order was secured based on the proposal that met customer needs with a focus on energy saving and energy creation, such as auxiliary fuel, power consumption, reduction of greenhouse gas N₂O, and energy creation through power generation. This project will include the design and construction of the facility, as well as maintenance and management services for approximately 10 years. This is the first time for Takuma to undertake an all-inclusive management project

with these services included.

Additionally, we received an order for large-scale renewal work for sand filtration systems from the Tokyo Metropolitan Government (Ochiai Water Reclamation Center). This project follows the Construction Part I order received in December 2021, and involves upgrading the aging fixed-bed type sand filtration system to a high-speed upflow moving-bed for the advanced treatment of sewage. The overall water treatment capacity combining this project with Construction Part I will be 340,000 m³/ day, which is the largest in Japan.

FY2024 Initiatives

We will work on obtaining continuous orders and increasing our market share of sludge incineration plants through project proposals matched to customer needs by harnessing our technological advantage in energy-saving and energy creation. We also aim to increase orders for sand filtration systems by uncovering renewal demand from fixed bed to high-speed upflow moving-bed through unique proposals that highlight their strengths.

Moreover, we aim to expand our after-sales services business by working to acquire repeat orders for regular maintenance and recommending small and medium-sized repairs. We will develop a structure for the implementation of comprehensive projects covering plant construction, operation and maintenance, which is an area expected to grow going forward.





FY2023 Review

To meet the demand for locally utilizing FIT electricity and environmental value generated locally, in March 2024, we launched a local production for local consumption project based on public-private partnership. Through this, we supply electricity and environmental value from the Chigasaki Biomass Power Plant (previously built by us) that uses pruned branches in Fujisawa City as fuel to the Fujisawa City, Kanagawa Prefecture Resource Recovery Cooperative Association. In order to meet the needs for effective utilization of power plants after FIT

FY2024 Initiatives

In order to reduce the risk of rapid fluctuations in electricity market prices, we will continue working to expand the relative power sources procured outside the market, and utilize our past achievements and experience to develop new businesses based on customer needs, thereby ensuring new customers. In addition, we aim to expand the provision of various services, including building schemes for more directly producing and

purchase period expiration, we started a new local production for local consumption project in August 2023 in Kitahiroshima Town, Hiroshima Prefecture that utilizes electricity from a FITexpired micro hydro power plant run by the town. Furthermore, we concluded a comprehensive partnership agreement with the town for decarbonizing the region in October of the same year. Utilizing the expertise we have cultivated in the electricity retailing business, we are working collaboratively to achieve both regional decarbonization and sustainable development.

consuming electricity locally, agent services for self-consignment that helps customers stabilize electricity costs, and sales services for environmental value such as renewable energy and CO2-free energy. We will also make efforts to expand our new service lineup. Through these initiatives, we aim to further contribute to climate change countermeasures and address regional issues by proposing schemes tailored to each region.

Overseas Environment and Energy Business

In response to the increasing demand for biomass power plants, as well as waste treatment due to urbanization in Southeast Asian countries, we provide plant construction and maintenance services primarily in Thailand and Taiwan, where we have local subsidiaries.





Energy from waste plant (England)

Energy from waste plant (Taiwan)

Biomass power plant (Thailand)



FY2023 Review

In Thailand, the demand for energy from waste plants and biomass power plants is expected to increase given policies that promote renewable energy. In Taiwan, the demand for renewing waste treatment facilities that are aging is growing. Meanwhile in Vietnam, there is a growing demand for manufacturing factories to have an in-house treatment plant for treating industrial waste generated. Given such a backdrop, our local subsidiaries in Thailand and

Taiwan have conducted sales activities and developed systems aimed at acquiring orders. Within the three years of the 13th Medium-Term Management Plan (FY2021 to FY2023), we received three orders, including facility renovation work for a waste to energy plant in Taiwan, construction of a waste treatment plant in Vietnam, and construction of an energy plant in Thailand.

FY2024 Initiatives

As decarbonization continues on a global scale, demand for energy from waste and biomass power plants and conversion from fossil fuels to various biomass fuels is expected to increase in Southeast Asian countries due to power shortages and rising populations associated with economic growth. Given the highly competitive biomass power plant market in Thailand against Indian and Chinese companies, we aim to differentiate our brand in terms of performance and quality, through our technology offering stable

operation and high efficiency to ensure acquisition of business. In the market of waste treatment plants in Thailand and Taiwan, we will form project-based consortiums with local companies and develop a scheme that allows the Takuma Group to demonstrate its added value, thereby securing at least one to two orders for new construction per year. Through the above initiatives, our goal is to achieve stable profitability and sustainable growth in the Overseas Environment and Energy Business.

Package Boiler Business

Group company Nippon Thermoener Co., Ltd., manufactures, sells, and maintains heat source equipment, such as generalpurpose boilers and water heaters, to meet the heat demand (steam, hot water) for various types of manufacturing plants as well as hotels, hospitals, commercial buildings, and other facilities.





Once-through boilers

Vacuum-type

water heaters

Hybrid hot water supply systems



FY2023 Review

Although the domestic general-purpose boiler market has matured and will shrink over the medium- and long-term, we expect demand for equipment replacement and related services to continue in the near term due to the large size of the installed base. As energy demand overseas is rising due to rising populations and urbanization especially in emerging countries, the demand for heat source equipment is expected to grow overseas. In response to decarbonization and low carbonization,

FY2024 Initiatives

As stated previously, replacement demand in Japan and energy demand in emerging countries are expected to continue. Going forward, our goal is to cultivate replacement demand in the domestic market and increase orders in overseas markets with a focus on Southeast Asia, as we have a local subsidiary in Thailand, through making system proposals best matched to customer



Biomass boilers



Hydrogen-fired vacuum-type water heaters



CO₂ capturing compact oncethrough boilers

the demand for products with further energy-saving and higher efficiency as well as heat source equipment using non-fossil fuel is expected to increase. In FY2023, we captured strong demand for replacement in the domestic market due to the recovery trend in facility operation rate and investment in equipment. Moreover, we have also worked to develop products for decarbonization, such as a hydrogen-fueled vacuum-type water heaters and CO2 capturing compact once-through boilers.

needs based on our diverse product line-up. At the same time, we aim to maintain and expand the scale of orders received over the medium to long term by developing carbon-free and low-carbon products and cultivating markets, and steadily expand earnings in the Package Boiler Business.

Equipment and Systems Business

Group company Sunplant Co., Ltd. designs and installs a range of building equipment for the interior environment of buildings, including air-conditioning, sanitation (for water supply and drainage), and firefighting systems, while group company Dan-Takuma Co., Ltd. supplies and provides services for clean system-related equipment and devices to achieve a highly sterile environment required for semiconductor and electronic device manufacturing processes.

Risks

Labor shortage in the building industry,

cooling demand for building investment

· Market changes due to economic security

reasons with strong international political

Building equipment business

Semiconductor industrial

equipment business

implications





Installation of air conditioning equipment Installation of water supply and drainage sanitation facilities

Example of cleaning process in Formation of microbubbles semiconductor manufacturing



concentration analyzers, clean environment

Building equipment business

renovating existing buildings

Semiconductor industrial

electronic device industry

equipment business

equipment, cleaning equipment, magnetically

Opportunities

· Increased investment in buildings for

• Further expansion and growth in the

semiconductor manufacturing equipment field to accommodate the medium to long

term expansion of the semiconductor and

redevelopment, demand for renewing/

• Chemical filters, AMC environmental

shielded chamber equipment, etc.

- **Building equipment business**
- Installation of air conditioning equipment and sanitation systems for water supply and drainage (main targets include hospitals, welfare facilities, education and research institutions, factories, commercial and cultural facilities), etc.

Building equipment business

• Extensive construction experience for public facilities with highly specialized desian needs. etc.

Strengths

Semiconductor industrial equipment business

Main

products

 Product group of essential elements used around main semiconductor manufacturing equipment, bringing practical solutions from customer perspectives to meeting challenges by working closely with customers. Acquisition of joint patents through joint-research with academia

FY2023 Review

In the building equipment industry, active investment in buildings by private companies increased and demand from the public sector steadily rose. On the other hand, challenges such as rising costs due to higher costs of raw materials and labor expenses and labor shortages remain. Additionally, while a market boom was seen in the semiconductor/electronic device industry over the past few years, it has passed its peak and now leveled off. However, progress in decoupling the global supply chain has meant that a

certain level of demand has been maintained in the manufacturing equipment field given the investments in the construction of semiconductor plants as an instrument of national policy in each country. In FY2023, fewer orders were received compared to the previous fiscal year due to a recoil in large projects in the building equipment business, and stagnant market conditions in the semiconductor/electronic device industry.

FY2024 Initiatives

Steady demand for renewal and renovation work on ageing buildings is expected over the medium to long term in the building equipment industry. In the building equipment business, we will continue to secure and foster human resources and improve construction capabilities and strive to increase orders and increase profitability by focusing on obtaining orders with greater profit. In the semiconductor industrial equipment business, we will further expand the international sales business, which is positioned as the growth engine for the business' further expansion in a sluggish market that

has yet to bottom. At the same time, we will apply the results to our domestic sales business in strengthening our competitiveness during the transition towards a market recovery. In addition, we will strive to create additional fields to increase future profits based on joint patents with Tohoku University. These include microbubbles for cleaning semiconductor wafers. We aim to steadily and sustainably increase earnings in the Equipment and Systems Business through these initiatives carried out at the two companies.

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	 Promoting renewable energy (non-fossil energy) Improving energy efficiency 	P. 40
Conserving resources and protecting the environment	 Conserving resources and reducing environmental impacts Making effective use of unutilized resources 	P. 42
☆☆☆ Strengthening relationships of trust with customers and communities	 Pursuing customer satisfaction Ensuring the stable, continuous operation of plants and equipment Recycling local resources and creating new value for communities 	P. 46
- - - Pursuing partnerships and innovation	 Utilization of digital technologies (Al, IoT, robots, etc.) Developing open partnerships Pursuing innovation 	P. 48
Promoting activities of human resources	 Securing and training human resources Promoting diversity Improving employee satisfaction 	P. 50
Ensuring safety and health	 Ensuring occupational safety and health Managing employee health Creating a comfortable working environment 	P. 54
Strengthening corporate governance	 Strengthening corporate governance Strengthening risk management 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

	Target	
FY2023	FY2026	
Effectively zero CO2 emissions	Effectively zero CO ₂ emissions	Effec CO ₂
for Scope 1 and Scope 2 at the Takuma Head Office and the Harima Factory	for Scope 1 and Scope 2 at the Takuma Head Office, Harima Factory, and branches	for Sco at all dome (Head Offic and c

* 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



ope 1 and Scope 2 estic Takuma worksites ice, branches, factory, construction sites

Progress

Performance as of the end of FY2023

Effectively zero CO₂ emissions

for Scope 1 and Scope 2 at the Head Office and Harima Factory

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

Strategy C

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 selfconsuming, 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.



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 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





Al-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.



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.



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



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.



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

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-CO2 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
Xvlene (CAS No. 1330-20-7) (tons per vear)	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)
Βι	usiness area costs		
	Pollution prevention costs	181,571	248,742
	Global environmental conservation costs	105,441	163,476
	Resource circulation costs	_	13,809
Ac	dministration costs	_	52,065
R٤	&D costs	67,988	2,352,809
Sc	ocial 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 res	sources input in	to 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 wa or environmental impact originating from busines	aste ss 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.



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.



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 POCSYS 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.

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.



Remote monitoring and operation support through Solution Lab



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 incinerato

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.



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.



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.

Initiatives to create new 3 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.



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)

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.

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.

New employee training (energy plant tour)









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

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.

(Persons)

60

40

20

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.

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

Trend in number and percentage of female employees

and management positions (left axis)

Number of female employees in main career track

(%)

5.0

4.0

3.0

2.0

1.0

(FY)

43

in main career track and management positions

Percentage (right axis)



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.

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 	 Nursing-care
maternity/paternity leave	 Shortened w
Telework	

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%



e leave

- Flex-time
- vorking hours
- Special leave for husbands whose wives are giving birth

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)



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.

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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.



2. Safety patrols and safety lectures

Number of safety inspections completed in FY2023

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.

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



Safety patro

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.



(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.

(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.

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.



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.



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 worklife 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.

od covered: April 2004 to N	March 2024
tal number of attendees	41,225
umber of trainees passing e completion exam	23,952



Education for construction site representatives (Head Office)





Pointing at and calling out slogar

nt frequency rate		Accident severity rate				
na	National average	Takuma	National average			
7	1.69	2.16	0.29			
2	1.30	0.03	0.24			
5	1.39	0.12	0.41			
7	1.47	0.01	0.22			
2	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. Number of casualties due to occupational accidents _____ × 1,000,000

Total actual working hours * Accident severity rate

Indicates the seriousness of accidents as the total number of work-days lost per 1.000 total actual working hours.

Total work-days lost × 1 000 Total actual working hours

Strengthening Corporate Governance

Our Corporate Governance Structures



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	Δ



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

			Necessary skill set for Takuma Board of Directors								E) (0000 A	FY2023
Name	Position at Takuma	Number of years serving as a director	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	FY2023 Board of Directors meeting attendance	Committee attendance	Nominating & Compensation Advisory Committee meeting attendance
Hiroaki Nanjo	President and CEO	9	\checkmark	\checkmark	\checkmark	\checkmark		\checkmark		17 of 17 (100%)	-	2 of 2 (100%)
Tsuyohito Nishiyama	Director & Senior Managing Executive Officer	8	\checkmark		\checkmark		\checkmark			17 of 17 (100%)	_	_
Hideki Takeguchi	Director & Senior Managing Executive Officer	8	\checkmark	\checkmark		\checkmark				17 of 17 (100%)	-	-
Koji Tanaka	Director & Managing Executive Officer	7	\checkmark		\checkmark	\checkmark		\checkmark	\checkmark	17 of 17 (100%)	-	-
Kunio Hamada	Director & Managing Executive Officer	3	\checkmark	\checkmark			\checkmark			17 of 17 (100%)	-	_
Hiroshi Oishi	Director & Managing Executive Officer	3	\checkmark					\checkmark	\checkmark	17 of 17 (100%)	-	2 of 2 (100%)
Keizo Masugi	Director (Audit & Supervisory Committee Member)	3	\checkmark				\checkmark		\checkmark	17 of 17 (100%)	18 of 18 (100%)	-
Tomomi Fujita	Outside Director (Audit & Supervisory Committee Member)	5	\checkmark				\checkmark		\checkmark	17 of 17 (100%)	18 of 18 (100%)	2 of 2 (100%)
Tetsuya Kaneko	Outside Director (Audit & Supervisory Committee Member)	4	\checkmark			\checkmark	\checkmark			17 of 17 (100%)	18 of 18 (100%)	2 of 2 (100%)
Seiichi Nagatsuka	Outside Director (Audit & Supervisory Committee Member)	2			\checkmark	\checkmark				17 of 17 (100%)	18 of 18 (100%)	2 of 2 (100%)
Masahiro Endo	Outside Director (Audit & Supervisory Committee Member)	2					\checkmark			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 longterm 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)

	Total compensation	Total compens	Number of			
Executive category	cutive category remuneration (million yen) Basic cor		Performance-linked compensation and other remuneration	Non-monetary compensation and other remuneration	executives in this category	
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.
- 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-

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.

Should a risk materialize, we will respond by taking swift, responsible action to minimize any damage, and by creating any provisional organizational entities required. Group companies will carry out risk management activities in accordance

Compliance and CSR promotion structure

Compliance & CSR Promotion Organization

Divisions and centers

Board of Directors

Chairman

(Executive Manager of the Compliance & CSR Promotion Division)

Secretariat (CSR Department)

Departments (Executive Managers of divisions and centers

Compliance & CSR Promoters (department managers)

Takuma Group

Coordinating Committee for Compliance & CSR Promotion

Compliance & CSR Promotion

Staff members Awareness programs and education

Committee of Executive Officers

these activities on an ongoing basis.

. Group companies will carry out risk management activities in accordance with their own policies and plans, with support from Takuma.

term management plan and annual plan, and we will work to improve

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

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.

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 LPC





Strategy Overview

Executive Profiles

Directors



Hiroaki Nanjo President and Representative Director & Chief Executive Office

Hideki Takeguchi

Director & Senior Managing

Engineering Group & Executive

Manager of Management Center

Executive Manager of

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 Endoard and 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 Bensident and Representative Director & Chief Executive Officer of the Company (up to the present)

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

April 2016 Waitaging Executive Onicer of the Company April 2019 Senior Managing Executive Officer of the Company (up to the present) Executive Manager of Engineering Group & Executive Manager of Management Center (up to the present)



Tsuyohito Nishiyama

Corporate Marketing Group & Executive Manager of Business Administration Division

Director & Senior Managing

Executive Officer Executive Manager of

Koji Tanaka

Director & Managing

Executive Manager of

Corporate Marketing Group

International Division.

Executive Officer

April 1985 Joined the Company April 2015 Executive Officer of the Company

April 1986 Joined the Company

April 1900 Solite 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 Evecutive 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)

- 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 pres (up to the present) Executive Manager of Corporate Marketing Group & Executive Manager of Business Administration Division (up to the present)



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

Our Value Creation Story













April

Mav

Tetsuya Kaneko Outside Director (Audit & Supervison Committee Member)

2010 Deputy Director of Human Resources Management Department, Mizuho Corporate Bank, Ltd. 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. 2011 Left Mizuho Research Institute Ltd. June 2011 Director of KANEMATSU CORPORATION June 2014 Managing Executive Officer of KANEMATSU CORPORATION 2019 Retired from position as Managing Executive Officer of KANEMATSU CORPORATION Standing Auditor of Yushu Building Co., Ltd. (currently Yushu Corporation) June June 2020 Director (Audit & Supervisory Committee Member) of the Company (up to the present) Representative Director and President of

1981 Joined The Dai-Ichi Kangyo Bank, Ltd. (currently Mizuho Bank, Ltd.)

Yushu Corporation June 2023 Retired from position as Representative Director and President of Yushu Corporation



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 2021 April

June

April

- Executive Manager of Corporate Services Division (up to the present) 2021 Director of the Company (up to the present) 2023 Managing Executive Officer of the Company
- (up to the present)





- March 1989 Registered as a certified public accountant 1989 Registered as a licensed tax accountant
- August 1997 Partner of Century Audit Corporation (currently Ernst & Young ShinNihon LLC)
- 2007 Left Century Audit Corporation 2007 Representative of Endo Certified Public Accountant Office (up to the present)
- 2015 Outside Auditor of Sakurajima Futo Kaisha, Ltd.
- December 2020 Representative Director of Kobe Audit Corporation (up to the present)
- 2022 Director (Audit & Supervisory Committee Member) of the Company (up to the present) 2023 Retired from position as Outside Auditor of Sakurajima Futo Kaisha, Ltd. June

Masahiro Endo Outside Director (Audit & Supervisory Committee Member)



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
		Outside Auditor of TAIYO YUDEN CO., LTD.
February	2020	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)



Seiichi Nagatsuka Outside Director (Audit & Supervison 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 be 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 lida

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 threeyear 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)

Several days before a Board of Directors meeting, materials are sent out and careful explanations are provided in a question-andanswer 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.

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.

> 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)

Financial and Non-Financial Data

Financial Data (trends in principal management indicators and other financial data)

	FY3/2014	FY3/2015	FY3/2016	FY3/2017	FY3/2018	FY3/2019	FY3/2020	FY3/2021	FY3/2022 ³	FY3/2023	FY3/2024
Business performance											
Orders received	148,025	113,763	99,919	191,026	177,116	179,829	148,830	188,563	192,244	168,558	160,568
Order backlog	142,705	152,593	139,425	214,142	273,060	330,939	345,315	387,152	445,304	471,211	482,612
Net sales	96,333	103,874	113,088	116,309	118,198	121,950	134,454	146,726	134,092	142,651	149,166
Operating profit	8,423	8,222	9,189	10,973	10,029	11,604	9,600	10,473	9,928	13,813	10,229
Operating profit margin	8.7%	7.9%	8.1%	9.4%	8.5%	9.5%	7.1%	7.1%	7.4%	9.7%	6.9%
Ordinary profit	9,449	9,116	9,646	11,605	10,669	12,334	10,300	11,028	10,647	14,684	11,166
Ordinary profit margin	9.8%	8.8%	8.5%	10.0%	9.0%	10.1%	7.7%	7.5%	7.9%	10.3%	7.5%
Profit attributable to owners of parent1	8,834	8,029	7,817	8,550	7,847	8,853	7,445	7,529	7,434	9,621	8,754
Profit margin attributable to owners of parent	9.2%	7.7%	6.9%	7.4%	6.6%	7.3%	5.5%	5.1%	5.5%	6.7%	5.9%
Financial performance											
Total assets ²	108,519	123,126	132,614	140,201	151,488	155,988	163,498	177,741	174,535	179,688	191,180
Net assets	43,888	52,515	58,809	67,727	76,725	83,087	85,040	90,555	94,354	101,167	111,000
Capital adequacy ratio	40.2%	42.4%	44.1%	48.1%	50.4%	53.0%	51.8%	50.7%	53.8%	56.0%	57.7%
Key indicators											
Return on equity (ROE)	22.7%	16.8%	14.1%	13.6%	10.9%	11.1%	8.9%	8.6%	8.1%	9.9%	8.3%
Net assets per share (BPS) (yen)	527.50	631.53	708.18	815.77	924.25	1,000.34	1,043.15	1,109.87	1,162.87	1,258.24	1,378.90
Basic earnings per share (EPS) (yen)	106.86	97.12	94.55	103.43	94.93	107.10	90.36	92.73	91.53	120.22	109.43
Dividend per share (yen)	6.00	9.00	11.00	13.00	16.00	22.00	31.00	36.00	36.00	43.00	48.00
Cash flows											
Cash flows from operating activities	8,269	21,726	6,728	9,590	5,140	10,817	(11,732)	(1,680)	9,000	32,191	(12,222)
Cash flows from investing activities	(1,430)	(160)	(445)	142	(328)	(1,382)	(202)	(2,053)	(2,394)	(5,604)	(8,438)
Cash flows from financing activities	(5,866)	(3,706)	(2,899)	(1,787)	(1,670)	(9,119)	(4,350)	1,903	(9,112)	(4,280)	(3,379)
Capital investment & related metrics											
Capital investment	1,061	452	1,089	342	505	638	1,564	2,420	3,844	7,100	3,527
Depreciation	879	900	840	850	789	797	917	1,036	961	1,136	1,797
Research and development expenses	977	586	743	972	928	960	1,154	1,047	1,006	1,150	1,629

We have applied the Accounting Standard for Business Combinations (Accounting Standards Board of Japan [ASBJ] Statement No. 21, September 13, 2013) and related guidelines to our accounts since FY3/2016, and present our profit as profit attributable to owners of parent.
 We have applied the Partial Amendments to Accounting Standard for Tax Effect Accounting (ASBJ Statement No. 28, February 16, 2018) and related guidelines to our accounts since FY3/2019. Principal management indicators and other financial data for FY3/2018 retroactively incorporate this standard and related guidelines.

3 We have applied the Accounting Standard for Revenue Recognition (ASBJ Statement No. 29, March 31, 2020) and related guidelines to our accounts since FY3/2022. Principal management indicators and other financial data for FY3/2022 and subsequent years incorporate this standard and related guidelines.

Unit: million yen

Trends by Segment

Orders received (million yen)

	FY3/2020	FY3/2021	FY3/2022	FY3/2023	FY3/2024
Domestic Environment and Energy Business	123,154	160,591	164,865	130,280	131,567
Overseas Environment and Energy Business	1,351	883	2,035	5,922	2,280
Package Boilers Business	17,925	17,524	16,830	18,400	18,666
Equipment and Systems Business	6,790	10,166	8,917	14,328	8,403
Adjustments	(390)	(601)	(404)	(373)	(350)
Total	148,830	188,563	192,244	168,558	160,568

Order backlog (million yen)

	FY3/2020	FY3/2021	FY3/2022	FY3/2023	FY3/2024
Domestic Environment and Energy Business	337,322	377,143	433,351	447,646	460,023
Overseas Environment and Energy Business	733	427	1,457	6,028	5,868
Package Boilers Business	3,928	4,521	4,852	5,940	6,115
Equipment and Systems Business	3,453	5,348	5,676	11,644	10,610
Adjustments	(122)	(288)	(33)	(48)	(4)
Total	345,315	387,152	445,304	471,211	482,612

Net sales (million yen)

	FY3/2020	FY3/2021	FY3/2022	FY3/2023	FY3/2024
Domestic Environment and Energy Business	108,123	120,770	108,657	115,985	119,190
Overseas Environment and Energy Business	1,143	1,188	1,005	1,351	2,440
Package Boilers Business	17,868	16,931	16,498	17,312	18,492
Equipment and Systems Business	7,840	8,271	8,590	8,360	9,437
Adjustments	(521)	(435)	(659)	(358)	(393)
Total	134,454	146,726	134,092	142,651	149,166

Operating profit (million yen)

	FY3/2020	FY3/2021	FY3/2022	FY3/2023	FY3/2024
Domestic Environment and Energy Business	10,619	11,475	10,906	14,875	11,228
Overseas Environment and Energy Business	(202)	(140)	(218)	(172)	184
Package Boilers Business	966	640	672	915	1,177
Equipment and Systems Business	384	876	656	826	341
Adjustments	(2,167)	(2,378)	(2,087)	(2,630)	(2,703)
Total	9,600	10,473	9,928	13,813	10,229

Operating profit margin

	FY3/2020	FY3/2021	FY3/2022	FY3/2023	FY3/2024
Domestic Environment and Energy Business	9.8%	9.5%	10.0%	12.8%	9.4%
Overseas Environment and Energy Business	(17.7%)	(11.8%)	(21.8%)	(12.8%)	7.6%
Package Boilers Business	5.4%	3.8%	4.1%	5.3%	6.4%
Equipment and Systems Business	4.9%	10.6%	7.6%	9.9%	3.6%
Total	7.1%	7.1%	7.4%	9.7%	6.9%

Non-Financial Data

	FY3/2020	FY3/2021	FY3/2022	FY3/2023	FY3/2024
Environment					
Cumulative total of potential CO ₂ emissions reductions through products (thousand tons per year non-consolidated) ¹	5 000	4 000	4 000	4 000	4.500
Total CO ₂ emissions (tons of CO ₂ per year, non-consolidated) ²	1,914	2,032	2,137	553	601
Total energy use (GJ per year, non-consolidated)	47,902	50,927	53,982	51,685	52,845
Total renewable energy (solar) generated					
(MWh per year, non-consolidated)	2,371	2,262	2,211	1,853	2,219
Total waste emissions volume (tons per year, non-consolidated)	507	731	671	671	471
Total water use (m ³ per year, non-consolidated)	25,176	25,258	31,387	27,033	37,814
Total wastewater volume (m ³ per year, non-consolidated)	25,176	25,258	31,387	27,033	37,814
Total NOx emissions (tons per year, non-consolidated)	0.141	0.450	0.444	0.197	0.346
lotal SOx emissions (tons per year, non-consolidated)	0.013	0.015	0.010	0.019	0.006
Social					
Customers					
Customer satisfaction survey results (points out of 100, non-consolidated)	86.1%	88.4%	86.5%	88.5%	91.0%
Human resources					
Number of employees (consolidated)	3,816	3,925	4,145	4,247	4,278
Number of employees (non-consolidated)	875	894	958	1,002	1,054
Average years of service (non-consolidated)	15.5	15.3	14.9	14.8	14.4
Number of new-graduate hires (non-consolidated)	20	25	26	28	35
Number of mid-career hires (non-consolidated)	25	37	53	41	48
Attrition rate (voluntary resignation) (non-consolidated)	0.9%	1.1%	1.1%	1.7%	1.5%
Gender wage gap (non-consolidated)3	_	_	_	66.6	66.3
Diversity					
Number of female employees in main career track and management positions (non-consolidated)	17	22	31	36	45
Percentage of management positions held by female workers (non-consolidated)	_	_	_	1.7%	1.6%
Percentage of employees with disabilities (non-consolidated) ⁴	1.74%	1.80%	1.95%	2.26%	2.39%
Work-life balance					
Average number of annual paid leave days taken (non-consolidated)	8.9	8.6	9.3	9.9	10.5
Percentage of available annual paid leave taken (non-consolidated)	58.3%	52.5%	53.0%	57.1%	61.2%
Percentage of eligible employees utilizing parenting support programs (telework, childcare leave, etc.) (non-consolidated)	_	_	32%	35%	44%
Percentage of eligible male employees taking childcare leave (non-consolidated)	_	_	_	32.3%	46.1%
* If including leave taken under company leave program for the purpose of childcare (available in parallel with legally mandated childcare leave)	_	_	_	88.2%	71.1%
Safety					
Accident frequency rate (non-consolidated)	0.87	1.62	1.85	0.27	2.02
Accident severity rate (non-consolidated)	2.16	0.03	0.12	0.01	0.02
Governance					
Board of Directors					
Number of directors	11	11	11	11	11
Independent outside directors	4	4	4	4	4
Female directors	1	1	1	1	1
Audit & Supervisory Committee					
Number of members	5	5	5	5	5
Members also serving as independent outside directors	4	4	4	4	4
Nominating & Compensation Advisory Committee					
Number of members	6	6	6	6	6
Members also serving as independent outside directors	4	4	4	4	4
New calculation method used in FY3/2021 and subsequent years					

New calculation method used in PY3/2021 and subsequent years
 Scopes 1 and 2, for Head Office, branches and branch offices, and Harima Factory
 This figure is largely the result of the company's low proportion of female employees relative to male employees. We maintain a requirement of "equivalent pay for equivalent-value work" in the salary policies set forth in our Employment Rules and do not treat employees differently on the basis of their gender
 Figures for each fiscal year taken June 1

Municipal Solid Waste Treatment Plant Business



Senboku Clean Center [Primary equipment improvement works] 300 t/day Capacity (150 t/day x 2 incinerators) Power output: 9.300 kW Osaka Prefecture Location

Construction of this incineration facility was completed in March 2003. It processes domestic and commercial combustible waste generated by the cities of Izumiotsu, Izumi, and Takaishi in Osaka Prefecture. In the course of our works on this facility, we conducted core equipment replacements and improvements that were difficult to carry out through routine maintenance, prolonging the Center's service life (offering approximately 10 years of stable operation), reducing CO2 emissions by 5% or more, and enhancing the facility's systems for processing disaster waste

Energy Plant Business



Nihonkaisui TTS Kanda Power Co., Ltd. [Biomass power plant]					
Combustion system:	Traveling stoker				
Fuel:	Wood fuel				
Boiler evaporation rate: (maximum)	200 t/h				
Steam specifications: (rating)	6.2 MPaG, 480°C				
Power output:	50,000 kW				
Location:	Fukuoka Prefecture				

This large-scale biomass power plant creates energy from palm kernel shells (an agricultural by-product generated by the palm oil production process) and chips made from construction waste. In addition to constructing the plant and investing in its business, Takuma has also secured a 20-year O&M contract to provide comprehensive operation and maintenance services (the Group's third such contract for a private energy project).



Hyuga Plant, Chugoku Lumber Co., Ltd. [Biomass power plant] Combustion system: Circulating fluidized bed Fuel Wood fuel Boiler evaporation rate: 65 t/h (maximum) Steam specifications: 6.0 MPaG, 460°C (rating) Power output: 14,500 kW _ocation Miyazaki Prefecture

This plant is the fourth we have constructed at the Hyuga Plant site, where Chugoku Lumber Co., Ltd. mills domestic lumber and produces dried and laminated timber. As with the site's existing plants, this plant generates power fueled by waste wood produced at the Hyuga Plant and supplies steam for various processes. In line with exhaust gas regulations for the site of the plant's construction, we proposed a circulating fluidized bed boiler that can be operated at a lower air-fuel ratio.



Kumamoto Clean Energy Co. [Biomass power plant] Combustion system: Traveling stoker Fuel: Wood fuel Boiler evaporation rate: 12 t/h maximum) Steam specifications: 4.2 MPaG, 405°C ratina) 1.990 kW Power output: Kumamoto Prefecture _ocation:

This power plant is fueled by wood that would otherwise be unused, including offcuts and wood harvested during plantation thinning from the surrounding mountainous areas. This 2 MW woody biomass power plant construction project, part of Japan's FIT scheme, is Takuma's eighth such project completed to date. Thanks to biomass power generation's particularly strong link with local industry, as compared to other renewable energies, this project is expected to contribute to the local community.



[Biomass power plant] Combustion system: Fuel: Boiler evaporation rate: 25 t/h (maximum) Steam specifications: 5.9 MPaG, 425°C (rating) Power output: Location:



[Biomass power plant] Combustion system: Fuel Boiler evaporation rate: 50 t/h (maximum) Steam specifications: 6.0 MPaG, 425°C (rating) Power output: Location:

Water Treatment Plant Business



Naga Water Purification Center [Sand filtration system] Capacity: 4,500 m3/day Location: Wakayama Prefecture



Hokko Landfill Site [Wastewater treatment facility] Capacity: 600 m3/day Location: Osaka Prefecture



Sapporo City Seibu Sludge Treatment Center [Sewage sludge incineration and power generation system] Capacity: 100 t/day Location: Hokkaido Prefecture

Kashima Plant, Chugoku Lumber Co., Ltd.

Traveling stoker Wood fuel

2,100 kW Ibaraki Prefecture

Gojo Wood Biomass Power Plant LLC

Traveling stoker Wood fuel

10.000 kW Nara Prefecture

This power plant is fueled by sawdust, bark and other offcuts generated by timber processing. It produces the steam required for lumber drying and the power needed for factory operation. Using offcuts to fuel the plant and therefore to generate energy creates a process in which no part of the raw timber is wasted.

This is the second biomass power plant in Nara Prefecture. Wood harvested during plantation thinning and other woody biomass will be purchased from foresters within the prefecture and processed into wood chips that will serve as the fuel for this power generation project. With forestry labor shortages and the use of timber and wood harvested during plantation thinnings becoming nationwide issues, it is hoped that this will revitalize local industry and contribute to creating a sustainable society.

This terminal treatment facility treats wastewater for the central section of the Kinokawa river basin. Wakayama Prefecture. The population in this area, covering the two cities of Kinokawa and Iwade, is approximately 110,000 people. The Center began operations in December 2008 with the goal of improving the river basin's water quality. Takuma was recently awarded a contract to expand the facility's sand filtration systems, and we have since completed this project. Through this equipment, Takuma is contributing to protecting the Kinokawa river basin's water environment.

This waste landfill disposal site is located in Zone 1 of Yumeshima, an artificial island constructed in Osaka Bay. Since FY1985, the city of Osaka's incineration residues and sewage sludge have been landfilled at this site, and the wastewater emission in this process has passed through the Hokko Landfill Site's on-site wastewater treatment facility before discharge into Osaka Bay. Takuma recently supplied wastewater treatment equipment for this facility's nitrogen removal system. Through this, Takuma is contributing to protecting the Osaka Bay's water environment.

This centralized sludge treatment facility was established by the city of Sapporo to reduce and stabilize municipal sewage sludge. With the aim of establishing a low-carbon, sound materialcycle society (a Japanese concept similar to that of the circular economy), the facility opted for equipment that both conserves and generates energy when renewing its obsolete incineration equipment, adopting Takuma's sewage sludge incineration and power generation system. Through this facility, we will help to reduce energy usage and effectively utilize otherwise unused energy, as well as contribute to lowering greenhouse gas emissions.

Shareholder distribution

Our Value Creation Story

Corporate and Stock Information (as of March 31, 2024)

Company overview

Name	TAKUMA CO., LTD.
Head office location	2-2-33 Kinrakuji-cho, Amagasaki, Hyogo 660-0806, Japan
Representative director	Hiroaki Nanjo, President and CEO
Established	June 10, 1938
Capital	13,367 million yen
Main business	The design, construction, and superintendence of a wide variety of boilers, plant machinery, pollution control plants, environmental equipment plants, heating and cooling equipment, and feed-water and drainage sanitation equipment and facilities, as well as of civil engineering, construction, and other works
Number of employees (consolidated)	4,278
Number of employees (non-consolidated)	1,054

Key share information

Business year	April 1 to March 31		
Annual General Meeting of Shareholders	June		
Record dates	Eligibility to vote at Annual General Meeting of Shareholders: March 31 Cash dividends Year-end dividend: March 31 Interim dividend: September 30		
Share registrar Special account management institution	Mizuho Trust & Banking Co., Ltd.		
Contact information	Stock Transfer Agency Department, Mizuho Trust & Banking Co., Ltd. 2-8-4 Izumi, Suginami-ku, Tokyo 168-8507		
Method of public notice	Electronic notices (published on the company's website) (https://www.takuma.co.jp/english/) If notices cannot be published electronically due to an accident or other unforeseen circumstance, public notices will be published in the Nihon Keizai Shimbun.		
Stock exchange listings	Tokyo Stock Exchange Prime Market (stock code: 6013)		
Number of shares per share unit	100		
Total number of authorized shares	321,840,000		
Total number of shares issued	83,000,000		
Number of shareholders	5,913		

Shareholder returns

	FY2020	FY2021	FY2022	FY2023	FY2024 (forecast)
Annual dividend per share (yen)	36.00	36.00	43.00	48.00	56.00
Consolidated dividend payout ratio	38.8%	39.3%	35.8%	43.9%	50.2%
Share repurchase (million yen)	_	747	1,252	_	4,000







Initiatives and External Evaluation



2024 CONSTITUENT MSCI NIHONKABU ESG SELECT LEADERS INDEX



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Major shareholders (top 10)

Shareholder name	Number of shares held (thousands)	Shareholding ratio (%)
er Trust Bank of Japan, Ltd.	9,389	11.7
rust & Banking Co. e The Custody Bank of Japan, Ltd.	3,462	4.3
count) ody Bank of Japan, Ltd.	3,107	3.9
ishin, Inc.	2,786	3.5
REET BANK AND TRUST Y 505025	2,652	3.3
ife Insurance Company	2,515	3.1
IBAS LUXEMBOURG / 2S / SECURITIES / UCITS ASSETS	2,359	2.9
Kyoeikai	2,039	2.5
GAN CHASE BANK 380055	1,965	2.5
o Mitsui Banking Corporation	1,621	2.0

Note 1. As of March 31, 2024, Takuma holds 2,978,000 shares of treasury stock, which were excluded when calculating the above figures for major shareholders.

Note 2. Treasury stock figures (2,978,000 shares) were not included when calculating shareholding ratios.

FTSE Blossom

Japan Sector

Relative Index

Carbon

Efficient

ndex