

# Message from Top Management

Contributing to the sustainable development of society by providing new value the world needs

## Assessing change in the business environment and boosting our ability to grow

I'm Hiroaki Nanjo, and I became President and CEO of Takuma in April.

The Takuma Group, which has adopted the goals of "aiming 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" and of achieving ordinary profit of JPY 10 billion in FY2020, has embraced a vision of building structures capable of consistently earning an ordinary profit of at least JPY 10 billion even as the business environment undergoes a process of significant change. As the final stage in our direct to achieve that vision, we are working to implement the 12<sup>th</sup> Medium-Term Management Plan (FY2018 to FY2020). That effort includes a variety of business activities undertaken as part of the Plan, which outlines a three-year period during which we have sought to boost our corporate capabilities to facilitate the achievement of our vision and consistent growth afterwards based on a sure assessment of how the business environment is likely to change in the future.

## Continuing to be a company that plays an essential role in society

I'd like to take advantage of this opportunity to describe my basic approach to management as I take on these new responsibilities.

First, I believe in the importance of respecting our Management Principles. The Takuma and Takuma Group 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." That impetus can also be found in our founding spirit of "Service to the nation through boiler manufacturing\*," and it means contributing to the world through the goods and services that we create. It also informs corporate social responsibility (CSR), which we have currently embraced as a key issue in the company's management. Companies must build and maintain good relationships with a variety of stakeholders, including customers, business partners, employees, shareholders, and investors. Such relationships cannot be realized in a day. The first step is for the company to conduct itself in a way that inspires trust on the part of stakeholders.

Through endless effort to provide new value after conducting ourselves in line with the dictates of legal compliance, impartiality, ethical values, and social mores while ensuring transparency in decision-making and fulfilling the obligations of accountability, we must build and maintain good relationships; only then will society acknowledge the value of Takuma's continued existence. I believe that management is founded on corporate governance, compliance, and risk management.

Second, I embrace the practice of seeing things from both a short-term and a medium-/long-term perspective. As the business environment continues to undergo significant change, we are called upon to deal with those changes in an appropriate manner and to generate results as we do so. Additionally, as a publicly held company, we are required to increase management efficiency and to improve our performance. However, merely pursuing short-term profits in the context of an effort to achieve long-term development of the business while satisfying all stakeholders is unlikely to lead to sustained growth. We must cultivate a medium- and long-term perspective and incorporate it into our management while reliably dealing with the immediate opportunities and issues that present themselves to us. In particular, the Group's products—Energy from Waste plants, water treatment plants, and energy plants—are key parts of society's underlying infrastructure, and as such they operate for 20 to 30 years after being delivered to the customer. We will continue to work to manufacture optimal products through careful attention to all phases of the life cycle, from design to construction and maintenance, in order to ensure that customers can utilize these facilities for as long, and in as effective a manner, as possible. At the same time, ESG investment is attracting attention as a means of boosting corporate value over the long term. We will contribute to society by focusing even more closely on developing and supplying products and services that make contributions to the environmental priorities of reducing environmental impacts and lowering greenhouse gas emissions.

Third, I am committed to carrying on a good corporate culture that allows all employees to pursue their jobs with enthusiasm and ambition while enjoying personal growth. Takuma has created a culture that encourages such growth by allowing relatively inexperienced employees to take on job responsibilities so that they can gain motivation and experience a sense of accomplishment while being mentored by supervisors and older colleagues. I look forward to continuing to develop an environment that allows each Takuma employee to approach his or her job with a desire to improve, to take full advantage of his or her skills and abilities, to grow through the company's activities, and to enjoy a sense of motivation and happiness.



# Message from Top Management



## Accommodating customers' diversifying needs through new initiatives such as the O&M\* business

Currently, Takuma's principal businesses include the Solid Waste Treatment Plant Business; the Energy Plant Business, which includes our Package Boiler Business; and the Water Treatment Plant Business. These three core areas of operations have grown thanks to continuous effort over many years, and by cultivating trusting relationships with customers, they have earned us excellent market share. We are now embarking on a new initiative that will seek to develop an O&M business for energy plants, an area that shares our focus on maintenance, into a robust contributor to Takuma's bottom line by taking advantage of the experience we've gained in solid waste treatment plants. Continuous action will be needed in the future in order to accommodate customers' diversifying needs so that we can continue to grow. Through the creative efforts of all employees, we will show the way forward for each business so that we can achieve the goals of the 12<sup>th</sup> Medium-Term Management Plan and realize our medium- and long-term vision for the next stage in our history.

## Helping solve social issues from the world's standard perspective

Takuma has been a signatory to the United Nations Global Compact\* since 2006, and we support its 10 fundamental principles in the 4 areas of human rights, labour, environment, and anti-corruption. We will work to develop our business while understanding and respecting these globally shared principles. In addition, concerning the implementation of the Sustainable Development Goals (SDGs) adopted by the United Nations and the provisions of the Paris Agreement adopted at COP21, the Group is helping resolve social issues with technologies for reducing emissions of greenhouse gases like carbon dioxide through such means as high-efficiency generation of electricity using waste and biomass.

In closing, in compiling this CSR Report we have sought not only to provide a resource by means of which a broad range of stakeholders could learn more about the Takuma Group's activities, but also to help each and every Group employee think carefully about CSR and bring that perspective to bear in his or her work. We at the Takuma Group encourage readers to offer their candid views and advice, which we will carefully review in order that we might better resolve social issues and contribute to the sustainable development of society.

July 2019

Hiroaki Nanjo  
President and CEO  
Takuma Co., Ltd.

\* Service to the nation through boiler manufacturing:  
It was the Company Motto of Takuma, then Takuma Boiler Manufacturing Co., Ltd., founded by Mr. Tsunekichi Takuma, one of the ten great inventors of Japan during the Meiji and Taisho periods (1868-1926).

\* O&M: Operation & Maintenance

\* United Nations Global Compact:



The Takuma Group has joined the United Nations Global Compact (UNGC), which is a voluntary effort to create a global framework for implementing sustainable growth by having companies and groups exercise responsible and creative leadership while acting as good members of society.

## Company Motto

Value Technology, Value People, Value the Earth

## Management Principles

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.

The founding spirit of Takuma was "Service to the nation through boiler manufacturing," which in present-day language means "contribution to society by supplying goods and services that we yield." This spirit can also be applied to the concept of Corporate Social Responsibility (CSR) that in recent years has become a vital issue for corporate management. The management principles of the Takuma group companies are all based on the said founding spirit.

## Takuma Group Ethics Charter

Takuma and the Takuma Group companies believe that it is essential for the sound development of the group that all of the directors and employees remain aware of our social responsibilities and the circumstances surrounding us as well as act in response to social ethics complying with applicable related laws and ordinances. Bearing the above in mind, we have established and will promote this ethics charter as our code of conduct, aiming to realize our management principles.

1. We shall strive for proactive social contribution while establishing a harmonious coexistence with the global environment as good corporate citizens.
2. We shall act in good faith in accordance with sound business custom, while complying with applicable laws and regulations and committing ourselves to fair, transparent and free competition, as well as conducting lawful business activities.
3. We shall never have any relationship with antisocial forces or organizations, which may pose a threat to the social order and security of civil society.
4. We shall respect fundamental human rights and never practice discrimination.
5. We shall strive to provide high quality products and services, based on our advanced technologies, to attain high acclaim and confidence from our customers.
6. We shall strive to disclose corporate information to shareholders and investors through investor relations (IR) and other activities on a timely and equitable basis.
7. We shall strive to protect corporate properties as well as information, while never using either for improprieties or any unjustifiable purpose other than normal business operations.

## Takuma Group Code of Conduct

### Harmony with society

1. Coexistence with the global environment
2. Coexistence with international society
3. Practice of social contribution activities

### Practice of compliance with laws and ordinances as well as sound economic activities

4. Free competition and fair trade
5. Relationship with politics and public administration
6. Policies concerning business entertainment and gift-giving
7. Prohibition of involvement in anti-social activities
8. Appropriate export and import transactions

### Respect for basic human rights

9. Prohibition of discriminatory actions
10. Respect for individuality, personal quality, and privacy
11. Safe work environment

### Practice of customer satisfaction

12. Safety of products and services as well as ensuring reliability
13. Policies concerning advertising

### Making appropriate disclosure of information

14. Transmission of corporate information
15. Ensuring reliability of financial reporting
16. Prohibition of insider trading

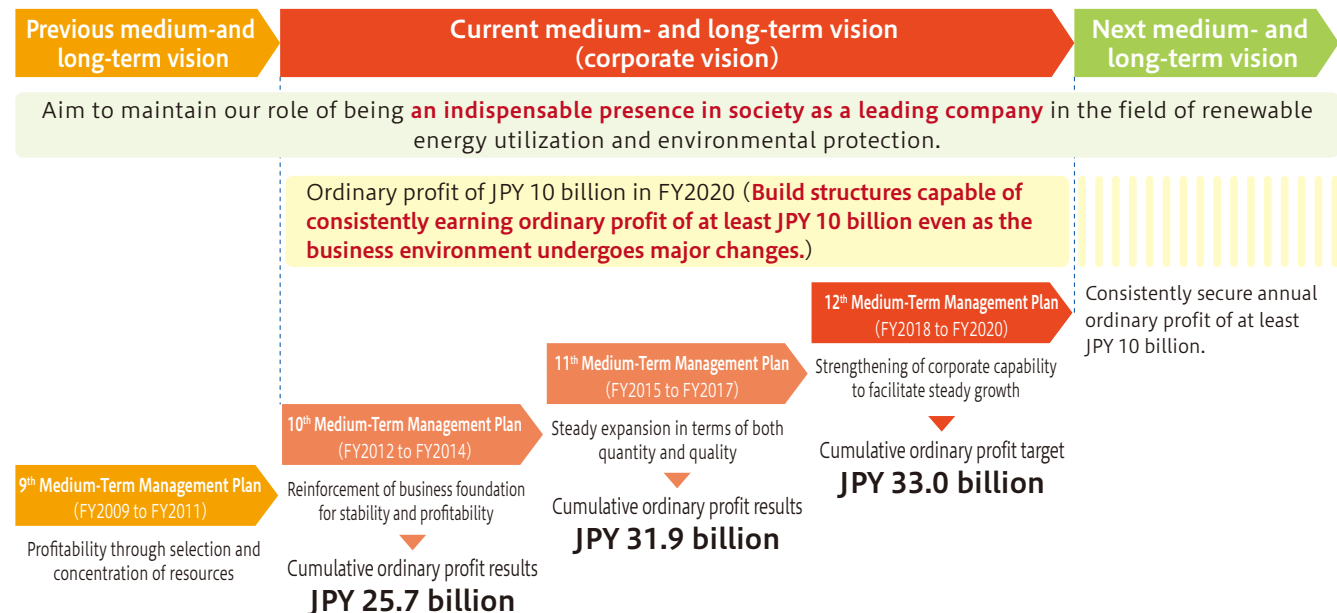
### Protection of corporate properties and information

17. Management and proper use of corporate properties
18. Handling of confidential information
19. Intellectual property protection



# 1. Positioning of the 12<sup>th</sup> Medium-Term Management Plan

- The plan represents the final stage of the current medium- and long-term vision (corporate vision), for which FY2020 is the target year.
- During its three years, we will achieve the vision and boost our corporate capabilities to prepare for steady growth in the future in response to future changes that are forecasted to occur in the business environment.



# 2. Policies of the 12<sup>th</sup> Medium-Term Management Plan

## 1 Strengthening and expanding our revenue foundation

Many of the Group's products are used for a long period of time, for example for 20 or 30 years from the time of delivery. Offering high-quality after-sales service in an ongoing manner so that customers can use those products more effectively and over a longer period of time contributes to both customers' and the Group's profits, helping to create a foundation for stable, long-term earnings.

We will work to further strengthen and expand our revenue foundation by continuing to provide high-quality solutions throughout the plant and product life cycle as we meet customers' diversifying needs in an individualized manner.

## 2 Achieving sustained growth

Over the 80 years since the Group's founding, we have built a reputation as an essential part of society by providing products that are recognized for their value utilizing our technologies which are the core part of our company.

We will create customer value by continually developing unique technologies, services, and business models based on Takuma's strengths such as the technologies, track record, experience, and expertise that we've accumulated through our business activities to date. In addition, we will work to secure sustained growth by securing and creating competitive advantages as we respond quickly to changes in the business environment, such as evolving customer needs and emerging social issues.

## 3 Increasing productivity, for example by reforming business processes

The nature of the Group's businesses is undergoing major evolution as the business environment changes, for example due to changes in social structure such as the shrinking and

aging of Japan's population and the emergence of more advanced and diverse customer needs as well as social issues.

We will strive to improve productivity, make effective use of human resources, and further increase the level of value we provide by fundamentally reviewing and rebuilding business processes that have become increasingly complex in order to accommodate these changes while focusing on businesses with higher added value (which will help us create and provide value).

## 4 Using human resources effectively

We will work to hire and train the diverse workforce that will be essential as we develop the Group's businesses going forward. At the same time, we will strive to create an environment that keeps individual employees engaged in their work and able to make full use of their skills and abilities (by cultivating a healthy workplace culture, reforming individual awareness, and facilitating fulfilling workstyles).

## 5 Continuing to pursue compliance management

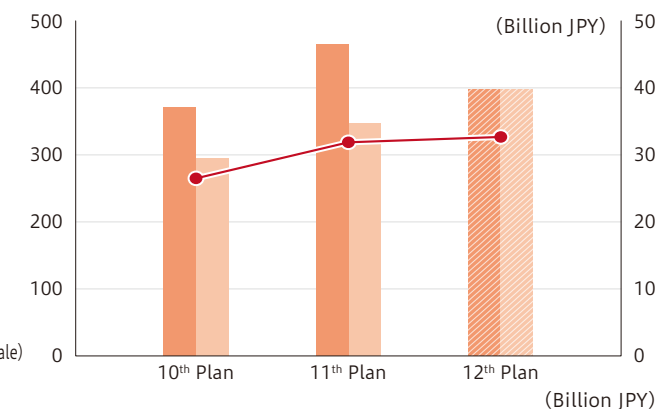
The Group considers compliance to be a key foundation of its corporate activities, and we've worked to spread awareness and foster adoption of good practices by including compliance as a policy in the last several Medium-Term Management Plans.

Awareness of the importance of compliance has steadily taken root among our employees thanks to ongoing awareness-raising and educational activities, and we will continue to pursue such initiatives to ensure that the trust we've built up in our quality and integrity remains unshakable. In addition, we will work to further spread and improve compliance awareness throughout the Group by effectively implementing and utilizing mechanisms such as our internal reporting system and CSR awareness survey.

# 3. Financial Target

## Target: 3-year cumulative consolidated ordinary profit of JPY 33 billion

The 12<sup>th</sup> Medium-Term Management Plan, which represents the final stage of our current medium- and long-term vision, establishes the above targets to guide our achievement of the vision's goal of consistently earning ordinary profit of JPY 10 billion while simultaneously directing the company to utilize all its resources to build a robust business and management foundation in response to future changes in the business environment.



	10 <sup>th</sup> Medium-Term Management Plan results	11 <sup>th</sup> Medium-Term Management Plan results				12 <sup>th</sup> Medium-Term Management Plan	
	2012 to 2014	2015	2016	2017	Total	2018	FY2018 to FY2020
Order value	371.0	99.9	191.0	177.1	468.0	179.8	JPY 400 billion (approx.) (3-year cumulative total; reference value)
Sales	296.5	113.0	116.3	118.1	347.5	121.9	
Ordinary profit	25.7	9.6	11.6	10.6	31.9	12.3	<b>Target: JPY 33 billion (3-year cumulative total)</b>

# 4. Core Business Units and Emphasis of Future Activities

## Municipal Solid Waste Treatment Plant Business

### Business Environment

- As facilities age, there is ongoing robust demand for renewal and service life elongation.
- Volume is growing for DBO projects as well as O&M services for existing facilities.

### Emphasis of Future Activities

- Strengthen the profitability of our plant operation business.
- Further strengthen initiatives to prolong the service life of facilities.

## Boiler Plant Business (Japan)

### Business Environment

- FIT demand remains robust.
- The number of plants targeted for maintenance is increasing as facilities are completed and transferred to customers.
- There is growing demand for plant operational management and O&M.

### Emphasis of Future Activities

- Capture new orders for FIT biomass plants.
- Strengthen our maintenance structures.
- Scale our waste management expertise horizontally to other businesses.

## Waste Treatment Plant Business (Overseas)

### Business Environment

- There is a growing need for proper waste management and energy utilization against a backdrop of growing urbanization, increase of waste volume, and diversification of waste characteristics.

### Emphasis of Future Activities

- Build structures to facilitate collaboration with partner companies.
- Build schemes for entering new markets.

\* DBO: Design Build Operate / PPP: Public Private Partnership / PFI: Private Finance Initiative / FIT: Feed-in Tariff

## Water Treatment Plant Business

### Business Environment

- There is growing demand for sludge incineration plants that conserve and create energy.
- There is increasing use of PPP/PFI arrangements in the sewer business.

### Emphasis of Future Activities

- Strengthen the competitiveness of our sludge-fueled power system.
- Scale our waste management expertise horizontally to other businesses.

## Boiler Plant Business (Overseas)

### Business Environment

- Demand for biomass power plants in Southeast Asia remains robust.
- Our flagship bagasse-fired boiler plants continue to experience intense competition.

### Emphasis of Future Activities

- Capture orders continually by creating competitive advantages.
- Strengthen the ability of our local subsidiary (SIAM TAKUMA) to carry out its business operations.

## Package Boiler Business

### Business Environment

- We are continuing to see a certain level of demand in Japan, particularly in terms of renewal demand.
- The need for energy-conserving boilers is increasing overseas, particularly in developing nations.

### Emphasis of Future Activities

- Maintain and expand our domestic business.
- Expand our overseas business.

## 5. Progress in Implementing the 12<sup>th</sup> Medium-Term Management Plan

In this section, members of Takuma's management team present progress in implementing the goals of the 12<sup>th</sup> Medium-Term Management Plan, which began in FY2018.



**Kengo Numata**  
Director & Executive Vice President  
Executive Manager, Corporate Planning & Administration Division

The central theme of this Medium-Term Management Plan is strengthening our corporate capability to facilitate steady growth. During FY2018, we worked to do just that in an effort to not only boost profitability, but also better earn the trust of a wide range of customers and other stakeholders, including by offering high-quality solutions that help resolve a variety of today's social issues. I think it was a good start for the first year of the Plan.

In FY2019 and beyond, we will continue to help build a sustainable society by strengthening our corporate capabilities through operations including our environmental plant, energy plant, and other businesses and by maintaining our role of being an indispensable presence in society as a leading company in the field of renewable energy utilization and environmental protection.

The Japanese Solid Waste Treatment Plant and Boiler Plant Businesses performed well during the first year of the Plan. Orders, sales, and operating income all exceeded the initial planned values as we enjoyed a smooth start in terms of quantitative performance.

Looking at the business environment, the transition in the Japanese market from manufacturing alone to a service business that uses products as tools is accelerating, and there is demand in the overseas market for products and services that can accommodate individual countries' different situations and needs.

In order to achieve steady growth, it is necessary for companies to bolster their capabilities to ensure they can adapt to changes in the tenor of the times. One of the key themes for this plan is strengthening and expanding the Japanese plant operation business and bringing new creativity to its development overseas. Our goal is to enhance our adaptability and create a foundation that will enable us to secure stable profits in the future by actively developing more appropriate structures based on revamped resource allocation, accumulating more skills, and offering a selection of products that meet the needs of the times.



**Tsuyohito Nishiyama**  
Director & Senior Managing Executive Officer  
Executive Manager, Corporate Marketing Group

In order to build a society in which the global environment and natural environment are protected and conserved in an appropriate manner into the future, it will be necessary to utilize waste effectively as a resource and to expand production of renewable energy.

Our mission is 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. In keeping with that mission, our Engineering Group will continue to help build a sustainable society by providing plants that make significant inroads in the drive to protect the environment, develop a recycling-based society, and reduce CO<sub>2</sub> emissions through pioneering solid waste treatment that helps reduce environmental impacts, Energy from Waste projects that generate power from municipal waste and sewage sludge, and carbon-neutral biomass power generation.



**Hideki Takeguchi**  
Director & Senior Managing Executive Officer  
Executive Manager, Engineering Group

## Company Outline

Name: TAKUMA CO., LTD.  
Head office location: 2-2-33 Kinrakuji-cho, Amagasaki, Hyogo 660-0806, Japan  
TEL +81-6-6483-2609 FAX +81-6-6483-2751 (operator)  
Representative Director: Hiroaki Nanjo, President and CEO  
Established: June 10, 1938  
Capital: JPY 13,367,457,968 (as of March 31, 2019)  
Main business areas: The design, construction and superintendence of a wide variety of boilers, plant machinery, pollution prevention plants, environmental equipment plants, and heating and cooling equipment and feed-water / drainage sanitation equipment and facilities  
The design, construction and superintendence of civil, architecture and other works  
Number of employees (non-consolidated): 852 (as of March 31, 2019)  
Number of employees (consolidated): 3,619 (as of March 31, 2019)

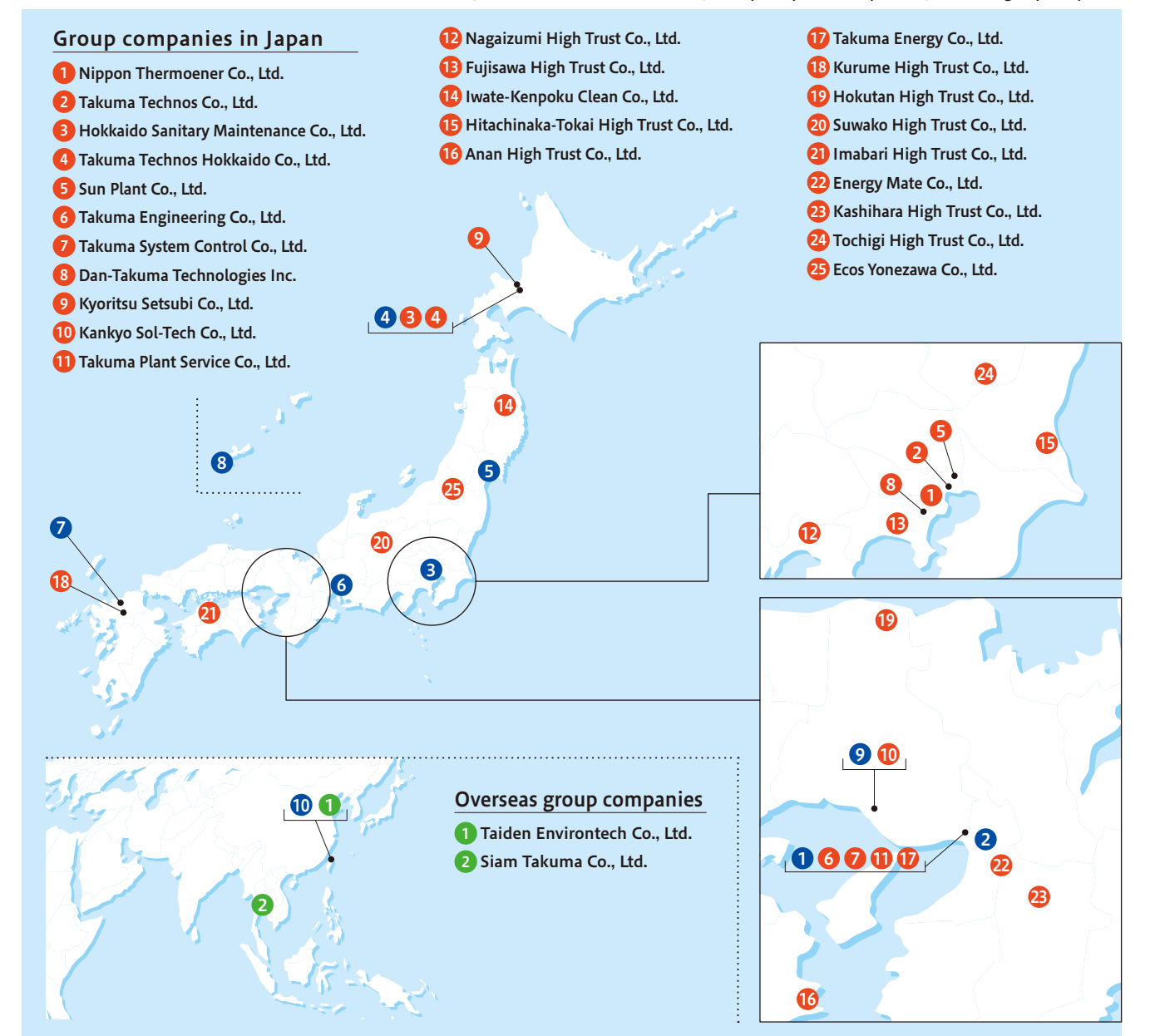
### Takuma's business offices

- 1 Head Office (Amagasaki, Hyogo)
- 2 Osaka Office (Osaka)
- 3 Tokyo Branch (Minato-ku, Tokyo)
- 4 Hokkaido Branch (Sapporo, Hokkaido)
- 5 Tohoku Branch (Sendai, Miyagi)
- 6 Chubu Branch (Nagoya, Aichi)
- 7 Kyushu Branch (Fukuoka)
- 8 Okinawa Branch (Ginowan, Okinawa)
- 9 Harima Factory (Takasago, Hyogo)
- 10 Taipei Branch (Taipei, Taiwan)

### The Takuma Group Network

(As of June 26, 2019; see Takuma's website for details.)

● Takuma's business offices ● Group companies in Japan ● Overseas group companies





# Business Summary

## Environment and Energy Business

### Municipal solid waste treatment plants

We support the realization of a recycling-oriented society using advanced waste treatment technologies that meet the needs of local communities.

- Energy from Waste plant
- Pyrolysis gasification and melting plant
- Resource recycling and collection plant
- Bulky garbage crushing plant
- Incineration ash and fly ash melting plant
- Waste to solid fuel conversion plant
- Transition and intermediate processing plant
- Raw fuel (biogas) recovery plant
- Various types of pollution prevention equipment

Energy from Waste plant



Bulky garbage crushing plant



### Energy plants

Takuma's core technologies are utilized in various types of boilers, starting with biomass boilers, as well as total systems.

- Biomass boiler
- Fossil fuel boiler
- Waste heat boiler
- Power plant

Biomass power generation boiler



Waste heat boiler



### Industrial waste treatment plants

Using advanced incineration technologies, we can even treat toxic substances suitably and we are supporting the environmental protection efforts of industry.

- Industrial waste treatment plant

Industrial waste treatment plant



Plant that generates power from industrial waste and provides heat to a plantation



### Water treatment plants

We are working to purify wastewater with a holistic perspective through a "dialogue with water."

- Sewage and wastewater treatment plant
- Various types of advanced sewage treatment plant
- Sludge treatment plant
- Sewage sludge-fueled power plant
- Plant to process water that infiltrates final disposal sites

Upflow moving-bed filtration system



Sewage sludge-fueled power plant



## Package Boiler Business

### General-purpose boilers

As the convergence of Takuma's combustion technologies, our boilers are a reliable brand that has earned the support of a wide range of industries.

- Steam Boilers (EQOS, Super EQOS)
- Vacuum-type Water Heaters (Vacotin Heater)
- Package Water-tube Boilers
- Flue and Smoke Tube Boilers (RE Boiler)
- Heat Medium Oil Boilers (Thermoheater)
- Radiation Heating Equipment (Strip Heater)



Note: These products are handled by Nippon Thermoener Co., Ltd., which is one of our group companies.

## Equipment and Systems Business

### Air-conditioning equipment and clean systems

We provide comfortable, clean environments to customers in the semiconductor industry as well as many locations such as universities, research institutions, and hospitals.

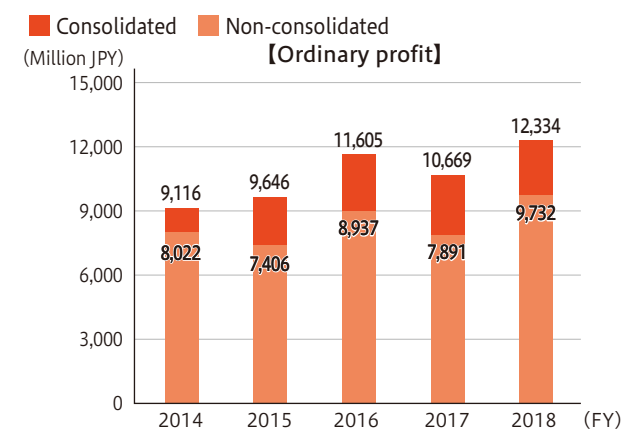
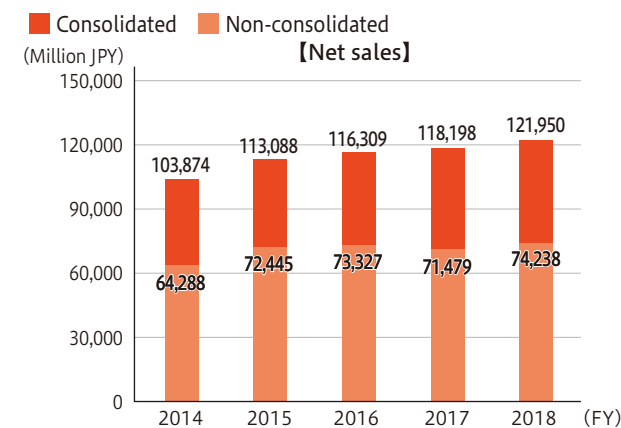
- Building equipment
- Air-conditioning equipment
- Cleaning and drying devices
- Clean room
- Clean devices
- Chemical filters



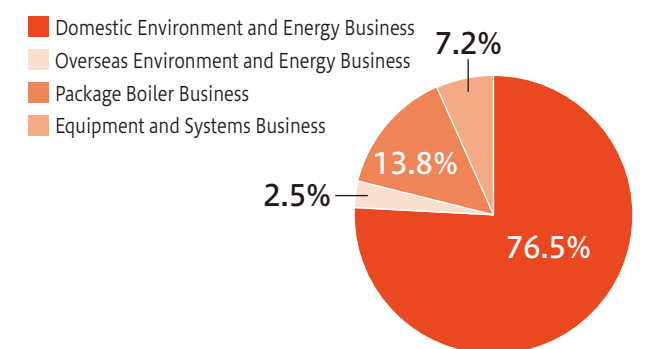
Chemical filters, Clean oven, Clean booths

## Financial and non-financial information

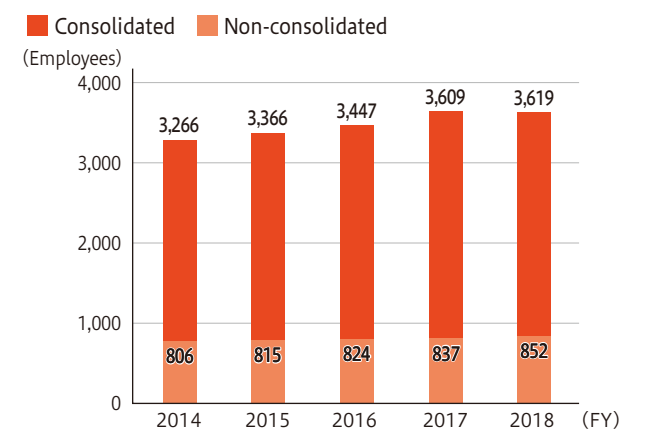
### Overview of financial results



### Net sales composition ratios (FY2018)



### Number of employees (as of March 31, 2019)





(Related SDGs)



(Related SDGs)



株式会社日本サーモエナー

NIPPON THERMOENER CO., LTD.

**Established** August 1, 1961  
**Representative** Masahiko Izumi  
 President and Representative Director  
**Employees** 431 (as of March 31, 2019)



## Business Profile: Nippon Thermoner

As a company that manufactures and sells general-purpose boilers and hot-water heaters in the Takuma Group, we strive to contribute to society through our activities in the field of package boilers in keeping with the founding spirit of "Service to the nation through boiler manufacturing." And as a manufacturer specializing in heat source equipment, we meet a diverse range of needs for customers in Japan and overseas with a broad array of products and services along with an integrated system that encompasses sales, installation, and maintenance for products and related equipment.

### Manufacturing and sales

- Boilers and associated equipment
- Energy-saving heat source equipment



Vacuum-type Water Heaters  
Vacotin Heater



Steam Boilers  
EQOS Series



Heat Medium Oil Boilers  
Thermoheater



Flue and Smoke Tube Boilers  
RE Boiler FII Series

## Increasing our corporate value

Heat sources, which are generally required by industrial and commercial facilities, can be classified based on their use of either steam, which is needed for heating and sterilization, or hot water, which is used for bathing and cleaning. In addition to general-purpose boilers such as EQOS Series steam boilers and Vacotin Heater vacuum-type water heaters, which deliver some of the best performance of any models in their respective industries, we offer a selection of special-purpose boilers including flue and smoke tube boilers, water-tube boilers, and heat medium oil boilers. Our goal is to select and combine heat-source equipment that suits customers' applications and requirements based on deep knowledge of their businesses. Going forward, we will continue to help create a clean global environment by supplying high-efficiency, high-performance products that take advantage of technological capabilities developed over many years so that we can accommodate the changing needs and environment of our times. This commitment is evident in accomplishments such as our becoming the first company in the industry to introduce hybrid hot water systems that combine heat pumps, which deliver excellent energy-saving benefits, with hot water heaters.

### Principal customers

JR; Ground, Maritime and Air Self-Defense Forces; manufacturing plants in various industries; hospitals; hotels; cleaning companies and linen plants; social welfare facilities; public baths; golf courses; etc.



株式会社 タクマテクノス

Takuma Technos Co., Ltd.

**Established** September 27, 1967  
**Representative** Kazunori Tsuji, President  
**Employees** 1,721 (as of March 31, 2019)



## Business Profile: Takuma Technos

Our company, which maintains 63 sites and offices nationwide, operates and manages plants including waste incineration facilities, bulk waste treatment facilities, and recycling facilities. Our approach to those operations has been changing, and recently we're involved with more DBO and O&M projects with Takuma.

Because we offer what is in effect a type of government service, our business activities are intimately connected to the lives of local residents. Consequently, we see our mission as ensuring safety, stability, and peace of mind at each facility we operate, and we are confident that by doing so in a reliable manner we can boost our corporate value.

Our executives and employees work closely together to ensure everyone involved with our company is satisfied. We strive to do our part in developing a recycling-based society while boosting compliance and CSR awareness.

### Businesses

- Maintenance, management and operation of waste treatment facilities, water treatment facilities and other facilities
- Design, installation and management of various types of boilers, environmental equipment and other equipment



## Entering new business domains

In April 2019, we joined Takuma in launching the Group's first O&M business for biomass power-generating equipment owned by a private-sector company. Customers outsource operation, management, and maintenance of equipment for 20 years after the start of operation to us, so we're dedicated to keeping those facilities running and supplying power in a stable manner.

We've seen a surge of initiatives related to power businesses that use biomass fuel since the launch of Japan's feed-in tariff program for renewable energy, and going forward we will work with Takuma to increase orders.

# History

Founder Tsunekichi Takuma established our philosophy of “Service to the nation through boiler manufacturing.” The goal of becoming a technologically driven company based on that belief has been the basis of Takuma’s operations throughout its 80 years of history.

## 1912 to 1950

Tsunekichi began shipping Takuma boilers in 1912, and in 1938 he founded Takuma Boiler Manufacturing Co., Ltd., with the philosophy of “Service to the nation through boiler manufacturing.” The corporate stance and philosophy that form the foundation of Takuma developed during this period.

## 1951 to 1971

Takuma established itself as a manufacturer not only of boilers, but also environmental and sanitary equipment, for example by developing waste heat recovery boilers that use waste heat from manufacturing plants, developing modern technology for incinerating solid waste, and entering the water treatment market.

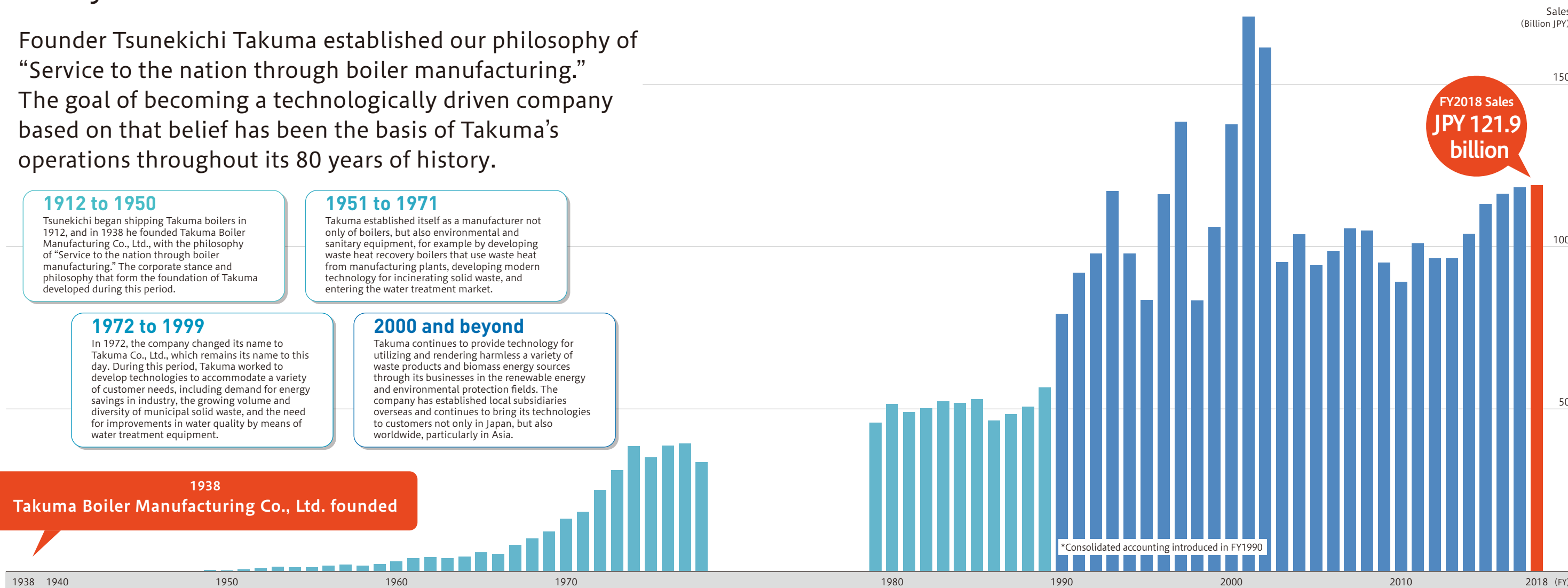
## 1972 to 1999












In 1972, the company changed its name to Takuma Co., Ltd., which remains its name to this day. During this period, Takuma worked to develop technologies to accommodate a variety of customer needs, including demand for energy savings in industry, the growing volume and diversity of municipal solid waste, and the need for improvements in water quality by means of water treatment equipment.

## 2000 and beyond

Takuma continues to provide technology for utilizing and rendering harmless a variety of waste products and biomass energy sources through its businesses in the renewable energy and environmental protection fields. The company has established local subsidiaries overseas and continues to bring its technologies to customers not only in Japan, but also worldwide, particularly in Asia.

**1938**  
Takuma Boiler Manufacturing Co., Ltd. founded



<p><b>1912</b> The first “Takuma boiler” introduced by our founder, Tsunekichi Takuma</p>  <p>Tsunekichi Takuma</p>	<p><b>1949</b> Company listed on the Osaka and Tokyo stock exchanges</p>	<p><b>1972</b> Company renamed Takuma Co., Ltd.</p> 	<p><b>1995</b> Amagasaki Head Office Building completed</p>  <p>Amagasaki Head Office Building</p>	<p><b>2004</b> Takuma’s first “Environmental Report” issued The “Takuma Group Code of Conduct” instituted</p>	<p><b>2010</b> Energy from Waste plant delivered in Europe (U.K.)</p>  <p>Lakeside EFW Plant</p>
<p><b>1930</b> Tsunekichi Takuma commended as one of the ten great inventors of Japan during the Meiji and Taisho periods (1868–1926)</p>	<p><b>1953</b> Head Office moved to Osaka’s Kita-ku District</p>  <p>Former head office (Dojimahama)</p>	<p><b>1975</b> Bulk production began on “Vacotin Heater” the world’s first vacuum-type hot water heater</p>  <p>Vacotin Heater</p>	<p><b>1997</b> ISO9001 certification obtained</p>	<p><b>2005</b> Takuma Hanyokikai Co., Ltd., a subsidiary involved in the manufacture and sale of small boilers, and Ebara Boiler Co., Ltd. merged and renamed Nippon Thermoener Co., Ltd.</p>	<p><b>2012</b> Feed-in tariff (FIT) program launched to facilitate fixed-cost purchases of renewable energy</p>
<p><b>1938</b> Takuma Boiler Manufacturing Co., Ltd. founded Company Motto instituted: “Service to the nation through boiler manufacturing”</p>  <p>Amagasaki Factory</p>	<p><b>1958</b> Business expanded into the environmental facility sectors, including waste incineration and water treatment plants</p>	<p><b>1986</b> The first overseas delivery of a waste treatment facility completed</p>	<p><b>1998</b> Japan’s largest Energy from Waste plant delivered (Tokyo Shinkoto Waste Treatment Plant Capacity: 1,800 tons per day)</p>	<p><b>2005</b> The “Takuma Environmental Policy” instituted The “Personal Information Protection Policy” instituted</p>	<p><b>2013</b> Operation of the Takuma Solar Power Plant began</p>  <p>Takuma Solar Power Plant</p>
<p><b>1942</b> Operation began at Harima Factory</p>  <p>Harima Factory under construction</p>	<p><b>1963</b> Japan’s first waste incineration plant delivered Sewerage treatment facility delivered</p>  <p>Japan’s first waste incineration plant</p>	<p><b>1992</b> New Company Motto instituted: “Value Technology, Value People, Value the Earth”</p>	<p><b>1999</b> ISO14001 certification obtained for Harima Factory</p>	<p><b>2006</b> The “Compliance Declaration” instituted The “Takuma Group Ethics Charter” instituted Takuma participated in the UN Global Compact</p>	<p><b>2019</b> Order received for a 74,950 kW biomass power plant (FIT-approved facility)</p>  <p>Biomass Power Plant</p>
<p><b>1949</b> Bagasse-fired boiler, the first product of its kind in the industry, exported</p>	<p><b>1970</b> Waste Management and Public Cleansing Act and Water Pollution Control Act enacted</p>	<p><b>1993</b> Basic Environment Act enacted</p>	<p><b>1999</b> Act on Special Measures against Dioxins enacted</p>	<p><b>2007</b> Takuma’s first “CSR Report” issued</p>	