

Takuma Group

Long-Term Vision “Vision 2030”

Takuma Co., Ltd.

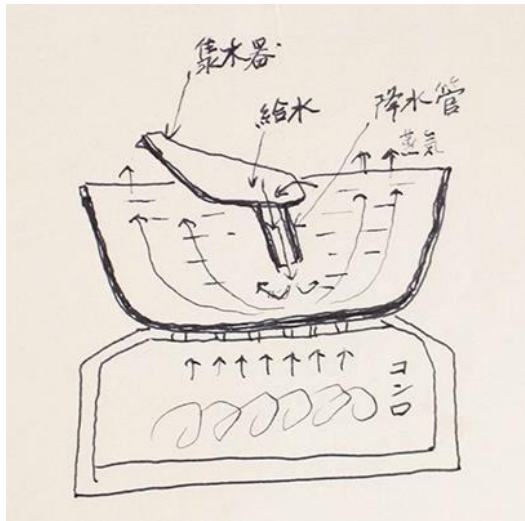
May 2021

TAKUMA

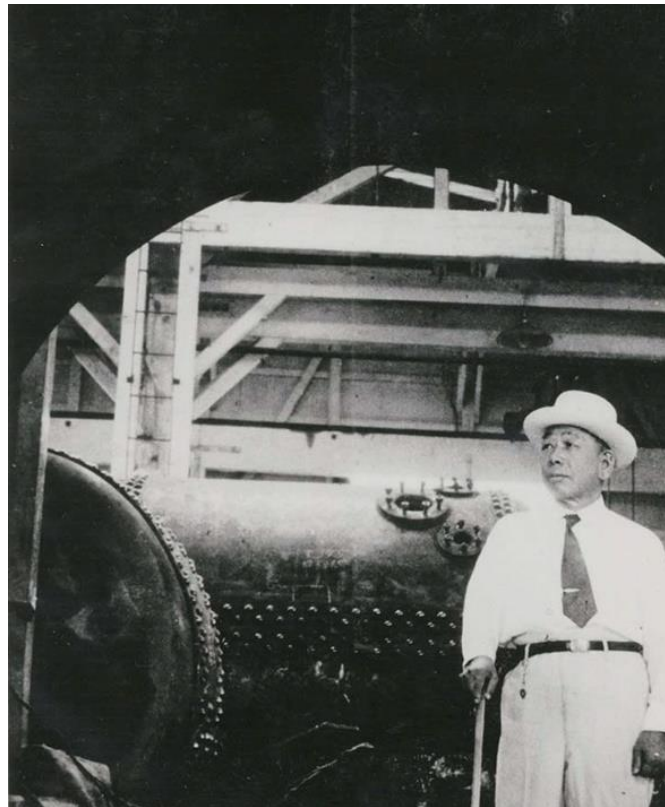
① Takuma's Origins

Founder Tsunekichi Takuma invented the Takuma boiler in 1912 based on **a unique design** following a period of painstaking research, making a significant contribution to the development of Japanese industry through its performance that overwhelmed the foreign technologies that dominated the field at the time.

Tsunekichi founded Takuma Co., Ltd in 1938 with the philosophy of **"Serve society through boiler manufacturing"** in an effort to spur the further development of boiler technology through an approach based solely on domestic manufacturing.



Houroku (unglazed pot)
used in boiler water circulation experiments
along with a corresponding sketch



Tsunekichi posing with his boiler



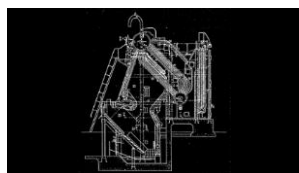
Harima Factory under construction



Band performance celebrating the first shipment
of the Tsunekichi Model A boiler

② Takuma's History and Values

Drawing on the spirit of “Serve society through boiler manufacturing” and Tsunekichi’s tenacity as an inventor over the course of more than 80 years since its founding, Takuma has continued to embrace the challenge of new technologies in every era by bringing out new products and services borne of creativity, thereby contributing to the development of society and the resolution of societal challenges. **“Serve society through boiler manufacturing,” meaning “contributing to society by providing goods and services that are needed and recognized as valuable in society,”** is the Takuma Group’s mission and the embodiment of the values that have remained unchanged since its founding.



1949年

Bagasse-fired boiler(※1),
the first product of its kind to be
exported



1975年

Mass production began on
“Vacotin Heater”
the world’s first vacuum-type
hot water heater



1998年

Japan’s largest
waste incineration plant delivered



2014年

Takuma's first biomass power plant
under Japan’s FIT program (※2)
was launched
Thereafter, many more plants were delivered

2019年

O&M business
For biomass power plants
launched(※3)

1963年

Japan's first 24 hour operating
waste incineration plant delivered



1986年

The first overseas delivery
of a waste incineration plant completed
(U.S.A.)



2010年

Energy from Waste plant
delivered in Europe (U.K.)



2015年

Power retail business launched.
Promotion of local power production
and consumption

※1 Bagasse・・・fiber remaining after sugarcane is crushed. A type of biomass fuel.

※2 Japan’s FIT program・・・Feed-in tariff system for renewable energy

※3 O&M・・・Operation & Maintenance Business that collectively undertakes plant operation management and maintenance work

③ Takuma Group Strengths

Along with **the technologies and expertise** that the Takuma Group has improved and accumulated since its founding, **the relationships of trust that the Group has developed with longstanding customers** by providing after-sales service and solutions are its greatest strengths and the source of its ability to compete successfully.



Municipal solid waste treatment plants

- Waste incineration plants **360+** facilities



Water treatment plants

- Uniflow sand filters: **2,700+** units
- Sludge incinerators: **20+** facilities



Energy plants

- Boilers: **3,200+** units
Of which, biomass boilers: **620+** units
- Industrial waste treatment plants: **120+** facilities



Package boilers

- Vacuum-type Hot Water Heaters (Vacotin Heater)
- Once-through Boilers (Equos)
- Heat-transfer Boilers (Thermoheater)



Building equipment and equipment for the semiconductor industries

- Air-conditioning, water, wastewater, and hygienic equipment installation services
- Equipment for the semiconductor and electronic device industries



Takuma Group Strengths

Technology and expertise

Relationships of trust with customers

④ Takuma Group Vision (1 of 3)

We will **contribute to the realization of a sustainable society by strengthening our approach to ESG issues through businesses** that tap the Group's strengths in light of medium- to long-term trends and social issues.



World

- Rising energy demand and waste issues, particularly in developing nations
- Increasingly serious problem of climate change
- Progress of the 4th Industrial Revolution



Japan

- Shrinking and aging population
- Increasingly large-scale natural disasters
- Financial challenges
- Aging infrastructure

Implementing ESG management

Takuma Group business

- Municipal solid waste treatment plants
- Water treatment plants
- Energy plants
- General-purpose boilers
- Building equipment and equipment for the semiconductor industries

Takuma Group Strengths

- Technology and expertise
- Relationships of trust with customers

Realization of a sustainable society

SUSTAINABLE DEVELOPMENT GOALS

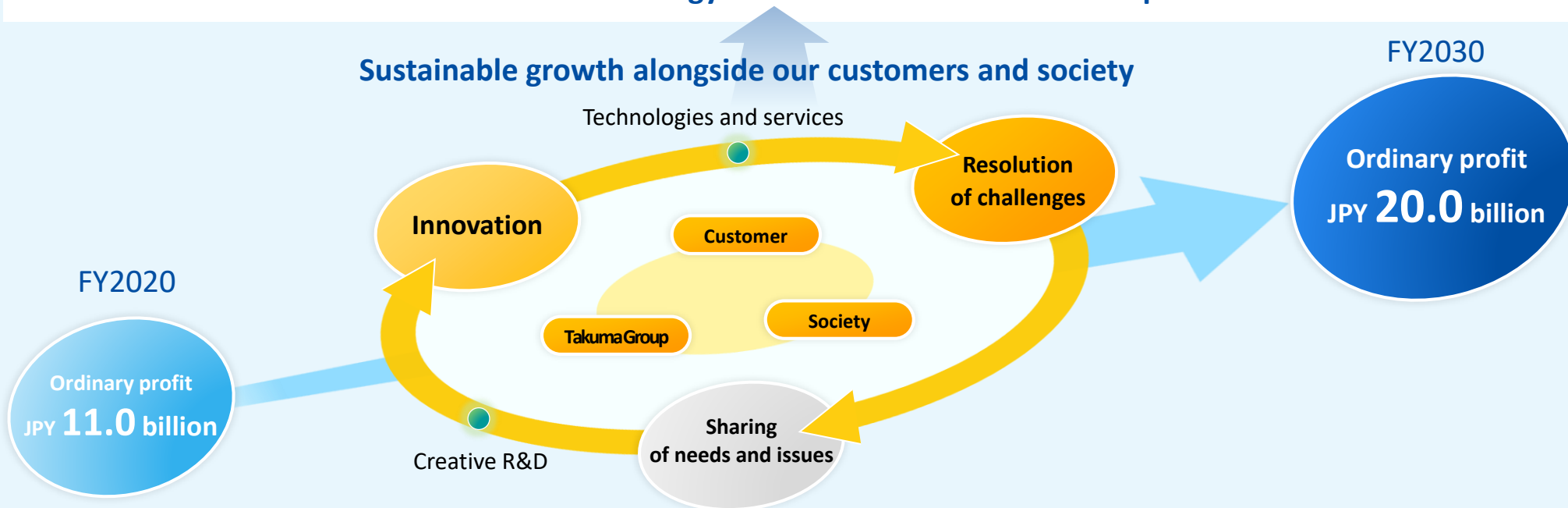


④ Takuma Group Vision (2 of 3)

The Takuma Group will strive to become **a great partner for its customers** as it pursues its business activities while resolving challenges faced by customers and society through useful technologies and services that are founded on **innovation** and the spirit of tenacious invention that it has inherited from its founder. The ongoing repetition of this process will allow **the Group to grow in a sustained manner alongside its customers**.

The Group will contribute to the realization of a sustainable society by addressing ESG issues through these business activities and thereby 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 and envision JPY 20.0 billion yen as an ordinary profit** level to be achieved in 10 years.

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.



④ Takuma Group Vision (3 of 3)

Specifically, we will **address ESG issues** by undertaking business activities that **consistently provide technologies and services that help resolve issues** faced by customers in their business activities or administrative services, local communities, and developing nations, **with a focus on renewable energy utilization and environmental protection**. We will strive to realize sustainable growth by implementing this approach to **ESG management**.

Sustainable growth by implementing ESG management

Resolving challenges faced by customers and society,
with a focus on renewable energy utilization and environmental protection

Technologies and services

- Expanding clean energy
- Reducing greenhouse gases
- Saving energy
- Improving energy efficiency
- Realizing stable treatment of waste
- Utilizing unused resources
- Capturing and effectively utilizing CO2
- Providing decarbonization technologies
- Realizing local production and consumption of energy
- Reducing power and manpower requirements of plant facilities while making them more resilient

Takuma Group business

EPC

Engineering, Procurement, and Construction (EPC)
of a variety of plants
Maintenance and expansion of position
as a leading company

Recurring revenue model businesses

Maintenance, operation management,
O&M, energy services, etc.
Additional expansion
as a core driver of growth

Overseas businesses

EPC and after-sales service for Energy
from Waste plants and biomass power plants
Expansion with a focus on developing nations in Asia
and its development into a core business for the Group

Package boiler business

Expanding business domain as a manufacturer
specializing in heating systems

Equipment and systems business

Aim for steady growth
by strengthening corporate strength

New businesses

Creating new business opportunities centered on
the renewable energy and environmental fields