



Company Profile

BESTERRA CO., LTD
Securities code: 1433

Company Overview

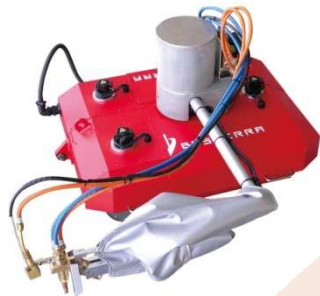
Trade Name	BESTERRA CO., LTD A compound word of Best and <i>Terra</i> (Earth in Latin)
Business Description	Plant demolition work and other related business
Office Location	Head Office: 3-2-6 Hirano, Koto-ku, Tokyo Chiba Office: 1969-52 Yawatakaigan-doori, Ichihara-shi, Chiba JFE Chiba Office: 1 Kawasaki-cho, Cyu-ou-ku, Chiba West Japan Office: 3-10-27 Minamiteshiro-cho, Fukuyama-shi, Hiroshima
Established	February 20, 1974
Capital	¥417,017,300 (as of the end of April 2018)
Representative Director	Yoshihide Yoshino
Number of Employees	63 people (as of the end of April 2018)

Company History



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Apr. 2010 - Develops melt-cutting Robot, *Apple☆Star*



Jan. 2013 - Starts *Staffing Agency* to solve labor shortage

Jan. 2015 - Starts *3D Measurement Service* specialized in plant structure measurement

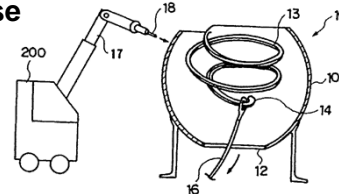
Sep. 2015 - Listed on the Tokyo Stock Exchange: Mothers

Sep. 2017 - Changed market to the first section of Tokyo Stock Exchange

Sep. 2007 - Patents *Boiler Disassembling Method* for thermal power plants, etc.

Nov. 2004 - Receives Special Construction Business License

Jul. 2004 - Patents *Apple Peeling Method*



Feb. 1974 - Establishes *BESTERRA CO., LTD*
Receives Ordinary Construction Business License



The head office building



Business Concept (Fundamental concept)

1

Builders cannot demolish

We started saying "No!" to the false belief that demolishing is the opposite of building. Not merely reversing the building process, we view plant demolition from an entirely new perspective. Additionally, we verified our ideas through actual demolition work and established new techniques and methods. We patented these methods.

2

A unique company specialized in plant demolition

We *specialize in the plant demolition* of steel structures, which requires advanced techniques. For about 40 years we have undertaken the business of plant demolition, such as steel manufacturers and power, gas, and oil plants, which demand a high level of safety.

We have accumulated experience in environment-related work to take measures against specified chemical substances like PCB, asbestos, dioxin, and soil pollution, which is virtually mandatory for plant demolition work.

As a leading company for demolishing heavy plants, a Japanese key industry, we respond to social needs, fulfill our responsibilities, and work toward social contributions.

Corporate Philosophy, Code of Conduct

Corporate Philosophy

We will contribute to the global environment with flexible thinking, creativity, and techniques utilizing these concepts.

Code of Conduct

We fulfill our professional responsibilities.

We always create new techniques. With the mottos "*Safety is the topmost priority*" and "*Faster, cheaper, and safer,*" we will provide those techniques and further comfort to customers.



Gas holders
(apple peeling method)

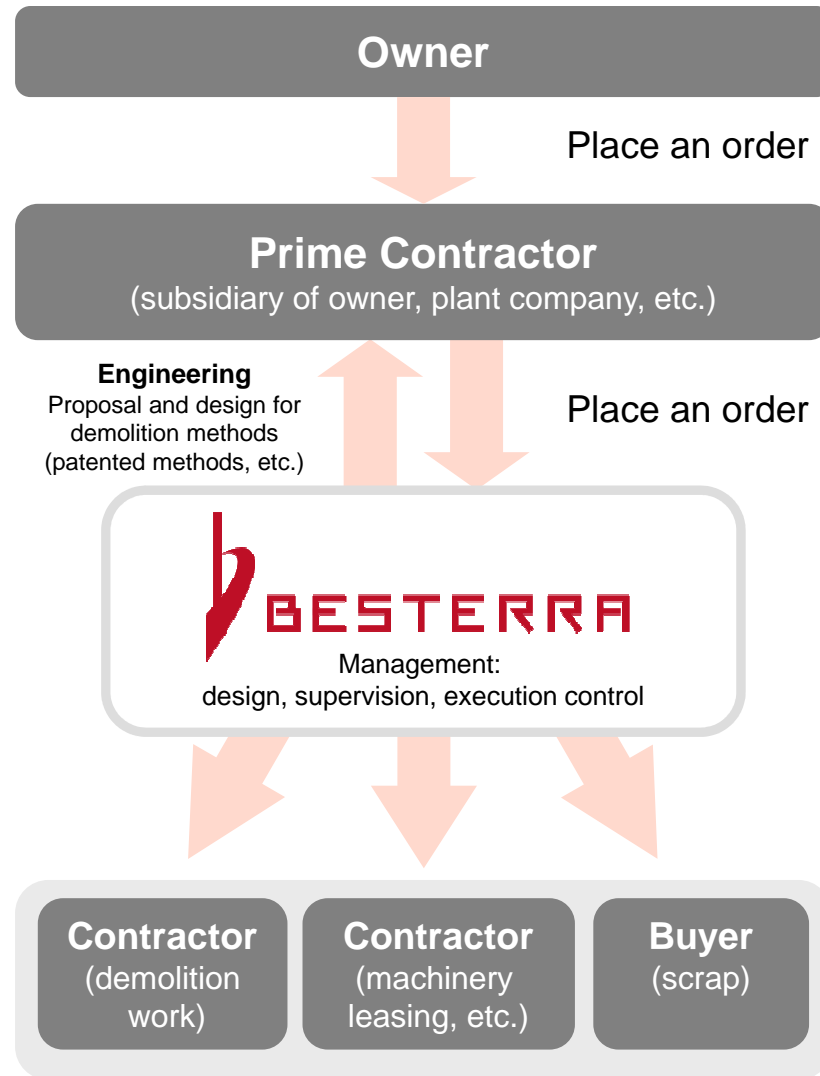


Thermal power plant
(apple peeling method)

Business Model (Business system diagram)

- 1 Role of the core in large plant demolition:
Engineering (proposal, design, plan execution)
Management (supervision, control execution)
- 2 Contractors conduct demolition tasks and BESTERRA mainly supervises and manages worksites.
- 3 Our core competence is providing methods and techniques for plant demolition.

(Management by not-owning)
We do not possess heavy machinery or a workforce.
→ Avoiding risk of holding assets
We do not buy materials or make production deals.
→ Avoiding risk of holding stock



Our Strengths

1

Good customer base

We have developed a good customer base centered on engineering subsidiaries of big companies, such as steel manufactures and power, gas, and oil plants.

2

Efficient demolition management based on abundant work experience

We provide *plant demolition total management* based on more than 40 years of experience.

The entry barriers are high because of the work inside the plants.

3

Intellectual property, such as patented methods

A variety of techniques and know-how rooted in environmental countermeasures are explicit and implicit intellectual property strengths.

Highly important intellectual property is a good number of patented methods that no other demolition companies can match (14 granted patents, 7 pending patents).

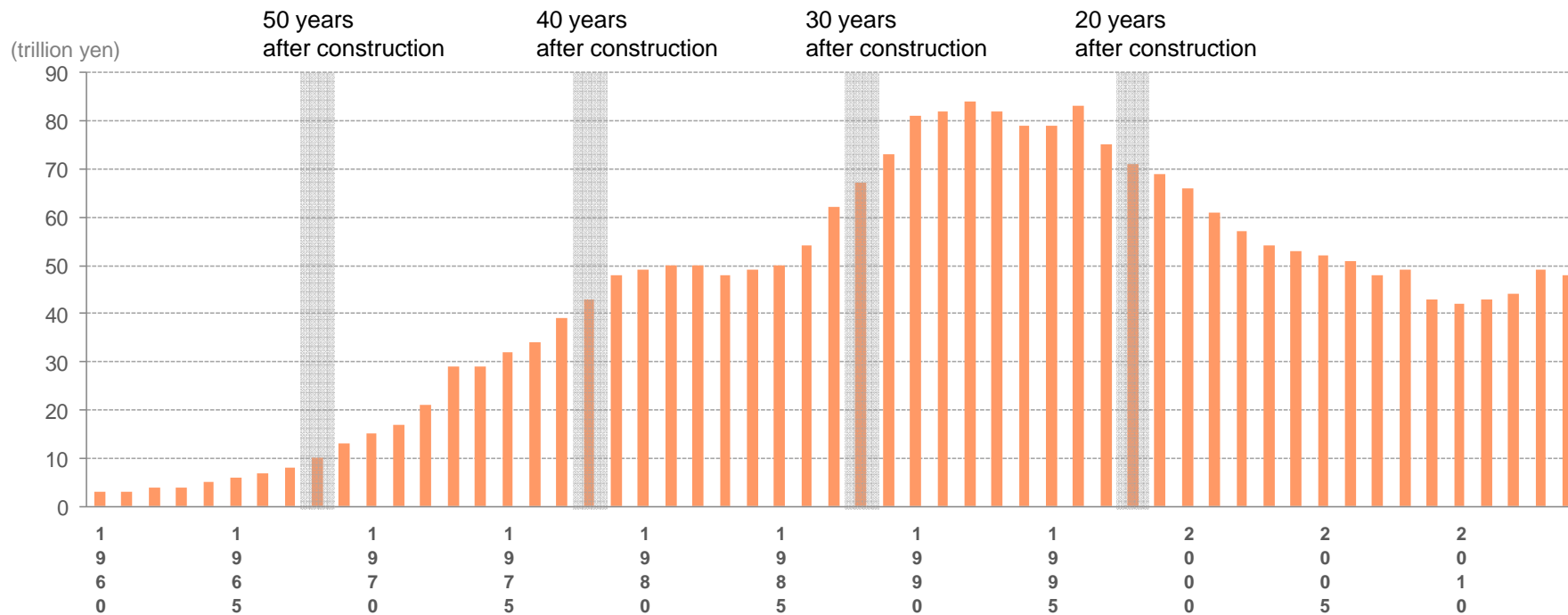
We also have copious knowledge about recycling waste materials.

Trends in Construction Investments (Increase in demolition and update demands)

The ratio of facilities more than 50 years old will increase rapidly in 30 years.

- Plants built during and after the rapid growth period of the 1960s will rapidly deteriorate.
- Restructuring will increase, such as company consolidation and overseas transfers, to enhance competitiveness.
- Investigating and managing all facilities is necessary because aging facilities are not understood.

Trends in Construction Investment (Nominal Value)



Source: MLIT, FY2014 "Estimate of Construction Investment"



Government Policy for the Plant Industry

The government is also promoting consolidation and restructuring in the plant industry toward efficiency.

1

(Government policies)

Enforcement of the Industrial Competitiveness Enhancement Act and Act on the Promotion of Use of Nonfossil Energy Sources and Effective Use of Fossil Energy Materials by Energy Suppliers (elimination of surplus capacity)

For business consolidation and updates to new energy, the government has decided on a variety of policies, such as subsidies. Demands for plant demolition and updates are expanding.

Increase in subsidies for energy use streamlined business operators

Expansion of plant demolition market (BESTERRA's field of expertise)

2

(New license classification in the construction business)

Demolition work is a newly established license classification in the construction business


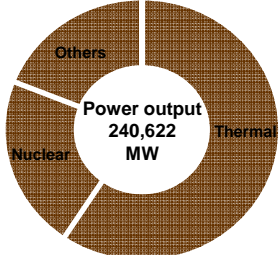

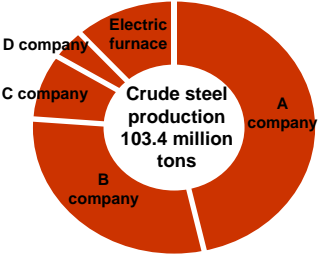
MLIT reviewed the license classification for the first time in 43 years.

Demolition work became a professional business and now a license is necessary to conduct demolition work of 5 million yen or more per job.


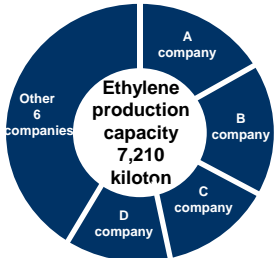
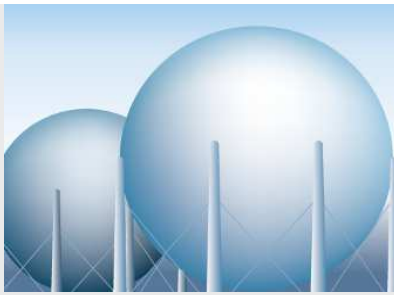
* This rule is sequentially enforced, taking three years from June 2016. Consequently, the safety execution management system of demolition work will be strengthened.

Higher quality is required for demolition work and it is expected that BESTERRA can take further advantage of its strengths

Trends in the Plant Industry (Power, steel manufacturing)

Power		Topics	<p>Power deregulation: Full deregulation of entry into the retail business</p> <p>Nuclear power plant: Decommissioning of Mihama, Genkai and Tsuruga reactors</p> <p>JERA: Joint venture between TEPCO and Chubu Electric Power based on a comprehensive alliance</p>
	<p style="font-weight: bold; font-size: 24px;">Market size</p> <p>About 13.6 trillion yen (according to our estimates)</p>	 <p>Source: ANRE, Survey of Electric Power Statistics</p>	<p>Thermal: The number of approved and notified plants (output of which is 1,000 kW or more) is 185. The total output is 143,286 MW.</p> <p>Nuclear: The number of plants is 59, including those under decommissioning and demolition. The total output is 51,103 MW.</p> <p>Others: 46,233 MW, including hydroelectric, wind, and solar power</p>
Steel manufacturing		Topics	<p>JFE Steel: Kawasaki Steel x NKK</p> <p>NSSMC: Nippon Steel x Sumitomo Metal Industries</p> <p>Acquisition of Nisshin Steel as a subsidiary</p>
	<p style="font-weight: bold; font-size: 24px;">Market size</p> <p>About 1.7 trillion yen (according to our estimates)</p>	 <p>Source: Each company's IR report</p>	<p>Blast furnace: The number of furnaces is 32. Crude steel production is 90.4 million tons.</p> <p>Electric furnace: The number of furnaces is 44. Production of normal furnaces is 8.8 million tons. Production of special steel is 4.2 million tons.</p>

Trends in the Plant Industry (Oil/petrochemicals, others)

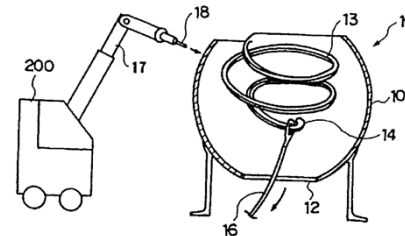
Oil/Petrochemicals		Topics	<p>Industry consolidation: JX Holdings x Tonen General Sekiyu Showa Shell Sekiyu x Idemitsu Kosan</p> <p>Shale gas boom: Partial suspension of domestic production in the chemical industry</p> <p>Complex: Physical and economic deterioration</p> <p>Mitsubishi Chemical HD: Mitsubishi Chemical x Mitsubishi Plastics x Mitsubishi Rayon Mitsui Chemicals: Mitsui Toatsu Kagaku x Mitsui Petrochemical Industries</p>
	<p style="font-size: 24px; font-weight: bold;">Market size</p> <p>About 28.5 trillion yen (according to our estimation)</p>	 <p style="font-size: 12px;">Ethylene production capacity 7,210 kiloton</p> <p style="font-size: 10px;">Other 6 companies</p> <p style="font-size: 10px;">A company, B company, C company, D company</p> <p style="font-size: 10px;">Source: METI Statistics 2012</p>	<p>Refinery: The number of refineries is 23. The capacity is 5,792 (thousand barrels per day).</p> <p>Petrochemicals: 14 complexes. The ethylene production capacity is 7,210 kilotons.</p> <p>Others: Plants where the main product is not ethylene have not been counted.</p>
Others		Topics	<p>Paper industry: Oji HD (Oji Paper x Honshu Paper x Kanzaki Paper) Nippon Paper merged with Daishowa Paper</p> <p>Shipbuilding industry: Japan Marine United (Universal Shipbuilding x IHI Marine United)</p> <p>Cement industry: Taiheiyo Cement (Chichibu Onoda x Nihon Cement)</p> <p>Electric industry: Mitsubishi Hitachi Power Systems (business integration between Mitsubishi Heavy Industries x Hitachi) Streamlining the home electronics business of Sharp, Toshiba, etc.</p>

Competent Demolition Methods (1) Patent

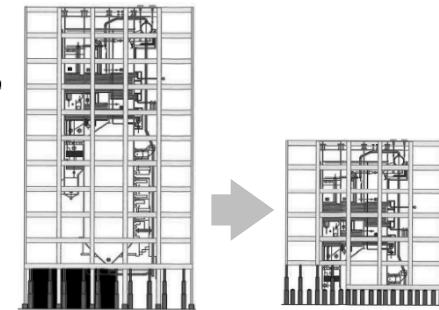
We propose demolition methods with competitive patents and put them into practical use.

Granted patents	
Tank	Method for cutting and disassembling a large storage tank
	Method for disassembling a large storage tank
	Method for disassembling a large storage tank (improvement patent on apple peeling method) *Fig. 1
Boiler	Method for disassembling a boiler
	Method for disassembling a boiler and a support structure*Fig. 2
	Method for disassembling a boiler
	Method for disassembling a boiler
	Method for disassembling an H-steel support system and a building using the system
Stack	Method for disassembling a cylindrical structure, and equipment
	Method for pushing down a steel tower supported stack structure
	Aggregate stack demolishing scaffold apparatus and method for demolishing aggregate stack using the apparatus (international application)
Crane	Method for disassembling a goliath crane
Others	Method for pushing down a regenerative furnace of air heating furnace
	Multiple mobile robots for magnetic adsorption vehicle (Robot Gunryu)

Pending patents	
Windmill	Method for pushing down a wind power generation windmill
	Method for pushing down a stack structure using the base
	Method for disassembling a wind power equipment
3D	Three-dimensional image display system, three-dimensional image display device, three-dimensional image display method and three-dimensional image display system of plant facility
	Working robot and alarm system using the working robot
Others	Method for blocking and cutting plumbing (Joint application with Chugoku Electric Power)
	System and method for Soil remediation (Joint application with Chugoku Electric Power)



* Fig.1 Method for cutting and disassembling a large globular-shaped storage tank (apple peeling method)

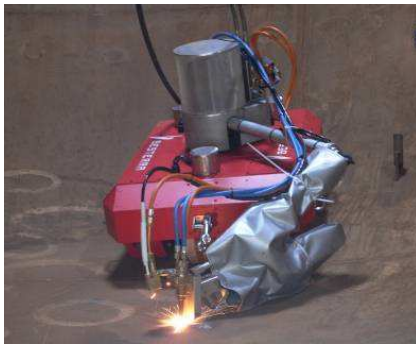


* Fig. 2 Method for disassembling a boiler and a support structure

Competent Demolition Methods (2) Robot

We develop melt-cutting robots for further safety and have been accumulating work experience.

- Expansion of usage by developing new attachments to *Apple ☆Star*



Apple ☆Star



Gunryu



Competent Demolition Methods (3) Environment-related

We have expertise in **fireless and quasi-fireless methods** for outdoors or indoors. We are able to execute cutting and slicing.

We are able to cut a thickness beyond common practice in the industry by preventing motor seizing and by recycling blades.

The process until disassembly/demolition by Besterra

- 1 On-site confirmation**

- 2 Planning / Estimation**

- 3 Covering**

- 4 Preparation**

- 5 Disassembly / Demolition (Inclusion to container)**




Establishment of Three Major Business Domains

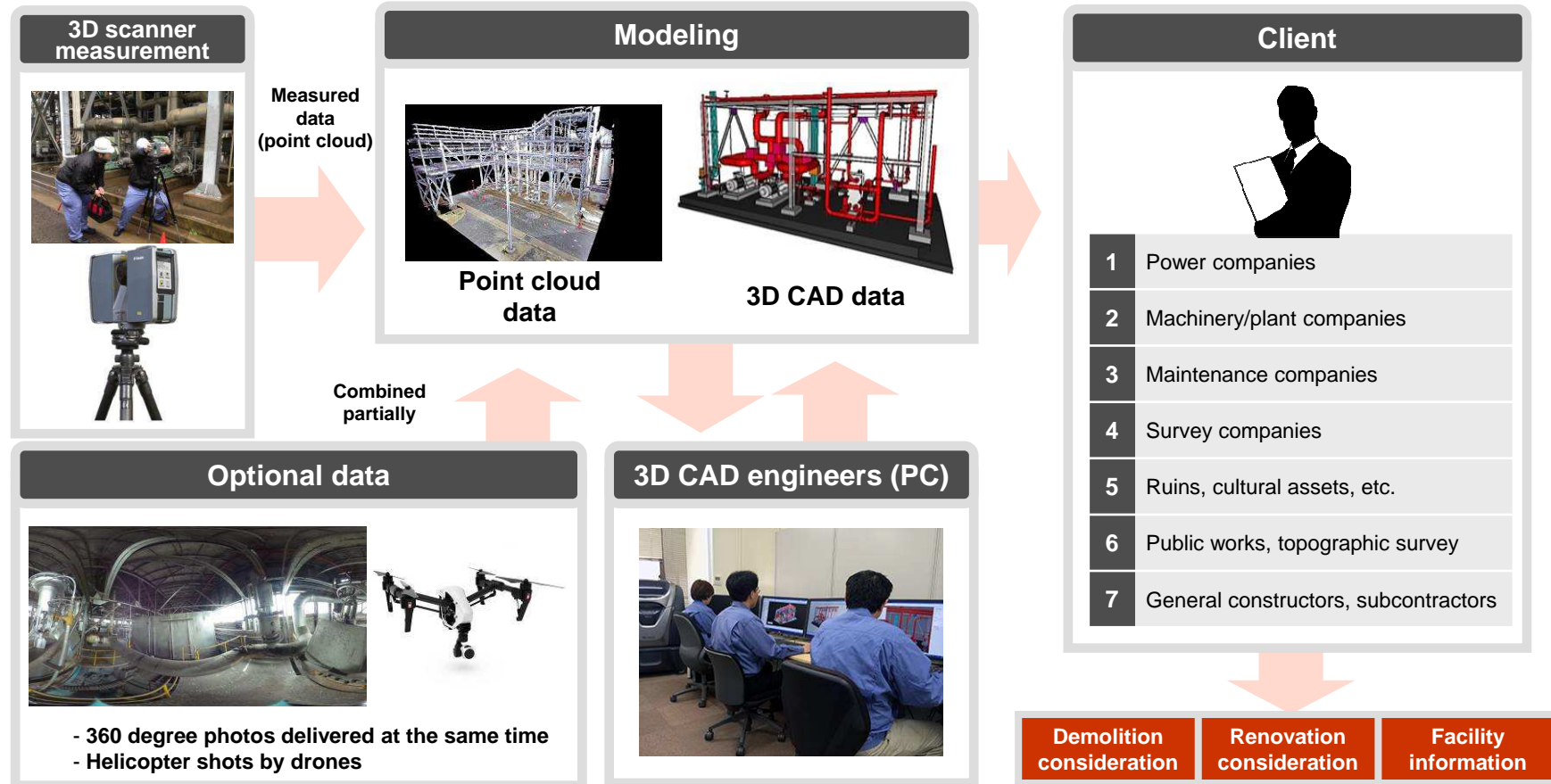
We expand our services to plant demolition related fields and aim to strengthen plant demolition total management (providing strategic asset management).



3D Measurement, Modeling

Overview of 3D Measurement Business

We convert paper data from the time of construction (30 years ago or older) into cutting-edge 3D data, defying conventional wisdom in the demolition industry.



Why We Do 3D Measurement Business in Plant Demolition

It is projected that in the future systems with 3D data will be required for the efficient management of plant facilities.

- 1 (3D digitization of updated paper data)
Most of the plants designed at the time of construction during the rapid growth period (several decades ago) are managed with paper data during demolition and renovation.
In most cases, the present status of the facilities and the paper data differ because of many years of renovation and aging.
- 2 (Visualization and sharing by 3D digitization)
We digitize the target plant facilities in 3D, visualize and share them with the head office of customers, the head offices of contractors, and the worksite offices, which allows us to improve the safety and efficiency of the demolition work.
- 3 (New value creation by IoT x Demolition)
We compile a database (using cloud computing) of all plant facilities' 3D data and unify the management of 3D point cloud data, 3D CAD data, design book data, images, videos, and 2D CAD data, centered on GIS (Geographic Information System), the database which enables the total management of plant facilities.
At the same time, we proceed with developing autonomous operation robots that move in accordance with preset 3D data.

Profit Allocation Policy, Shareholder Return Policy

➤ Resource allocation policy against net income (guide)

(1) *Investment for future growth*

(2) *Internal reserve for strengthening business foundation*

(3) *40% of profit is returned to shareholders (dividend)*

Growth investment	Equipment investment	(robots, 3D measurement equipment)	} Reasonable allocation ratio
	R&D investment	(method development, robot development)	
	System investment	(3D systems, BIM/CIM)	
	Strategic business investment (M&A, etc.)		

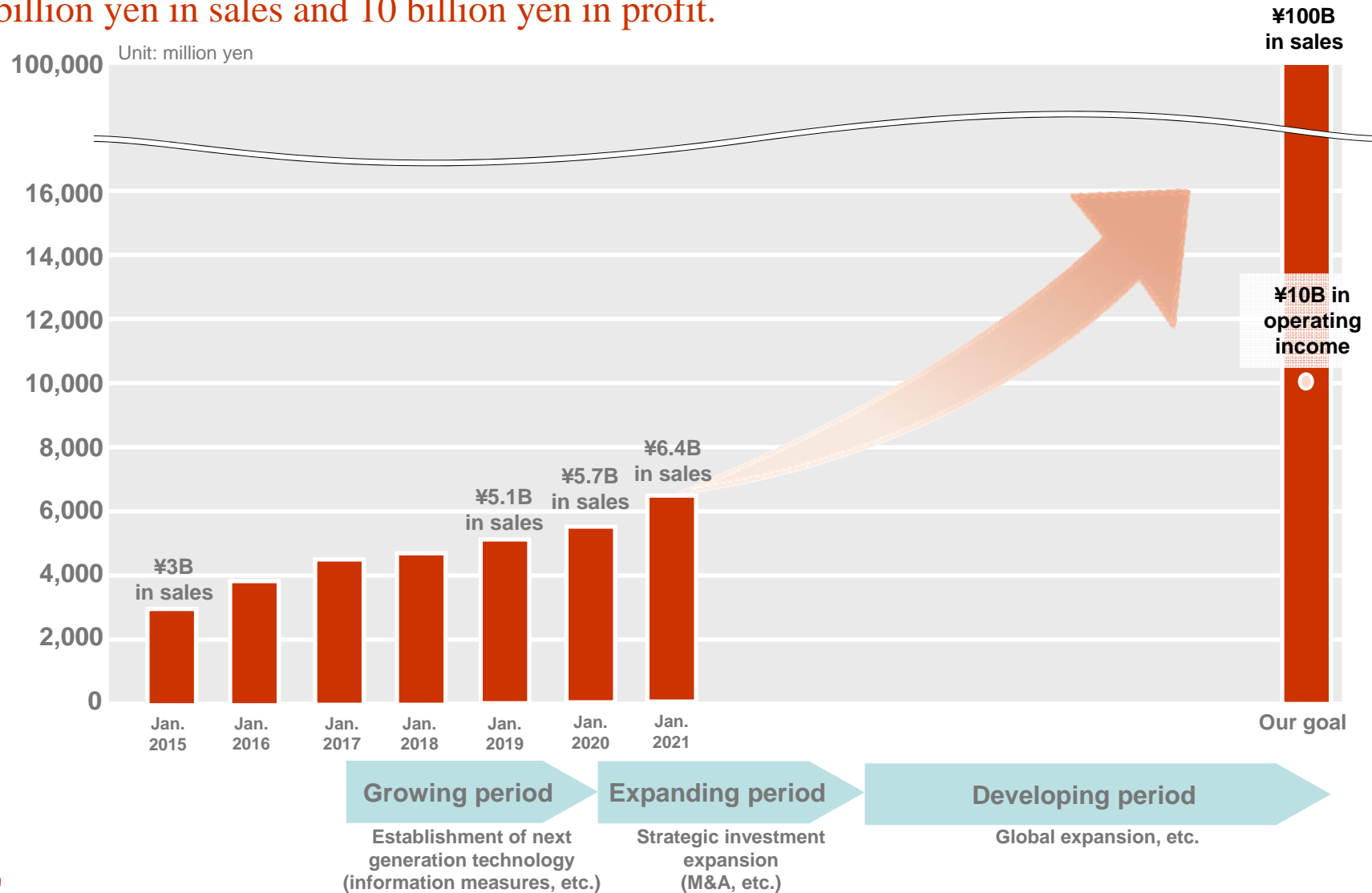
■ We aim to improve shareholder value by improving the company value.

■ Guide of dividend payout ratio is 40%.

■ We will develop an environment where shareholders can easily invest.

Long Term Mission: Our Goal

We will provide innovative technology to the plant demolition industry and aim at 100 billion yen in sales and 10 billion yen in profit.



Important Notice about this Document

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