



TAKASAGO CORPORATE REPORT 2023

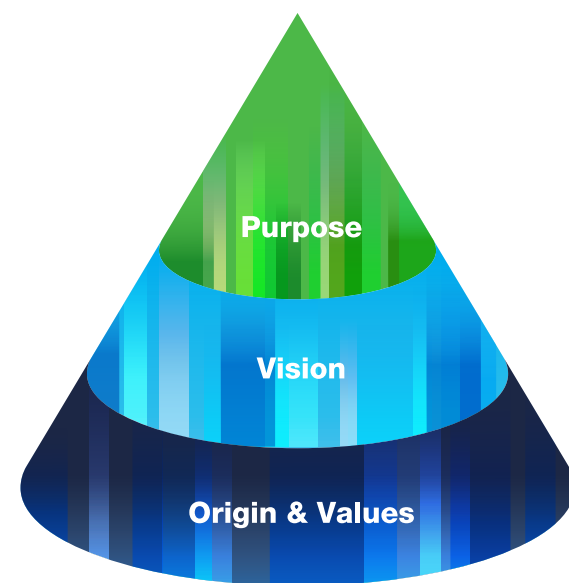
TAKASAGO  
CORPORATE  
REPORT  
**2023**  
Environment-Creator™

TAKASAGO  
CORPORATE  
REPORT  
**2023**





**Dedicated to the wellbeing  
of our families, our fellow  
human beings, and all life on  
Earth.**



**Purpose**

With our revolutionary environmental innovations, we activate the Earth's future.

Takasago Thermal Engineering synchronizes the air to various spatial environments, creating endless possibilities. Moreover, each employee is part of a tradition of pride and expertise built over the Company's 100-year history, and we continue to expand the spirit of diversity and co-creation through harmonious relationships with others. We consistently pioneer paradigm-shifting environmental innovations. We are able to create optimized spatial environments not only on this planet, but also in space. And we are profoundly dedicated to the wellbeing of our families, our fellow human beings, and all life on Earth.

**Vision**

Be an Environment-Creator™

**Origin**

Contribute to society through social harmony and creative solutions.

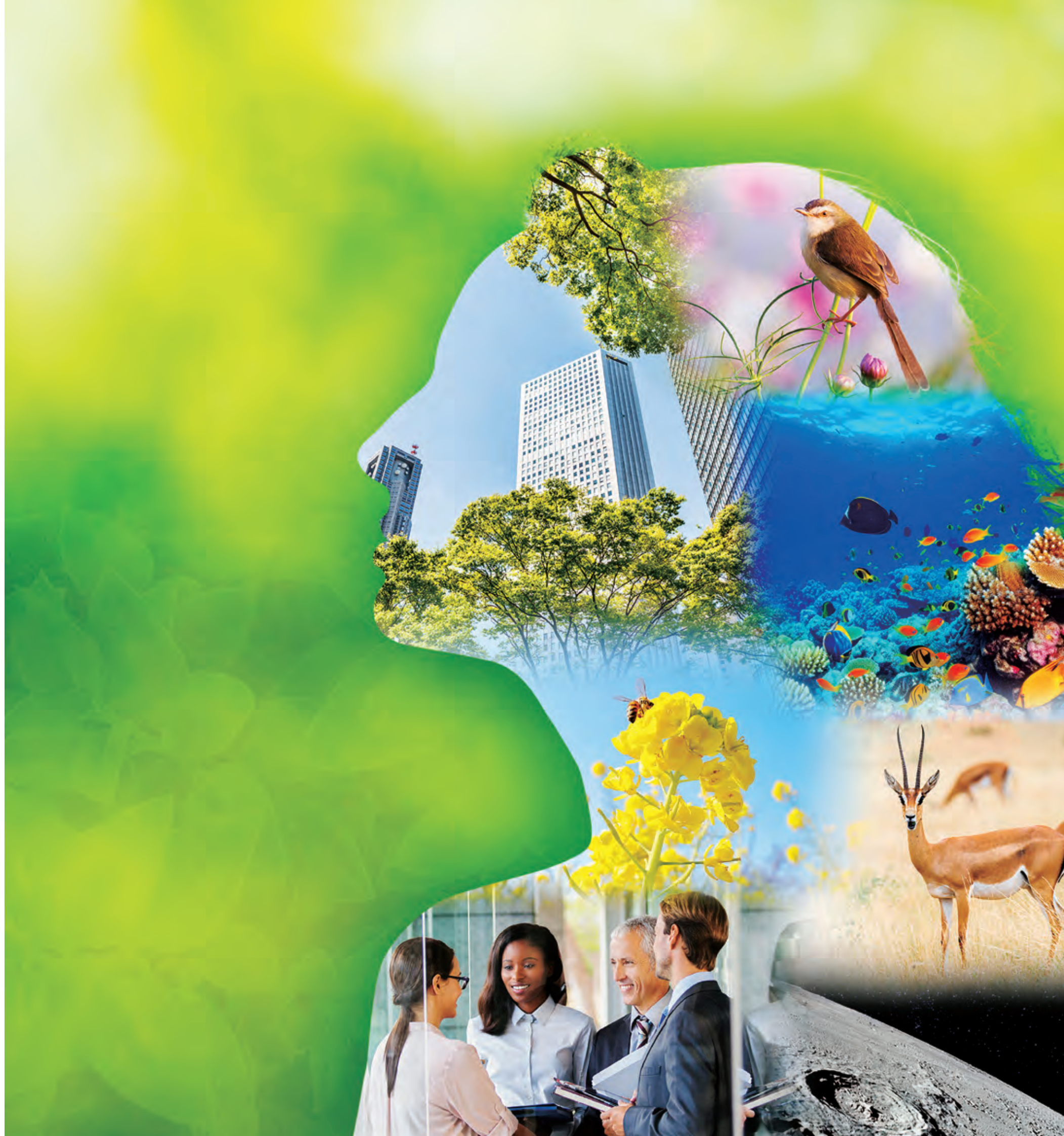
**Values**

**TakasagoWay**

**Beyond**: Provide value beyond expectations.

**Pride**: Act with fairness, confidence, and pride.

**Trust**: Build trust to create enduring relationships.

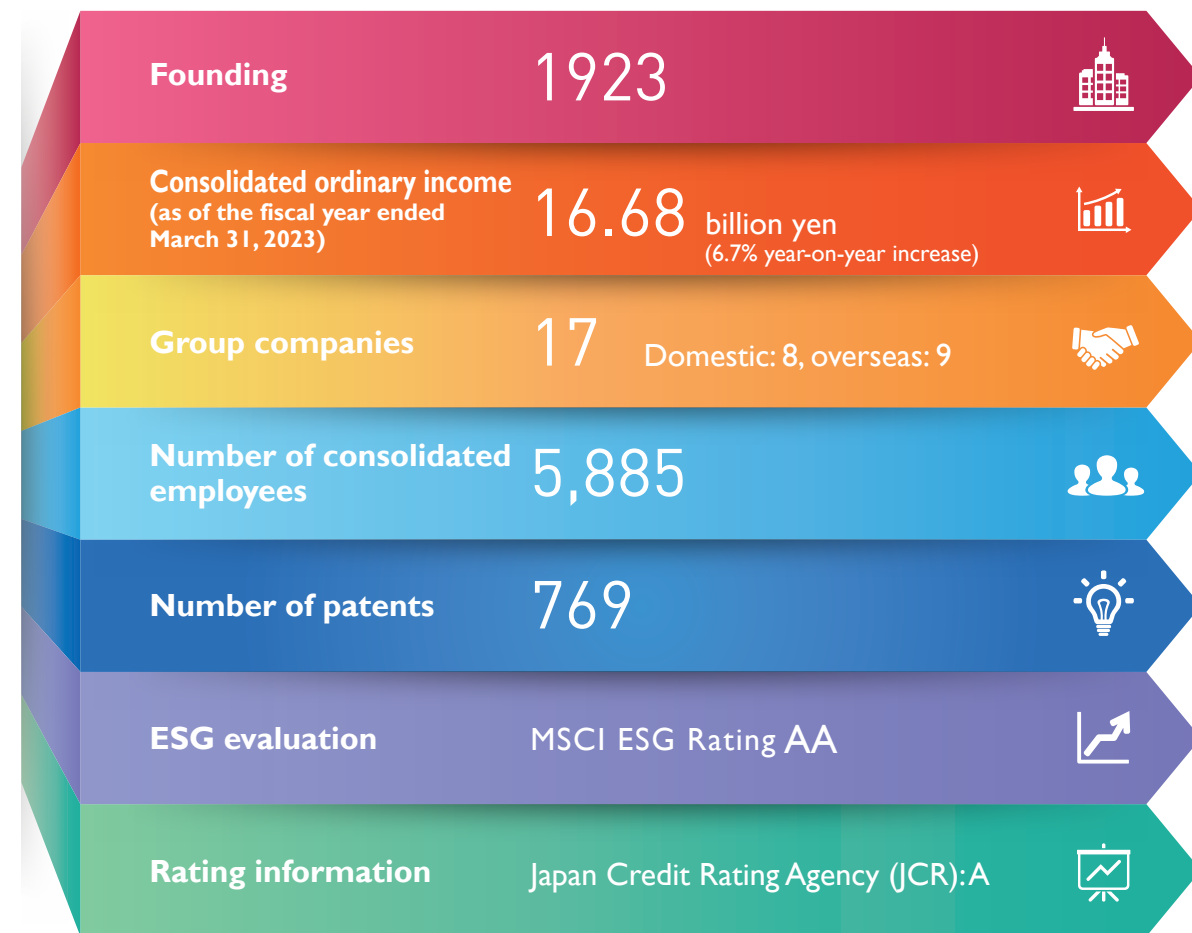




## At a Glance

As we mark the 100th anniversary of our founding, we will strive to evolve and grow even further as we move toward realizing a decarbonized society.

Performance and other details are as of March 31, 2023



## 100th Anniversary Project Initiatives

We created our “100th anniversary logo” by widely soliciting design ideas from our employees. The “1” shaped like an arrow represents our strong determination to continue to take on challenges, and the “00” shaped like the infinity symbol (∞) represents the “infinite expansion” of possibilities for our business and individuals. We are also working to strengthen our branding to increase internal and external engagement by launching our 100th anniversary site that allows visitors to view a virtual gallery of our 100-year history, as well as airing a new commercial featuring actor Rikako Yagi and launching a special site for the commercial.

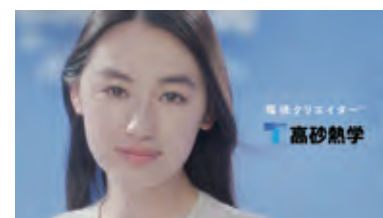


Thank you for 100 years

100th anniversary commemorative logo



100th anniversary site



Special commercial site



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## Editorial Policy

The Takasago Thermal Engineering Group started to issue the Corporate Report (an integrated report) in 2017, and this is the seventh report. We have endeavored to ensure this report contains useful information for those who are interested in the current situation and medium- to long-term future of the Takasago Thermal Engineering Group. We will continue to improve the quality of the report based on your feedback and suggestions.

- Target organizations for this report  
Takasago Thermal Engineering Co., Ltd. (all offices both in Japan and overseas) and Takasago Thermal Engineering Group companies
- \* The entire Takasago Thermal Engineering Group is referred to as the “Takasago Thermal Engineering Group” or “our Group,” and Takasago Thermal Engineering Co., Ltd. alone is referred to as “Takasago Thermal Engineering” or “we.”
- Reporting period  
April 1, 2022 to March 31, 2023 \* Some information before/after this period is included.

- Date of issue  
November 2023
- Referenced guidelines  
“International Integrated Reporting Framework,” International Integrated Reporting Council (IIRC, now the IFRS Foundation)  
“Guidance for Integrated Corporate Disclosure and Company-Investor Dialogues for Collaborative Value Creation,” Ministry of Economy, Trade and Industry (METI)  
“Sustainability Reporting Guidelines” (standards), Global Reporting Initiative (GRI)

## Relationship of Major Reporting Materials



For details, see the website of Takasago Thermal Engineering <https://www.tte-net.com>

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President and Representative Director

小島 和人

Kazuhito Kojima

**“With our revolutionary environmental innovations,  
we activate the Earth’s future.”**

**Embarking on our next 100 years with our Purpose  
created together with employees**

Message from the President

》 **Our Purpose incorporates the DNA of  
Takasago Thermal Engineering and provides  
a spiritual home for all our employees**

Takasago Thermal Engineering marked its 100th anniversary on November 16, 2023. Amid the dramatically changing business environment, we need a “spiritual home” to guide all of our activities in order to respond quickly and flexibly to changes in the environment.

We formulated our Purpose based on our corporate mission of “Contribute to society through social harmony and creative solutions.” It will serve as the North Star to guide each employee to contribute to society as an Environment-Creator™ and for our company to move toward our next 100 years. Our Purpose is defined as “Ability to innovate in response to the needs of the times and social changes” It incorporates our desire to create a world in which all living things can live life to the fullest, while we pioneer paradigm-shifting environmental innovations driven by our “ability to innovate in response to the needs of the times and social changes.”

We established the Purpose Formulation Working Group to formulate our Purpose, as it serves as a guideline for the activities of everyone in the Group. Questionnaires, group discussions, and workshops among all employees were conducted for nearly a year in order to define our Purpose. We advanced the discussions while confirming the importance of incorporating the opinions of employees, of diversity of thinking unrestrained by fixed concepts, and of a co-creation approach that does not fall into the trap of a “go it alone” attitude.

In the process of formulating our Purpose, a great variety of opinions were exchanged. This was an excellent opportunity for me and for the company to strongly sense that all employees were firmly thinking in the same direction.

In addition, along with the formulation of our Purpose, we defined our vision as “Be an Environment-Creator™.” Takasago Thermal Engineering has specialized in improving environments inside buildings via air conditioning equipment through now. But going forward, we want to contribute to society and demonstrate our presence not only in buildings but also in fields that contribute to the global environment. We will take on new challenges as an Environment-Creator™ that creates air conditioning technology for people’s living environments as well as environmental technology that contributes to the global environment.

》 **Continuing to innovate in response to the  
needs of the times and social changes as  
an Environment-Creator™**

The Takasago Thermal Engineering Group’s Long-Term Vision for 2040: Create our PLANET, Create our FUTURE, which was formulated under our Purpose, is based on the prediction that the year 2040 will

be a major turning point for social structure due to population, environmental, and climate change issues. It is our long-term business vision formulated based on discussions on what our company should look like in 2040 from the perspective of improving engagement with all stakeholders, including shareholders, investors, customers, suppliers, partner companies, and employees.

In order to contribute to society including in fields that support the global environment as an Environment-Creator™, we need to expand our environmental creation business areas with our existing air conditioning technologies at the core, and create business value through both “carbon transition for building environments” and “carbon neutrality of the global environment.”

》 **Aiming for consolidated ordinary income of  
40 billion yen in 2040 through four business  
domains and DX that connects them**

Under the Takasago Thermal Engineering Group’s Long-Term Vision for 2040: Create our PLANET, Create our FUTURE, our goal is to become a corporate group that envisions consolidated ordinary income of 40 billion yen in FY2040. This figure is more than double our consolidated ordinary income of 16.6 billion yen in FY2022. In order to achieve consolidated ordinary income of 40 billion yen, we believe it is necessary to build new business pillars beyond the traditional construction field, and we aim to establish businesses that contribute to carbon neutrality.

In our Long-Term Vision, we have established four business domains for both building environments and the global environment which are all linked by digital transformation (DX): construction business, equipment maintenance and management business, environmental equipment manufacturing and selling business, and carbon neutrality business.

In the construction business, we plan to continue our existing core business of air conditioning equipment both in Japan and overseas. Through collaboration with Group companies, we also plan to take on the entire process from design and construction to maintenance and management with the aim of achieving further growth.

In the equipment maintenance and management business, we operate, maintain, and inspect building equipment. As the Takasago Thermal Engineering Group has expertise in building equipment, we will implement activities toward achieving carbon neutrality in the operational phase of buildings, which accounts for the majority of environmental impact.

In the environmental equipment manufacturing and selling business, we will manufacture and sell products used in air conditioning equipment and industrial air conditioning, as well as develop, manufacture, and sell products that optimally design air conditioning units suited to customers’ facilities and that achieve green energy and energy conservation.



## Making the carbon neutrality business the next pillar of earnings to achieve consolidated ordinary income of 40 billion yen

As a growth business, our carbon neutrality business is involved in each of the stages of energy generation, storage, and consumption, and is also envisioned as an overall concept to connect (Tsunagu) these three stages. In the energy generation stage, we will invest in renewable energy fields such as solar and wind power, and supply green energy through the use of our water electrolysis-based hydrogen production system developed with our proprietary technology. The energy generated will be efficiently consumed in the buildings and other facilities serviced in our core business. But in the meantime, the storage stage is necessary. Because the supply of natural energy such as solar energy is easily affected on a major scale by weather and other factors, the energy storage function is essential for a stable supply and responding to emergencies. In addition, the most important point is that the overall optimization can be achieved by connecting (Tsunagu) each of these stages. Specifically, we are developing an energy management system (EMS) to connect (Tsunagu) the entire process.

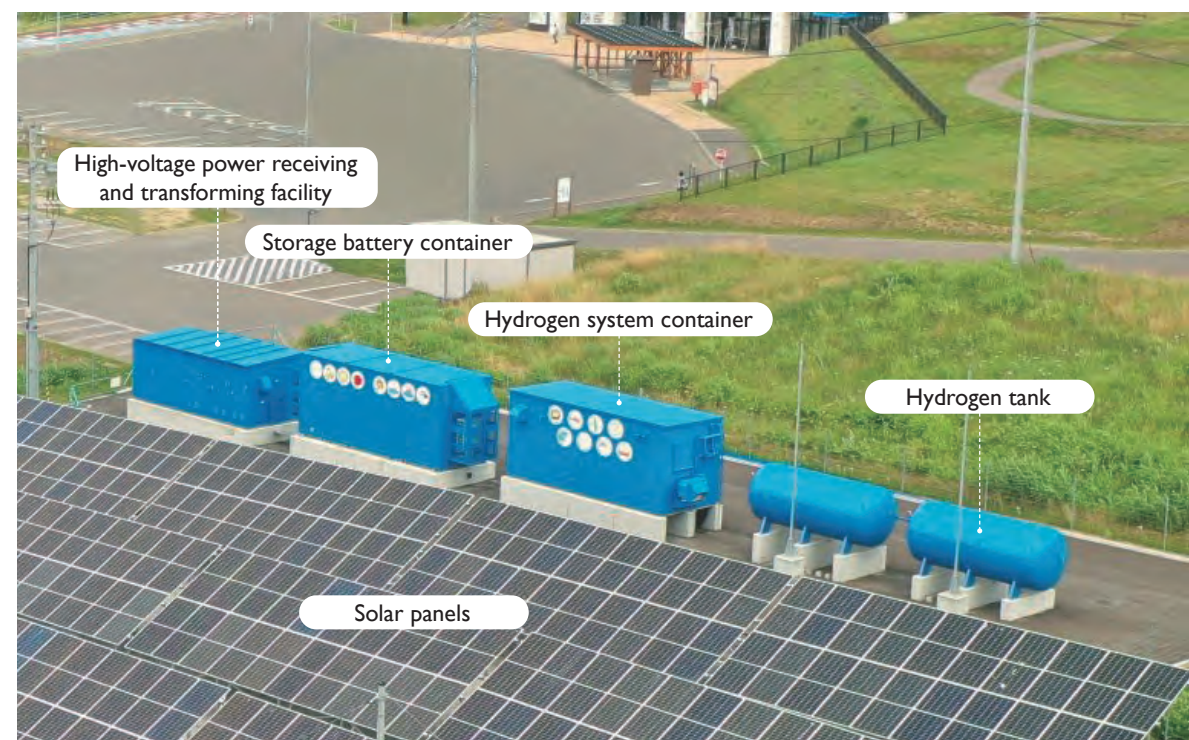
It is not uncommon for companies to provide green energy from renewable energy sources, or to provide technology, equipment, and facilities for storing energy in storage batteries, etc. However, there are not many companies that are able to connect all of these. We are confident that this is where our superiority lies. We will draw up a blueprint for achieving our goals by firmly

developing these four business domains by 2040.

Furthermore, as our first project, we began operating a microgrid system in the Atsuta district of Ishikari City, Hokkaido, in April 2022.

It is important for us to have such technologies and knowledge in order to continue to be a company of choice. In the future, we would like to add the provision of energy management systems as one of our businesses.

In addition, we will not only undertake construction work to install solar power equipment and storage batteries in facilities as we have done through now, but we also plan to actively invest in the facilities themselves. By investing not only in one-time-payment business such as facility construction, but also in recurring-revenue business such as facility operation, as well as in upstream businesses, we believe that we will be able to develop an eye for monitoring the market. And if we are able to perceive business with a market orientation concept, I believe this will be useful for contributing to society as an Environment-Creator™. Needless to say, balancing both business models is also important in terms of business.



We created a “microgrid that realizes low carbon emissions with disaster prevention functions” by introducing our proprietary green hydrogen utilization technology (Photo courtesy of Ishikari City)



### Investing in growth, including reinforcing investment in human capital toward business area expansion

In our 2026 Medium-Term Management Plan: Step for the FUTURE, we set KGIs to achieve consolidated ordinary income of 20 billion yen and consolidated ROE of approximately 10%, as well as the target of reducing CO<sub>2</sub> emissions by 16.8% compared to FY2022 for Scopes 1 and 2 and by 10.0% for Scope 3 to contribute to the global environment.

This Medium-Term Management Plan, which covers the period through FY2026, is positioned as the first phase of “four years to embark for the future” toward the realization of our Long-Term Vision for 2040.

We will focus on strengthening the profitability of our core business and building a foundation for growth businesses, and we will use the profits generated through our businesses to invest in growth businesses and return profits to shareholders. Of the approximately 81 billion yen in cash inflow we expect during the period of the four-year plan, we will allocate 30 billion yen to shareholder returns and 51 billion yen to growth investments. Among the growth investments, we plan to allocate 10 billion yen for increased investment in human capital, and allocate the remaining 41 billion yen for carbon neutrality business, construction process reform, DX, M&A, and other areas. With regard to our approach to M&A, in taking on the challenge of carbon

neutrality business and other new businesses, instead of being constrained by a “go it alone” attitude, we will also place importance on a co-creation approach with new colleagues through capital and business alliances and other forms of partnerships.

### Installation of our hydrogen production system on a lunar lander

#### Aiming for the first private sector hydrogen production on the Moon

In the fiscal year ended March 31, 2023, we achieved a 10% increase in orders and a 12% increase in sales over our initial plan, supported by semiconductor-related construction demand. We assess that we were able to achieve the minimum results while making upfront investments in the carbon neutrality business, construction process reform, DX and human capital, and other areas. We should be able to make further gains once we realize a return on our upfront investments in human capital and R&D.

Since 2019, we have been participating in the HAKUTO-R project of the Japanese space company ispace, inc. Our hydrogen production system is scheduled to be installed on a lunar lander planned to be launched in 2024. We are continuing to develop the first private sector hydrogen production on the Moon.





With our hydrogen production system that will be installed on a lunar lander, we have taken on the challenge of generating hydrogen on the Moon

### Proactive investment in human capital both in Japan and overseas to enable sustainable management

Securing human resources is important for sustainable management. We are currently working to strengthen our recruitment of new employees, including mid-career professionals. To this end, I believe it is firstly necessary to increase employee engagement, and we are currently strengthening our investment in human capital, including improvements in such employee engagement.

Specifically, we will increase investment in human capital by 10 billion yen year-on-year. This will be used for employee training, improvement of employee working environments, increasing base wages, various benefits, and hiring of new employees (new graduates and mid-career professionals). In order to realize sustainable management, it is important for us to be a company of choice that is highly evaluated. We view the strengthening of recruitment of new employees as one of our most important initiatives for the next four years.

We also have a large number of non-Japanese employees working at our headquarters, main office and branches, and construction sites, and we are focusing on making it easier for them to work.

For example, in response to the comments from non-Japanese employees that it is difficult to take a large vacation during the Lunar New Year period, we have created a system that allows employees to freely take two weeks of leave two times a year, making it easier for them to return home for the Lunar New Year as well as take trips home while avoiding peak travel seasons.

In this way, we believe that the advantage of diversity is that it offers different perspectives on aspects we tend to think are the norm. The declining birthrate and aging population are unavoidable realities in Japan, and we cannot train the next generation if we sit on our hands.

We intend to expand our diversity and invest aggressively in human capital with an eye to future overseas expansion.

### Clarifying the separation of management and execution to ensure speedy management decisions

Because the carbon neutrality business is a business challenge that no one has ever tackled before, speed is essential in making management decisions. We expect an increase in the number of investment projects and opportunities requiring flexible management decision-making in the future. If the Board of Directors' decision-making is slow and slams the break on progress, this will result in opportunity loss and not lead to business growth.

In order to avoid such risks, our company has clearly separated management and execution, with the Board of Directors and the Governance, Nomination, and Compensation Committee carrying out the role of monitoring execution. We have requested an outside director to chair the Board of Directors and the Governance, Nomination, and Compensation Committee. The new composition and members are appropriate for our Long-Term Vision, Medium-Term Management Plan, and the start of our next 100 years.

In addition, in order to ensure transparency and objectivity in the succession of the President and Representative Director to his successor based on the succession plan, the policy for the development of the successor, the development plan, and its progress are reported to and discussed by the Governance, Nomination, and Compensation Committee. The training of my successor had already begun when I assumed the position of President.

## Enhancing our own corporate value through the provision of services and technologies that enhance the corporate value of our customers

### The "TakasagoWay" spirit, which centers customers rather than Takasago Thermal Engineering, is beginning to take root

In recent years, we have begun to hear the phrase "enhancement of corporate value." In order to enhance its corporate value, Takasago Thermal Engineering firstly needs to provide services and technologies that enhance the corporate value of our customers. For example, if we thoroughly enhance the technologies that our customers have implemented in their factories, the value of the products they produce will increase. By doing so, we will benefit by reinforcing our status as the company of choice for our customers, and at the same time, our corporate value will increase.

We must remember that it is important for us to promote business that centers our customers, rather than Takasago Thermal Engineering.

This point is raised in the TakasagoWay, which summarizes the spirit and values of Takasago Thermal

Engineering and was announced in 2020. I have also strongly advocated for it. Fortunately, this way of thinking and stance has now permeated within our company, and the awareness of our employees has changed.

When there is a change in awareness, there will also be changes in actions and results. We are currently just beginning to change our actions, and we are sure to see positive results in the future. I myself have high hopes for such a bright future.

Takasago Thermal Engineering will be the company of choice for all stakeholders, including customers, shareholders, investors, suppliers, partner companies, and employees, and the synergistic effects generated by this broad support will enhance our corporate value. We have defined our Purpose management as being "With our revolutionary environmental innovations, we activate the Earth's future." I feel this is appropriate as we embark on our next 100 years.





# History of Our Value Creation

This year marks the 100th anniversary of our founding in 1923.

Since its founding, the company, mainly covering HVAC system construction and its peripheral fields, has engaged in technological advancement through designs and construction living up to customers' trust and the development of optimum systems and devices.

Using technologies accumulated so far, we aim to achieve a decarbonized and sustainable society, and will pursue technological advancement.

## 1923

Our founding and development of our first domestic products

On November 16, 1923, our predecessor Takasago Heating Works Co., Ltd. was established.

In 1924, the year after the company was founded, it installed a temperature and humidity control system in a residence, which is said to be the first air-conditioned private residence in Japan. In 1927, we constructed Mitsukoshi Hall (currently Mitsukoshi Theater), which attracted attention as the first fully air-conditioned and heated theater in Japan.

Large air conditioners of the day that were needed to create cold air had to be imported, and were very expensive because of transport expenses and engineers' travel expenses added to the price of the main body. Due to this, our first president Masanosuke Yanagimachi traveled to the United States. He developed the first domestically-produced product Takasago Ebara turbo refrigerator after years of research. In addition, we developed Japan's first heat pump heating and cooling system and industrial cooling tower.



Takasago Ebara turbo refrigerator (catalog at the time)

## 1940s

Contributing to the postwar reconstruction and period of high economic growth

In 1943, our company name was changed to the current name, Takasago Thermal Engineering Co., Ltd.

Large-scale construction increased as Japan entered the period of rapid economic growth after WWII. We installed air conditioning systems for numerous buildings, including the Tekko Building No. 1 in Yaesu, Tokyo, Tetsudo Kaikan building at the Yaesu exit of Tokyo Station, and Tokyu Kaikan in Shibuya. Later, our company constructed the World Trade Center Building (40 floors above ground in Hamamatsucho, Tokyo), the second skyscraper ever built in Japan.

## 1960s

Industrial development and technological advancement (development of cleanrooms, etc.)

In response to the growing demand for clean, contaminant-free air at manufacturing and medical care sites in Japan, Takasago Thermal Engineering quickly entered the cleanroom market right from the start. As exchange with foreign countries resumed after WWII, we took every opportunity to gather knowledge of new technologies and products. With the support of an American company, we constructed our first full-fledged cleanroom, the Nihon Denso cleanroom research building, in 1968.

In the 1990s, with the booming DRAM semiconductor market, mass production of lithium-ion batteries began in Japan. A low-humidity environment is essential for the production of these lithium-ion batteries. In order to generate this unique environment, we developed the low humidity environmental control room known as Dry Room®, which is still used to manufacture lithium-ion batteries.



Takasago laminar flow cleanroom

## 1970s

Promoting overseas business for globalization

We started our global business by opening a Singapore resident office, a Macao branch, and a Hong Kong branch in 1974. In order to expand our technology overseas beyond national borders, we accelerated our progress by establishing our Overseas Business Headquarters in 1980.



Singapore resident office

## 2000s

Optimum operations of HVAC and development of energy-saving technologies

In 2005, in response to growing social momentum for energy conservation, we developed the data gathering analysis software GODA® to keep track of the operational state of an HVAC system adequately for its resulting optimum operations. We also developed the Swirling Induction type TAKASAGO HVAC System SWIT® to improve the comfort level of the living environment in large spatial facilities like factories, which also enabled improvement in energy-saving performance and a reduction in system costs.



SWIT®

## 2010s

From an environmental engineering company to an Environment-Creator™

Technology made significant advances in the 2010s. The issue of optimizing data center air conditioning systems emerged due to the increased heat generated because of larger amounts of data being processed and the improved performance of ICT equipment. In 2011, as an air conditioning system that fundamentally solves this issue, we jointly developed the IDC-SFLOW® wall outlet type air conditioning system.

## 2020s

Tackling social issues as an Environment-Creator™

To contribute to ESG, the SDGs, and realizing a decarbonized society, we have defined our Purpose as "With our revolutionary environmental innovations, we activate the Earth's future," and we will expand our environment creation business areas with our existing air conditioning technology at the core.



Hydro Creator®



Takasago Thermal Engineering Innovation Center

100th anniversary in 2023



Thank you for 100 years



Core facility for the construction process T-Base®

## Strengths of the Takasago Thermal Engineering Group cultivated over 100 years

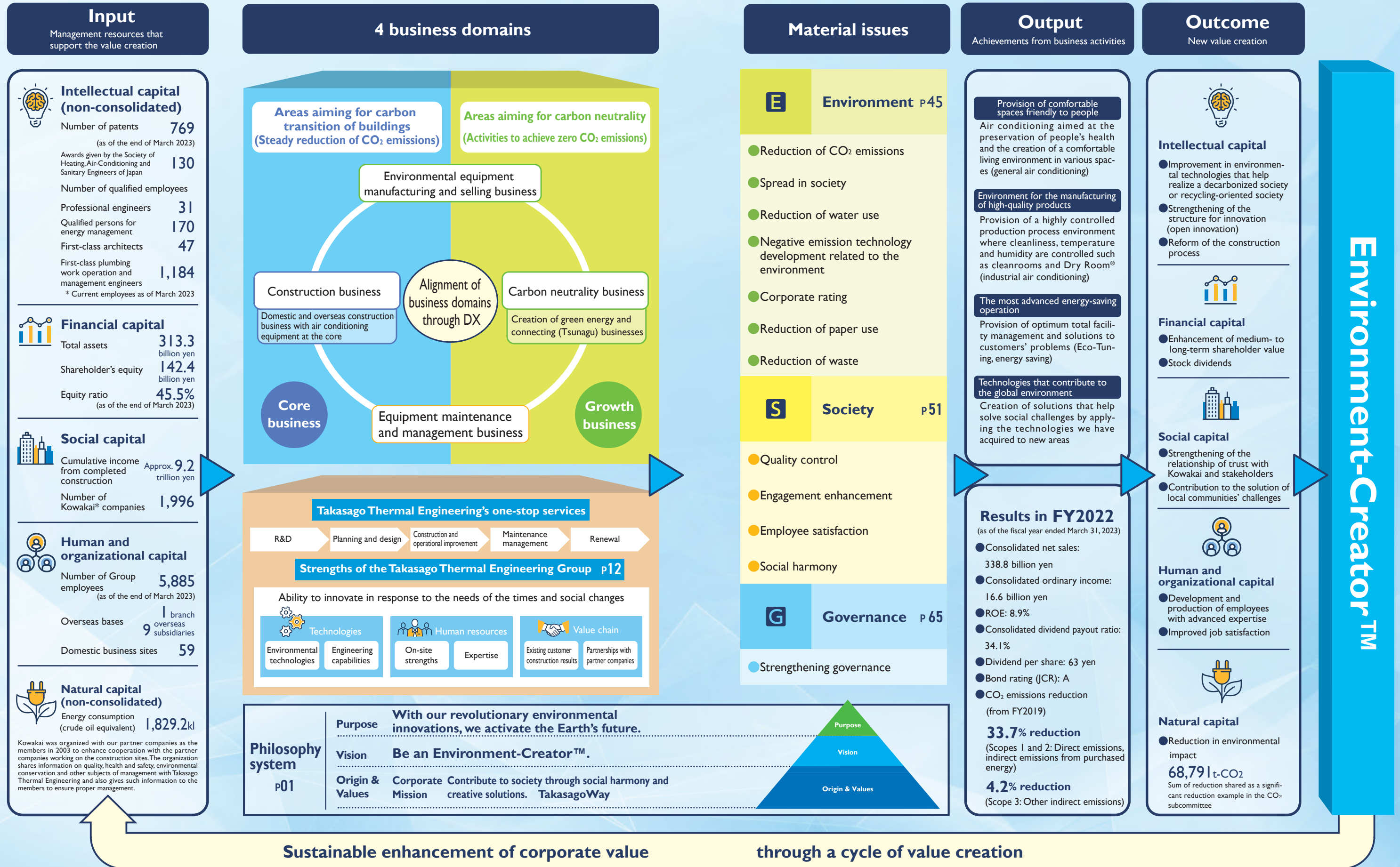
Ability to innovate in response to the needs of the times and social changes

Technologies		Human resources		Value chain	
Environmental technologies	Engineering capabilities	On-site strengths	Expertise	Existing customer construction results	Partnerships with partner companies
<ul style="list-style-type: none"> <li>● We have accumulated extensive expertise in engineering and construction management related to air conditioning equipment</li> <li>● We provide optimal air environment within the construction period through our safe, high-quality construction</li> <li>● We develop new technologies that contribute to solving social issues</li> </ul>	<ul style="list-style-type: none"> <li>● Our employees have diverse backgrounds and a wealth of expertise and licenses</li> <li>● Our corporate culture encourages growth and taking on challenges</li> <li>● We create new added value through solution proposals</li> </ul>	<ul style="list-style-type: none"> <li>● We have a track record of constructing a wide variety of buildings and a network of customers</li> <li>● We have strong partnerships with partner companies</li> </ul>			



# The Value Creation Process

Achieving environmental creation needed by the Earth and people as an Environment-Creator™.





# Takasago Thermal Engineering Group's Long-Term Vision for 2040

Create our PLANET, Create our FUTURE

As the business environment surrounding our company undergoes dramatic changes, from a long-term perspective, we predict that the year 2040 will be a major turning point in terms of the structure of society due to population and climate change issues.

With an eye on the changes ahead, the Takasago Thermal Engineering Group has formulated our Purpose and Long-Term Vision for 2040 in order to create sustainable growth and added value by leveraging our diverse values.

As Environment-Creators™, each executive and employee of the Takasago Thermal Engineering Group will take on the challenge of solving the issues of society in the future and embody our commitment to shaping the future with our partners.

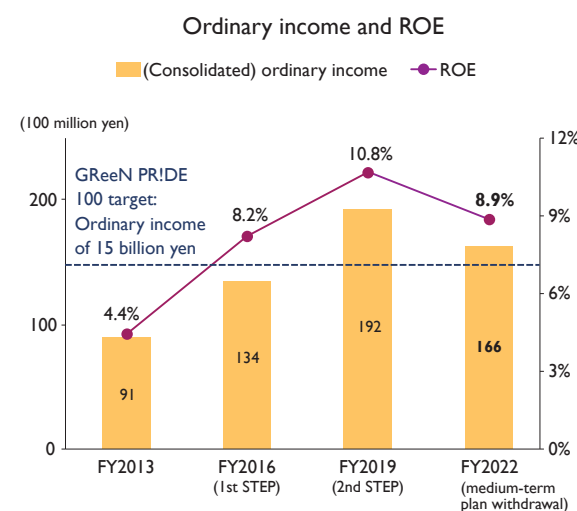
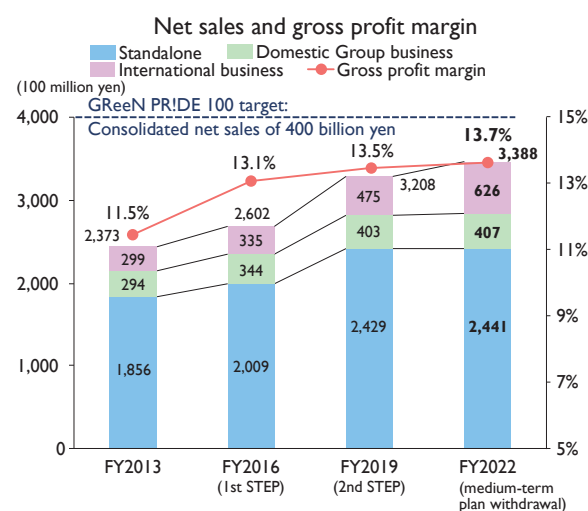
## Review of our long-term management vision

### GReeN PR!DE100 (FY2014–FY2023)

Under our long-term management vision GReeN PR!DE100, which was launched in 2014, we set forth our vision of being a “company group continuously meeting customers’ expectations and always relied on and trusted by them,” an “environmental company whose presence is admired in the global market,” and an “environmental solution professional contributing to the global environment.” We have been working to achieve this through our medium-term management plan divided into three steps.

Ordinary income improved from 9.1 billion yen in FY2013, before the start of the long-term management vision, to 16.6 billion yen (+7.5 billion yen) in FY2022. This was thanks to the successful implementation of one-stop services for construction work and the development of company-wide optimal order receipt closely tied to customers. In addition, toward achieving growth in the future beyond the 100th anniversary of our company’s founding, we have been realizing M&A to expand and stabilize earnings in our international business and investing in new businesses that leverage environmental technologies.

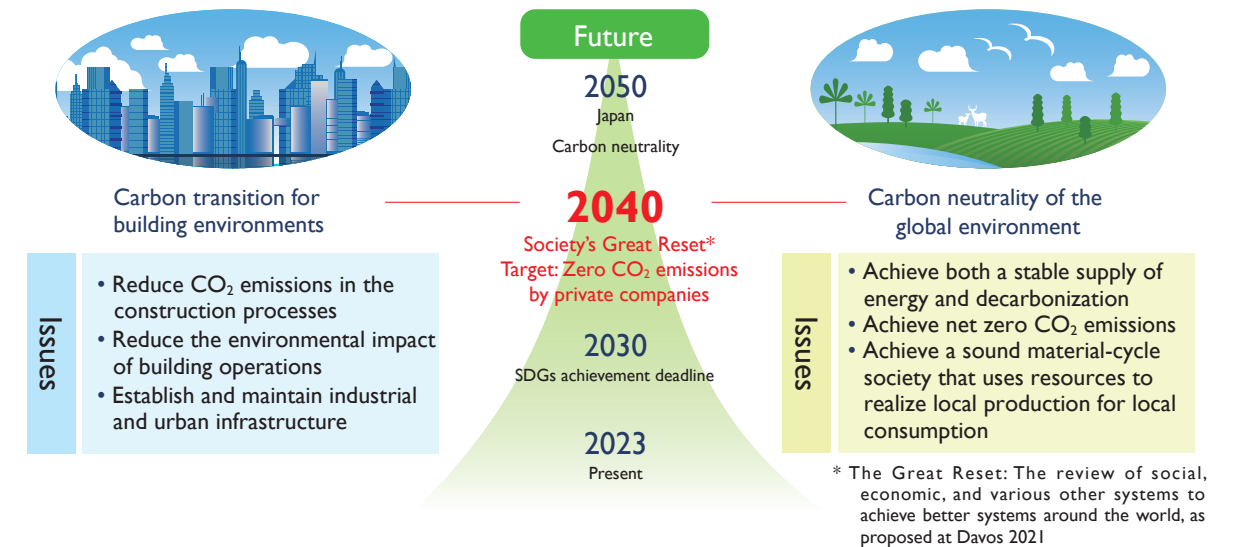
Retrospective on GReeN PR!DE100 (FY2014 to FY2023)	
Management strategies direction	Results and initiatives
Actively shift to an approach that emphasizes renewal and maintenance	• Provided one-stop service with TMES (O&M group company)
Deepen existing markets overseas and take on the challenges to develop new markets	• Acquired ICLEAN and made it a consolidated subsidiary • Established Takasago Mexico
Shift to a customer-oriented sales style to improve customer satisfaction	• Optimized company-wide order receiving
Actively utilize M&A and alliances to expand into new business areas	• Executed capital and business alliances to expand business areas • Established a subsidiary running PFI business (microgrid business operations)



## Takasago Thermal Engineering Group helps resolve future social issues

The Japanese government’s “2050 Carbon Neutrality Declaration” has spurred companies to further accelerate their carbon neutrality and ESG initiatives toward realizing a decarbonized society.

In order to solve social issues for the future to come, we are making efforts for “carbon transition for building environments” and “carbon neutrality of the global environment” by leveraging our abundant experience, achievements, technologies, and knowledge we have cultivated through our HVAC business.



## Four business domains aimed for in the Takasago Thermal Engineering Group's Long-Term Vision for 2040

Toward resolving the issues of society in the future, we will aim to be a company that creates environmental value by improving our business efficiency with our existing air conditioning technology at the core, expanding our environmental creation business areas, and having each of our employees continue to take on challenges as Environment-Creators™, our Group’s vision, together with diverse human resources inside and outside the company.

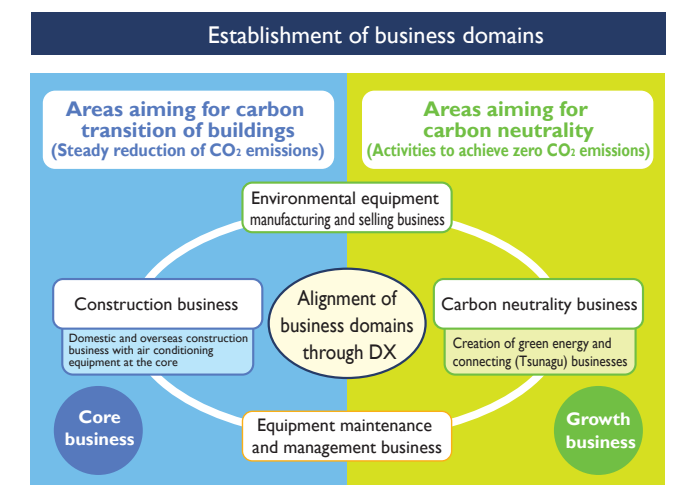
To this end, we have established four business domains based on future social changes. By aligning them through digital transformation (DX), we will transform ourselves into a corporate group that can realize solutions to the issues of society in the future.

### [Four business domains]

- (1) Construction business: Based on the technology we have cultivated for 100 years in Japan and overseas, with air conditioning equipment at the core, we will realize carbon neutrality in building environments while constructing building environments that are optimal for our customers.
- (2) Equipment maintenance and management business: As the Takasago Thermal Engineering Group has expertise in building equipment, we will implement activities toward achieving carbon neutrality in the operational phase of buildings, which accounts for the majority of environmental impact.

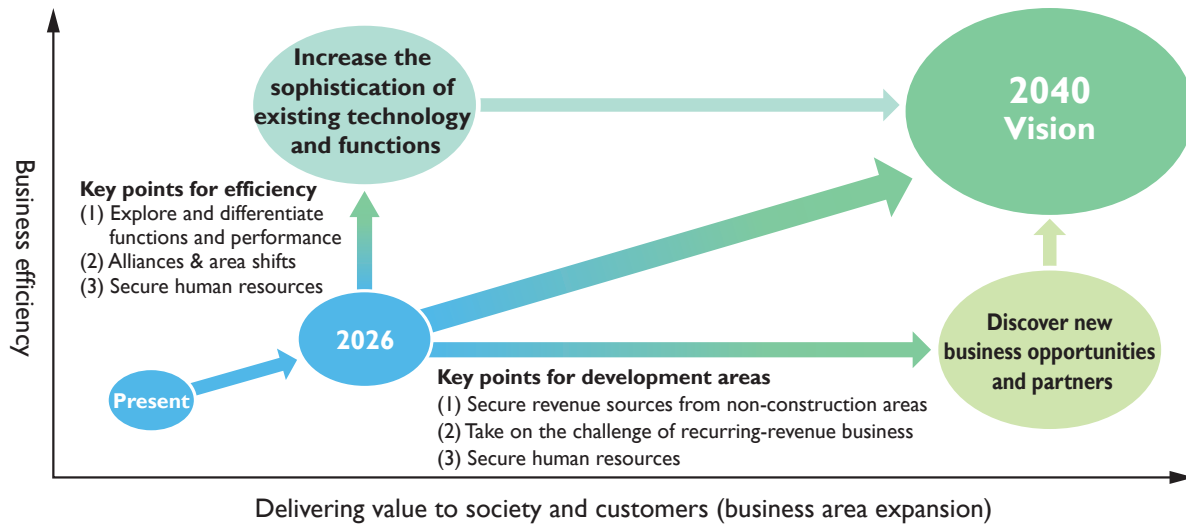
- (3) Environmental equipment manufacturing and selling business: In order to reduce environmental impacts, we will manufacture and sell products used in air conditioning equipment and industrial air conditioning, as well as develop, manufacture, and sell products that optimally design air conditioning units suited to customers’ facilities and that achieve green energy and energy conservation.
- (4) Carbon neutrality business: We will optimize each of the stages of energy generation, storage, and consumption for customers who aim to become carbon neutral.

We will develop businesses that contribute to the global environment by combining air conditioning technology with carbon neutral technology.





● Roadmap to achieve our Long-Term Vision for 2040



» Three phases toward realizing our Long-Term Vision for 2040

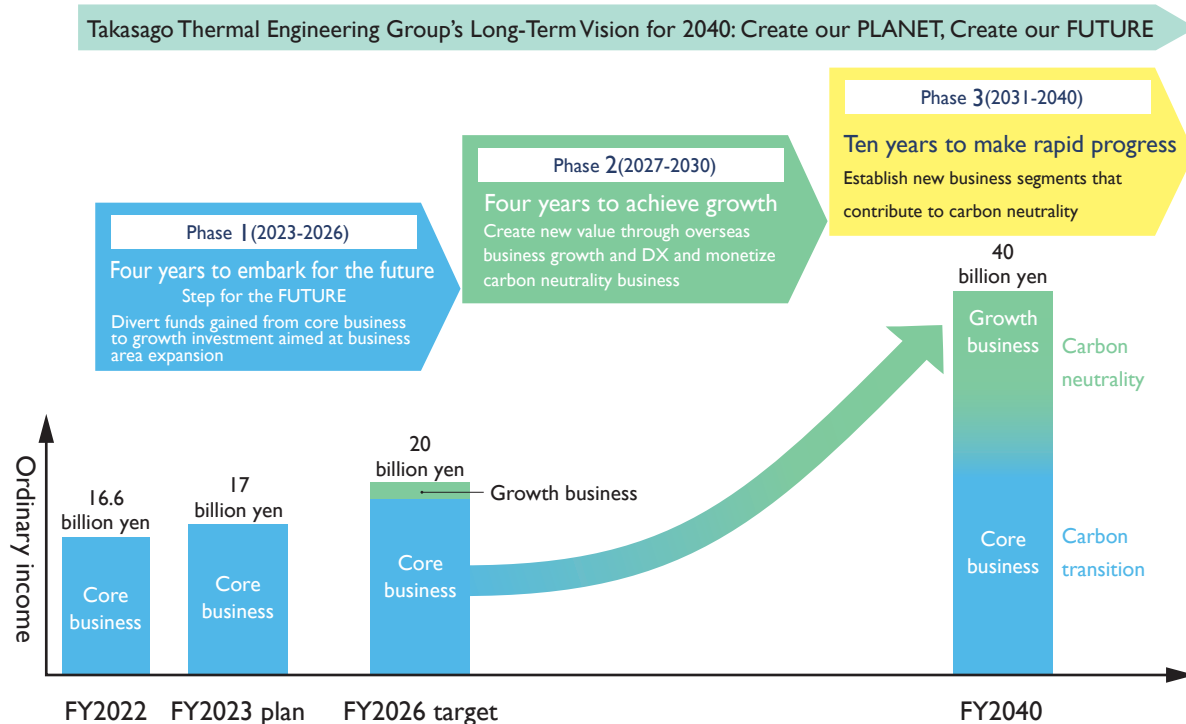
We will advance toward 2040 in the following three phases.

During the first four years (2023-2026), we will use our construction business revenue base as a foundation and utilize the funds we gain from it for investment aimed at building up our business domains toward resolving issues in society in the future.

The following four years (2027-2030) will be positioned as four years to achieve growth. While we see growth in our construction business overseas, for which growth is expected, we will confirm the effects of business investment toward carbon neutrality and the monetization of environmental technologies and products we have developed using our technology.

The final 10 years (2031-2040) will be positioned as 10 years to make rapid progress. We will establish business segments that contribute to carbon neutrality and make them new pillars of earnings as future businesses.

Through the three phases, we aim to achieve ordinary income of 20 billion yen in the first phase that ends in FY2026. Then, we will aim to become a corporate group that envisions ordinary income of 40 billion yen in FY2040.



2026 Medium-Term Management Plan

Step for the FUTURE -Four years to embark for the future-

The Group will proceed with its efforts to achieve its Long-Term Vision for 2040 in three phases. The first four years of the first phase are positioned as “Step for the FUTURE: Four years to embark for the future.” During this time, we will use our revenue base from our core business, which is supported by T-Base® and DX, as a foundation and utilize the funds and data we gain from it for continuing investment aimed at building up our future business.

» Basic policies and strategies of the 2026 Medium-Term Management Plan

Under the 2026 Medium-Term Management Plan, the Takasago Thermal Engineering Group will transform itself to be an Environment-Creator™ company based on the basic policies described below. We will also invest in human resources and provide organizational support so that each executive and employee who implements these policies will become an Environment-Creator™.

Basic policies

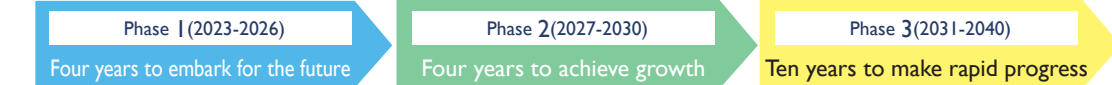
• Business model transformation

We aim to secure stable earnings by strengthening our earning power in the construction business, which is the backbone of our Group. We will then invest the earnings generated by the construction business to build businesses that will lead to long-term added value.

• Company and human resource transformation

The source of our Group's value creation is the executives and employees working for Takasago Thermal Engineering. We will develop human resources to transform our business model and encourage them to put this business model into practice.

Takasago Thermal Engineering Group's Long-Term Vision for 2040: Create our PLANET, Create our FUTURE



Business model transformation		Company and human resource transformation	
Use the construction business revenue base as a foundation and promote investment for future growth			
01 Enhance earning power based on our construction business	Strengthen on-site capabilities to improve earning power	03 Invest in human capital, the source of our value creation	Invest in human resources to achieve business model transformation
02 Establish business that will lead to long-term added value	Promote carbon neutrality with environmental technologies		



### Medium-Term Management Plan numerical targets

In FY2026, the final year of the Medium-Term Management Plan, we aim to achieve consolidated ordinary income of 20 billion yen and consolidated ROE of 10.0% or more. In terms of our non-financial indicators, we are aiming for Scopes 1 and 2 CO<sub>2</sub> emissions reduction of 16.8% and Scope 3 reduction of 10.0% compared to FY2022 in order to realize a decarbonized society, which should be a priority for our Group.

In addition, we established the following KPIs for achieving the KGIs.

#### (1) Enhance earning power based on our construction business

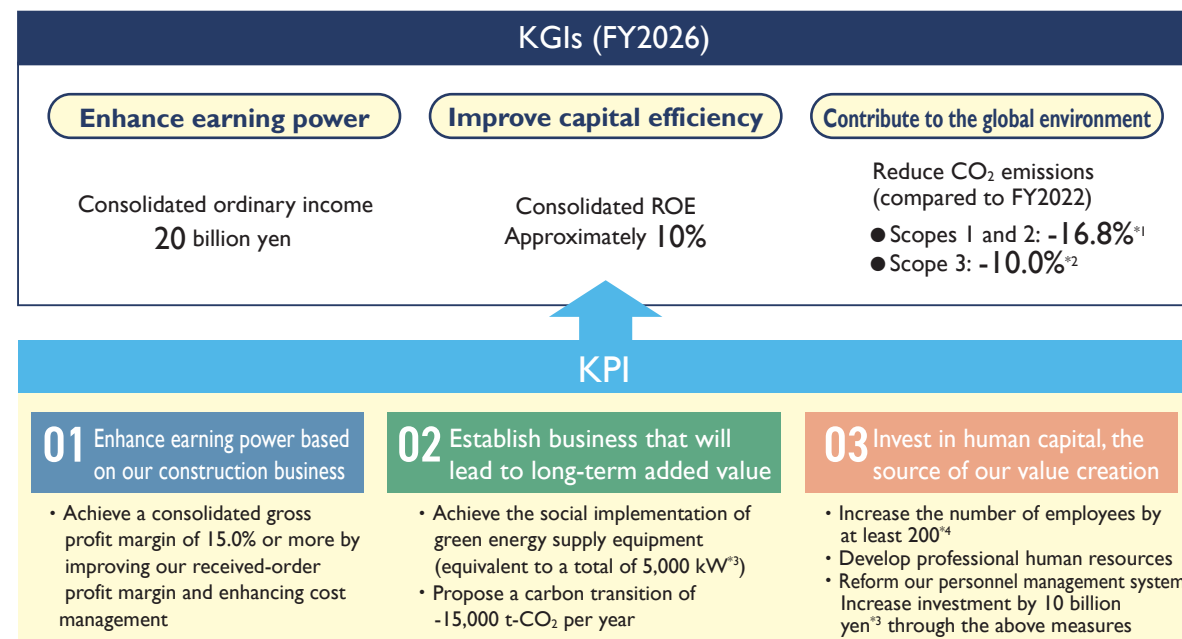
We aim to achieve a consolidated gross profit margin of 15.0% or more by improving the profit margin on orders received and increasing productivity of construction work.

#### (2) Establish business that will lead to long-term added value

Aiming to build our carbon neutrality business, a future growth business, we will implement in society green energy supply equipment equivalent to a total of 5,000 kW during the period of the Medium-Term Management Plan. In addition, to contribute to the carbon neutrality of our customers, which is directly related to Scope 3, we will implement activities for reduction of 15,000 t-CO<sub>2</sub> per year.

#### (3) Invest in human capital, the source of our value creation

We aim to have a net increase in the number of non-consolidated employees of 200 or more during the period of the Medium-Term Management Plan. In addition, in order to promote investment in human capital to realize these measures, we will increase the amount of investment in human capital by 10 billion yen during the period of the Medium-Term Management Plan.



\*1 The reduction rate necessary to achieve the 1.5°C target  
 \*2 The reduction rate for Scope 3 in accordance with the target of \*1 above  
 \*3 The total for the period covered by the Medium-Term Management Plan  
 \*4 Compared to FY2022 as of the end of FY2026

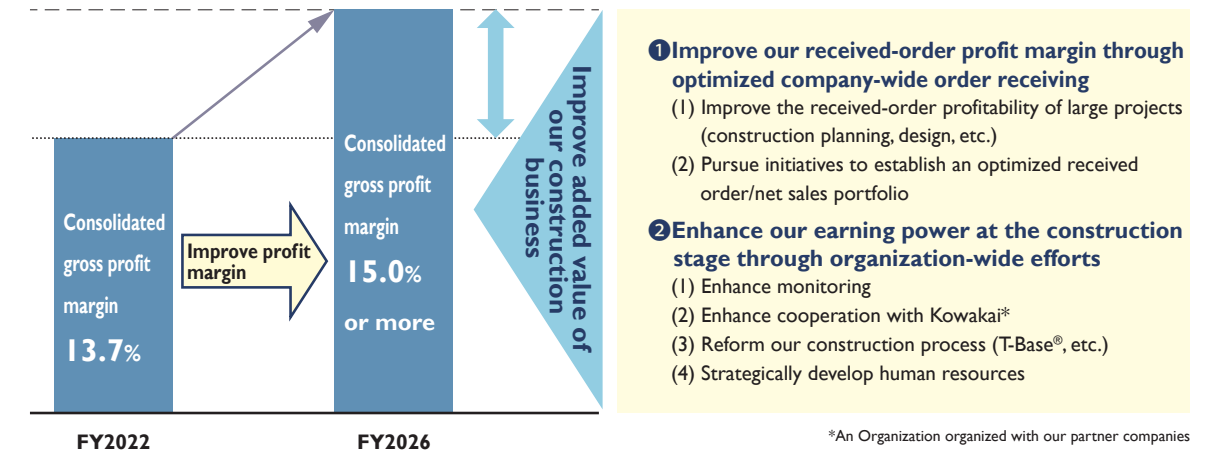
#### Policy differences between the previous and new medium-term management plans

Previous plan	New plan
<p><b>1. Establishment of business model within the construction business</b>                      Aim to expand business areas from air conditioning to building, electrical, and sanitary facilities, and to take on construction work as one-stop services.</p> <p><b>2. Commitment to environmental business</b>                      Exploration of new business areas.</p>	<p><b>1. Co-creation approach</b>                      Response to the areas of other facilities by building partnerships.</p> <p><b>2. Creation of carbon neutrality business</b>                      Creation of new business areas through Takasago Thermal Engineering's accumulated environmental technologies and engineering capabilities.</p> <p><b>3. Strengthened investment in human capital</b></p>

## 01 Enhance earning power based on our construction business

Based on the idea that the construction business is an investment in our resources, namely our employees and partner companies, we have been pursuing an order-receipt strategy from a company-wide perspective that takes profitability and future potential into consideration. To further enhance the earning power of the construction business, we aim to achieve a consolidated gross profit margin of 15.0% or more by improving the profit margin on orders received and increasing the profitability of the entire organization at the construction stage.

#### Initiatives to achieve a consolidated gross profit margin of 15.0% or more



\*An Organization organized with our partner companies

### Construction process reform: T-Base® project

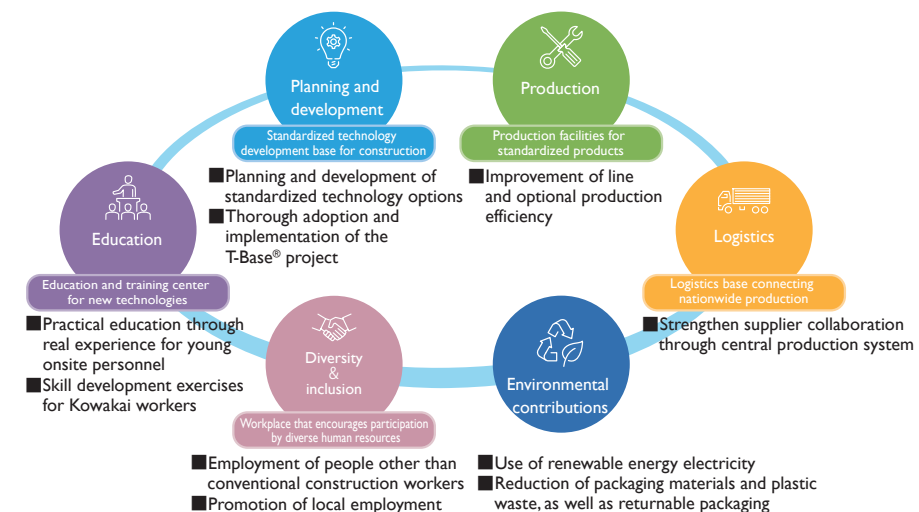
The construction industry faces a variety of challenges, including the aging of the working-age population and the shrinking manufacturing workforce, the application of overtime caps that will be implemented in FY2024, and addressing environmental issues. In May 2022, we established T-Base®, which will serve as the core facility for our project aimed at resolving these issues.

T-Base® is a facility that handles planning, production, logistics, and other functions. It standardizes the technologies and know-how that have been used for

onsite one-product construction through now, and develops new construction methods and prototypes, verifies, and produces developed products accordingly.

We aim to improve productivity and further enhance earning power by reducing labor and achieving high-quality construction through front-loading\*, leveling workloads, and standardizing the construction process through transformation of the construction process with T-Base® at the core.

#### Five functions and environmental contributions of T-Base®



**01** Director and Managing Executive Officer  
 Chief Executive Officer of Technical Engineering Headquarters  
 In charge of Business Strategy Management Department, and Group Companies Management  
**Tadashi Kamiya**

\*A method for taking care of more of the workload up front to improve quality and reduce the lead time by concentrating labor and resources during the initial stages of the manufacturing/system development process



### Initiatives to establish an optimized received order/net sales portfolio

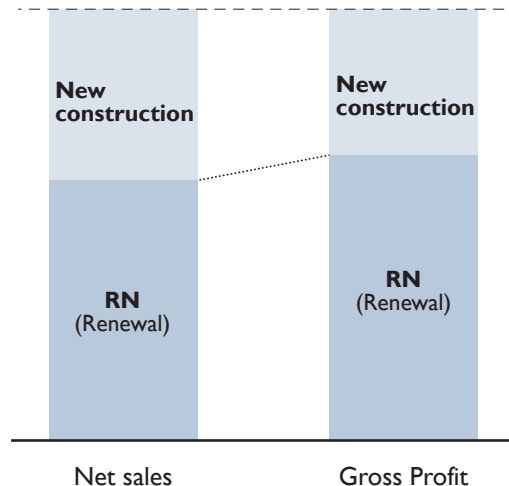
• **Recent order receipt environment**

There has been strong construction demand for both general and industrial air conditioning. In terms of industrial air conditioning, we will emphasize the receipt of new construction orders to form future renewal assets. In terms of our overall general/industrial and new and renewal construction business, we will strive to establish a higher-profit-margin received-order/net sales portfolio.

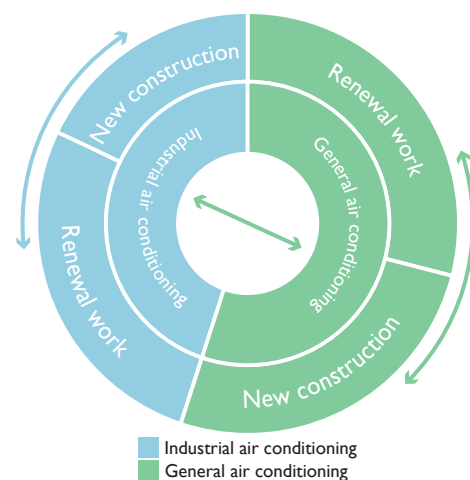
• **Order receiving strategy**

In order to promptly respond to issues that include a limited supply of labor in the face of strong construction demand and the fact that construction projects are becoming larger, we will promote an optimal company-wide order receiving strategy as opposed to our past branch-based approach. To respond to fluctuations in the construction demand for general and industrial air conditioning, we will restructure our received-order portfolio to make it more flexible.

• **Net sales and profit ratio overview**



• Overview of our received-order/net sales portfolio



As we flexibly respond to fluctuations in the construction demand, we will take steps to establish a received-order/net sales portfolio that is optimal from the medium to long-term perspective, such as by forming future renewal assets.

**01**  
 Director and Managing Executive Officer  
 Chief Executive Officer of Sales & Marketing Headquarters  
**Hiroshi Kubota**



#### Takasago Thermal Engineering's business segments

• **General air conditioning: Comfortable spaces friendly to people**

Air conditioning for the purpose of maintaining human health and creating comfortable living environments in spaces such as office buildings, skyscrapers, commercial facilities, hotels, leisure facilities, and underground malls.



• **Industrial air conditioning: High-quality product manufacturing and R&D environments**

Air conditioning for the purpose of provision of highly controlled cleanliness, temperature, and humidity in production process environments such as cleanrooms and dry rooms in semiconductor, electronic device, and pharmaceutical plants and other such locations.



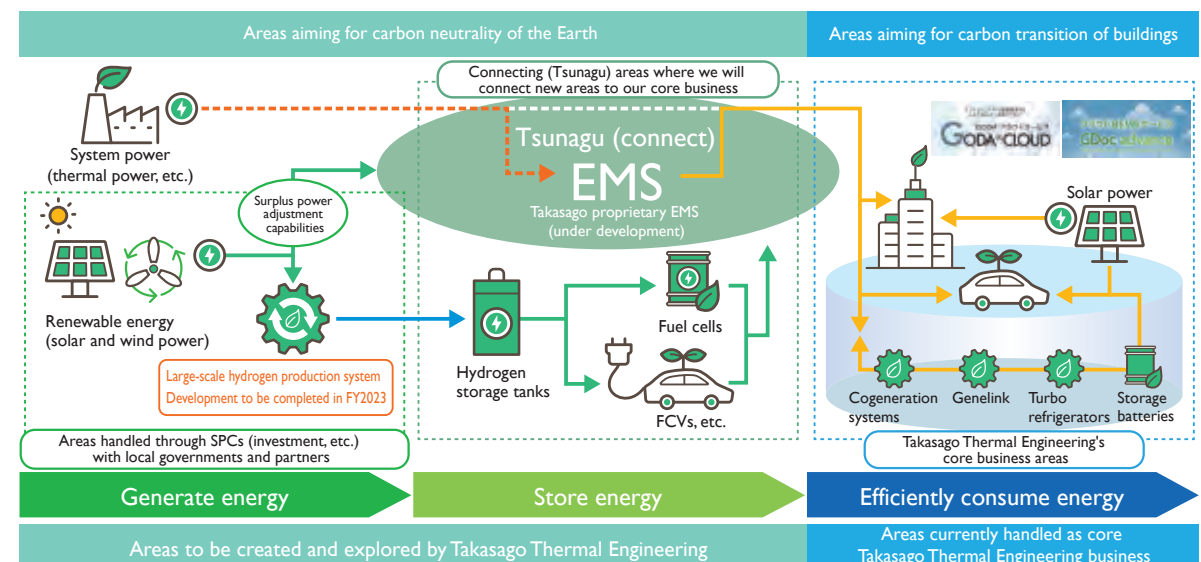
## 02 Establish business that will lead to long-term added value

We will promote efforts to establish carbon neutrality business using our environmental technologies and engineering capabilities that we have built up through now.

### Launching carbon neutrality business

In our Long-Term Vision for 2040, we aim to establish business segments that contribute to carbon neutrality. In addition to the area involving efficient use of energy in our current core business, we will expand into the area of renewable energy generation, including solar and biomass power generation. We will also leverage our accumulated knowledge of how to efficiently and optimally utilize energy to create an energy storage system. The goal will be to connect (Tsunagu) these three areas.

The first project of these businesses is the Ishikari Atsuta Microgrid System, which has been in operation since April 2022. In the current Medium-Term Management Plan, we aim to realize social implementation of green energy supply equipment equivalent to a total of 5,000 kW and to reduce CO<sub>2</sub> emissions of our customers by 15,000 t-CO<sub>2</sub> per year.



### Research and development of environmental technologies that contribute to carbon neutrality business

We will promote research and development to create technology and value that contribute to people and the global environment, and contribute to building a foundation for carbon neutrality business.

	Research and development of environmental technologies that contribute to carbon neutrality business	Energy:		
		Generation	Storage	Consumption
1	<b>Development and introduction of water electrolysis equipment (1 to 5 Nm<sup>3</sup> unit, 100 Nm<sup>3</sup> unit)</b>	○	○	
2	<b>Development of a Takasago proprietary EMS</b> Achieve overall energy optimization by collecting, analyzing, and learning from data related to demand as well as the operation of energy supply equipment that includes water electrolysis equipment	○	○	○
3	<b>Research and development of technologies to create building environments</b> Provide energy-saving and energy-producing construction equipment, environments that help to achieve health and safety, and environments that facilitate the improvement of intellectual and manufacturing productivity	○		○
4	<b>Research and development of technologies to protect the global environment</b> Provide hydrogen-related technologies, CO <sub>2</sub> capture and usage technologies, resource recycling technologies, heat/energy controlling technologies, and machines, etc. that emit less greenhouse gases	○	○	
5	<b>Research and development of technologies to take on the challenge of new environments</b> Take on challenges related to habitats that include the moon's surface, outer space, and oceans as well as energy supply facilities, etc.	○	○	○



Reforming our core business based on BIM and establishing/utilizing our digital foundation

Through the development and utilization of digital infrastructure based on BIM, we will make proposals for buildings through the collection of operational data for facilities such as air conditioning equipment, analyze the data obtained, and reduce the amount of energy and CO<sub>2</sub> emissions generated in such buildings.

By utilizing a BIM-based system to centrally manage our buildings, we will strive to reduce both the carbon generated during the life of each building—starting with its construction—and the carbon emitted during building operations in order to help achieve green transformation (GX).

Our DX strategy, which is the cornerstone of these activities, has been updated in response to the Long-Term Vision for 2040 and 2026 Medium-Term Management Plan.



Scan the QR code for more about our DX strategy  
"TakasaGO! DX toward the future"



In April 2022, we were selected as a "DX-certified operator" by the Ministry of Economy, Trade and Industry. (Applicable until the end of March 2024)

03 Invest in human capital, the source of our value creation

For the sustainable growth of our employees, who are the source of value creation of the Takasago Thermal Engineering Group, we will work on securing human resources and developing professional human resources as well as promotion of reform of our personnel promotion system to establish a more comfortable working environment.

In addition, we will actively invest in human capital, increasing it by a total of 10 billion yen during the period covered by the 2026 Medium-Term Management Plan.



Financial and Capital Strategy

In order to sustainably enhance corporate value, we will emphasize the balance between capital efficiency and financial soundness, and appropriately allocate the cash generated to investment in growth and shareholder returns.

Basic policy on financial and capital strategy

Our Group announced our Long-Term Vision for 2040 and 2026 Medium-Term Management Plan in May 2023.

The current Medium-Term Management Plan period is the first step toward establishing new business segments that contribute to carbon neutrality by 2040 and making them new earnings pillars, which is raised in our Long-Term Vision. We perceive it as a phase for using our construction business revenue base as a foundation, and utilizing the funds we gain from it for investment aimed at building up our business that will contribute to long-term added value.

The basic policy of the financial and capital strategy that supports this Medium-Term Management Plan is to appropriately allocate investments for growth and shareholder returns, with an emphasis on the balance between capital efficiency and financial soundness.

Basic policy on financial and capital strategy

- Capital efficiency**
  - ROE of approximately 10% (We will remain aware of the cost of capital as we pursue improved return on capital.)
  - Cross-shareholdings net asset ratio of 15% or less
- Financial soundness**
  - Maintain a rating of A\*
  - \* Long-term issuer/bond rating Rating agency: JCR (Japan Credit Rating Agency)
- Growth investment**
  - 51 billion yen
- Shareholder returns**
  - Aim for a payout ratio of 40%
  - Progressive dividends
  - Flexibly acquire treasury stock

Management with awareness of cost of capital and stock price

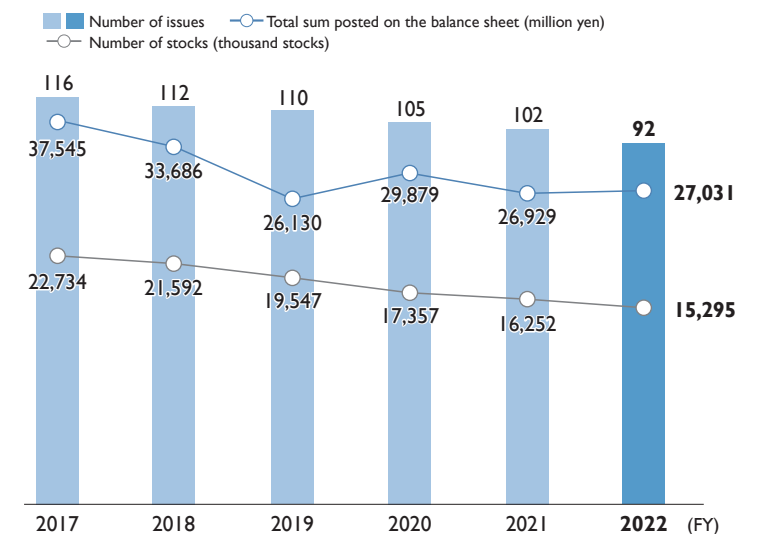
In addition to pursuing improved return on capital with an awareness of the cost of capital as well as aiming to achieve ROE of approximately 10%, we will pay attention to PBR and perceive demand through dialogue with shareholders, investors, and others, and promote efforts to realize management with awareness of stock price level.

In terms of investment, we have established investment adoption criteria based on cost of capital, and our policy is to carefully select projects that will lead to future business area expansion and earnings contribution. We are also considering the introduction of indicators to encourage improvement in return on invested capital.

We are also implementing various measures from the perspective of further improving profitability of each division and each construction site. With the reform of the construction process represented by T-Base<sup>®</sup> and the increasing scale of construction projects in recent years, we are conducting risk reduction activities by regularly monitoring the progress of large construction sites above a certain size and detecting abnormal values in terms of costs incurred and other factors.

With regard to investment shares held for purposes other than net investment, our policy in principle is to not hold

such shares, with the exception of cases where the maintenance and development of strategically important collaborations and business relationships are recognized as a means to sustainably enhance corporate value. With regard to shares already held, the Board of Directors conducts yearly reviews of the results of the periodic and ongoing assessment of the appropriateness of holding these shares. In principle, we consider reducing our holdings of shares that are no longer deemed significant, and plan to sell approximately 8.0 billion yen of such shares during the period of the current Medium-Term Management Plan, reducing the net asset ratio to 15% or less.



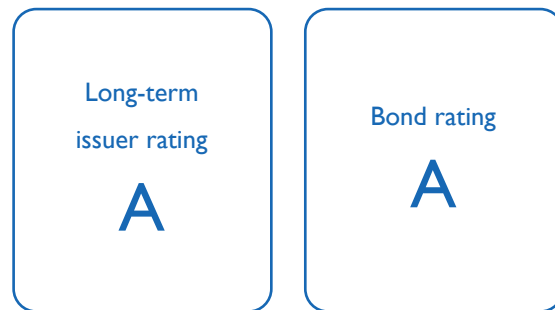


### Financial soundness

Our Group provides a wide range of services, from general air conditioning for office buildings and other such locations to industrial air conditioning for cleanrooms and other facilities. We have also been steadily acquiring renewal work for air conditioning equipment we have handled in the past. Recognizing our high revenue stability and solid financial management, the Japan Credit Rating Agency (JCR) gave us an “A” rating for its long-term issuer and bond ratings.

Our Group aims to maintain and improve our “A” rating as we continue to invest for future growth.

● Ratings (as of October 31, 2023)



Rating agency: JCR (Japan Credit Rating Agency)

### Capital allocation

For the period of the current Medium-Term Management Plan, cash inflow is planned to total 81 billion yen, including cash generated through business operations and cash from the sale of cross-shareholdings.

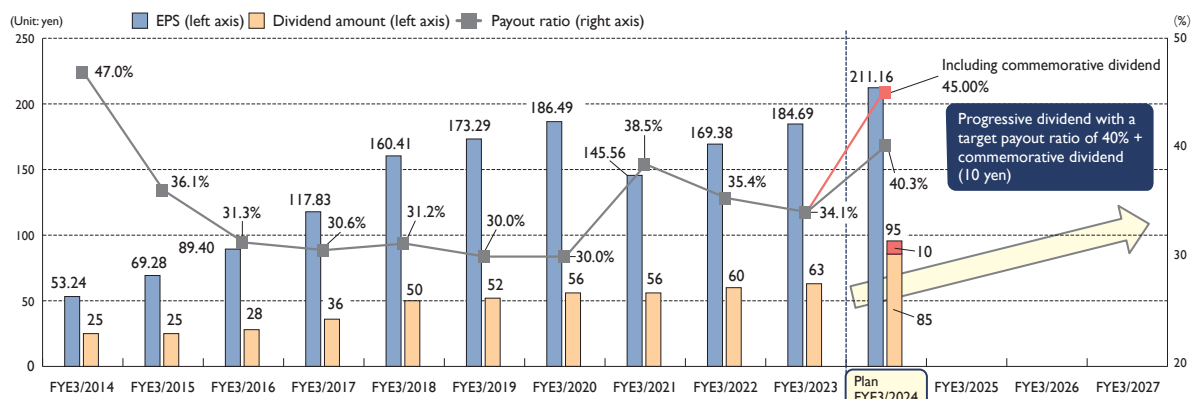
These will be appropriately allocated to growth investments and shareholder returns. The breakdown of the 51 billion yen in growth investments will consist of an increase of 10 billion yen for base wage increases, training, and the creation of comfortable working environments as investments in our human resources, which are our greatest asset and source of competitiveness. There will also be investments in the creation of the carbon neutrality businesses, construction process reforms, and DX-related efforts.

Shareholder returns are expected to total 30 billion yen through dividends and treasury stock acquisition.

Cash inflow 4 years: <b>Total of 81 billion yen</b>	Cash outflow 4 years: <b>Total of 81 billion yen</b>
Created by business <b>73 billion yen</b>	Growth investment <b>51 billion yen</b> • Investment in human capital • Carbon neutrality business • Reform of the construction process • DX • M&A, etc.
	Shareholder returns <b>30 billion yen</b> (Including a payout ratio of approximately 40% and treasury stock acquisition)
Sale of cross-shareholdings <b>8 billion yen</b>	

### Shareholder returns

With regard to shareholder returns, our dividend policy is based on a target payout ratio of 40%, with progressive dividend increases in line with sustainable profit growth. Our policy on treasury stock acquisition is to flexibly implement acquisition based on a comprehensive assessment of performance trends, growth investment opportunities, capital efficiency, and other factors. Furthermore, in FY2023, we plan to pay a commemorative dividend (10 yen) to celebrate the 100th anniversary of our founding.



Total payout ratio	75.3%	74.7%	61.4%	30.6%	31.2%	54.0%	60.3%	38.5%	87.6%	34.1%
Treasury stock acquisition amount (millions of yen)	1,146	1,877	2,009	—	—	3,000	4,000	—	6,000	—

2026 Medium-Term Management Plan: Step for the FUTURE -Four years to embark for the future-

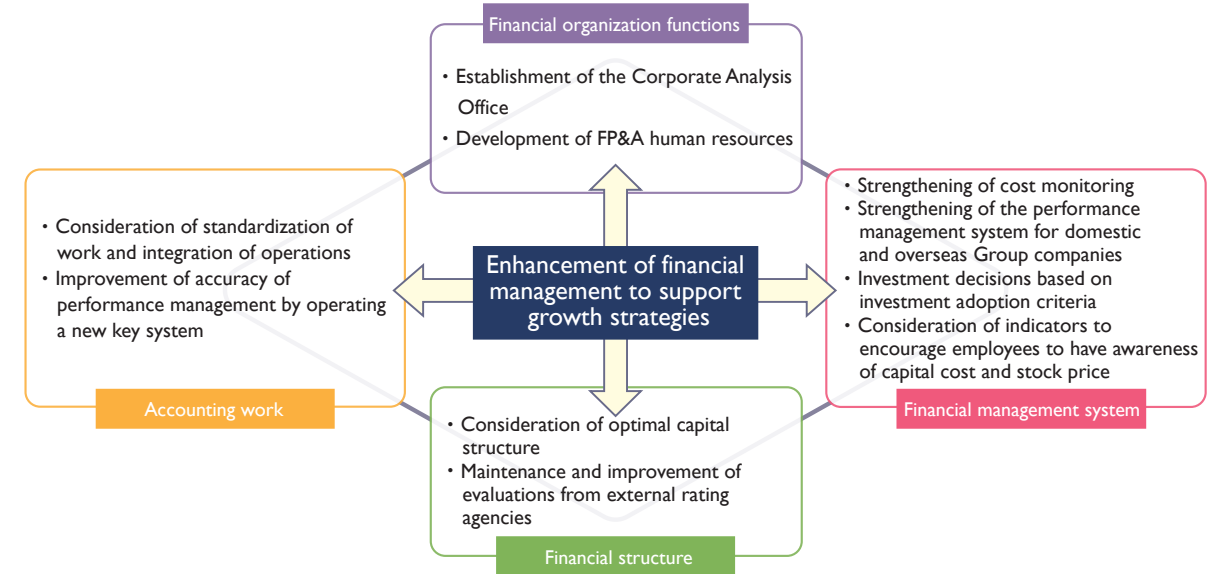
### Enhancement of financial management to support growth strategies

We will approach the advancement of financial management from four perspectives: financial organization functions, financial management system, financial structure, and accounting work. In FY2023, we established our new Corporate Analysis Office to expand our financial organization functions. We have also been continuing our efforts to develop FP&A human

resources, which are increasing at global companies in the United States and Europe, as well as e-learning to improve financial literacy.

To improve the efficiency of accounting work, we are working to standardize the work and study the integration of operations.

We will also achieve a good balance of progress on our financial management system and financial structure to enhance our financial management.



### Enhancing corporate value through a cycle of leveraging constructive dialogue with the stock market

We are actively engaged in IR activities aimed at promoting understanding of our business from the stock market. In addition to biannual financial results briefings, we hold numerous individual meetings with investors and analysts in Japan and overseas, as well as IR Day at our facilities and sites.

Based on the technology and experience we have accumulated over 100 years as a pioneer in air conditioning equipment, we will expand our environmental creation business areas as an Environment-Creator™ and build our carbon neutrality

business that contributes not only to carbon transition for building environments but also to the global environment. In doing so, we believe that further enhancement of corporate value is fully possible by strengthening our competitiveness and leveraging non-financial value such as our technological development for the future and intellectual assets.

Through active engagement in IR and SR as well as constructive dialogue with institutional investors, analysts, and individual investors, we will share in-house what the expectations, opportunities, and issues are for our company, and in turn reflect them in our next management plans and action plans. We will go on promoting two-way communication with an emphasis on transparency and fairness, and your candid comments would be appreciated.



IR Day 2022 at T-Base®



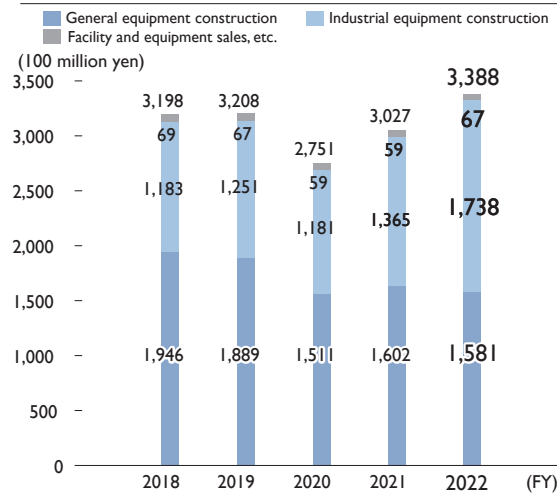
Executive Officer  
General Manager of Finance  
& Investor Relations  
Department  
**Masatoshi Morino**



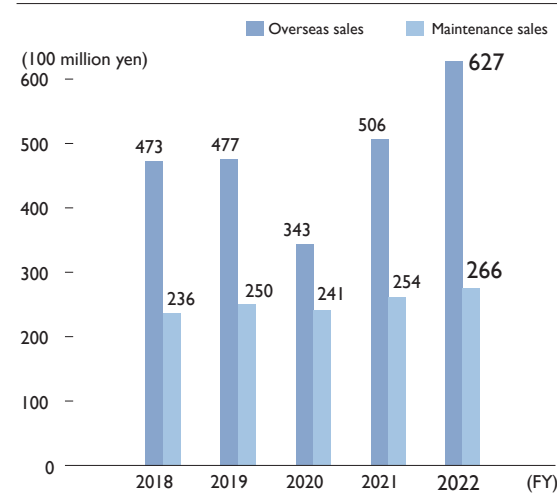
# Financial and Non-Financial Performance

## Financial performance

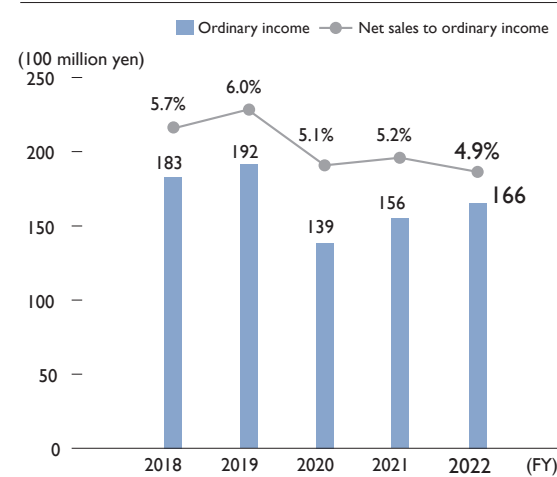
### Net sales



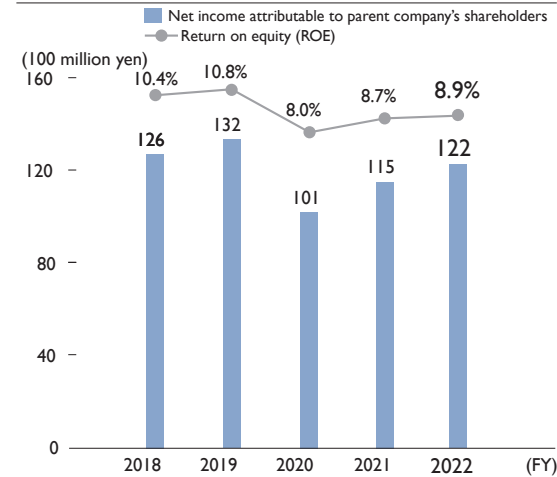
### Overseas sales and maintenance sales



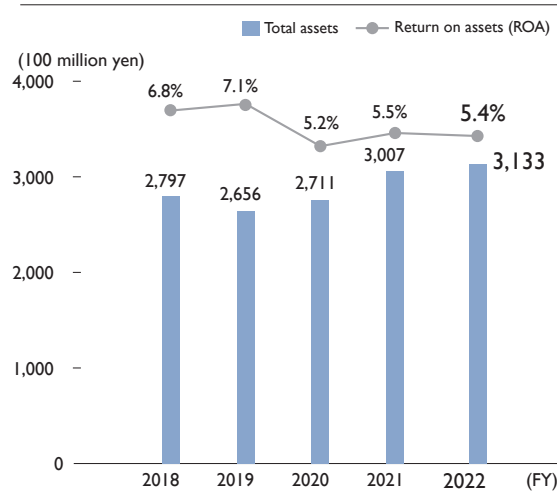
### Ordinary income and net sales to ordinary income



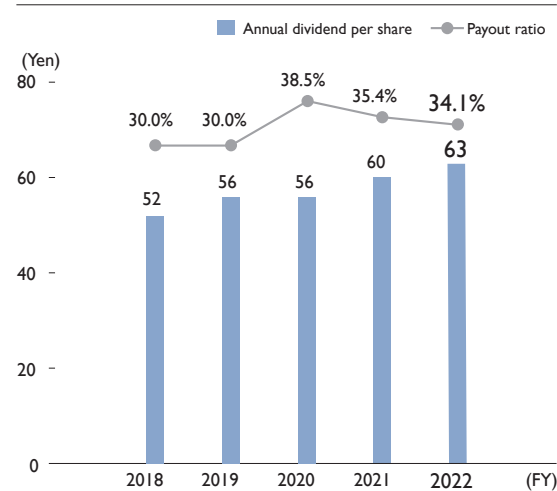
### Net income attributable to parent company's shareholders and return on equity (ROE)



### Total assets and return on assets (ROA)



### Annual dividend per share and payout ratio



## Non-financial performance

\* Figures are rounded down to the nearest unit.

### CO<sub>2</sub> emissions and reduction rate (Targets for applying for SBT and results in FY2022)

	Results in 2019 (t-CO <sub>2</sub> )	Annual reduction rate	Results in 2022 (t-CO <sub>2</sub> )	From the 2019 level	Targets in 2030 (t-CO <sub>2</sub> )	From the 2019 level
Scope 1	1,244	(2.5%)	1,304	(33.7%)	901	(27.5%)
Scope 2	3,110		1,582			
Scope 3	4.963 million	(1.23%)	4.752 million	(4.2%)	4.292 million	(13.5%)

\*The emissions and reduction targets mentioned above are on a non-consolidated basis (Takasago Thermal Engineering alone).

### Engagement of employees (work style reform, work-life balance and health and productivity management are on a non-consolidated basis, FY2022 results)

#### ●Number of employees

Non-consolidated	2,166
Consolidated	5,885

#### ●Work-life balance

Percentage of annual paid holidays taken	68.4%	
Number of persons who took childcare leave	Total	72
	Women	15
	Men	57*
Rate of return to work after childcare leave	100%	

\* Among them, 26 persons took leave of one week or less.

#### ●Health and productivity management

Percentage of those who had a health checkup	100%
Comprehensive health risk (Note)	92

(Note) The comprehensive health risk is calculated by HOKENDOHJINSHA INC., a company that implements stress checks. The average is 100 and a lower value indicates that the risk is lower.

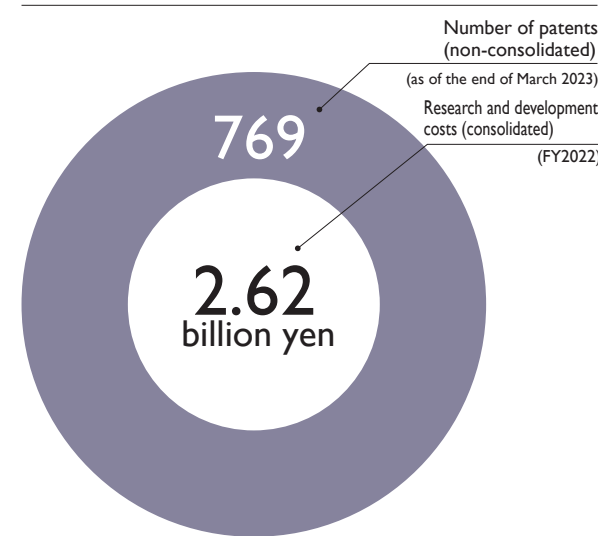
#### ●Diversity

Number and ratio of female employees <sup>1</sup> (excluding fixed-term employees)	371(18.2%)
Number and ratio of newly employed female employees	31(34.4%)
Number and ratio of female employees who are candidates for managers <sup>2</sup>	20(5.8%)
Number of managers appointed from among local staff	358
Employment rate of people with disabilities	2.50%

<sup>1</sup> On a non-consolidated basis except for the number of managers appointed from among local staff

<sup>2</sup> Ratio of deputy managers to all individual employees  
As of the end of March 2023

### Research and development



#### ●Evaluations by external organizations (as of September 30, 2023)

- ◆ Long-term issuer ..... A(JCR)
- ◆ Bonds ..... A(JCR)
- ◆ ESG ..... AA(MSCI)
- ..... 2.7(FTSE)
- ..... A-(CDP)





# Business in Japan

We will work to build a solid earnings foundation in the construction business, equipment maintenance and management business, and environmental equipment manufacturing and selling business with the HVAC business at the center, and to build a foundation for our carbon neutrality business.



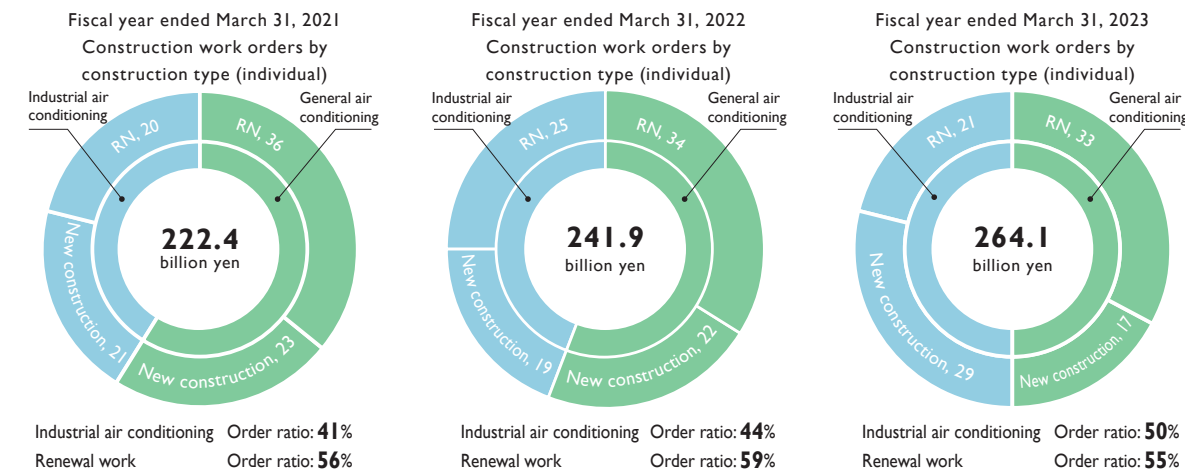
## Construction business

### Business environment

Demand for construction and large-scale urban redevelopment in the industrial air conditioning field, particularly related to semiconductors, is likely to remain steady for the time being, while there is expected to be increasing demand for a decarbonized society.

Meanwhile, to address the application of overtime caps beginning in FY2024, the skyrocketing costs for materials, equipment, and labor, as well as the shortage of construction technicians, we need to be committed to bold reforms to improve productivity and realize a shift to new work styles.

Strengths	Risks	Opportunities
<ul style="list-style-type: none"> <li>Design and proposal capabilities related to energy conservation, environmental technologies and know-how</li> <li>Development of one-stop services</li> <li>Track record of construction for existing customers</li> <li>Partnerships with partner companies</li> </ul>	<ul style="list-style-type: none"> <li>Skyrocketing costs for materials, equipment, and labor; delays in delivery of materials and equipment; and delays in processes</li> <li>Shortage of construction technicians due to the increase in the size of construction projects</li> <li>Decrease in existing workforce due to the application of overtime caps</li> </ul>	<ul style="list-style-type: none"> <li>Increase in construction demand, centered on factories and large-scale redevelopment projects</li> <li>Increasing demand for energy conservation and decarbonization</li> <li>Increasing demand for renewal construction work</li> </ul>



### Progress in FY2022

#### Received the 11th Special Award Renovation Award, the Society of Heating, Air-Conditioning and Sanitary Engineers of Japan

The renovation of the Tokyo Metropolitan Government buildings was an “occupied renovation” (renovation work done while the building is in use) of high-rise, large-scale buildings that have been in operation for more than 30 years since their opening in 1991. Although it was long-term construction work that lasted seven years, it was completed in 2020 without requiring suspension of administrative activities or services for Tokyo residents. The renovation was planned for the purpose of conversion to net zero energy buildings (ZEB). It included “system modification to multiple air conditioning units,” “modification from direct feed of cold water from the DHC to the middle floors using booster pumps, to large temperature difference water supply with heat exchangers,” and “modification to air conditioning with large temperature difference.” As a result of verification of the effects, the heating environment was improved and water and air transport energy was reduced. The primary energy reduction in the high-rise buildings, which are representative buildings of Japan, was evaluated as equivalent to ZEB Oriented as defined by the Society of Heating, Air-Conditioning and Sanitary Engineers of Japan.



Renovation of Tokyo Metropolitan Government buildings

### Reform of the construction process

#### Progress of the T-Base® project

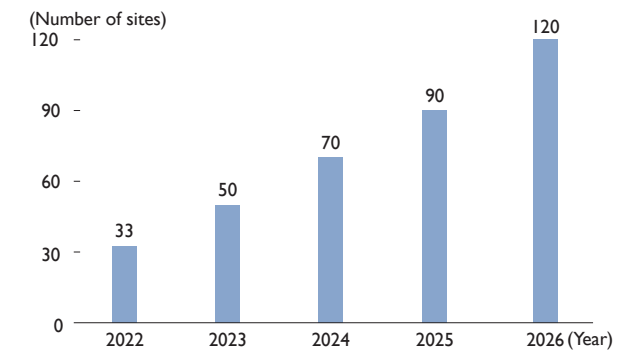
In May 2022, we opened T-Base®, a facility that serves as the core of our planning, production, and logistics. Centered on this facility, we have been developing and manufacturing standardized products and new unit construction methods, as well as developing a central production system linking our partner companies, suppliers, and worksites, and have begun full-scale operations throughout Japan.

Since its opening, many people related to the construction industry have visited the facility to experience the content and effects of this project. We are working to increase the degree of involvement in construction sites, contribute to productivity improvement, and expand our selection of

standardization technology initiatives.

In addition, we aim to achieve a drastic transformation of the construction process by linking digital transformation (DX) with building information modeling (BIM), such as creating 3D blueprints, to further improve productivity.

Number of sites with T-Base® involvement (actual numbers and goal)



### DX strategy initiatives

#### Established the Equipment BIM Research Liaison Committee in collaboration with construction equipment companies

In order to promote the spread of building information modeling (BIM) in the building equipment industry, the Equipment BIM Research Liaison Committee was established with the aim of standardizing BIM and contributing to the further development of the industry.

By linking the technologies and know-how of construction equipment companies, we will promote BIM standardization in construction processes (with the assumption that Autodesk Revit software is used) and accelerate the spread and development of BIM. We will conduct activities toward contributing to the further development of the construction equipment industry by improving operational efficiency and enhancing construction quality through digitalization of design and construction processes.

#### Initiatives for work-style reform at construction sites

Improving the work-life balance of employees and partner company personnel working at construction sites is an essential issue that must be solved, as the number of construction workers is expected to decrease in the future and it will be increasingly difficult to secure them. We are advancing initiatives to improve the work-life balance at construction sites, which are the frontlines of the construction industry.

In advancing our initiatives, we explain the situation to site personnel and seek their understanding and cooperation.

Specifically, we are working to promote activities by developing and deploying a variety of initiatives,



including environmental improvements at site offices, the use of IT tools for meetings with partner companies, and efficient schedule management through centralized schedule management.

In FY2022, we began submitting the following written requests to our customers and other related parties who place orders with us in order to help promote and establish work-style reform throughout the industry.

#### Excerpts from the written requests for efforts to comply with laws related to work-style reform

1. Ensure appropriate on-site construction periods
2. Establish on-site opening schedule and hours to achieve work-life balance
3. Determine design specifications at an early stage and strictly adhere to deadlines for changes
4. Ensure adequate time for various consideration and preparation of documents
5. Establish a system to ensure that meetings and discussions are held during regular hours
6. Have a work rotation to ensure workers have at least two days off per week
7. Have rotational and remote participation in morning meetings and discussions
8. Review contract content, including contractual construction periods, in the case of process delays caused by construction work
9. Adopt other measures to improve productivity and operational efficiency at construction sites



## Equipment maintenance and management business

### TMES株式会社

TMES Corporation is developing its maintenance business with a focus on facility equipment. Target building applications have diversified over time, and facilities are continuing to change significantly.

In addition to short-term maintenance and preservation of facilities, TMES proposes cost-effective solutions that reduce costs while utilizing facilities.

As the workforce continues to shrink due to the declining birthrate and aging population in Japan, it is becoming significantly more difficult to secure expert engineers in facility management, due in part to the increasing sophistication of facilities and the shift of human resources to core business of the company. We have created and provided unique value by building a new business model known as “optimum total facility management,” which combines operations that ensure the safe and stable running of facilities with solutions that minimize life cycle cost (LCC), such as energy conservation.

In addition, the Takasago Thermal Engineering Group is developing advanced one-stop services for

facilities through the use of cutting-edge technologies and communication technologies, including development of business tools that leverage the IoT, AI, and other technologies, as well as products that contribute to the realization of a decarbonized society.



## Environmental equipment manufacturing and selling business

### 日本ピーマック株式会社

As a manufacturer of commercial air conditioning equipment, NIPPON PMAC Co., Ltd. is engaged in manufacturing through a responsible integrated system from development and design to installation in buildings, support, and maintenance.

NIPPON PMAC is a pioneer of individual air conditioning systems, and has been proposing a wide variety of highly functional air conditioning systems for nearly half a century, which have been used in various buildings. Based on individual heat pump systems that use water and air heat sources, NIPPON PMAC has earned a solid reputation by planning and developing compact air conditioning units that meet the needs of customers' buildings.

The products are characterized by their environmentally-friendly water heat source systems, customized air conditioning units, a responsible integrated system, the development of air conditioning units for various fields, and new products adapted for the “new normal” following the COVID-19 pandemic.

Recently, NIPPON PMAC has jointly developed with Takasago Thermal Engineering the Fresh Cool<sup>®</sup> air conditioner with ventilation function for gyms. With the effects of global warming recently, the risk of heat stroke increases from exercising during the summer in gyms. Also, in the event of a disaster, gyms are also used as

evacuation centers, and ventilation functions are needed to prevent the spread of infectious diseases. However, few gyms are equipped with air conditioning units.

Fresh Cool uses a displacement air conditioning system, which is more energy-efficient and ventilates more efficiently than conventional air conditioning systems. It has a shape and shock-absorbing structure designed with the safety of gym users in mind. NIPPON PMAC is committed to solving local community issues and contributing to the environment through the introduction of these products.



Company site

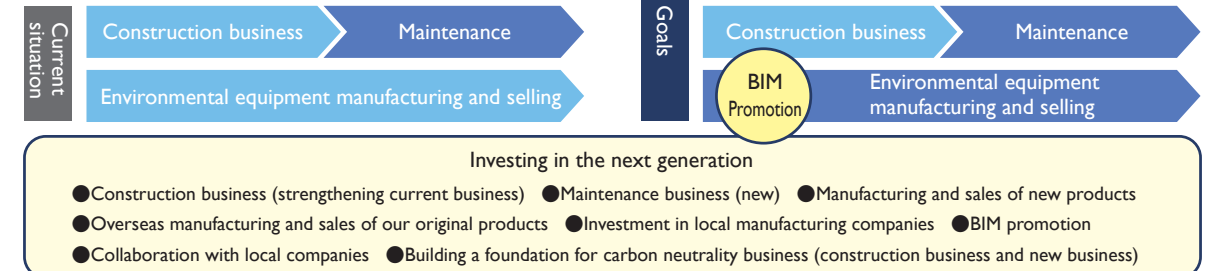


## International Business

Based on our over 40 years of history and experience, we aim to further expand our construction business as our core business.

While air conditioning technology will continue to be the center, we will also leverage our experience in construction, electricity, and utility equipment to further develop our business. Moreover, we will also focus on the carbon neutrality business that we have been promoting in recent years.

### ● Business model reform



## Construction business

### Notable projects of FY2022 and beyond

We are leveraging our technologies to participate in many projects in various countries.



Project name : Qingdao Anyimei Food Co., Ltd. Jiaodong Peninsula Whole Food Industry Chain Project  
Overseas subsidiary: Takasago Constructors and Engineers (China) Co., Ltd.  
Construction period: September 2021 to March 2024  
Characteristics : Comprehensive food processing plant with a total area of over 80,000 m<sup>2</sup>.  
As a general contractor, we received the order for the construction and equipment as a whole and constructed it. The plant is equipped with large automatic refrigerators and freezers and automatic transfer equipment between buildings. It has many processes for vegetables, meat, rice, noodles, seasonings, bread, cakes, tofu, bean sprouts, etc. Interior design, temperature and humidity control, and sanitary management are required for each process. Many energy-saving technologies are utilized, such as exhaust heat recovery from freezing systems and wastewater recovery and reuse.



Project name : Ola Giga factory - Li-ion cell manufacturing plant  
Overseas subsidiary: Integrated Cleanroom Technologies Private Limited  
Construction period: June 2023 to August 2024  
Characteristics : This is the first lithium-ion battery plant project undertaken by OLA Electric, India's largest manufacturer of electric two-wheel and four-wheel vehicles. The order was awarded in recognition of Takasago Thermal Engineering's dry room technology, TCR-SWIT's energy efficiency, and ICLEAN's clean panel and cleanroom equipment design and manufacturing technology. ICLEAN aims to become the market leader in dry room design and construction.



## Environmental equipment manufacturing and selling business

ICLEAN in India manufactures and sells materials and equipment (partitions, air showers, and other cleanroom-related materials and equipment) for cleanrooms, centered on medical care. Going forward, we will focus on taking on challenges for new products as well as overseas manufacturing and sales of our original products.





# Commitment to ESG

The Group's basic stance is to position ESG and CSR at the core of its management, to pursue harmony with society, and to contribute to the realization of a sustainable society.

We will continue our active initiatives with consideration for ESG (environmental, social, and corporate governance) such as business continuity planning (BCP), environmental conservation activities through forestation, and public service projects, including by strengthening our legal compliance and corporate governance systems.



### Key declarations and initiatives we are engaged in or approve of

- UN Global Compact (July 2018)
- Declaration to approve for TCFD (September 2020)
- Companies Taking on the Zero-Emission Challenge (October 2021)
- Acquisition of SBT certification (March 2021)
- Participation in the Japan Climate Initiative (JCI)
- Supporting member of Japan-CLP



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Please refer to our corporate website for our Basic Principles of Sustainability.



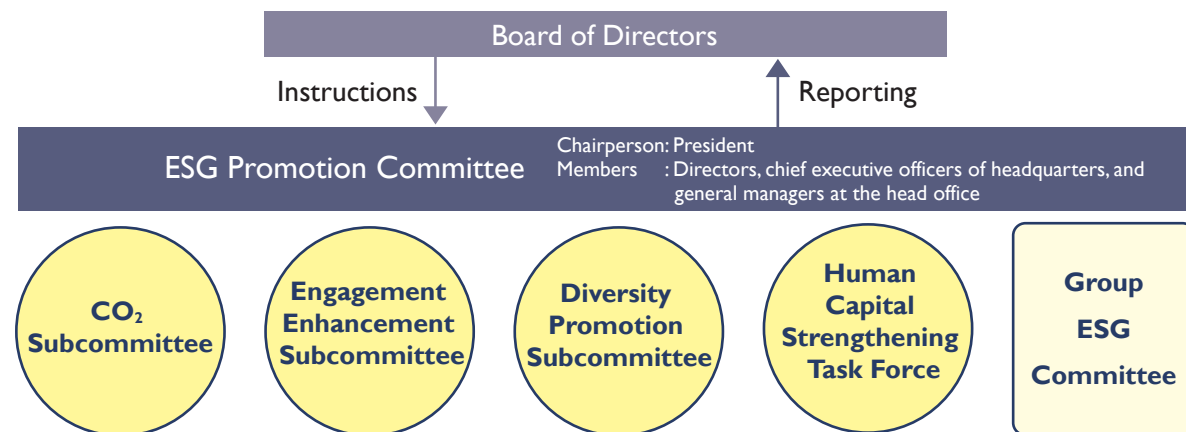


# ESG and SDGs Promotion System

We regard climate change as one of the most important material issues and incorporate it into our management strategies to promote climate change countermeasures.

## ESG promotion organization

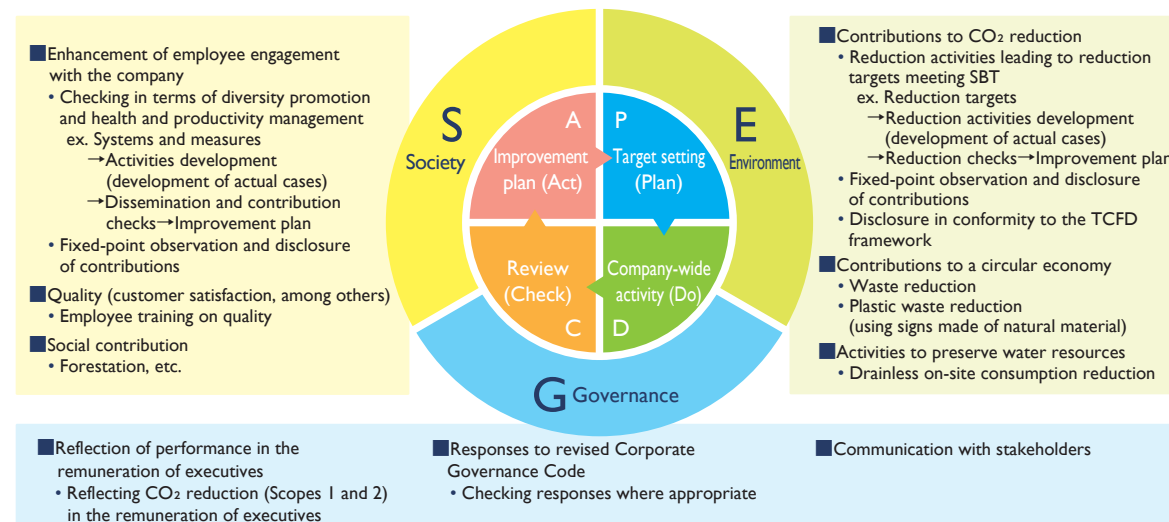
We established the ESG Promotion Committee in April 2021, an expanded version of the conventional CSR committee, to position approaches to ESG and the SDGs at the core of our business activities and promote them. The ESG Promotion Committee, chaired by the President, consists of directors, excluding outside directors, as well as chief executive officers of the headquarters. It meets at least five times a year as an advisory body to the Board of Directors. The Committee discusses climate-related issues, diversity promotion, human capital strengthening, and other themes related to sustainability management. It presents and reports to the Board of Directors each time, receiving instructions and supervision from the Board of Directors as necessary. We may establish subcommittees affiliated with the Committee for issues to focus on so that they can be addressed relatively quickly with company-wide knowledge.



## Management cycle for ESG and SDGs

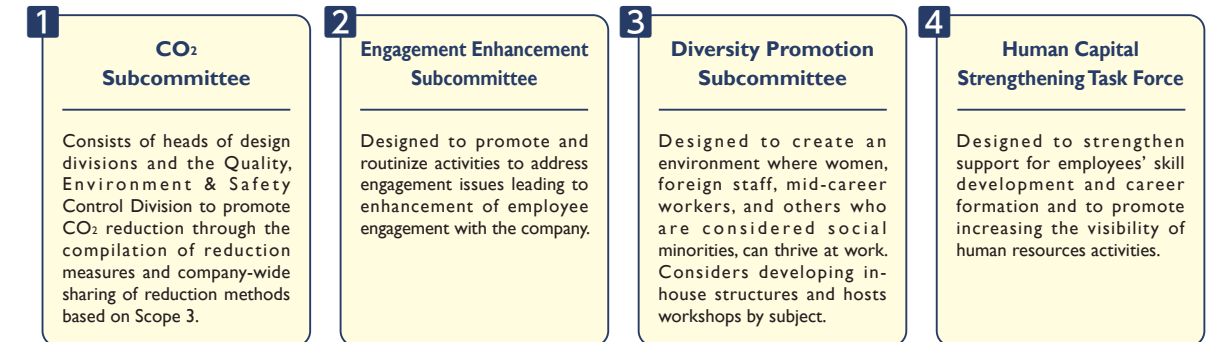
In response to each ESG and SDGs issue, we will address them through the PDCA cycle below.

### ● PDCA cycle for ESG activities



## Intensive deliberation with the four subcommittees established

In FY2023, the four subcommittees affiliated with the ESG Promotion Committee were established and promoted the following initiatives.



### ● Initiatives of the Subcommittees

	Results in FY2022	FY2023 action plan
1 CO <sub>2</sub> Subcommittee	<ul style="list-style-type: none"> <li>● Further collection of examples of CO<sub>2</sub> reduction in category 11 of Scope 3 and analysis by type of construction, building use, etc. (for external appeal)</li> <li>● Reduction of waste, elimination of plastic waste, and trial runs to realize a circular economy at construction sites, etc.</li> <li>● Understanding of market and customer trends and continuous study of on-site and building energy use (structuring)</li> </ul>	<ul style="list-style-type: none"> <li>● Development of carbon neutrality proposal method</li> </ul>
2 Engagement Enhancement Subcommittee	<ul style="list-style-type: none"> <li>● Collection and sharing of examples of good practices at the main office and branch offices (Example) 1 on 1 meetings, etc.</li> <li>● Evaluation of efforts by quantitative follow-up of results using pulse surveys (small surveys conducted multiple times)</li> <li>● Detailed analysis of survey results to develop more effective measures</li> </ul>	<ul style="list-style-type: none"> <li>● Sharing and development of good practices at the main office and branch offices, with a focus on growth opportunities and spread of strategic objectives</li> </ul>
3 Diversity Promotion Subcommittee	<ul style="list-style-type: none"> <li>● Based on the recommendations, the following measures were implemented:                             <ul style="list-style-type: none"> <li>· Creation of networks for women, mid-career professional hires, persons with disabilities, and foreign nationals</li> <li>· Role model setting and company-wide introductions</li> </ul> </li> <li>● Consideration of expansion to other Group companies in Japan</li> </ul>	<ul style="list-style-type: none"> <li>● Building and strengthening employee networks at various workshops                             <ul style="list-style-type: none"> <li>· Hold TakasaGo! Woman Pride event with participation by all female employees</li> </ul> </li> </ul>
4 Human Capital Strengthening Task Force	Newly established in FY2023	<ul style="list-style-type: none"> <li>● Deepening of the ALL Takasago human resources development program</li> </ul>



# Material Issues (Materiality)

We will speedily identify material issues (materiality) to which we should give priority through the following process and update them where appropriate while also considering the current social conditions and changes in the business environment.

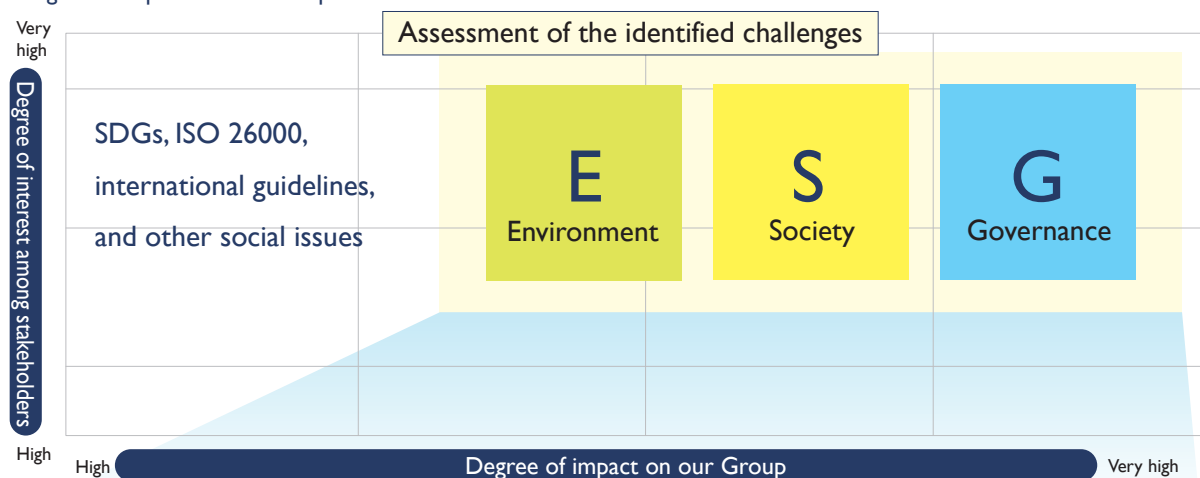
## Process to identify material issues



\* ISO 26000: International standard on social responsibility

## Assessment of the identified challenges

We assessed each of the identified challenges from the perspectives of ① degree of interest among stakeholders and ② degree of impact on our Group.



Category	Issues to be addressed on a daily basis	Issues to be addressed from a medium- to long-term perspective
E Environment	<ul style="list-style-type: none"> <li>Reduction of CO<sub>2</sub> emissions in business activities</li> <li>Reduction of waste</li> </ul>	<ul style="list-style-type: none"> <li>New construction methods, creation of environments</li> <li>Responding to climate change</li> <li>Consideration for biodiversity</li> <li>Efficient use of resources and energy</li> </ul>
	<ul style="list-style-type: none"> <li>Respect for human rights</li> <li>Employment and retention of employees</li> <li>Human resource development</li> <li>Occupational safety and health</li> <li>Promotion of health and productivity management</li> <li>Strengthening of cooperation in the supply chain management</li> <li>Activities to contribute to local communities</li> </ul>	<ul style="list-style-type: none"> <li>Provision of high-quality, safe, and reliable facility services</li> <li>Pursuit of sustainable and productive facility construction processes</li> <li>Creation of a work environment that provides job satisfaction to a diverse workforce</li> </ul>
S Society	<ul style="list-style-type: none"> <li>Information security</li> <li>Promotion of compliance</li> </ul>	
G Governance		

## Activities and KPIs to address material issues

Material issues	Activities	KPIs	FY2022 Results	
E	Reduction of CO <sub>2</sub> emissions	<ul style="list-style-type: none"> <li>Reduction of overall CO<sub>2</sub> emissions (Scopes 1 and 2)                             <ul style="list-style-type: none"> <li>Promotion of the use of hybrid vehicles for company vehicles</li> <li>Reduction of electricity consumption in offices</li> <li>Promotion of the use of energy creation technologies at the Innovation Center</li> </ul> </li> <li>Reduction of overall CO<sub>2</sub> emissions (Scope 3)                             <ul style="list-style-type: none"> <li>Expansion of sales of GDoc<sup>®</sup> (optimum heat source utilization system) and utilization of T-Base<sup>®</sup> (introduction of aluminum frame)</li> <li>Sales development of environmental technologies such as closed VOCs</li> </ul> </li> </ul>	-7.5% reduction (from FY2019)	○
			-3.7% reduction (from FY2019)	×
	Spread in society	Provision of "resource-saving methods for facilities" to encourage customers to conduct decarbonization management	10 or more comprehensive proposals for customers	—
	Reduction of water use	Introduction of a drainless policy to construction sites of more than a certain scale	Introduction of the policy to 50 or more construction sites	×
	Negative emission technology development related to the environment	CCU using recovered CO <sub>2</sub> for agriculture	Field testing and demonstration	○
		Use of recovered CO <sub>2</sub> for photobioreactors	Demonstration testing using prototype machinery	○
	Corporate rating	Participation in CDP (climate change) questionnaire	A- or higher	—
	Reduction of paper use	Reduction of copy paper use in the head office, main office and branch offices	Not more than 500 sheets/month per person	○
	Reduction of waste	Reduction of waste materials at the time of construction	10% reduction from the previous FY	○
		Recycling of industrial waste at construction sites	Recycling rate of 85% or more	○
		Development of actual cases for plastic elimination	Introduction of LIMEX to 5 construction sites or more per office	×
	Quality control	Curbing of trouble and complaints	Down from the previous FY	×
S	Health and productivity management	Implementation of subsequent measures after regular health checks	100% submission rate of industrial physician opinion letters for people with high risks or potentially high risks	○
		Health checks concerning specific work (midnight, etc.)	All employees had a checkup	○
		Decrease in the number of persons with mental health issues	More than 80% understanding in questionnaire after mental health training	○
	Diversity	Foster a culture of diversity acceptance Conduct unconscious bias training for managers and above	80% or more positive response rate on post-implementation questionnaire regarding acceptance of diversity	○
		Promotion of understanding of disabilities	<ul style="list-style-type: none"> <li>Information sharing meetings for persons with disabilities</li> <li>Training for understanding disabilities</li> </ul> Both of the above held at least once per year	○
		Creating an environment in which all genders can play an active role	At least 30% of male employees took childcare leave for at least 5 workdays	○
	Sharing role models who are active both inside and outside the company	Introduction of case studies of activities on the company intranet, etc. (at least one woman, one mid-career professional hire, one person with a disability, and one foreign national each)	○	
	Stable hiring of persons with disabilities	<ul style="list-style-type: none"> <li>Promotion of hiring of new graduates with disabilities</li> </ul> At least two new graduates entered the company in FY2023	○	
	Employee satisfaction	Lost-time injuries	Decrease in the number of incidents from the previous FY	○
	Social harmony	Forestation and local activities	Once or more per headquarters/office per year	○
			Malaysian tropical rainforest restoration activities conducted once or more per year	○
G	Strengthening governance	Reduction of shares held for policy purposes	Agreed amount to sell shares held for policy purposes: 7 billion yen (from FY2020 to the end of FY2022)	○
		Evaluation of integrated report	Average or higher in the evaluation	○
		Information disclosure and fruitful dialogue	Dialogue with 80 people or more in total	○

## TCFD Initiatives and Information Disclosure

We regard climate change as one of the most important material issues and incorporate it into our management strategies to promote climate change countermeasures.

### 1. Governance

We have established the ESG Promotion Committee to deliberate on important matters related to climate-related issues and present to the Board of Directors, as part of our policy for addressing social issues.

The ESG Promotion Committee is chaired by the President, and consists of directors, excluding outside directors, as well as chief executive officers of the headquarters. It meets approximately five times a year as an advisory body to the Board of Directors. Discussions by the Committee are presented to and reported to the Board of Directors each time, and the Board of Directors provides instructions and supervision to ensure that important matters related to climate-related issues are properly implemented.

In FY2022, the Committee met six times and confirmed the progress of the Group's overall ESG activities on a quarterly basis, and also discussed initiatives to respond to the TCFD recommendations, including measures to achieve the 1.5°C target in the Long-Term Vision and Medium-Term Management Plan, as well as other measures related to human resources, such as promoting diversity and strengthening human capital. The Committee presented and reported summaries of these discussions to the Board of Directors.

In addition, the Committee conducts impact assessments for climate-related risks and sends them to the Risk Management Committee, where they are managed in an integrated manner within the overall business risks, including monitoring by the Board of Directors through the Internal Control Committee.

Furthermore, in selecting members of the Board of Directors, the Governance, Nomination, and Compensation Committee confirms the validity of the results of the skill matrix evaluation, which includes experience and knowledge of environmental issues such as climate change as one of the forms of expertise and experience expected of directors. In addition, study sessions with invited experts in the environmental field as lecturers are held as necessary to improve the literacy of the Board of Directors on climate-related issues.

In this way, we are enhancing the effectiveness of governance by establishing a system that enables the Board of Directors to appropriately oversee the Group's specific action plans as an Environment-Creator™, periodically check the progress of such plans, and formulate improvement policies.

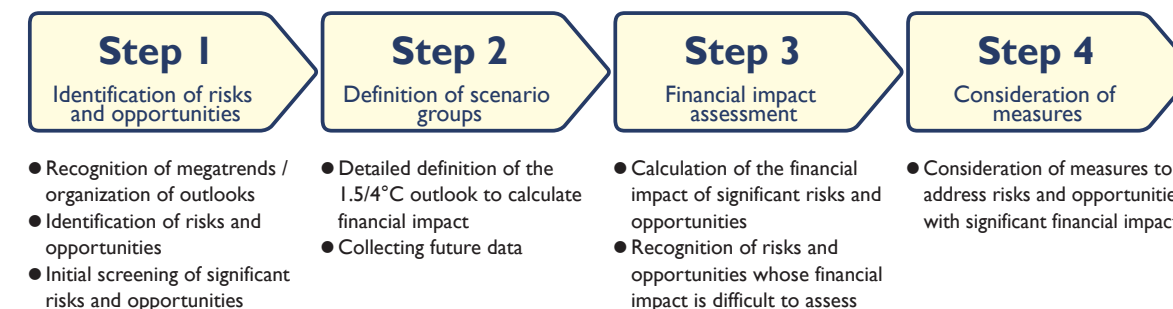
Meetings	Role
	<ul style="list-style-type: none"> <li>● Supervision of and instructions on climate-related important matters</li> </ul>
<ul style="list-style-type: none"> <li>● Deliberation on climate-related important matters, resolutions on climate issues as a whole</li> <li>● Report to the Board of Directors (at least 5 times per year)</li> </ul>	
<ul style="list-style-type: none"> <li>● Recognition and control of key risks</li> <li>● Sharing of information with the ESG Promotion Committee with climate risk recognized as one of the risks of the whole business</li> </ul>	
<ul style="list-style-type: none"> <li>● Functions as the secretariat of the ESG Promotion Committee (person in charge: Chief Executive Officer of the Global Business Planning Headquarters)</li> </ul>	

In FY2022, the ESG Promotion Committee met a total of six times. The main topics of discussion were as follows.

Meeting	Main topics of discussion	Meeting	Main topics of discussion
1st April 28, 2022	<ul style="list-style-type: none"> <li>• Review of activities in the previous fiscal year and response to issues in the current fiscal year</li> <li>• Initiatives of the Subcommittees</li> <li>• Check of employee engagement initiatives and trends</li> <li>• T-Base® initiatives for the environment</li> </ul>	3rd October 28, 2022	<ul style="list-style-type: none"> <li>• Confirmation of initiatives for ESG activities in the first half of the fiscal year</li> <li>• Identification of risks of human rights violations</li> <li>• Check of employee engagement trends</li> <li>• Diversity training, cross-cultural exchange, President's dialogue</li> </ul>
2nd July 29, 2022	<ul style="list-style-type: none"> <li>• Work toward CO<sub>2</sub> emission results and 1.5°C target (consideration)</li> <li>• TCFD disclosure report (consideration)</li> <li>• Business and human rights initiatives</li> <li>• Matters concerning initiatives for LGBTQ+ people</li> </ul>	4th February 3, 2023	<ul style="list-style-type: none"> <li>• Compliance with the Cabinet Office Ordinance on the Disclosure of Corporate Affairs, etc.</li> <li>• ESG action plan for the next fiscal year (consideration)</li> <li>• Diversity</li> <li>• Matters concerning the TakasaGo! Woman Pride event</li> </ul>
Extraordinary meeting September 3, 2022	<ul style="list-style-type: none"> <li>• Direction of initiatives toward the 1.5°C target (decision)</li> <li>• TCFD disclosure report (decision)</li> </ul>	5th March 3, 2023	<ul style="list-style-type: none"> <li>• ESG action plan for the next fiscal year (decision)</li> </ul>

### 2. Strategy

We formulate strategies in accordance with Steps 1 through 4 below and verify them from the perspective of resilience. Based on the results of our analysis with this, we constantly make efforts for improvement.



#### Step 1 Identification of risks and opportunities

The following items were identified as important climate-related risks and opportunities for our Group based on a review of megatrends.

Category	Type	Occurrence period*	Content	
Risks	Transition risks	Policies and regulations	Medium term	Increase in operating costs due to the introduction of a carbon tax
			Medium term	Increase in procurement costs due to higher operating costs for suppliers due to the introduction of a carbon tax
		Market	Short term / Medium term	Increase in operating costs due to higher energy costs
				Increase in transportation costs due to higher crude oil prices (gasoline)
	Technologies	Medium term	Increase in procurement costs of materials and equipment due to higher material prices	
			Decrease in orders received due to delay in technological development related to energy conservation	
	Reputation	Short term / Medium term	Loss of revenue opportunities due to delays in the development of decarbonization-related technologies and services as well as inadequate response to decarbonization-related market needs	
			Decrease in corporate value due to inadequate response and disclosure information for climate-related issues	
	Physical risks	Acute physical risks	Medium term / Long term	Decrease in revenue opportunities due to freeze/revision of clients' capital investment plans and process delays at properties being constructed due to the impact of extreme weather events
				Decrease in revenue opportunities due to reduced employees and construction capacity as a result of work environments becoming tougher
Chronic physical risks		Medium term / Long term	Decrease in revenue opportunities due to lower work efficiency caused by deteriorating work environments	
			Increase in air-conditioning equipment usage costs at business sites due to rising temperatures	
Opportunities	Resource efficiency	Short term / Medium term	Loss of revenue opportunities due to suspension of business activities caused by flooding	
			Reduction of operating costs and increase in productivity by transforming the construction process	
	Products / services	Short term / Medium term	Increase in revenue opportunities due to increased corporate equipment replacement needs as a result of developments in energy conservation promotion policies and regulations	
			Increase in revenue from installation of products that contribute to reducing environmental impact (Swirling Induction Type TAKASAGO HVAC System (SWIT®))	
	Market	Medium term / Long term	Development of new markets by introducing new services and developing new technologies such as water electrolysis hydrogen production system (Hydro Creator®)	
Creation of advantageous financing opportunities such as green bonds				

\* Short term: 3 years, medium term: 3 to 10 years, long term: over 10 years



**Step 2**

Definition of scenario groups

**Scenario setting**

The following 1.5°C and 4°C scenarios were set. A summary of each scenario is provided below.

<b>1.5°C scenario</b> (high transition risk, medium physical risk)	<ul style="list-style-type: none"> <li>Scenario in which necessary measures are taken to limit the temperature increase to 1.5°C above pre-industrial levels.</li> <li>There will be strong demand for companies to respond to climate change through progress in systemization and smart construction, and as a result, there will be increasing competition to reduce CO<sub>2</sub> emissions and achieve net-zero emissions. It is presumed that insufficient or inadequate response to customer needs will lead to increased transition risks, including loss of customers and loss of reputation (increased reputational risk).</li> <li>On the other hand, it is presumed that physical risks will be relatively lower than in the 4°C scenario, although they will be higher than now.</li> </ul> <p>Based on the above, we assume that there will be business impacts under the 1.5°C scenario with respect to transition risks.</p>
<b>4°C scenario</b> (medium transition risk, high physical risk)	<ul style="list-style-type: none"> <li>Scenario in which climate change measures are inadequate and average temperatures rise about 4°C above pre-industrial levels.</li> <li>We assume that physical risks will increase further due to the expected increasingly severe natural disasters and increase in extreme weather events.</li> <li>On the other hand, it is presumed that transition risks will be relatively lower than in the 1.5°C scenario due to the absence of tighter government regulations.</li> </ul> <p>Based on the above, we assume that there will be business impacts under the 4°C scenario with respect to physical risks.</p>

Note that opportunities are not related to the above scenarios, and impacts are mainly assumed based on business plans, etc.

**Step 3**

Financial impact assessment

**Business impact analysis (summaries by scenario)**

Potential business impacts of the identified risk and opportunity items were assessed using scenario analysis.

The results of the detailed impact analysis for each item are provided in Step 4. "Consideration of measures."

<b>1.5°C scenario</b>	<p>We assume that environmental policies and regulations would be tightened, and there would be an increase in operating costs, such as a carbon tax due to the introduction of a carbon pricing system. In addition, although the cost of oil and other commodities would fall, we assume that there would be an increase in operating costs commensurate with the rise in electricity costs.</p> <p>Furthermore, it is believed that there would be a rise in the need to develop new decarbonization-related technologies as part of the infrastructure to support the 1.5°C scenario, and whether or not we are able to meet this need will have a significant impact on our business.</p> <p>On the other hand, we assume that although physical risks will be higher than they are now, the impact of more severe natural disasters will be mitigated compared to the 4°C scenario, and the likelihood of disasters occurring at work sites will be lower.</p>
<b>4°C scenario</b>	<p>Compared to the 1.5°C scenario, we assume that environmental policies and regulations would not be tightened as much, and that costs associated with transition risks, such as costs due to the introduction of a carbon pricing system, would be relatively low.</p> <p>On the other hand, we assume that physical risks would increase considerably, and the possibility of process delays at construction sites due to natural disasters would be greater than in the 1.5°C scenario.</p> <p>Even if this scenario progresses, it is believed that there will be an increase in the need for environmental improvements inside and outside buildings compared to now. To protect construction workers, including those in the supply chain, from health hazards in increasingly tough work environment, the challenges related to improving work environments are greater than in the 1.5°C scenario and require focused measures.</p>
<b>Common factors of scenarios</b>	<p>In both scenarios, we assume that the need for air conditioning in indoor living environments will increase without abating compared to now.</p> <p>Under these circumstances, we assume that there will be an even further increase going forward in the need for air conditioning services that consume less energy from fossil fuels as well as more efficient energy management.</p> <p>In particular, we assume that these needs will increase as part of the infrastructure supporting the 1.5°C scenario, and they will also increase in general, including under the 4°C scenario.</p> <p>In the future, it will be necessary to deepen consideration of the transition to a carbon neutral society, including new decarbonization-related technologies and services.</p> <p>It is also essential to improve the business execution environment within the Group in order to meet these needs and provide these services.</p>

**Step 4**

Consideration of measures

**Business impacts of climate-related risks and response measures**

Potential business impact analysis and response measures for the identified risk and opportunity items were organized as follows.

## ● Business impacts of transition risks and response measures

Items	Risks	Business impacts*	Summary of measures
Policies and regulations	Increase in operating costs due to the introduction of a carbon tax	Medium	The following policies are possible, and will be considered based on cost-effectiveness <ul style="list-style-type: none"> <li>Use of renewable electricity (including corporate PPA)</li> <li>Use of low-carbon vehicles</li> <li>Installation of renewable energy generation equipment and rechargeable batteries, etc.</li> </ul>
	Increase in procurement costs due to higher operating costs for suppliers due to the introduction of a carbon tax	Large	Use of low-carbon materials and equipment through collaboration and cooperation with suppliers, and enhancement of materials and equipment selection functions
Market	Increase in operating costs due to higher energy costs	Small	<ul style="list-style-type: none"> <li>Our current assumption is that the impact will be small, but we will monitor energy price trends</li> <li>In addition to the above, we assume that carbon pricing measures will have a commensurate effect on this risk</li> </ul>
	Increase in transportation costs due to higher crude oil prices (gasoline)	Small	
	Increase in procurement costs of materials and equipment due to higher material prices	Small	
Technologies	Decrease in orders received due to delay in technological development related to energy conservation	Large	<ul style="list-style-type: none"> <li>Accurately understand needs by grasping stakeholder trends, etc. ⇒ Understand customer needs for carbon neutrality through energy-saving proposals, etc. Reduction of 15,000 t-CO<sub>2</sub>/year in our company's CO<sub>2</sub> emissions mainly in category 11 of Scope 3</li> <li>Establishment of appropriate business models based on trends of customers and competitors, etc.</li> <li>Promotion of research and development based on the above and collaboration with business partners</li> </ul>
	Loss of revenue opportunities due to delays in the development of decarbonization-related technologies and services as well as inadequate response to decarbonization-related market needs		
Reputation	Decrease in corporate value due to inadequate response and disclosure information for climate-related issues	Large	<ul style="list-style-type: none"> <li>Participation in climate change response initiatives</li> <li>Proactive communication of our initiatives</li> </ul>

## ● Business impacts of physical risks and response measures

Items	Risks	Business impacts*	Summary of measures
Acute physical risks	Loss of orders and revenue opportunities due to freeze/revision of clients' capital investment plans and process delays at properties being constructed due to the impact of extreme weather events	Large	Implementation of measures based on the BCP (infectious diseases edition)
Chronic physical risks	Decrease in orders and revenue opportunities due to reduced employees and construction capacity as a result of work environments becoming tougher	Large	<ul style="list-style-type: none"> <li>Enhancement of health and productivity management, heat stroke countermeasures through use of remote operations via the IoT, etc.</li> <li>Increase in offsite work and scaling back onsite work via T-Base®, etc.</li> <li>Productivity improvement of onsite work through use of BIM</li> </ul>
	Decrease in revenue opportunities due to lower work efficiency caused by deteriorating work environments	Medium	
	Increase in air-conditioning equipment usage costs at business sites	Small	Operations that reduce electricity (Cool Biz (setting air conditioning to higher temperature in hot season and having employees wear lighter clothes), Warm Biz (setting air conditioning to lower temperature in cool season and having employees wear warmer clothes), etc.)
	Loss of revenue opportunities due to suspension of business activities caused by flooding	Small	Strengthening of flood prevention measures for the first floors of real estate properties

## ● Business impacts of climate-related opportunities and response measures

Items	Opportunities	Business impacts*	Summary of measures
Resource efficiency	Reduction of operating costs and increase in productivity by transforming the construction process	Large	<ul style="list-style-type: none"> <li>Productivity improvement through spread and promotion of T-Base®</li> <li>Consideration toward spread of BIM</li> </ul>
Products and services	Increase in revenue opportunities due to increased corporate equipment replacement needs as a result of developments in energy conservation promotion policies and regulations	Large	<ul style="list-style-type: none"> <li>Provision of information to customers to understand their needs and implement planned replacements/renewals</li> <li>Strengthening of collaboration with equipment manufacturers, suppliers, distributors, etc.</li> <li>Collaboration with government agencies, local governments, etc.</li> </ul>
	Increase in sales from installation of products that contribute to reducing environmental impact (Swirling Induction Type TAKASAGO HVAC System (SWIT®))		
Market	Development of new markets by introducing new services and developing new technologies such as water electrolysis hydrogen production system (Hydro Creator®)	Large	Promotion of research and development with the aim of launching our water electrolysis hydrogen production system (5,000 kW capacity) by 2026 Moreover, based on trends of customers and competitors, establishment of appropriate business models to collaborate with appropriate partners in a timely manner
	Creation of advantageous financing opportunities such as green bonds	Medium	<ul style="list-style-type: none"> <li>Consideration for utilization when necessary for investment to capture the above opportunities</li> <li>Planning and implementation of accurate financing</li> </ul>

\* Business impact is classified as "small," "medium," or "large" based on a qualitative assessment of the estimated financial impact (costs: up to 100 million yen for "small," 100 million to three billion yen for "medium," and three billion yen or more for "large;" revenues: up to two billion yen for "small," two billion to 30 billion yen for "medium," and 30 billion yen or more for "large") (the cost and revenue thresholds for "large" are based on the TSE's timely disclosure standards)

From the perspective of the need to strengthen the resilience of our strategies under both the 1.5°C and 4°C scenarios, the Group has formulated a transition plan toward net zero emissions in 2050. We will make medium- and long-term efforts to steadily capture newly created business opportunities in the future while appropriately avoiding risks.

● Our Group's 2050 net zero emissions transition plan

		Results (through 2022)	Through 2030	Through 2050
Greenhouse gas reductions	Scopes 1 and 2	33.7% decrease compared to 2019	2030 target: 46.2% decrease compared to 2019	Net zero
	Scope 3	4.2% decrease compared to 2019	2030 target: 27.5% decrease compared to 2019	
Important measures	Scope 1	Promotion of use of hybrid vehicles for company vehicles		Promotion of use of electric vehicles for company vehicles, conversion to energy-saving fuel, use of low-carbon energy
		Promotion of use of electric vehicles for some company vehicles		
	Scope 2	Renewable energy generation at research and development centers (Innovation Center), etc.		Improvement of productivity through promotion and spread of aluminum frame construction method
		Procurement of renewable electricity (including corporate PPA)		
		Consideration and introduction of power generation facilities using renewable energy		
		Reform of construction processes via T-Base®		
	Scope 3	TAKASAGO Thermal Engineering's DX strategy		Further development of energy-saving design, new technologies for different building applications
		Energy-saving design, Swirling Induction Type TAKASAGO HVAC System (SWIT®), etc.		
		Various demonstration tests at T-Base®		
		Improved transportation efficiency, circular economy, consideration and introduction of the use of low-carbon materials		
Scope 3	Use of renewable energy		Establishment of new business domains (2040) Carbon neutrality business Environmental equipment manufacturing and selling business Equipment maintenance business	
	Waste heat recovery and utilization (Mega Stock)			
	Water electrolysis system, VOC, ozone wastewater treatment, etc.			
	Energy-saving operations tool GODA®, etc.			

### 3. Risk management

The Group has established a system to manage risks in business operations on a company-wide basis, centered on the Risk Management Committee chaired by the Director in charge of risks.

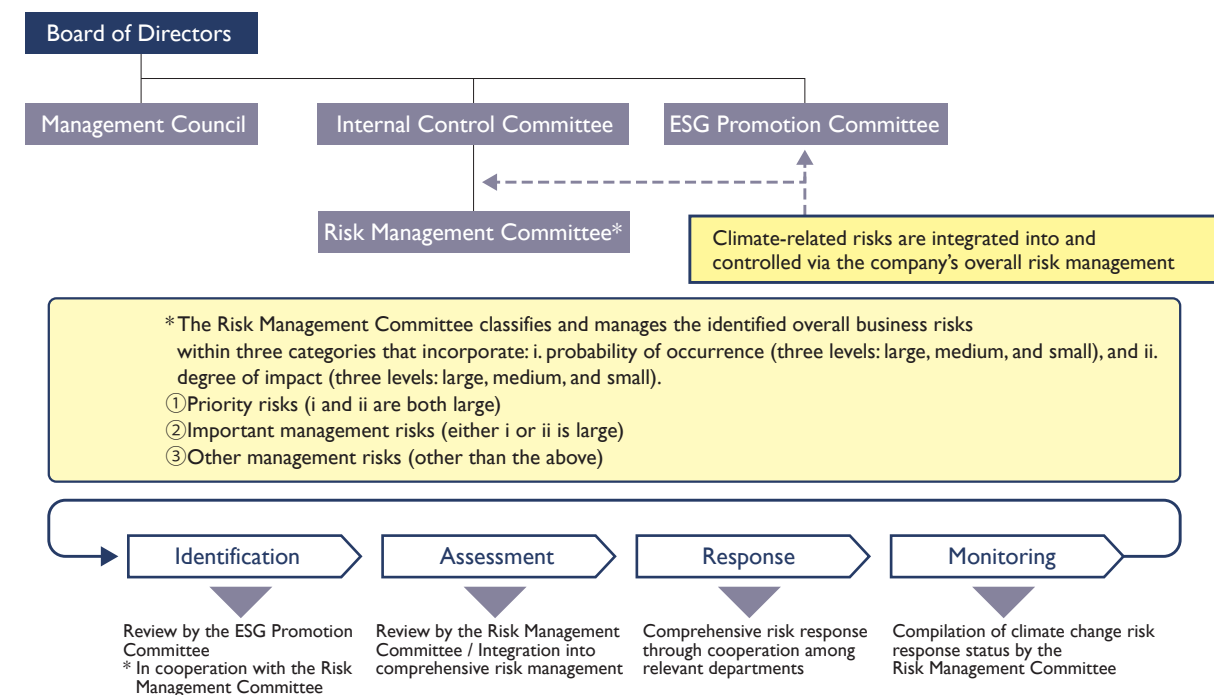
Specifically, risks in overall business operations are categorized by function, such as operations and management, and the supervising division identifies and assesses risks within the three categories of “priority risks,” “important management risks,” and “other management risks” as necessary on a regular basis at least once a year, from the perspective of probability of occurrence and degree of impact. This is presented to the Risk Management Committee.

<b>Priority risks</b>	Risks that have a high probability of occurring in the near future and have a broad and serious impact on the Group's business operations
<b>Important management risks</b>	Risks whose probability of occurrence or impact is not as high as the priority risks
<b>Other management risks</b>	Risks whose probability of occurrence and impact are not as high as the priority risks and important management risks

Under our process, each risk discussed and decided by the Risk Management Committee is reported to the Board of Directors after discussion and screening by the Internal Control Committee chaired by the President. They are also monitored by an outside director who is an expert in the environmental field.

With regard to climate-related risks, the supervising division (ESG Management Division) aggregates the identified individual transition risks and physical risks, assesses the climate-related risks as a whole, and presents the assessment to the Risk Management Committee. The most recent assessment positions “important management risks” (the second risk category after priority risks).

As mentioned above, climate-related risks are managed by the Risk Management Committee as one of the risks of the whole business and reported to the Board of Directors. Individual transition risks and physical risks identified are reflected in the Medium-Term Management Plan as medium-term issues along with opportunities. The ESG Promotion Committee formulates countermeasures and reports to the Board of Directors.



### 4. Targets and goals

We formulated medium- to long-term greenhouse gas emissions reduction goals and received a certification for the WB 2.0°C level from the SBT initiative in March 2021.

We will strive to further reduce greenhouse gas emissions for all the scopes. For Scope 3, we will contribute to the reduction of greenhouse gas emissions in society as a whole through further technological development.

Going forward, we will conduct consideration on the targets of the WB 1.5°C level.

Target scope	Target value for FY2030 (Compared to FY2019)	Major reduction initiatives	Results in FY2022 (Compared to FY2019)
Scopes 1 and 2	27.5% reduction	Conversion of company vehicles to HVs and EVs, etc. Utilization of renewable electricity, etc.	33.7% reduction
Scope 3	13.5% reduction	Energy-saving design and construction, etc.	4.2% reduction

Main points for future reduction	
Scopes 1 and 2	<b>Utilization of electricity derived from renewable energy sources, etc.</b> • Systematic conversion of company vehicles to HVs and EVs (Scope 1) • Active use of renewable electricity, including corporate PPA, at each office and reduction of energy consumption on site through expansion of utilization of T-Base® (Scope 2)
Scope 3	<b>Provision of technologies and services that support carbon neutrality for customers and society</b> • Evolution of T-Base® initiatives • Development of new energy-saving technologies such as exhaust heat utilization • Design of renewable electricity, hydrogen generation, rechargeable batteries, etc., and microgrid operation • Establishment of an energy management system



# Research and Development

## Creating technologies and businesses that contribute to becoming an Environment-Creator™

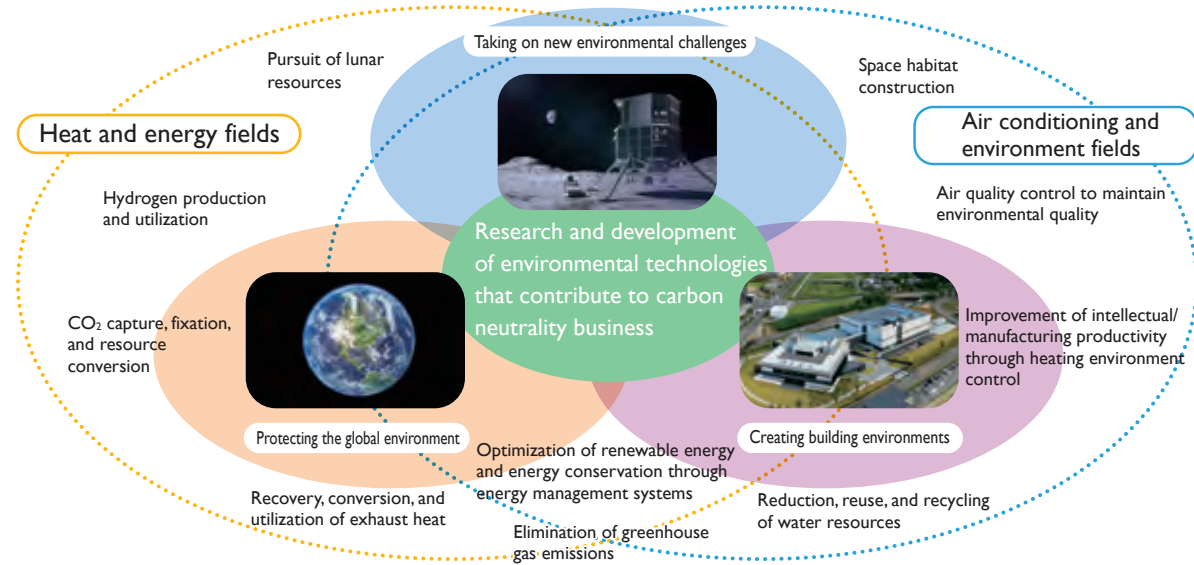
Three years have passed since the Takasago Thermal Engineering Innovation Center opened in Tsukubamirai City, Ibaraki Prefecture. The Research and Development Headquarters operates the center as a base for research and development and as part of the functions of the main office.

The themes of our research and development are centered on our “three plus α” pillars of “Creating building environments,” “Protecting the global environment,” and “Taking on new environmental challenges.” We have worked to create technologies and products that help to realize a decarbonized society, protect the global environment, improve productivity and reform work styles, and meet other diverse customer needs.

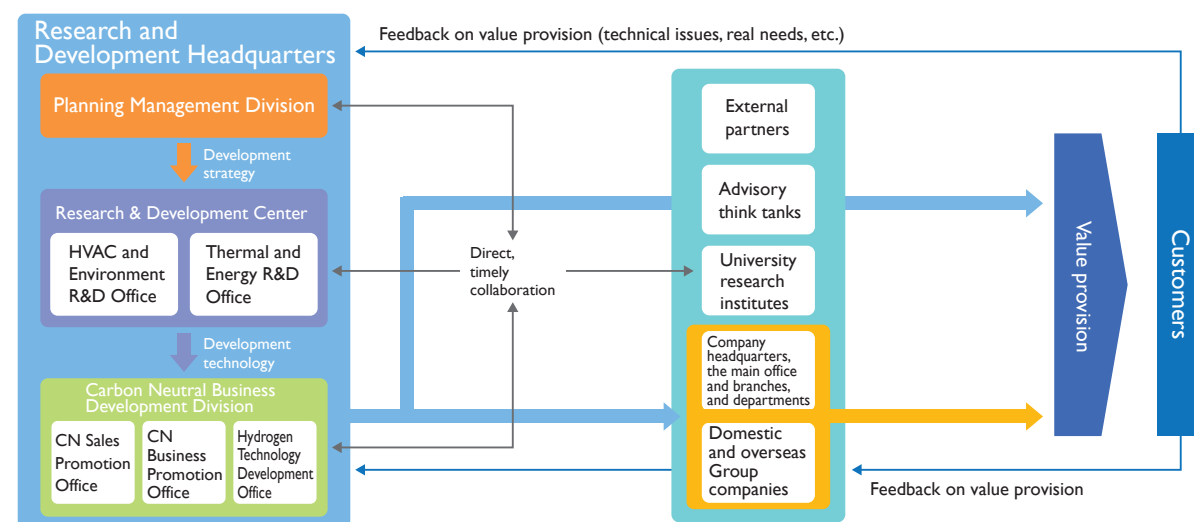
Specifically, we are working on the development of technologies for utilizing renewable energy and unused energy, the development of resource recycling technologies, and the performance improvement and verification of technologies introduced at the Takasago Thermal Engineering Innovation Center.

In particular, we have positioned hydrogen energy utilization technology, which is expected to contribute to

● Research and business development themes



● System of connective research and development, connective business development



the promotion of decarbonization, as a key development issue, and are promoting the development of related technologies as well as business development.

In terms of the organization, the Research and Development Headquarters was reorganized in April 2022. Its policy is “Connective research and development, connective business development,” and now has three divisions: the Research & Development Center, the Carbon Neutral Business Development Division, and the Planning Management Division.

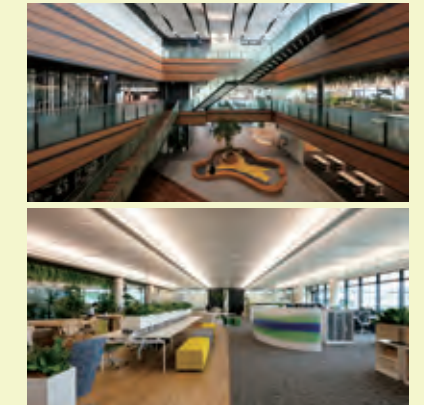
Based on the development strategy formulated by the Planning Management Division, there is a system in which the Research & Development Center is responsible for research and development, and the Carbon Neutral Business Development Division is responsible for linking this to business for social implementation by leveraging our proprietary technologies created through the research and development. Through further connection with each organization within the Group, we will contribute to the achievement of the KPIs in the Medium-Term Management Plan.

## Takasago Thermal Engineering Innovation Center

Sustainable research facility that balances environmental impact reduction and intellectual productivity improvement



■ Panoramic view of the building



■ Atrium / Main workplace

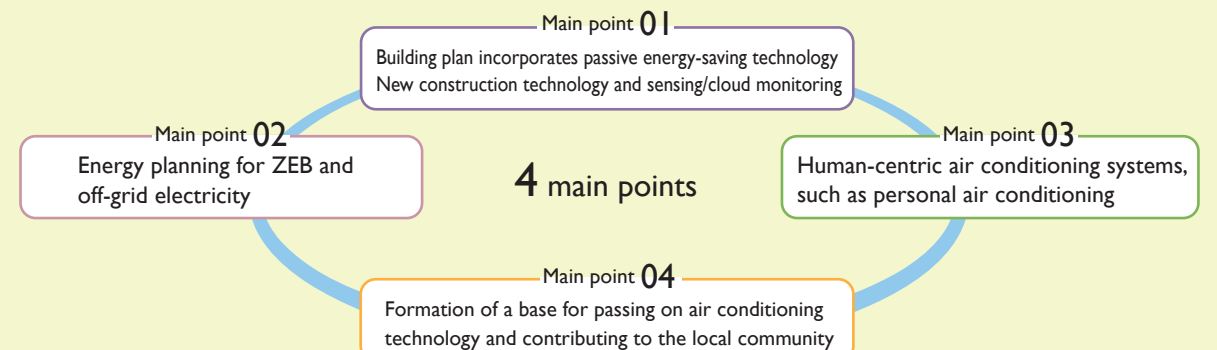
ASHRAE (American Society of Heating, Refrigerating and Air-Conditioning Engineers), **ASHRAE Technology Awards 2024** | Asia Region First Place Winner  
 The Society of Heating, Air-Conditioning and Sanitary Engineers of Japan, **61st SHASE Award for Distinguished Technologies Environmental Facility Planning and Execution Award** | Award Winner  
 Japanese Association of Building Mechanical and Electrical Engineers, **11th Carbon Neutral Award 'Carbon Neutral Award** | Grand Prize Winner  
 Association of Building Engineering and Equipment, **21st Environmental and Equipment Design Award (Category II: Integrated M&E Design)** | Distinguished Award Winner

The Takasago Thermal Engineering Innovation Center is designed to embody the concept of sustainable architecture that combines environmental impact reduction with intellectual productivity improvement. It has aimed to achieve ZEB status through the active use of renewable energy, and to provide a variety of work spaces that respond to changes in work styles as well as spaces that contribute to communities.

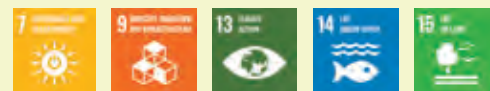
In terms of use of renewable energy, in addition to 200 kW of solar power generation, the Center has introduced 80 kW of biomass gasification power generation fueled by wood chips produced locally in Ibaraki Prefecture. It has also achieved carbon-free status by reducing the ratio of electricity received and using green electricity derived from hydroelectric power generation. In addition, the health and comfort of the workers are realized through a desiccant outdoor air processing unit that uses underground water or exhaust heat from biomass gasification power generation, ceiling radiant air conditioning panels, and individual air conditioners that can be operated with personal devices. These achievements have been highly evaluated by related academic associations and others, and have won multiple awards.

The above awards were conferred in recognition of the Center being a facility pursuing the feasibility of carbon neutrality, based on its achievements during the two years since its completion.

Divided into the following four main points, the Center has realized ZEB status by adopting thorough energy-saving technologies and energy-creating technologies not being stuck in preconceived ideas. In the indoor environment, human-centric technologies and systems that promote intellectual productivity were proactively adopted to create an environment where employees can actually operate and improve the facility on a daily basis and promptly provide feedback for research and development. In addition, we consider it an important responsibility not only to build buildings, but also to communicate and contribute to the local community and society. We have planned and realized the Center to be not only energy independent in normal times, but also to provide security to the community even in times of emergency, and to be a place for growth in harmony with the local community.



TOPICS



Closed VOC recovery system

Printing factories and adhesive tape production plants have a dryer that evaporates solvent (solvent dryer) operating in their production process. This produces volatile organic compounds (VOC) such as toluene or ethyl acetate. Causing photochemical smog and other issues, they are known to create health damage to the respiratory system and mucous membranes. Although they are legally treated, their total domestic emissions in FY2020 amounted to roughly 570,000 tons.

The most common method to treat VOC exhaust gas from plants is incineration, which generates a large amount of CO<sub>2</sub>. Therefore, the treatment of VOC without incineration is needed for the prevention of global warming and the realization of a low-carbon society.

We have developed a system that adsorbs for recovery and treats VOC without incineration, and also reduces the amount of VOC emitted into the air significantly. By treating waste gas from the dryer to recycle it (making it closed) as gas supplied to the dryer, this system can reduce a large amount of VOC emissions to zero in principle without a gas outlet.

We installed a verification tester in a running adhesive tape production plant (Teraoka Seisakusho Co., Ltd.) starting in FY2020 and jointly started a demonstrative operation with the company. As a result, we confirmed that our system was able to reduce VOC and CO<sub>2</sub> emissions 95% and 78%, respectively, compared with conventional ones. The assessment of impact on the production environment revealed that the production

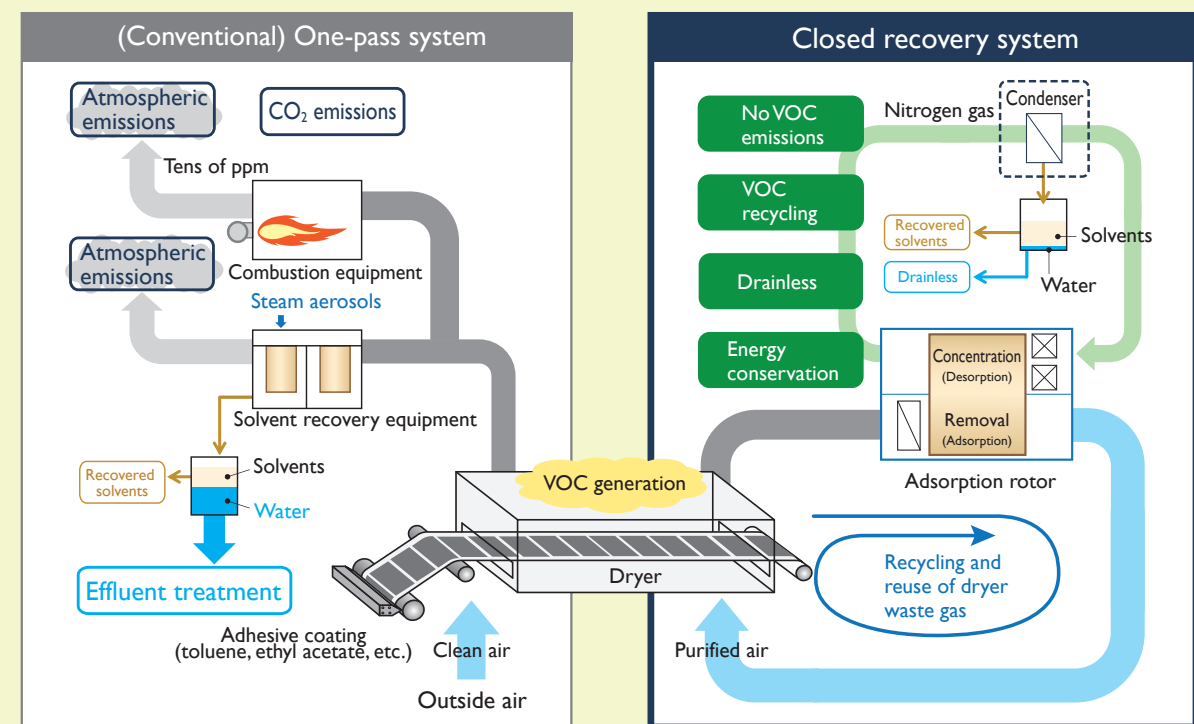
environment could be maintained in a certain low-humidity environment, free from outdoor air influences with gas emission and supply closed, and the quality of products was as it had been before.

This technology won an Award for Excellence for the 48th Environment Prize (hosted by the National Institute for Environmental Studies, Japan and Nikkan Kogyo Shimbun, Ltd. under the auspices of the Ministry of the Environment), appreciated as a technology contributing to environmental preservation and environmental quality enhancement.

In addition to low-boiling point solvents such as toluene and ethyl acetate, we are also working on recovery for high-boiling point solvents used in the manufacture of lithium-ion batteries and all-solid-state batteries. By promoting the non-incineration treatment system capable of achieving CO<sub>2</sub> and VOC emissions reduction simultaneously, we will go on contributing to global environmental preservation.



Demonstration system



Comparison with conventional systems



Adsorbent thermal storage system Mega Stock®

The use of waste heat is required for further energy saving and reduction of CO<sub>2</sub> emissions in industrial areas. While the use of high-temperature waste heat for power and steam generation, etc. is promoted, most low-temperature waste heat of around 100°C is discarded at present because their uses are limited and the mismatch in time and space between the supply of the heat and thermal demand makes it difficult to use the heat.

To solve this challenge, we have developed and are marketing a new large-scale thermal storage system that recycles waste/unused heat for air conditioning and as a thermal source.

This system can be fixed or used as a portable type in plant facilities and enables the recovered exhaust heat to be used in different places and at different times. The heat

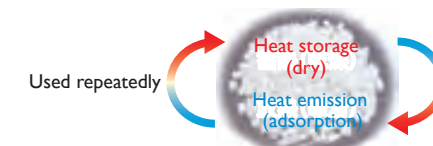
can be used effectively for dehumidification, heating and drying processes, for example.

We also expect to introduce it as an offline heat recovery, transport, and utilization system to recover exhaust heat from sludge and garbage incineration plants of local governments, etc., as well as exhaust heat from factories, and use the heat in the nearby areas.

In FY2018–2019, we launched a demonstration test for the system as a project subsidized by the New Energy and Industrial Technology Development Organization (NEDO) jointly with Hamura City, Tokyo, and five other organizations. We created a thermal storage system using HASClay, a new high-density heat storage material, to collect full-year demonstration data on the fixed type and the offline heat transport type and demonstrated the storage of waste heat from factories, cogeneration exhaust gas, and waste warm water, as well as the use of heat in production lines and commercial facilities. With this project, we were cited as an outstanding business entity in both the 2018 NEDO Strategic Innovation Program for Energy Conservation Technologies and the 2020 NEDO Energy Conservation Technology Development Awards. In addition, in 2021, the project received an Award for Excellence in the industrial use category of the Cogeneration Grand Prize 2021 for “further energy saving in factories” and “area-wide use of thermal energy uniting communities” through the use of cogeneration exhaust heat. The project also received the 11th Carbon Neutral Award Grand Prize in 2023.

● Features of this system

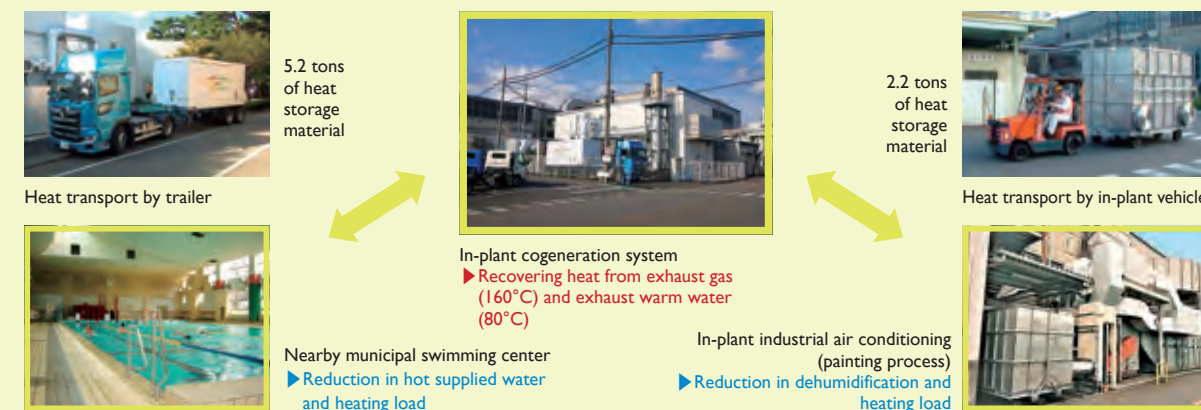
- The low-temperature waste heat of 80 to 200°C can be stored
- The thermal storage density is more than twice that of conventional latent heat storage (over 500 kJ/L)
- The recovered waste heat can be used for air conditioning (heating, outdoor air processing, dehumidification) and hot water supply
- The heat loss from the stored heat is minimized (because of the principle of moisture adsorption/desorption reaction)
- The users of the heat can substantially reduce their CO<sub>2</sub> emissions



Using reaction heat from the absorption and desorption of water to and from adsorbent (heat storage material)  
 Desorption of water → Heat storage  
 Adsorption of water → Heat emission (use of heat)



● Examples of use: Heat transmission in Hamura City areas (around the Hamura plant of Hino Motors)



● Viewable at Advanced Industrial Science and Technology's YouTube channel “かがくチップス (Science chips)”  
<https://www.youtube.com/watch?v=0Rw38swZvIQ>



● Cogeneration Award press release  
[https://www.tte-net.com/article\\_source/data/news/files/20220204\\_1.pdf](https://www.tte-net.com/article_source/data/news/files/20220204_1.pdf)





# Environmental Conservation



## Support for realizing a low-carbon society

Our basic philosophy on environmental conservation is to “contribute to the conservation of the global environment while working for the sustainable development of society by fully using environmental conservation technologies and our corporate power.” Based on this philosophy, we have established the Basic Environmental Policy to specify rules on the promotion system. We will actively develop energy-saving and CO<sub>2</sub> emission reduction technologies in our business activities and achieve optimal operation of facilities through cooperation with customers to help create a low-carbon society. Meanwhile, we have estimated CO<sub>2</sub> emissions in FY2022 for the external announcement and disclosure of environmental data (CO<sub>2</sub> emissions), etc.

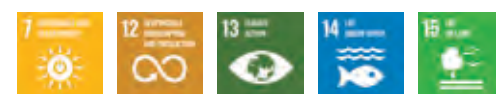
As an Environment-Creator™, we strive to provide environmentally friendly technologies and services in collaboration with all stakeholders.

- (1) We contribute to the realization of a decarbonized and recycling-oriented society by promoting the efficient use of energy and resources.
- (2) We work to achieve optimal space environments with high efficiency through active deployment of energy-saving technologies and optimization of building operations.
- (3) We actively engage in research and development on resource recycling, energy value chains, and other such matters to create new value.
- (4) We strive for biodiversity through initiatives to conserve water and forest resources.
- (5) Through the above, we promote initiatives to address climate-related issues.

### ● CO<sub>2</sub> emissions by scope (results in FY2022)\*

Class/category		Scope of the estimation	Relevant activities	Emissions in FY2022 (t-CO <sub>2</sub> )	
				Consolidated	Non-consolidated
Scope 1	Direct emissions	Direct emissions from the use of oil, etc. and industrial processes in the company	Gas, oil, gasoline	5,491	2,801
2	Energy-derived indirect emissions	Indirect emissions in association with the use of the electricity and heat purchased by our facility	Electricity, etc. in business sites, offices, etc.	5,236	2,494
3	Other indirect emissions (excluding those which fall under Scope 1 or 2)	Design, construction work, etc.		6,294,255	4,753,188
Category 1	Purchased goods and services	Emissions in association with the activities up to the production of raw materials and other materials	Ductwork, piping, scaffolding	154,583	119,905
			Main items of HVAC systems (freezers, air conditioners, packaged air conditioners, fan coils, fans)		
2	Capital goods	Additional construction of production facilities	Capital investment	20,301	16,216
3	Energy-related activities	Minerals required for the generation of the electricity purchased by the company	Electricity usage	2,316	1,336
4	Transportation (upstream)	Emissions in association with the transportation of products from suppliers to construction sites	Number of trucks required for the transportation	7,149	5,507
5	Waste generated in operations	Emissions in association with the transportation and disposal of general and industrial waste generated by the company	General waste from buildings and offices Disposal of industrial waste from sites	3,806	3,760
6	Business travel of employees	Business travel	Domestic and international business trips	1,899	1,857
7	Employee commuting	Commuting	Commuting	712	636
11	Use of the sold products	Emissions in association with the use of products by users (consumers, business operators)	Facilities for delivery to customers	6,102,555	4,603,241
12	End-of-life treatment of sold products	Emissions in association with the end-of-life treatment of products	End-of-life treatment of purchased products	934	730
Total				6,304,982	4,758,483

\* An independent third-party assurance has been received from Sustainability Accounting Co., Ltd.



## Support for realizing a recycling-oriented society

### · Reduction of waste

We regard waste as precious domestic resources and aggressively strive for 3R\* at production sites and offices in order to recover useful resources from waste and utilize it effectively. In addition, waste is controlled for its thorough management up to the final disposal.

\* 3R means Reduction, Reuse, and Recycling.

### · Achievement of a recycling rate of 87% at sites through separation of construction materials

We worked to reduce construction facility waste from contract work through such initiatives as the use of prefabricated facilities, elimination of packaging, promotion of recycling, and thorough separation of waste. As a result, the overall recycling rate in our 950 contract work sites in FY2022 was 87%, achieving our target. Going forward, we will work for even more separation of waste and materials in order to increase the recycling rate, including promoting initiatives at T-Base®.

### · Ensuring 100% control of chlorofluorocarbons (CFCs) and industrial waste

We started to recover CFCs in FY1995, ahead of other members of the industry. In FY2022, we recovered 100% of the CFCs to be collected in 635 sites, which weighed approximately 40 tons in total. The amount of

CFCs we have recovered since the start of the activities is equivalent to 867 tons. We will continue to control the recovery process completely and strive to recover CFCs to protect the ozone layer, and we will also consider introducing the recycling of CFCs in the future. (Currently being partially implemented)

## Preservation of water resources

In consideration of biodiversity and ecosystems, we conduct forest conservation activities such as tree planting through local environmental activities. In order to reduce environmental impact of wastewater from production sites, including reducing waste at offices, we have developed technology for flushing without any water drainage, and are committed to the practical and widespread use of it.



Flushing water purification unit

### · Practical use of technology for flushing without any water drainage

We are conducting various forms of research and development to reduce the impact of effluents and exhaust air on the biological environment during construction and post-completion facility operations. For effluent treatment, we have developed a technique to purify effluents containing zinc eluted from coated zinc as a result of flushing in pipes at the completion of piping and to return the purified effluents to the pipes instead of discharging them. We worked to disseminate the technique and had 42 cases of the introduction into sites in FY2022.

## Targets and achievements of environmental conservation activities

In FY2022, we implemented environmental conservation activities to meet the quantitative target set for each of the activity targets and items in construction sites and offices. The results are as follows:

Goal of the activities	Description of the activities		Control items	Baseline value	Actual result	Evaluation
Contribution to the realization of a decarbonized society	Proposal for energy saving at the design and construction stages	(New construction)	Amount of energy saved <sup>*1</sup> Baseline <sup>*2</sup> energy consumption	10%	35%	✓
		(Renovation)	Amount of energy saved <sup>*1</sup> Baseline <sup>*2</sup> energy consumption	30%	30%	✓
		Reduction of energy used by equipment during construction	Amount of energy saved <sup>*3</sup> Energy consumption in the original design	10%	13%	✓
	Energy saving in offices	Reduction of energy used at head office, main branches, sales branches and R&D center	1— Energy consumption in the current fiscal year Energy consumption in the previous fiscal year	270 kWh or less per person per month	100%	✓
	Reduction of construction materials	Reduction of the amount for piping, ductwork and equipment scaffolding during construction	1— Amount of reduced materials Amount of materials used for ductwork, piping, and scaffolding in the original design	10%	13%	✓
	Contribution to the realization of a society in harmony with nature	Participation in local environmental activities	Local cleanup activities and support for events	One or more activities per office	Suspended due to COVID-19	—
Contribution to the realization of a recycling-oriented society	Practical and widespread use of technologies that contribute to biodiversity	Trial introduction of the flushing technology to clean pipes without any water drainage		50	42	—
	Implementation of activities to generate no industrial waste from construction sites <sup>*4</sup>	Recycling rate 1— Final disposal volume Total waste volume		85%	87%	✓
	Thorough management of industrial waste manifests	Number of sites managed with manifests Total number of contract work sites		100%	100%	✓
	Thorough management of the CFC recovery process control table	Number of sites managed with the CFC recovery process control table Total number of sites recovering CFCs		100%	100%	✓

\*1: Buildings of a certain scale designed by the company (new construction and renovation)

\*2: The baseline value is annual energy consumption equivalent to the baseline in the Act on the Rational Use of Energy or the amount defined specifically for each building.

\*3: Buildings of a certain scale (new construction and renovation)

\*4: All buildings in contract work

# Strengthening Human Capital at Takasago Thermal Engineering Group

Takasago Thermal Engineering believes that people are our greatest asset. Since our founding, under our corporate mission of “Contribute to society through social harmony and creative solutions,” we have contributed to the development of society by creating new value through the collective efforts of each of our employees based on the idea of creating what does not yet exist.

It is each employee that supports our Group and we believe that our valuable human resources’ autonomous growth will lead to the company’s growth.

In order to continue to develop further into the future as an Environment-Creator™, we are working to strengthen our human capital under the four pillars of recruitment, support for growth, thriving activities, and visualization of capabilities.

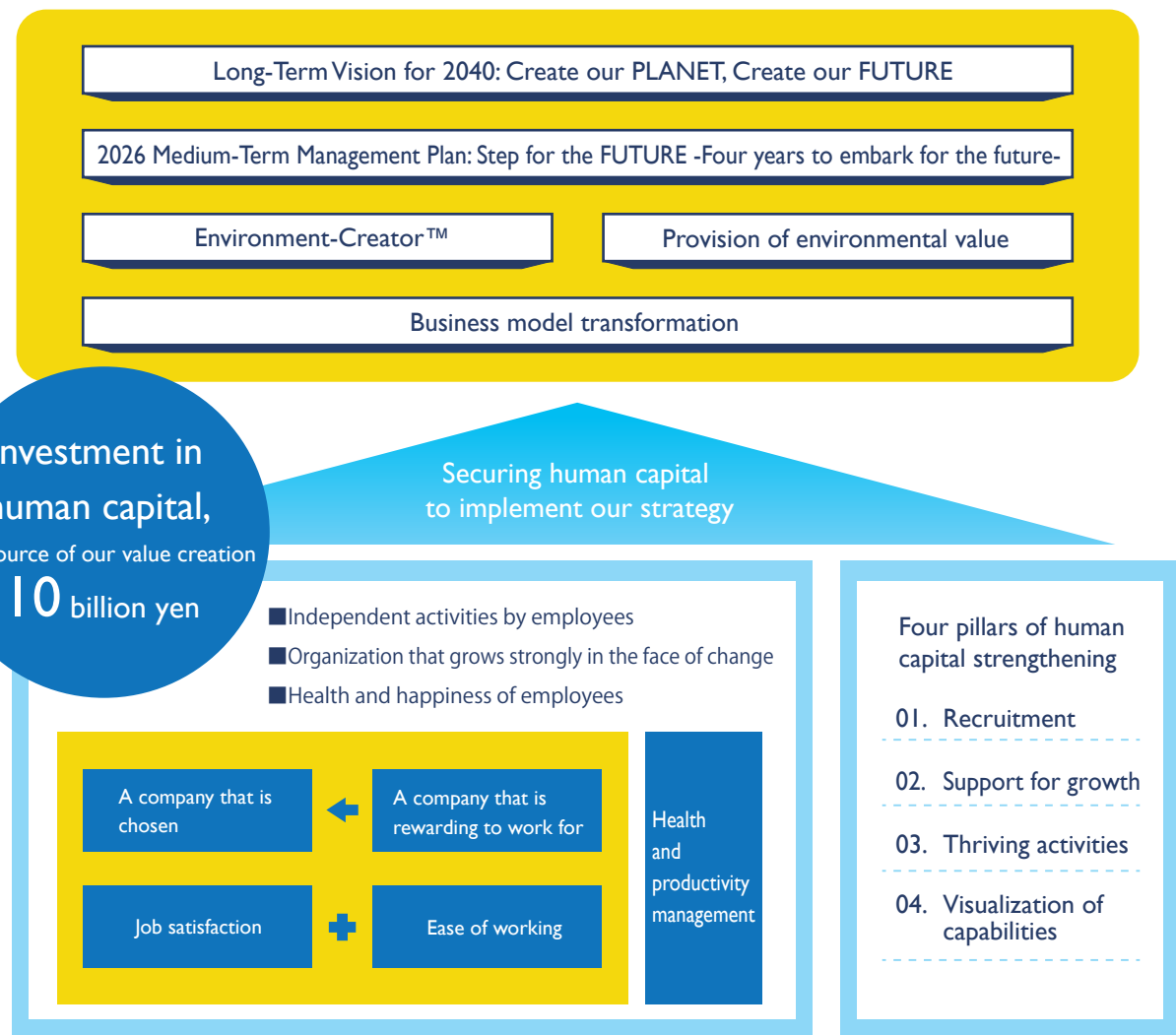
## Basic policy on human resources management

Based on our philosophy that “people are our greatest asset,” we conduct human resource management based on human resource development and respect for people.

In order to contribute to society by constantly creating new value through our corporate activities, it is our basic belief that we must be a company that continues to grow day by day, and that this growth is supported by our human resources, who are constantly growing. We develop human resources who have character and

high ethical standards, are autonomous, and are always willing to take on challenges.

We also foster a corporate culture in which people recognize and respect each other's diversity regardless of gender, sexual orientation, gender identity, nationality, disability, or other attributes, and create a work environment where individual human resources are healthy and vibrant and can maximize their abilities.



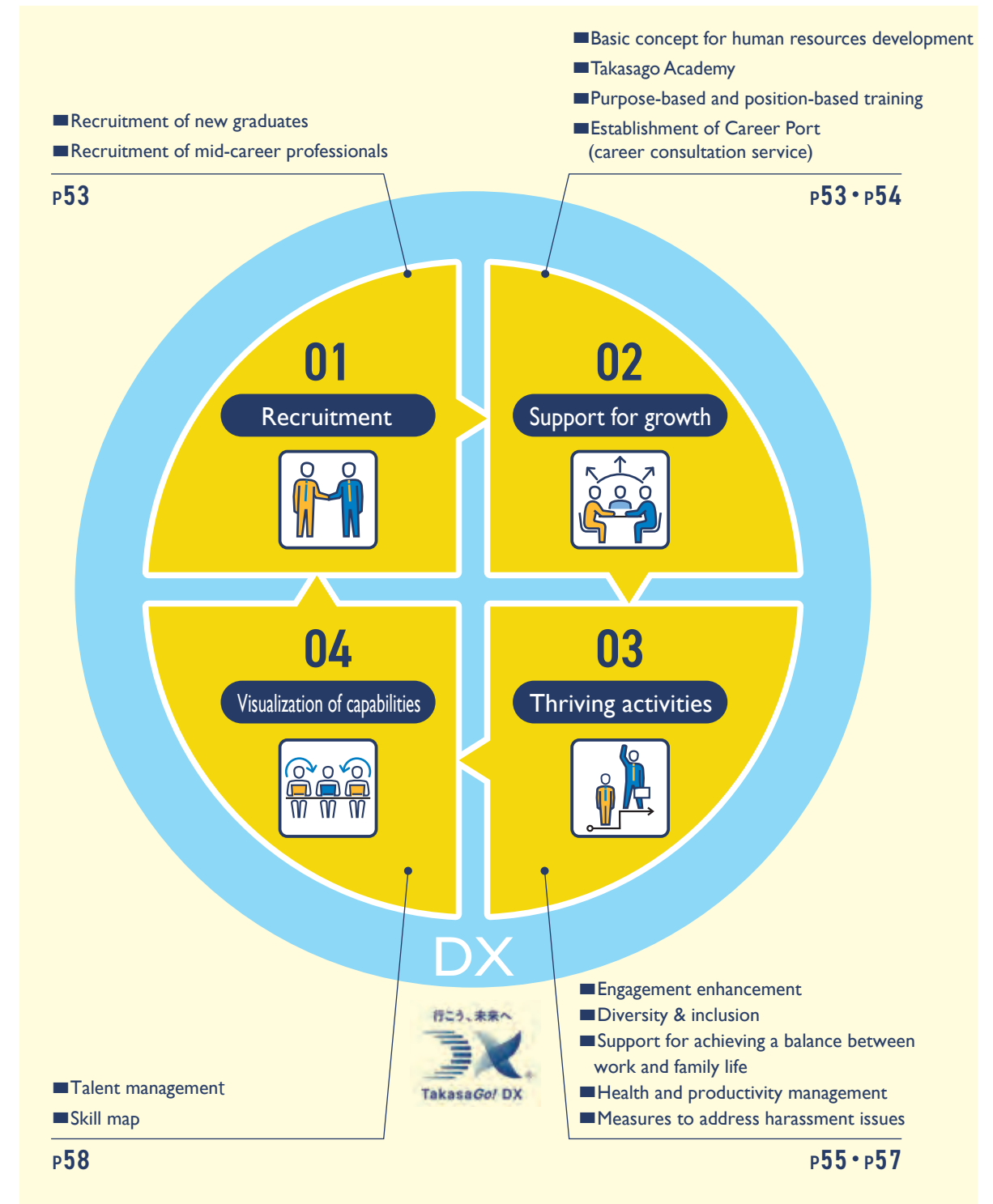
## Four pillars of human capital strengthening

In order to realize our strategy, we need to continuously recruit human resources and enable them to grow and conduct independent activities while achieving health and happiness. In addition, it is essential to realize the placement of the right people in the right jobs (at the right time) according to their skills, characteristics, and

capabilities, and to become an organization that grows strongly in the face of change.

To this end, we are working to strengthen our human capital by focusing on the four pillars of “recruitment,” “support for growth,” “thriving activities,” and “visualization of capabilities.”

● Four pillars of human capital strengthening







## 01 Recruitment

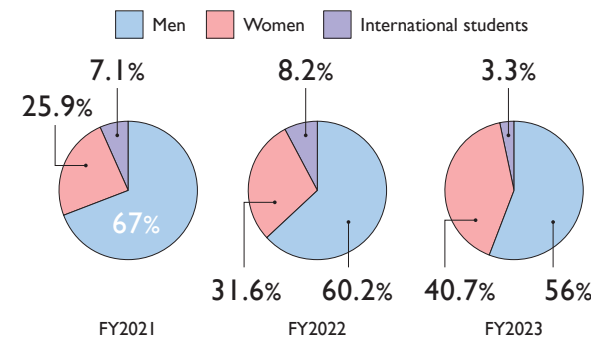
### We are actively recruiting new graduates who will become future Environment-Creators™

With regard to recruitment of new graduates, in accordance with our human resources management policy, we are actively recruiting women, international students, and people with disabilities based on a person-centered approach, such as capabilities and performance, regardless of gender, nationality, or other attributes.

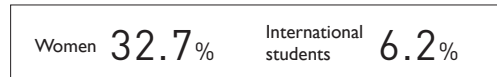
In order to become a company of choice in the recruitment market, in addition to introducing our core business of HVAC system construction, we actively promote our new businesses and carbon neutrality business initiatives. In addition, to prevent mismatches, we strive to enhance dialogue and proactively disclose information during the recruitment process.

In our recruitment of mid-career professionals, we hire human resources who are ready to work immediately to support our core construction business and people who have the expertise necessary to realize our management plan.

#### Recruitment results



#### Three-year average



## 02 Support for growth

### Training tailored to individual objectives and career stage

In the Takasago Academy, which aims to develop human resources who will create our future, we offer practical and multifaceted training programs with various types of training (Off-JT: off the job training) and various experiences (OJT: on the job training) as the two main components and provide training tailored to individual objectives and career stages.

#### Training system chart

		Training system					
		New employees to 5th-year employees	Career development period	Mid-level class	Management staff	Senior management	Skilled staff
Training by job type	Technical training	Basic technique	Deepening of technique	On-site management			
	Sales training	Sales engineering, etc.					
	Optional training	Subordinate coaching, presentations, etc.					
Training by position	Management	Newly promoted staff training					
	Development of the next generation		Leader seminar	Manager seminar	Management seminar	Director training	
Training by purpose	Global	Global seminar					
	Diversity	D&I seminar (working mothers training, women's workplace participation, LGBTQ+, etc.)					
	DX and IoT	DX seminar					
	Cutting-edge theme	Business development seminar					
Acquisition of official qualifications		Support for acquisition of official qualifications					

### Basic concept for human resources development

Based on our Purpose, Vision, and Corporate Mission, we are developing human resources capable of providing the highest quality and ingenious technologies so that every employee can contribute to solving the issues of the future society as an Environment-Creator™. With

employee training and self-improvement performing a complementary role, we are creating an organizational climate that encourages a “give-it-a-try” spirit and inventiveness.

### Employee training for new hires

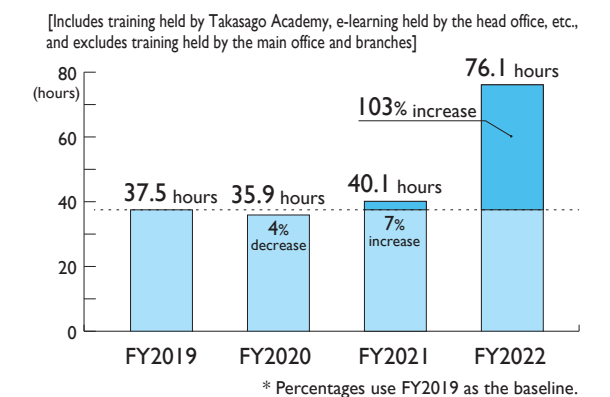
Training (Off-JT, OJT) is given to new employees, irrespective of whether they are technical or clerical staff, after they join the company. This program, which allows the new employees to directly learn and understand how the company grows through the creation of added value and profits, leads to them being able to build diverse career paths.



### Purpose-based training and position-based training

In the purpose-based training, the trainees work to acquire necessary capabilities and business skills and develop a sense of ethics so that they can work actively at all stages from the time of joining the company through retirement. In the position-based training, which focuses on management skills, we offer opportunities to acquire an MBA degree and carry out training to develop next-generation leaders, manager seminars for management candidates, leader seminars for young employees, and other programs (succession plans) to continuously develop human resources who will play the main role in our future management.

#### Changes in training hours per employee



### Establishment of Career Port (career consultation service)

We established our “Career Port” career consultation service by envisioning a port where young employees can casually drop by for forward-looking consultations about various concerns, such as career development concerns and life events including marriage and childbirth. Career Port’s staff in charge of human

resource development, staff in charge of diversity and inclusion promotion, and staff who are knowledgeable about the personnel system kindly provide advice on how to solve problems. This helps the person seeking the consultation move forward.



### 03 Thriving activities

#### Further engagement enhancement

In order to keep employees motivated and engaged in their work, it is important to create an environment that is easy to work in and allows them to devote themselves to their work with a sense of fulfillment. Because our corporate mission and business activities make it easy for employees to be aware of their contribution to society, they feel their work is meaningful and worthwhile and take pride in it. We are also striving to develop a working environment to enable employees

to lead healthier and more fulfilling lives by promoting work-style reform enabling a variety of work styles with a sense of wellbeing and achieving work-life balance.

By accumulating these efforts, we are building trust between employees and the company, aiming to build a company that allows each employee to feel motivated and happy and to thrive.

#### Implementation of engagement surveys and the Engagement Enhancement Subcommittee

We conduct our main survey once a year as well as simple surveys (pulse surveys) every quarter to further understand the status of our employees, focusing not only on engagement, but also, starting this year, on their intentions regarding continued working, their

wellbeing, and their acceptance of diversity. We will further enhance engagement by clarifying organizational issues through surveys, sharing this with all branches nationwide through the cross-company Subcommittee team, and continuously taking steps for improvement.

#### Diversity & inclusion

Setting mutual respect as a basis in our management philosophy, we promote the fair appointment of human resources irrespective of nationality or sex. As illustrated in the installation of a subcommittee that promotes a cross-sectoral diversity, we are actively committed to the creation of workplaces where diverse human resources can make the fullest use of their personality and capabilities to prove themselves.

Through the subcommittee, workshops were held on the themes of women, people with disabilities, international human resources, mid-career professional hires, senior citizen employees, and LGBTQ+ people to identify issues and implement measures.



#### Support for achieving a balance between work and family life

To support employees in balancing work and childcare or nursing care, we have in place a childcare/nursing care leave system, a reduced working hour system, and various holiday systems such as a system of leave for taking care of children. In addition, we have enabled flexible work styles including staggering commuting and teleworking. When it comes to the latter, we have a teleworking system that all employees can use.

We also support men in taking part in childcare actively and encourage male employees to take childcare leave by, for example, allowing them to take the leave partly with pay. As part of supporting employees' return to work from childcare leave, we conduct a return-to-work interview or introduce nursery schools operated by companies.

● Percentage of employees taking childcare leave (1 week or more)

Gender	FY2020	FY2021	FY2022
Men	20.5%	15.6%	65.7%
Women	100%	100%	100%



#### Comment from a male employee who took childcare leave

When I reported the birth of my eldest daughter and requested to take childcare leave with my supervisor in advance, he readily agreed. Everyone from my supervisor to the colleagues on site was very understanding of my childcare leave, and I was able to take 12 days of leave. Nobody reacted with concern about my work, and they even said, "Isn't 12 days too few? Why don't you take more days off?" Because I had communicated my intention to take the leave at an early stage, my supervisor was able to coordinate many aspects of my work. I am very grateful that all the members of my workplace were happy about the birth of my child and encouraged me to take the leave.

I took childcare leave two weeks after the birth, and I struggled daily due to being unfamiliar with taking care of a newborn baby even though I was taking a break from work. However, eclipsing those struggles, nothing can replace the joy of being able to spend time with my family and experience the delights of raising a child.

My active participation in parenting enabled my wife to have time for rest after giving birth, which was most reassuring, and she was very happy that I took childcare leave. I believe that raising a child should be a joint effort between husband and wife for the sake of their child's growth, and that fulfilling work is the result of harmonious, trusting relationships in families. When our second child is born in the future, I would like to take childcare leave again. If we compare our own career with that of other engineers in the same generation and consider the onsite work processes, we tend to think that there are high hurdles to returning to work after childcare leave. But I do not think it is bad to take childcare leave to share meaningful moments in life with your family. I realized the importance of the understanding and support of those around me when taking childcare leave.



Kazuya Okita

Affiliation: Tokyo Main Office  
Job duties/position:  
Global technology  
Years: 4 years (at the time of taking childcare leave)

Childcare leave period: April 11–22, 2022



#### Message from supervisor (at the time of taking childcare leave)

I have experience taking childcare leave myself. Work and raising children are difficult to do alone, and are like making a team effort. However, although there are opportunities to have the same experiences in work again, raising a child is something you can only experience at the time. As a supervisor, I believe that one of my roles is to allocate tasks in a way that fits each team member's career plan, and to balance each person's growth and necessary experiences according to the time.



Hiromitsu Miyazaki



## Initiatives for work style reform

We are continuing to improve the working environment and review our personnel system with the aim of becoming a “wellbeing company” in which executives and employees are physically and mentally healthy and work energetically.

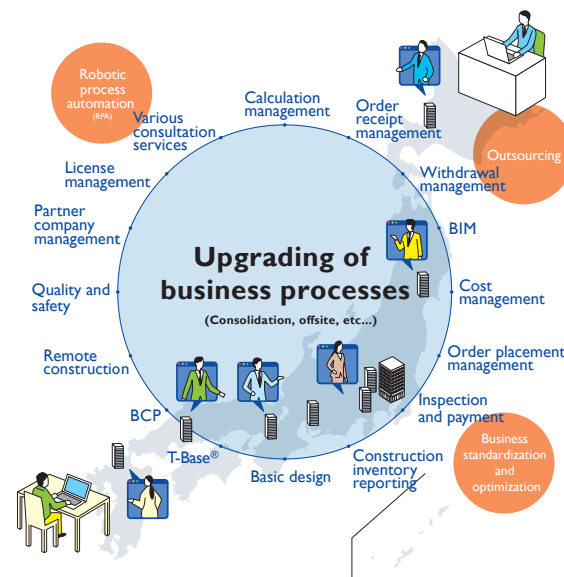
Based on our response to the “2024 problem,” which refers to the start of the application of overtime caps on the construction industry, we are promoting activities to reform work styles with the key phrase “Smart Work” to improve value-added labor productivity per hour and transform work styles to be more flexible and diverse. We have created a logo that serves as a symbol of these activities. The logo features multiple colors and designs with a pop art-like feel. We will continue to work on

various work style reforms connected to the logo, and aim to create a more appealing construction industry and construction sites.



### Work style reform through DX (broadening our approach)

By utilizing our core system (ETHOS) and various digital foundations, we will make our operations more sophisticated and diversify work styles by improving productivity through consolidation and centralization of operations that had been handled separately. At the same time, we will create new added value by enhancing our human resources.



## Health and productivity management

Under President's Health Keeping Statement, we have established the Health Care Management Office as a department dedicated to helping executives and employees maintain and improve their health and promoting health and productivity management. We aim to become a company where all executives and employees are physically and mentally healthy and work energetically (“wellbeing company”) with a Health Care Management Office staffed by medical professionals.

In addition to accepting consultations on mental and physical health as needed, the Office provides support for balancing work and illness, follow-up on health checkups, and educational and awareness activities to improve health literacy.

In addition, we are devising ways to encourage employees to improve their health awareness in familiar places, including holding a walking campaign, displaying

the sugar content of beverages in vending machines, and publishing a monthly health newsletter called “Takasago Health News” that introduces health information. Due to such initiatives, in FY2022, we were recognized for the 2023 Certified Health & Productivity Management Outstanding Organizations Recognition Program (White 500), as we also were in FY2021.

Going forward, we will focus on supporting the health of women and the continued employment of the elderly to further promote health and productivity management.



## Measures to address harassment issues

To prevent sexual and other forms of harassment including abuse of authority and discrimination against pregnant employees, we send messages of top management and clarify our basic policy to never allow any forms of harassment. We have set up consultation counters on and off the company premises to address the matter and also conduct regular questionnaire surveys to check whether there is any harassment in the workplace. In addition, every August is designated as Harassment Elimination Awareness Month, and company-wide training is conducted to raise awareness of harassment prevention.



## 04 Visualization of capabilities

### Initiatives for DX of talent management and human resources

We are advancing digital transformation (DX) of human resources centered on talent management that manages various personnel data on each employee and utilizes it for recruitment, training, and human resource allocation and appointment.

In addition to renewing our core system that manages

human resources information as the foundation for human capital management, we are also working to improve the linkage of each human resources policy, utilize human resource data efficiently, and reform the operation of the human resources system through the restructuring of the talent management system.

### Skill map development

Understanding the capabilities and skills of employees makes it possible to assign and appoint the right people to the right jobs and train them efficiently, leading to the creation of an organization that is resilient to change and improved employee engagement.

In FY2023, we established our cross-sectoral “Human Capital Strengthening Task Force” to organize the skills required for each business field, such as construction, design, management, sales, and DX, and incorporate them into our talent management system to develop and manage skill maps.

# Human Rights

We respect the human rights of stakeholders affected by all our business activities and strive to realize a sustainable society throughout our value chain. Based on the United Nations Guiding Principles on Business and Human Rights to clarify our approach to respect for human rights, we formulated our Basic Policy on Human Rights in December 2021 and launched initiatives related to human rights due diligence in 2022.

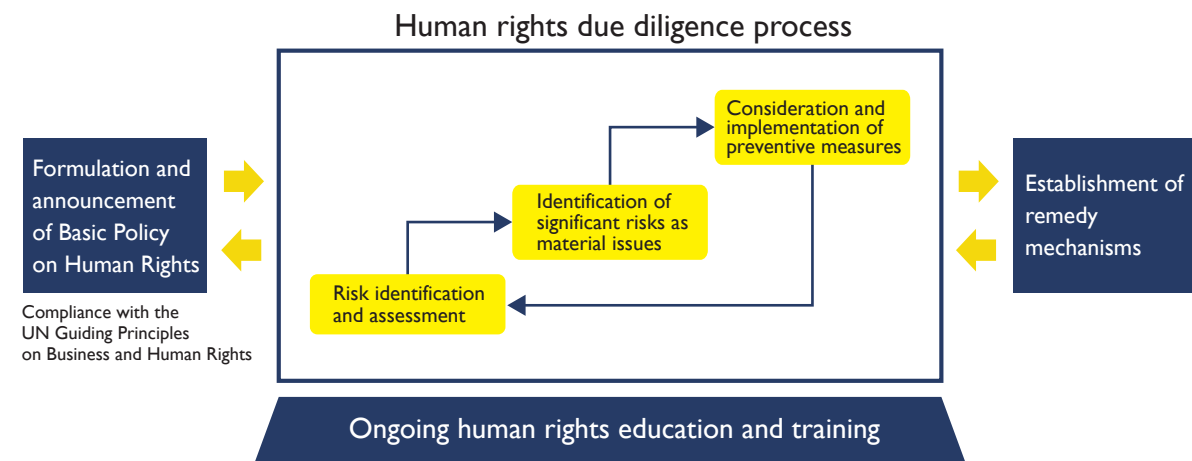
## Human rights due diligence

At Takasago Thermal Engineering, the ESG Promotion Committee has been advancing initiatives to identify and assess risks in the value chain and other areas, identify significant risks as material issues, and to examine and implement preventative measures and improvement measures. In FY2022, risk identification and assessment were conducted for the head office organization. In FY2023, risk identification and assessment will be conducted at our main office and branches, as well as at Kowakai companies, which consist of our partner

companies.

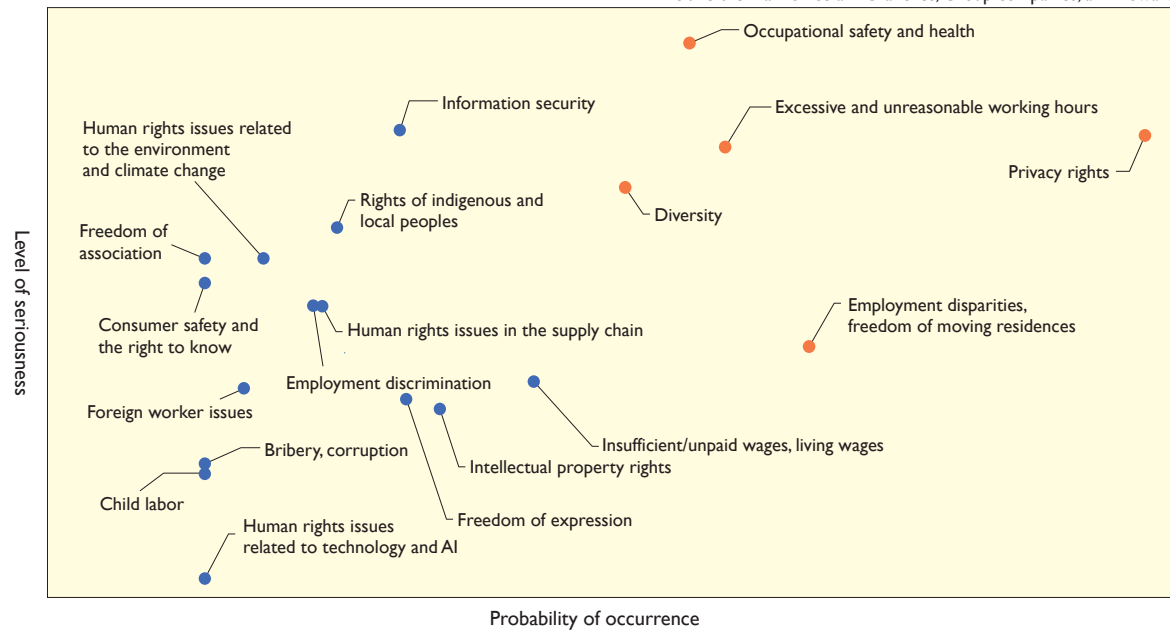
In addition, we will conduct human rights due diligence, monitoring and information disclosure, and establish remedy mechanisms. Furthermore, in light of changes in the business environment and other factors, risks will be identified on a regular basis, and assessments and material issues will be reviewed periodically to work for respect for human rights and the realization of sustainable business operations.

● Overall picture of human rights due diligence



● Takasago Thermal Engineering Group human rights risk map (FY2022: Results of implementation at head office)

In 2023, it is planned to update the risk map by expanding it to include the main office and branches, Group companies, and Kowakai



Special Feature

## Takasago Thermal Engineering Group's Diversity Promotion

In April 2021, the Takasago Thermal Engineering Group established the Diversity Promotion Subcommittee, a cross-sectoral organization across the entire Takasago Thermal Engineering Group. Activities are divided into six workshops: women, recruitment of mid-career professionals, international human resources, people with disabilities, LGBTQ+ people, and senior citizen employees. Each of the workshops is implementing various initiatives, which are introduced here.

### Workshop on women's workplace participation

#### Pre-meeting for company-wide women's event

This year, which marks the 100th anniversary of our founding, we will hold the TakasaGo! Woman Pride 2023 event (hereinafter referred to as "TWP"). TWP is an event that brings together all of our female employees for the purpose of promoting women's workplace participation. A pre-meeting was held on Tuesday, November 22, 2022, in preparation for TWP.

At the beginning of the pre-meeting, President Kojima explained that the "promotion of women's workplace participation is very important and indispensable for diversity management." Following this, female employee representatives from the company head office, main office, and branches engaged in enthusiastic discussions on the themes of "issues that the company should solve" and "issues and risks in our company for which women can make contributions."

Participant comments included that they were able to "recognize the importance to the company of proactively promoting diversity and inclusion," and that they had a "meaningful time discussing the company's issues in-person." The event was also effective as an opportunity for new networking among women that transcended the boundaries of offices, branches, and age groups.





## Workshop on people with disabilities

### Training at the Asu Challe! Academy (Challenge for Tomorrow! Academy) - Lecture on Reasonable Consideration

We attended the Asu Challe! Academy (Challenge for Tomorrow! Academy) - Lecture on Reasonable Consideration, which is a training program on taking into account reasonable care toward people with disabilities. This program is run by the Nippon Foundation Parasports Support Center.

In this lecture on the reasonable consideration, we learned about people with disabilities, the importance of empathy and acknowledging their differences, and the concept of a cohesive society where everyone can live easily and comfortably. We also learned about working together with people with disabilities and becoming aware of how to provide better service to a diverse range of customers.

We invited the current para-athlete Eri Yamamoto as a lecturer for this training program, which was held both in person and online and attended by about 90 employees.

Several employees with hearing disabilities also took part in the program, and with the use of a speech-to-text application and assistance from a sign language interpreter, we were able to effectively run the training.

It was a productive program in which the participants learned about how becoming aware of the little things and showing consideration in various situations is precisely what reasonable consideration is, and that practicing reasonable consideration is how we can create a cohesive society.



Lecturer introduction Eri Yamamoto

Affiliation: The Nippon Foundation Parasports Support Center  
Birthday: May 17, 1983

Current para-powerlifter. Wheelchair user due to congenital spina bifida. As an employee of the Nippon Foundation Parasports Support Center, she is in charge of developing educational and training programs on the subject of para sports in order to balance work and competition. She also speaks as a lecturer. She specializes in giving lectures that promote positivity and vitality for everyone by turning differences caused by disabilities into strengths, which she learned through her experience studying abroad at a graduate school in Canada.

## Workshop on workplace participation by senior citizen employees

### Participation and recognition of senior employees: President's Commendation Award for FY2022

Starting with his work on the construction of the first facility in the Shinjuku Subcenter Development Project, since joining the company, Mr. Aoki has been working entirely on construction management projects in the Shinjuku area. In addition to building relations of trust with customers and contributing to the company's business results over many years, Mr. Aoki has a strong sense of mission as a senior employee, and he has been earnestly teaching and guiding his successors not only in the company, but also temporary workers from staffing agencies and employees from partner companies. These efforts have made Mr. Aoki a model senior employee who is actively participating in the company.

We will continue to encourage the active participation of senior employees, so that they can demonstrate their high level of technical skills and capabilities, and pass them on to the next generation.



Koji Aoki

Section 3 of the Technical Engineering Division 3, Tokyo Main Office  
Year of joining the company: 1973 (Years of continued service: 50)  
\*Affiliation and position as of January 2023.

## Workshop on international human resources

### Global talent exchange meeting

In February 2023, our international human resources (from China, Thailand, Taiwan, Malaysia, Vietnam, Myanmar, and Saudi Arabia) gathered together for the first time and held an exchange meeting.

Active discussions were held under the theme of "Enabling global talent to play active roles." In addition, after the passionate discussions, a buffet-style reception was held, which provided a good opportunity for the participants to share daily thoughts and network with colleagues who they are rarely able to meet in an informal atmosphere.



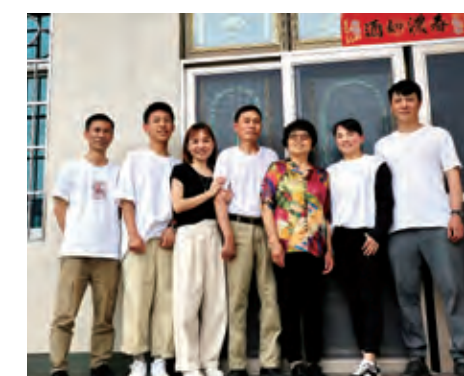
## Utilization of the home-leave holiday system

### Ruan Jie, Kanto-Koshinetsu Branch

I utilized the home-leave holiday system newly established this fiscal year to temporarily return to my home country. It was my first time back home in three and a half years, and I was able to spend precious time with my family and friends. My father picked me up at the airport despite his advanced age of 71. He had lost some weight since three and a half years earlier. He waved to me in front of the customs gate at the airport, and I was overjoyed to see his cheerful smile. When I arrived home, my mother had already cooked many of my favorite dishes. I was relieved to see that my mother, who practices tai chi every day, seemed to be in good health. Later, all my relatives gathered around a round table to chat while eating delicious food.

During my holiday, I was also able to visit my old alma maters (junior high school, high school, and university). At a dinner party planned by my teacher (who had studied abroad in Japan) and a friend from my university days, we had a fun, passionate discussion about everything from memories of university to our future.

This home-leave holiday was very useful for me to relieve the fatigue of daily life and to refresh my body and soul. I was also able to take care of my parents and strengthen the bonds with my relatives and friends. In particular, I will never forget how happy my parents were. It was a very meaningful holiday that had many positive effects on me after moving away from my home country and not being able to return for three and a half years due to the COVID-19 pandemic. I realized that the holiday enabled me to perform more efficiently and creatively at work. I believe that the establishment of the home-leave holiday system will help us to attract more global talent in the future.





## LGBTQ+ workshop

### Ally stickers & PC wallpaper distributed to all employees

In order to support LGBTQ+ people, who are sexual minorities, and increase the number of allies, we distributed ally stickers to all employees and also sent them wallpaper art to use on their computers. The stickers are used by many employees who resonate

with and support encouragement to promote understanding of LGBTQ+ people and eliminate discrimination.



### Implementation of LGBTQ+ internal training

#### LGBTQ+ in the Workplace

-Aiming for a Workplace Where Everyone Can Work Freely and Fully- In December 2022, we invited lecturers from the certified specified nonprofit organization ReBit to conduct training on how to encourage a better understanding of LGBTQ+ people and how to respond when an employee comes out. This training was for the Human Resources Development Division and Management Division, which are assumed to be the divisions handling the hiring of employees and opportunities for LGBTQ+ people to come out.

The participants learned about the importance of initiatives to encourage a better understanding of LGBTQ+ people both within and outside the workplace. The training focused on basic knowledge of the four elements of sexuality (gender identity, biological gender, sexual orientation, sexual expression) and SOGI harassment (discriminatory speech and actions and ridicule in relation to sexual orientation and gender identity, and harassing behavior), with the major theme of how to respect the sexuality of all people as a human right.

### Participation in the Tokyo Rainbow Pride parade

On Sunday, April 23, our company participated in Tokyo Rainbow Pride 2023, an LGBTQ+-related event held in Yoyogi Park. On stage in the morning, ambassadors and diplomats from various countries gave messages on the current LGBTQ+ situation in Japan, which made us realize that Japan's understanding and support of LGBTQ+ people is lagging behind. The event venue had many companies exhibiting with booths and we learned a lot about the activities of other companies, which will be very helpful to us in our future activities.



## Workshop on recruitment of mid-career professionals

### Gathering opinions and suggestions for consideration of work style reform

We conducted a questionnaire to ask mid-career professional hires to propose specific measures to promote reforms in our company's work styles by making use of their diverse experiences, and to encourage them to play active roles in our company. The questionnaire gathered issues and suggestions for improvement for each of the themes of "work environment," "performance of assigned duties," and "our company's organizational culture." In addition, because mid-career professional hires, unlike new

graduate hires, do not have peers who entered the company all at the same time, we will hold an event for interested participants in FY2023 as an opportunity for them to network.

Through this event, we plan to have the participants directly discuss each other's concerns and career development at our company, as well as about an environment in which mid-career professional hires can thrive even more.

## Social Contribution Activities and Harmony with Society

### Lecture at a commercial high school

In July 2023, one of our employees gave a lecture entitled "Achieving Your Dreams: Advice from a Senior Certified Public Accountant" held by a commercial high school in Miyagi Prefecture.

This lecture was planned to motivate students to study bookkeeping and to encourage them to try taking the certification examination. 113 first-year high school students attended the lecture.

Students asked our employee, who is a certified public accountant, numerous questions such as "Why did you want to become an accountant?", "How can I maintain motivation when studying for the certification exam?" and "What is some advice on how to effectively study?"

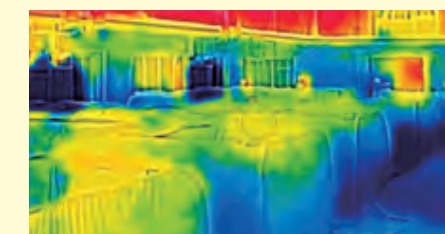
The organizing high school reported that the passing rate of the subsequent bookkeeping examination exceeded that of the previous year, and it seemed that the lecture played a certain role for the students.



### Air conditioning and ventilation system for gyms offering safety, comfort, and infection control

We are developing an air conditioning and ventilation system for gyms that combines measures against heatstroke, cold, and infections that can be used not only for normal gyms but also for when gyms are used as evacuation centers.

The heat of summer and the cold of winter have become increasingly severe in recent years. The environment inside gyms, especially in the intense summer heat, poses a risk of heatstroke not only for participants in competitions and events, but also for visitors. In addition, for the use of gyms as evacuation centers, besides the heat and cold, there are also other issues to be addressed such as ventilation and ensuring privacy. Given the wide age range of evacuees, it is important to have a ventilation system that covers the entire gym to prevent the spread of viruses and other infections. The need to ensure safety even in densely-populated spaces is a pressing issue. Through demonstration testing, we will work to market the system and contribute to environmental improvements in municipalities and private athletic facilities.



### Industry-academic cooperation activities with Tohoku University

Tohoku University's School of Engineering held lessons called "Science Campus," in which our company took the stage. It is a hands-on learning experience of manufacturing and scientific experiments for elementary through high school students. It can be called an ESG activity of industry-academia collaboration as well as local community cooperation.

Our lesson for fifth-year elementary students through second-year junior high school students had them think about hydrogen technology and lifestyle on the Moon with the theme of "Fly from Earth to Outer Space! Let's Explore the Treasures of the Moon."

It was a very encouraging day for us to see the earnest efforts of the participants, who are potential future stakeholders.





## Enhancement of Corporate Governance

We regard strengthening of corporate governance as one of the material management issues and work to achieve sustainable growth and medium- and long-term improvement of corporate value through enforcing effective corporate governance.

### Basic approach

Our basic policy of corporate governance is to ensure the legality, transparency, and swiftness of management and to improve management efficiency in order to earn the trust of society and increase our corporate value over the medium and long term.

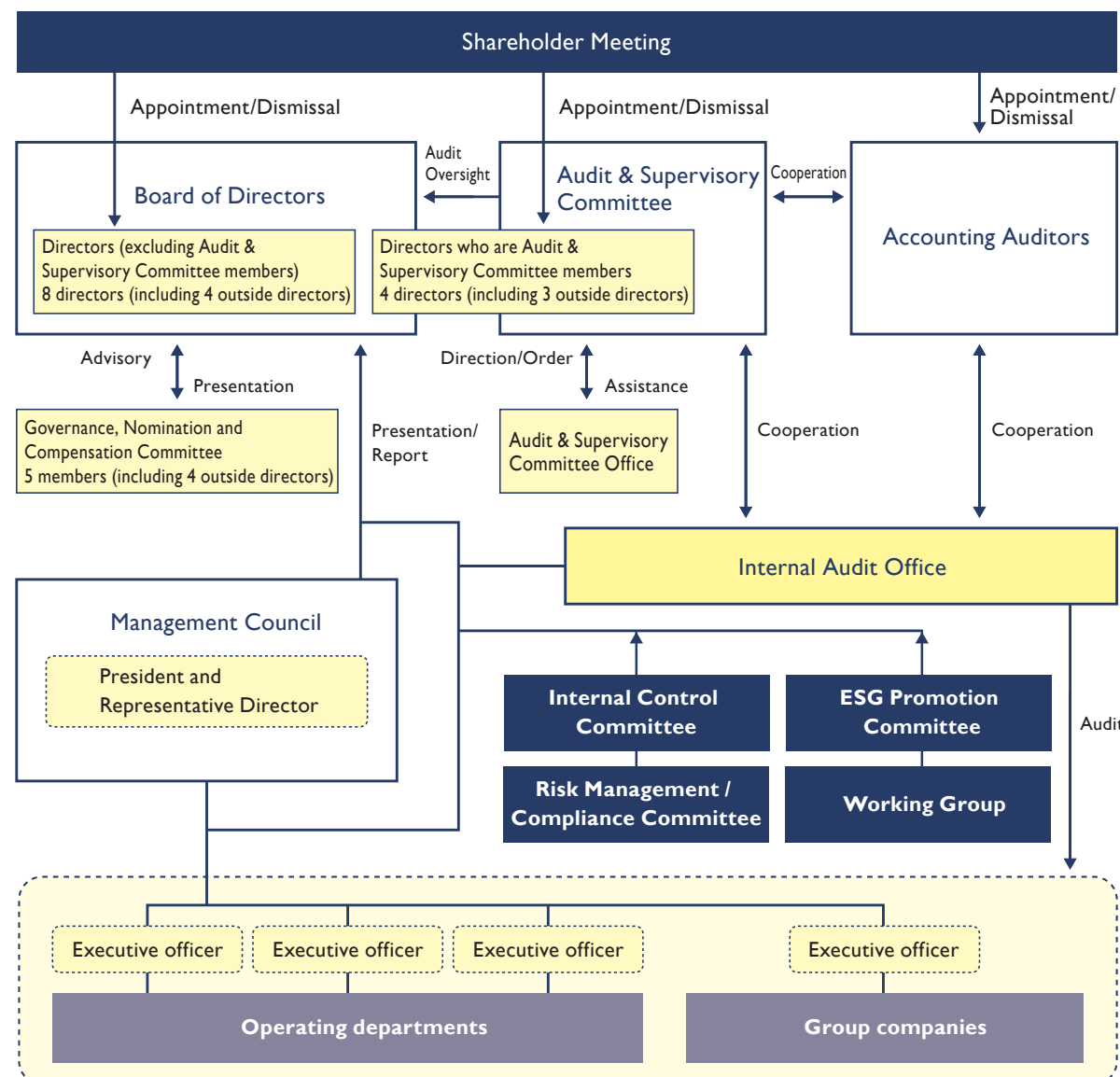
Through our corporate activities based on our Purpose of “With our revolutionary environmental innovations, we activate the Earth’s future,” we are committed to securing the trust of society by positioning ESG and CSR management at our core to contribute to our stakeholders, including shareholders, employees, customers, partner companies, and local communities.

### Corporate governance system

Takasago Thermal Engineering became a company with an Audit & Supervisory Committee at the end of the 143rd Ordinary General Meeting of Shareholders held on June 23, 2023, in which it obtained the approval of shareholders. The purpose of this change is to further enhance corporate governance by accelerating decision-

making, enhancing discussion of management policies at the Board of Directors meetings, and strengthening the supervisory function for management of the Board of Directors. We have adjusted the number of directors and shortened their term, which is one year at present, and also introduced an executive officer system to clarify

#### ● Corporate governance system



management decision-making and supervisory functions as well as business execution functions for prompt and flexible management.

The Board of Directors currently consists of 12 members (including seven outside directors) and its meeting is held once a month in principle and on an as-needed basis. At the meetings, the Board of Directors passes resolutions on the matters specified by laws and the articles of incorporation as well as important matters based on the Board of Directors Regulations and supervised the execution of duties by the directors.

Outside directors strive to fulfill their expected roles, such as by providing helpful observations and opinions at meetings of the Board of Directors and other meetings from objective, professional viewpoints independent of the execution of business operations.

The Board of Directors works to improve management efficiency and ensure the legality and adequacy of business execution by making important business decisions and supervising the directors’ execution of duties. Furthermore, the Company has concluded a liability limitation agreement with the seven outside directors to limit their liabilities for damages to the aggregated amount set out in each item of Article 425, Paragraph 1 of the Companies Act, concerning the liabilities under Article 423, Paragraph 1 of the Companies Act, if gross negligence has not been committed and they perform their duties in good faith.

The Audit & Supervisory Committee currently comprises four members (including three outside directors), and meets once a month in principle and on an as-needed basis. The Committee supervises the directors’ execution of duties, including reporting audit results to the Board of Directors.

We have also established the Management Council, composed of directors excluding outside directors, to enhance deliberation on important matters concerning management and make prompter decisions on the allocation of management resources. In addition, the Internal Control Committee, chaired by the President and composed of directors excluding outside directors, has been established to promote the improvement and operation of the internal control system of the Company and its corporate group in a cross-sectoral manner. The Committee discusses development of the internal

control system of the Group and revision/abolition of the basic policy for the internal control system based on the status of its development, passes a resolution for revision/abolition of the rules for escalation to the Board of Directors, for the Internal Control Committee as well as organizations for compliance promotion and risk management of the Group and for compliance and risk management of the Company, passes a resolution for the annual activities policy for compliance and risk management of the Company, and reports to the Board of Directors. In addition, from the perspective of strengthening our response to ESG issues, we have established the ESG Promotion Committee, chaired by the President and composed of directors excluding outside directors, which deliberates and makes resolutions on policies on sustainability issues, and presents and reports to the Board of Directors.

In addition, we have voluntarily established the Governance, Nomination and Compensation Committee, consisting of a majority of independent outside directors and chaired by an independent outside director, as an advisory body for the Board of Directors. The Committee deliberates on the appointment, reappointment, and dismissal of directors and executive officers of the Company as well as representative directors and auditors of affiliates (excluding affiliates of minor importance to the Company), provides recommendations to the Board of Directors (except on the appointment and reappointment of directors who are Company Audit & Supervisory Committee members, which require the consent of the Company Audit & Supervisory Committee), and deliberate on the compensation of directors (excluding directors who are Audit & Supervisory Committee members) and executive officers of the Company and representative directors of affiliates. Moreover, the Committee implements analysis and assessment of the effectiveness of the Board of Directors, and confirms the formulation policy and progress of the Succession Plan for the President and Representative Director, which is formulated by the President and Representative Director. The names of the members of the above structure are shown in the diagram below.

In addition to the members, accounting auditors and the Internal Audit Office coordinate together to enhance corporate governance by conducting effective audits.

#### ● Organizations and their members

Title	Name	Board of Directors	Management Council	Audit & Supervisory Committee	Governance, Nomination and Compensation Committee	Internal Control Committee	ESG Promotion Committee
President and Representative Director	Kazuhiro Kojima	○	◎		○	◎	◎
Director and Managing Executive Officer	Tadashi Kamiya	○	○			○	○
Director and Managing Executive Officer, CDXO	Toshikazu Yokote	○	○			○	○
Director and Managing Executive Officer	Hiroshi Kubota	○	○			○	○
Outside Director	Shuma Uchino	◎			○		
Outside Director	Atsushi Takagi	○			◎		
Outside Director	Yoko Seki	○			○		
Outside Director	Hideka Morimoto	○			○		
Full-time Audit & Supervisory Committee member	Masato Nakamura			◎			
Outside Audit & Supervisory Committee member	Kazuo Sakakibara			○			
Outside Audit & Supervisory Committee member	Hiroyuki Hioka			○			
Outside Audit & Supervisory Committee member	Hiroyuki Wakamatsu			○			

○ : Member of the organization ◎ : Head of the organization

## Audit & Supervisory Committee

The Company's Audit & Supervisory Committee is composed of four directors, including three outside directors. The three outside directors in the Committee are a lawyer, certified public accountant, and person with experience in corporate management. They all obtain and provide information from an independent standpoint, and strive to monitor circumstances from an outside perspective. In addition, one full-time Audit & Supervisory Committee member is appointed to attend important meetings other than meetings of the Board of Directors, collaborate with major internal departments, and share information obtained through these activities with all Audit & Supervisory Committee members in order to enhance the effectiveness of the Committee's activities. The Audit & Supervisory Committee conducts audits in accordance with the audit plan. It also strives to monitor the execution of duties by the directors through coordination with accounting auditors and the Internal Audit Office.

## Internal Audits

With regard to internal audits, the Internal Audit Office (with 10 staff members) has been established as a section under the direct control of the President. It conducts systematic audits on the appropriateness and efficiency of business operations from an independent standpoint based on the Internal Audit Regulations. It also evaluates the improvement and operational status of internal control concerning the financial reporting of the Company and important consolidated subsidiaries.

The Internal Audit Office reports the results of audits directly to the President and Representative Director, and also checks the measures needed for improvement as well as the status of implementation of those measures. It also reports directly to the Board of Directors and the Audit & Supervisory Committee as necessary. In order to ensure mutual cooperation with the Audit & Supervisory Committee and the accounting auditors, the Office attends regular meetings of the three parties to confirm the progress of audit operations and share audit results, thereby striving to conduct effective internal audits.

## Accounting Auditors

The accounting auditing for us is performed by two certified public accountants from KPMG AZSA LLC.

Employees responsible for auditing are rotated appropriately, engaging in the job up to seven consecutive fiscal years. They are supported by seven certified public accountants and 16 others.

## Succession Plan for the President and Representative Director

In order to ensure the transparency and objectivity of succession by the President and Representative Director to the successor, the Succession Plan for the President and Representative Director is reported to the Governance, Nomination and Compensation Committee on the successor's education policy, training plan, and plan progress, and the Committee deliberates on the plan. The President and Representative Director proposes to the Governance, Nomination and Compensation Committee the most suitable candidate to replace him or her, and the Committee deliberates on the matter and reports the results of its deliberation to the Board of Directors.

## Analysis and evaluation of the effectiveness of the Board of Directors as a whole

We evaluate the effectiveness of the Board of Directors annually based on the self-evaluation of each director and Audit & Supervisory Committee member to secure the efficacy and effectiveness of the Board.

Each of the directors and Audit & Supervisory Committee members performs a self-evaluation based on the "Self-Evaluation Sheet," and the results are analyzed and evaluated by the Board of Directors after being discussed by Representative Directors and outside officers.

The FY2022 summary results of this analysis and evaluation are shown as follows, and we believe that the efficacy and effectiveness of the entire Board of Directors are secured. Given the results, we will work to further improve the supervisory and decision-making functions of the Board.

- As a result of promoting more in-depth discussions at the meetings of the Management Council and the Internal Control Committee and the ESG Promotion Committee, which are organized under the Board of Directors, it was confirmed that the appropriate development of highly effective oversight and risk management systems, which is one of the responsibilities of the Board of Directors, has been conducted on a continuous basis.

- It was confirmed that active discussions and full and multifaceted reviews were conducted at the Board of Directors meetings, showing that the Board was vitalized. In addition, there was an opinion that authority should be further transferred to the Management Council and elsewhere, and that the Board of Directors should strengthen its monitoring function of the execution of duties, while concentrating on the agenda items related to the medium- to long-term management direction, succession plan, and internal control system to further enhance multifaceted discussions.

- In addition, the outside directors' attendance at meetings and visits to branches have increased opportunities for dialogue with employees, and an opinion was expressed that opportunities and occasions for information sharing between internal and outside directors should be further expanded going forward to further invigorate mutual exchanges of views.

## Policy for the training of directors and Audit & Supervisory Committee members

We believe that matters required of directors mainly consist of matters unique to Takasago Thermal Engineering such as necessary knowledge of our businesses, finance, and organization, and general knowledge such as the roles required of directors and their legal and other responsibilities.

Executive directors work to gain a better understanding of general matters, such as our businesses, finance and organization, through discussions at the Management Issue Review Committee every year. Executive directors and inside directors who are Audit & Supervisory Committee members strive to understand the roles and responsibilities required of directors and directors who are Audit & Supervisory Committee members, by

## Remuneration of executives

As to the remuneration of directors (excluding directors who are Audit & Supervisory Committee members) as well as directors who are Audit & Supervisory Committee members, we set the upper limit for the total amount of the remuneration, etc. of all the directors (excluding directors who are Audit & Supervisory Committee members) and directors who are Audit & Supervisory Committee members by resolution at a shareholders' meeting.

To enhance the independence, objectivity, and transparency of the remuneration of executives, we established the Governance, Nomination and Compensation Committee as a voluntary advisory body consisting of Representative Directors, the Chairman and Director, the President and Director, the Vice President and Director, and independent outside directors (excluding directors who are Audit & Supervisory Committee members). After discussions at the Committee, we determine the remuneration of directors (excluding directors who are Audit & Supervisory Committee members) based on a

## Actions and improvement measures to be taken based on the self-evaluation results

(evaluation implemented in March 2023)

### 1. Composition of the Board of Directors

We have increased the ratio of outside directors, and will continue to work to ensure diversity and strengthen management oversight functions.

### 2. Responsibilities of the Board of Directors

The "items for consideration" provisions at the Board of Directors meetings shall be used to enhance discussion of our management direction.

### 3. Training of directors and Audit & Supervisory Committee members

We will continue to hold group training sessions on themes that contribute to enhancing corporate value.

### 4. Operation of the Board of Directors

- We will run a disciplined meeting by clarifying discussion points as ever.
- To clarify points for the discussion, we will work again to ensure the preparation and explanation of materials and recommend the attachment of an executive summary, etc. depending on the subject of the discussion.

participating in training by external experts.

We provide an explanation of matters such as our businesses, finance, and organization to outside directors when they assume their posts and as required, to facilitate the acquisition of knowledge required of our outside directors. As such, we develop an environment for them to fulfill their roles.

In addition, we provide opportunities and services and pay the necessary expenses to acquire and properly update the knowledge required of each director. The Board of Directors regularly checks progress in the training of executive directors and inside directors who are Audit & Supervisory Committee members.

resolution of the Board of Directors. The majority of the Committee is composed of independent outside directors. At the time of submission of this report, the Governance, Nomination and Compensation Committee consists of five members, four of whom are independent outside directors.

The remuneration of directors (excluding directors who are Audit & Supervisory Committee members) consists of basic remuneration, a bonus as a short-term (annual) incentive, and a stock-based compensation plan (executive remuneration BIP trust) as a medium- to long-term incentive. The composition is set in consideration of the relevant policy.

It is our policy that as one rises in rank, the proportion of basic remuneration decreases, while the proportion of the bonus and stock-based compensation plan (executive remuneration BIP trust) increases. As for the standard payment basis for representative directors, the ratio of basic remuneration, bonus, and stock-based compensation plan (executive remuneration BIP trust) will be 60%:20%:20%.



Independent outside directors receive only basic remuneration, and there is no bonus or stock-based compensation plan (executive remuneration BIP trust).

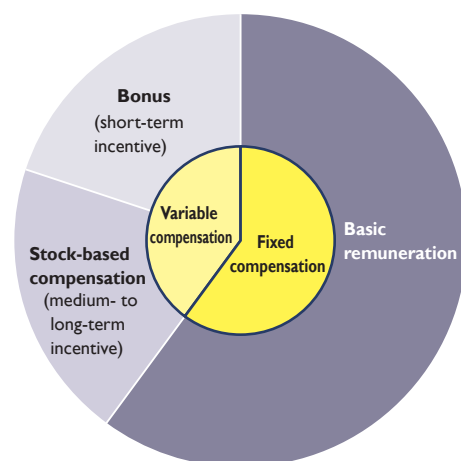
The basic remuneration is determined as a fixed amount according to the position of each of the directors (excluding directors who are Audit & Supervisory Committee members), and is paid each month.

For the amount of the bonus, on April 1, 2019, we introduced a new mechanism with the aim of increasing the motivation of directors to achieve their single-year performance targets and other goals. In this mechanism, the bonus amount changes by 50–150% from the basic amount for each position based on the performance in the previous fiscal year (net income attributable to parent company's shareholders from the perspective of performance sharing with shareholders, rate of return on consolidated sales from the perspective of profitability, and consolidated net sales from the perspective of sustainable growth of the Group) and qualitative assessment of the individual executives (degree of achievement of the goal for each person, training of successors, improvement of corporate value, commitment to SDGs, vitalization of the Board of Directors, and compliance). The bonus is paid at a certain time each year.

The amount of bonus to be paid to each individual director (excluding directors who are Audit & Supervisory Committee members) for the fiscal year concerned is determined by comprehensively taking into consideration the performance, duties, and level of contribution of each individual.

In addition, the stock-based compensation plan (executive remuneration BIP trust) aims to further enhance motivation to contribute to the improvement of medium- to long-term performance and corporate value. In June of each year, the Company grants points, which are calculated by multiplying predetermined base points based on the position of the director by a performance-linked coefficient that varies according to the degree of achievement of performance indicator targets for the fiscal year ending on March 31 of the same fiscal year. Shares of our company that are equivalent to the total points are issued at the time of resignation. The performance-linked coefficient is designed to fluctuate

● **Image of the composition of the remuneration of directors (excluding directors who are Audit & Supervisory Committee members)**



within a range of 0–150% depending on the degree of achievement of financial indicators (consolidated net sales, consolidated ordinary income, consolidated ROE, etc.) and non-financial indicators (CO<sub>2</sub> emissions, etc.) for each fiscal year.

Number of points granted = Base amount of stock-based compensation by position / Average acquisition price of the Company's shares<sup>\*1</sup> × Performance-linked coefficient for financial indicators<sup>\*2</sup> × Performance-linked coefficient for non-financial indicators<sup>\*3</sup>

\*1 Average acquisition unit price of shares of the Company through a trust. If the trust period is extended, the average acquisition price of shares of the Company acquired through the trust after the extension.

\*2 Performance-linked coefficient of financial indicators = Consolidated sales coefficient × 30% + Consolidated ordinary income coefficient × 60% + Consolidated ROE coefficient × 10%

\*3 CO<sub>2</sub> emissions are used for the non-financial indicator.

The remuneration of executive officers also consists of basic remuneration, a bonus as a short-term (annual) incentive, and a stock-based compensation plan (executive remuneration BIP trust) as a medium- to long-term incentive as in the case of directors (excluding directors who are Audit & Supervisory Committee members). The levels are decided by resolution of the Board of Directors after deliberations in the Governance, Nomination and Compensation Committee.

The directors (excluding independent outside directors) and executive officers make efforts to acquire our shares by voluntary contribution through the Official Shareholding Association.

Remuneration, etc. of directors who are Audit & Supervisory Committee members is basic remuneration only, and the amount of the basic remuneration of each director who is an Audit & Supervisory Committee member is decided through consultation with directors who are Audit & Supervisory Committee members based on the comprehensive examination of the content, volume and difficulty of his/her duties, the degree of responsibility, etc. In view of their duties, etc., directors who are Audit & Supervisory Committee members receive no bonus or stock-based compensation.

● **Total remuneration, etc. by executive category, the total amount of each type of remuneration, and the number of eligible executives**

(FY2022: April 1, 2022 to March 31, 2023)

Category	Total amount of remuneration, etc. (million yen)	Number of eligible executives (persons)
Directors (except for outside directors)	306	6
Outside Directors	70	7
Audit & Supervisory Committee members (except for outside Audit & Supervisory Committee members)	54	3
Outside Audit & Supervisory Committee members	39	4
Total	471	20

## Policy for constructive dialogue with shareholders

We believe that listening to shareholders and taking proper measures lead to sustainable growth and medium- and long-term improvement in corporate value. Therefore, we are committed to building a constructive relationship with shareholders through dialogue with them and the disclosure of materials.

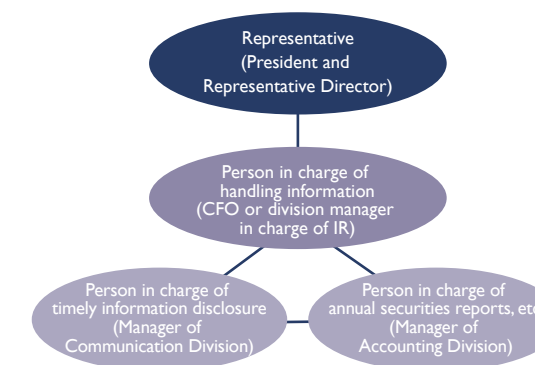
Our policy on constructive dialogue with shareholders is as mentioned below.

- (1) We appoint the Representative Director as the person who controls the dialogue, the CFO or division manager in charge of IR as the person in charge of handling the information, the Manager of the Communication Division as the person in charge of timely disclosure, and the Manager of the Accounting Division as the person in charge of annual securities reports, etc. (the structure is shown in the schematic diagram of an overview of the system for timely disclosure later in this page).
- (2) The members mentioned above share information and issues on a daily basis through regular meetings and other opportunities for the promotion of coordination while making efforts to take appropriate actions.
- (3) In addition to biannual financial results briefing sessions, we plan and organize opportunities for dialogue such as briefing sessions for investors on an as-needed basis. We also participate in external events for investors.
- (4) Directors and senior executives will obtain information directly through attendance at briefing sessions for investors, development of analyst reports, and other channels and receive reports from responsible sections regularly and when necessary.
- (5) In order to prevent insider trading, we strictly adhere to the Insider Trading Management Rules, which stipulate regulations concerning matters such as compliance with the Financial Instruments and Exchange Act and other related laws as well as the management of internal information. When we have dialogue, we try to manage the information in a way to avoid being suspected of giving any insider information while disclosing information not selectively but fairly. We set the period from the following day of the end of the settlement term (quarterly and full-year) to the date of the announcement of financial statements as a “period of silence.” In the meantime, we obtain knowledge on the prevention of insider trading and give education to update the knowledge.

## Outline of the timely disclosure system

Our internal system for the timely disclosure of corporate information is described below.

● **Schematic diagram of an overview of the system for timely disclosure**



- (1) The representative and the person in charge of handling the information endeavor to ensure the timeliness, legitimacy, accuracy, and fairness of the information to be disclosed. The information is discussed and reported at the Management Council and Board of Directors meetings as necessary.
- (2) The person in charge of timely information disclosure complies with the Timely Disclosure Rules and relevant laws on a daily basis and also collects information from related sections in a prompt and comprehensive manner for the execution of his/her duties. He/she also makes efforts to prepare proper disclosure materials and enhance the disclosure such as investigation of cases of information disclosure in other companies.
- (3) The Audit & Supervisory Committee and accounting auditors provide advice and instructions on information disclosure to us in addition to periodical audits. We also seek opinions from third-party experts, etc. when necessary.
- (4) We have established the Insider Trading Management Rules and the Disclosure Policy (Information Disclosure Rules) as internal rules, as well as the Group Corporate Code of Ethics, which mentions that they must be strictly followed to prevent insider tradings and follow Fair Disclosure Rules including group companies.



Financial results briefing session

## Directors (excluding directors who are Audit &amp; Supervisory Committee members): 8 persons



Attendance at Board of Directors meetings  
100% (12 out of 12 meetings)

President and Representative Director  
Kazuhito Kojima

April 1984 Joined the Company  
April 2015 Administration Officer; Branch General Manager, Yokohama Branch, East Japan Headquarters  
April 2017 Executive Officer  
April 2018 Branch General Manager, Osaka Branch  
April 2019 Group General Manager, Management Strategy Headquarters  
June 2019 Director and Executive Officer  
April 2020 President and Representative Director, COO  
In charge of work style reform, and Global Business Planning Headquarters  
April 2021 In charge of Global Business Planning Headquarters, and Research & Development Headquarters  
April 2022 In charge of Global Business Planning Headquarters, Research & Development Headquarters, and Finance & Investor Relations Department  
June 2023 President and Representative Director (current)

**Reason for selection as an officer** >> Through the execution of the air conditioning equipment business, Kazuhito Kojima has gained abundant experience and deep insight in the design/construction of building equipment relating to the Group's businesses. He has also fulfilled his executive responsibilities through the development of the Group's medium-term/annual business plans and through structural reforms and ESG/SDG-conscious corporate planning operations. We believe that, as President, he can be expected to achieve the Group's sustainable growth as well as medium and long-term improvement in corporate value and to revitalize and strengthen the functions of the Board of Directors.



Attendance at Board of Directors meetings  
100% (12 out of 12 meetings)

Director and Managing Executive Officer  
Chief Executive Officer of Technical Engineering Headquarters  
In charge of Business Strategy Management Department, and Group Companies Management  
Tadashi Kamiya

April 1986 Joined the Company  
April 2016 Administration Officer; General Manager, Engineering Division, Engineering Headquarters  
April 2018 Executive Officer  
April 2019 Deputy Group General Manager, Business Management Headquarters  
In charge of work style reform  
June 2019 Director and Executive Officer  
April 2020 Director and Managing Executive Officer (current)  
In charge of Quality, Environment & Safety Control, Japanese Group Companies, and Business Management Headquarters  
April 2021 Group General Manager of Business Management Headquarters  
In charge of Quality, Environment & Safety Control, Total Engineering, Group Companies, and Sales & Marketing Headquarters  
June 2022 Group General Manager of Business Management Headquarters  
In charge of Quality, Environment & Safety Control, Total Engineering, and Group Companies  
April 2023 Chief Executive Officer of Technical Engineering Headquarters  
In charge of Group Companies Management, and Business Strategy Management Department (current)

**Reason for selection as an officer** >> Through the execution of the air conditioning equipment business, Tadashi Kamiya has gained abundant experience and deep insight in the design/construction of building equipment relating to the Group's businesses. He has also fulfilled his executive responsibilities through business management and productivity improvement in the air conditioning equipment business. We believe that, as a director in charge of business management and business strategy, he can be expected to achieve the Group's sustainable growth as well as medium and long-term improvement in corporate value and to revitalize and strengthen the functions of the Board of Directors.



Attendance at Board of Directors meetings  
100% (10 out of 10 meetings)

Chairperson of the Board  
Outside Director  
Shuma Uchino

April 1978 Joined Mitsubishi Corporation  
April 2009 Executive Officer, Mitsubishi Corporation (Managing Executive Officer, Mitsubishi Motors Corporation)  
July 2010 Executive Officer; General Manager, Corporate Accounting Department, Mitsubishi Corporation  
November 2010 Executive Officer; General Manager, Corporate Accounting Department; Assistant to Chief Financial Officer, Mitsubishi Corporation  
April 2013 Executive Vice President; Chief Financial Officer (CFO), Mitsubishi Corporation  
June 2013 Representative Director and Executive Vice President; Chief Financial Officer (CFO), Mitsubishi Corporation  
April 2016 Representative Director, Mitsubishi Corporation  
June 2016 Advisor, Mitsubishi Corporation  
June 2018 Outside Director, the Company (resigned in June 2018)  
June 2018 Senior Audit & Supervisory Board Member (full time), Mitsubishi Corporation  
June 2019 Full-time Audit & Supervisory Board Member, Mitsubishi Corporation  
June 2022 Outside Director (Audit and Supervisory Committee Member), Digital Garage, Inc. (current)  
Outside Director, the Company (current)

**Significant concurrent positions**  
Outside Director (Audit and Supervisory Committee Member), Digital Garage, Inc.

**Reason for selection as an officer** >> Shuma Uchino has abundant experience and insight as a representative director and CFO of a general trading company. We expect that he can supervise and check business management from an independent perspective based on such experience and knowledge. We also expect that he can adequately perform his duty as an outside director given the reason mentioned above such as offering advice and opinions useful to our business management. Furthermore, as he is not from a parent company, a fellow subsidiary, a major shareholder or a major client or supplier of Takasago Thermal Engineering, we believe that there is no particular problem in terms of independence.



Attendance at Board of Directors meetings  
100% (10 out of 10 meetings)

Chairperson of the Governance,  
Nomination and Compensation Committee  
Outside Director  
Atsushi Takagi

April 1991 Joined Nomura Research Institute, Ltd.  
September 1997 Joined Morgan Stanley Japan, Ltd.  
December 2004 Managing Director, Morgan Stanley Japan, Ltd.  
October 2015 Deputy General Manager, Research Division, Morgan Stanley Japan, Ltd.  
November 2019 Representative Director, Infrastructure Research & Advisors Co., Ltd. (current)  
June 2020 Non-Executive Director, MAEDA CORPORATION (current)  
April 2021 Advisor, the Company  
October 2021 Outside Director; Chairperson of Compensation Committee, INFRONEER Holdings Inc. (current)  
June 2022 Outside Director, the Company (current)

**Significant concurrent positions**  
Representative Director, Infrastructure Research & Advisors Co., Ltd.  
Non-Executive Director, MAEDA CORPORATION  
Outside Director and Chairperson of Compensation Committee, INFRONEER Holdings Inc.

**Reason for selection as an officer** >> Atsushi Takagi has experience working as an analyst at security firms, considerable expertise regarding finance, and wide-ranging insight regarding the construction sector. We expect that he can supervise and check business management from an independent perspective based on such experience and knowledge. We also expect that he can adequately perform his duty as an outside director given the reason mentioned above such as offering advice and opinions useful to our business management. Furthermore, as he is not from a parent company, a fellow subsidiary, a major shareholder or a major client or supplier of Takasago Thermal Engineering, we believe that there is no particular problem in terms of independence.



Attendance at Board of Directors meetings  
100% (12 out of 12 meetings)

Director and Managing Executive Officer, CDXO  
In charge of Risk & Compliance, relevant Corporate Operation sector, and DX Management sector  
Toshikazu Yokote

April 1985 Joined the Company  
April 2017 Administration Officer; Branch General Manager, Hiroshima Branch  
April 2018 Executive Officer  
April 2019 Group General Manager, Corporate Operations Headquarters  
In charge of Compliance  
June 2019 Director and Executive Officer  
April 2020 Director and Managing Executive Officer  
In charge of Compliance, Corporate Operations Headquarters, and Business Innovation Headquarters  
December 2020 Director and Managing Executive Officer, CDXO (current)  
April 2021 In charge of Compliance, Corporate Operations Headquarters, and DX Management Headquarters  
April 2022 In charge of Risk & Compliance, Corporate Operations Headquarters, and DX Management Headquarters  
April 2023 In charge of Risk & Compliance, relevant Corporate Operation sector, and DX Management sector (current)

**Reason for selection as an officer** >> Through the execution of the air conditioning equipment business, Toshikazu Yokote has gained abundant experience and deep insight in the design/construction of building equipment relating to the Group's businesses. He has also fulfilled his executive responsibilities through the enhancement of the management foundation, as an officer in charge of human resources, general affairs, legal-related operations and DX promotion. We believe that, as a director in charge of Compliance including overall corporate management, he can be expected to achieve the Group's sustainable growth as well as medium and long-term improvement in corporate value and to revitalize and strengthen the functions of the Board of Directors.



Attendance at Board of Directors meetings  
100% (10 out of 10 meetings)

Director and Managing Executive Officer  
Chief Executive Officer of Sales & Marketing Headquarters  
Hiroshi Kubota

April 1985 Joined the Company  
April 2016 Administration Officer; General Manager, Sales & Marketing 1, Tokyo Main Office, East Japan Headquarters  
April 2017 Deputy General Manager, Tokyo Main Office  
April 2018 General Manager, Sales & Marketing Management Division, Business in Japan Headquarters  
April 2019 Executive Officer; General Manager, Sales & Marketing Management Division, Business Management Headquarters  
April 2020 Group General Manager, Sales & Marketing Headquarters  
April 2021 Managing Executive Officer  
June 2022 Director and Managing Executive Officer (current)  
Chief Executive Officer of Sales & Marketing Headquarters  
In charge of Sales & Marketing Headquarters  
April 2023 Chief Executive Officer of Sales & Marketing Headquarters (current)

**Reason for selection as an officer** >> Hiroshi Kubota has been involved in the sales sections for many years and currently serves as the Chief Executive Officer of the Sales & Marketing Headquarters, overseeing sales in the HVAC business. We believe that with this background, based on his excellent capabilities and insight and abundant experience, he has fulfilled his executive responsibilities through sales section management. We believe that, as Director and Managing Executive Officer, he can be expected to achieve the Group's sustainable growth as well as medium and long-term improvement in corporate value and to revitalize and strengthen the functions of the Board of Directors.



Attendance at Board of Directors meetings  
100% (12 out of 12 meetings)

Outside Director  
Yoko Seki

October 2002 Registered as attorney  
November 2002 Registered as certified public accountant  
December 2006 Joined Ginza Prime Law Office (current)  
April 2014 Professor at Kokushikan University (current)  
June 2019 Outside Director, the Company (current)

**Significant concurrent positions**  
Outside Corporate Auditor, TAIJU LIFE INSURANCE COMPANY LIMITED  
Supervisory Director, AEON REIT Investment Corporation

**Reason for selection as an officer** >> Yoko Seki has abundant experience and knowledge as a lawyer and certified public accountant, and we expect that she can supervise and check business management from an independent perspective on business execution based on such experience and knowledge. While she was not involved in corporate management by any other method than serving as outside officer, we believe that she can adequately perform her duty as an outside director given the reason mentioned above such as offering advice and opinions useful to our business management. Furthermore, as she is not from a parent company, a fellow subsidiary, a major shareholder or a major client or supplier of Takasago Thermal Engineering, we believe that there is no particular problem in terms of independence.



Attendance at Board of Directors meetings  
100% (12 out of 12 meetings)

Outside Director  
Hideka Morimoto

April 1981 Joined the Environment Agency (currently Ministry of Environment)  
August 2011 Councillor, Cabinet Secretariat and Director-General of the Task Force for the Reform of Nuclear Safety Regulations and Organizations, the Cabinet Secretariat  
September 2012 Deputy Secretary General, the Nuclear Regulation Agency  
July 2014 Director General, Ministry of Environment  
July 2017 Administrative Vice-Minister, Ministry of Environment  
July 2019 Advisor, Ministry of Environment  
April 2020 Professor at Waseda University, School of Law (current)  
Advisor, the Company  
June 2021 Outside Director, the Company (current)  
March 2022 Outside Director, INPEX CORPORATION (current)

**Significant concurrent positions**  
Outside Director, INPEX CORPORATION

**Reason for selection as an officer** >> Hideka Morimoto has abundant experience and knowledge of public administration and the environment, and we expect that he can supervise and check business management from an independent perspective on business execution based on such experience and knowledge. While he was not involved in corporate management by any other method than serving as outside officer, we believe that he can adequately perform his duty as an outside director given the reason mentioned above such as offering advice and opinions useful to our business management. Furthermore, as he is not from a parent company, a fellow subsidiary, a major shareholder or a major client or supplier of Takasago Thermal Engineering, we believe that there is no particular problem in terms of independence.



Directors who are Audit & Supervisory Committee members: 4 persons



Newly appointed

Full-time Audit & Supervisory Committee member  
**Masato Nakamura**

April 1984 Joined Mitsubishi Bank, Ltd. (currently MUFG Bank, Ltd.)  
 April 2011 Chief Executive Officer, Bank of Tokyo Mitsubishi UFJ (Malaysia) Berhad  
 November 2012 President, The Japanese Chamber of Trade and Industry, Malaysia (JACTIM)  
 March 2014 Joined the Company  
 January 2015 Administration Officer; General Manager, International Corporate Management Division, International Business Headquarters  
 April 2017 Executive Officer; Deputy Chief Officer, International Business Headquarters; General Manager, International Business Management Department; Head of International Business Planning Office  
 April 2020 General Manager, Corporate Planning Headquarters  
 October 2021 Managing Executive Officer  
 April 2023 Special Business Project Manager of Corporate Planning Division  
 June 2023 Director (Audit & Supervisory Committee member) (current)

**Reason for selection as an officer >>** Masato Nakamura has extensive experience and insight in finance, accounting, and international business from his work at financial institutions. Moreover, since joining the Company, in addition to his work experience in the sector responsible for international business, he has also fulfilled his executive responsibilities through the development of the Group's medium-term/annual business plans and through structural reforms and ESG/SDG-conscious corporate planning operations. By utilizing these experiences to supervise and check management, we believe that he can adequately perform his duty as a director who is an Audit & Supervisory Committee member.



Newly appointed

Attendance at Board of Directors meetings  
100% (10 out of 10 meetings)  
Attendance at Audit & Supervisory Committee meetings  
100% (10 out of 10 meetings)  
Outside Audit & Supervisory Committee member  
**Kazuo Sakakibara**

April 1984 Appointed as a Public Prosecutor  
 December 2015 Director of the Trial Division, Supreme Public Prosecutors Office  
 April 2017 Chief Public Prosecutor, Osaka District Public Prosecutors Office  
 February 2018 Superintending Prosecutor, Fukuoka High Public Prosecutors Office  
 January 2020 Superintending Prosecutor, Osaka High Public Prosecutors Office  
 July 2021 Resigned  
 October 2021 Registered as attorney  
 November 2021 Joined Anderson Mori & Tomotsune (current)  
 April 2022 Auditor, Tokyo Dental College (current)  
 June 2022 Management Committee Member, NHK (Japan Broadcasting Corporation) (current)  
 June 2023 Outside Audit & Supervisory Board member, the Company  
 Director (Audit and Supervisory Committee member) (External), Sumitomo Mitsui Trust Bank, Limited (current)  
 Outside Director (Audit & Supervisory Committee member) (current)

**Significant concurrent positions**  
 Anderson Mori & Tomotsune Auditor, Tokyo Dental College Management Committee Member,  
 NHK (Japan Broadcasting Corporation) Director (Audit and Supervisory Committee member)(External),  
 Sumitomo Mitsui Trust Bank, Limited

**Reason for selection as an officer >>** Kazuo Sakakibara has abundant experience and knowledge due to his many years as a public prosecutor and attorney. We expect that he can supervise and check business management from an independent perspective based on such experience and knowledge. We also expect that he can adequately perform his duty as an outside director who is an Audit & Supervisory Committee member such as offering advice and opinions useful to our business management. While he was not involved in corporate management by any other method than serving as outside officer, we believe that he can adequately perform his duty as an outside director who is an Audit & Supervisory Committee member given the reason mentioned above. Furthermore, as he is not from a parent company, a fellow subsidiary, a major shareholder or a major client or supplier of Takasago Thermal Engineering, we believe that there is no particular problem in terms of independence.



Newly appointed

Outside Audit & Supervisory Committee member  
**Hiroyuki Hioka**

April 1981 Joined Japan Airlines Co., Ltd.  
 June 2006 Vice President, Audit Department (in charge of Compliance Promotion and Responding to Corporate Risk), Japan Airlines Co., Ltd.  
 October 2009 Vice President, Administrations Managing Division (in charge of General Affairs), Japan Airlines Co., Ltd.  
 February 2010 Senior Vice President, the Americas and Senior Vice President, New York Regional Office, Japan Airlines Co., Ltd.  
 April 2013 Executive Officer, General Affairs (Chief of General Affairs, Legal Affairs, Public Relations, Secretariats, and Policy Proposal), Japan Airlines Co., Ltd.  
 June 2018 Representative Director, President, AGP Corporation  
 June 2021 Chairperson, AGP Corporation  
 September 2022 Advisor, Japan Airport Terminal Co., Ltd. (current)  
 June 2023 Outside Director (Audit & Supervisory Committee member), the Company (current)

**Significant concurrent positions**  
 Advisor, Japan Airport Terminal Co., Ltd.

**Reason for selection as an officer >>** In addition to his work experience in compliance promotion, corporate risk response, and general affairs management at an airline company, Hiroyuki Hioka has abundant experience and knowledge as a representative director of a listed company. We expect that he can supervise and check business management from an independent perspective based on such experience and knowledge. We also expect that he can adequately perform his duty as an outside director who is an Audit & Supervisory Committee member such as offering advice and opinions useful to our business management. Furthermore, as he is not from a parent company, a fellow subsidiary, a major shareholder or a major client or supplier of Takasago Thermal Engineering, we believe that there is no particular problem in terms of independence.



Newly appointed

Outside Audit & Supervisory Committee member  
**Hiroyuki Wakamatsu**

April 1995 Joined Tohmatsu & Co. (currently Deloitte Touche Tohmatsu LLC)  
 April 1998 Registered as certified public accountant  
 October 2008 Established Wakamatsu CPA Office, assumed office as Representative (current)  
 June 2010 Outside Auditor, With us Corporation (current)  
 June 2012 Outside Audit & Supervisory Board Member, mixi, Inc. (currently MIXI, Inc.) (current)  
 August 2017 External Audit & Supervisory Board Member, RENOVA, Inc. (current)  
 July 2018 Established Generys Co., Ltd., assumed office as Representative Director (current)  
 June 2023 Outside Director (Audit & Supervisory Committee member), the Company (current)

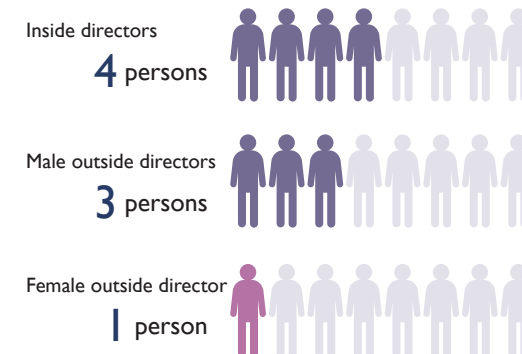
**Significant concurrent positions**  
 Representative, Wakamatsu CPA Office  
 Outside Auditor, With us Corporation  
 Outside Audit & Supervisory Board Member, MIXI, Inc.  
 External Audit & Supervisory Board Member, RENOVA, Inc.  
 Representative Director, Generys Co., Ltd.

**Reason for selection as an officer >>** Through his experience as a certified public accountant at a major audit firm and as an outside auditor at listed companies, Hiroyuki Wakamatsu has not only specialized knowledge in accounting, but also broad professional insight and experience in corporate auditing. We expect that he can supervise and check business management from an independent perspective based on such experience and knowledge. We also expect that he can adequately perform his duty as an outside director who is an Audit & Supervisory Committee member such as offering advice and opinions useful to our business management. Furthermore, as he is not from a parent company, a fellow subsidiary, a major shareholder or a major client or supplier of Takasago Thermal Engineering, we believe that there is no particular problem in terms of independence.

Knowledge, experience, and capabilities of directors and the Audit & Supervisory Committee members

	Corporate management and management strategies	Technology, innovation, and DX	Environment	Global matters	Sales strategies and marketing	Finance and accounting	Legal matters and risk management	Human resources development and diversity
President and Representative Director Kazuhito Kojima	●	●	●		●			
Director and Managing Executive Officer Tadashi Kamiya		●	●		●			
Director and Managing Executive Officer, CDXO Toshikazu Yokote		●					●	●
Director and Managing Executive Officer Hiroshi Kubota					●			
Outside Director Shuma Uchino	●					●	●	
Outside Director Atsushi Takagi	●			●		●		
Outside Director Yoko Seki						●	●	
Outside Director Hideka Morimoto			●				●	●
Full-time Audit & Supervisory Committee member Masato Nakamura	●			●		●	●	
Outside Audit & Supervisory Committee member Kazuo Sakakibara							●	
Outside Audit & Supervisory Committee member Hiroyuki Hioka	●		●	●			●	●
Outside Audit & Supervisory Committee member Hiroyuki Wakamatsu						●	●	

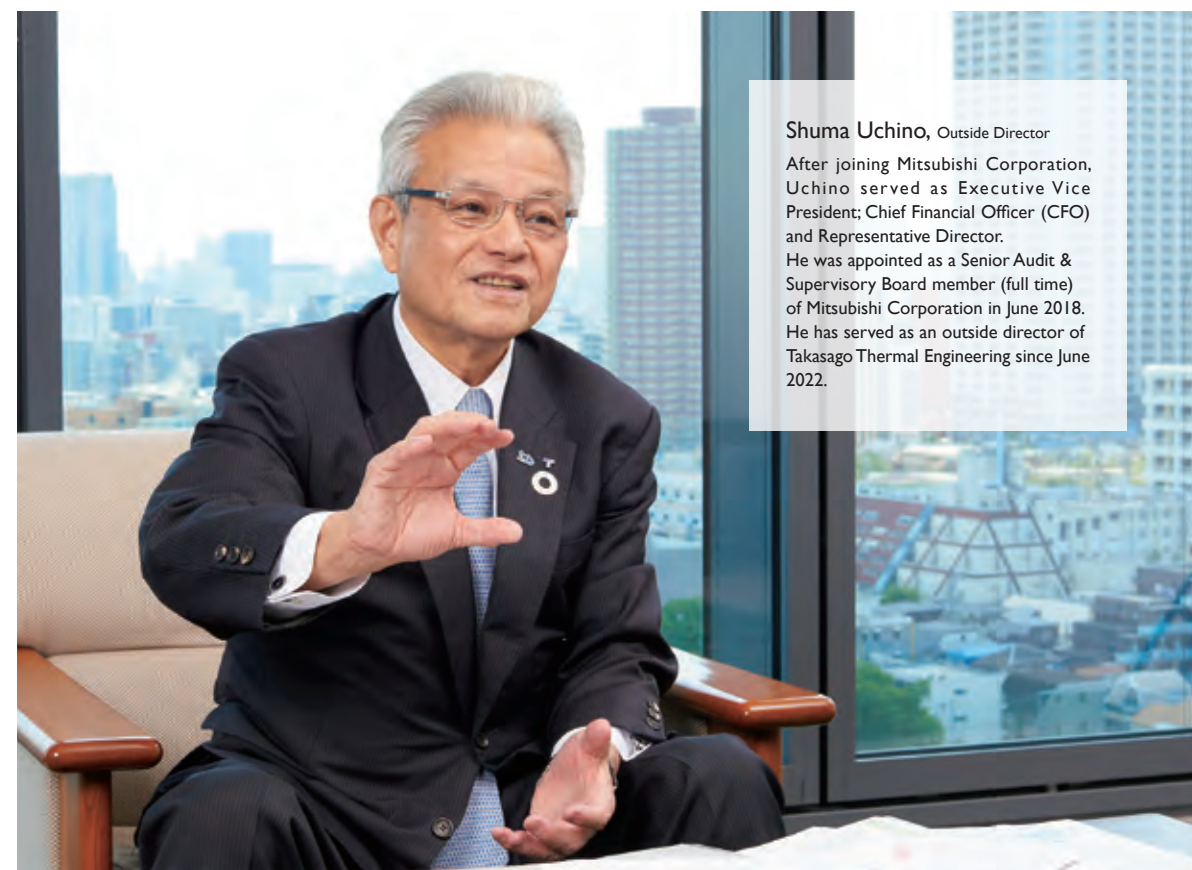
8 directors (excluding directors who are Audit & Supervisory Committee members)



4 directors who are Audit & Supervisory Committee members



## Message from the Chairperson of the Board



**Shuma Uchino, Outside Director**

After joining Mitsubishi Corporation, Uchino served as Executive Vice President; Chief Financial Officer (CFO) and Representative Director. He was appointed as a Senior Audit & Supervisory Board member (full time) of Mitsubishi Corporation in June 2018. He has served as an outside director of Takasago Thermal Engineering since June 2022.

### The Board of Directors will use close communication to earnestly “accompany” the Company, which demonstrates a sincere commitment to enhancing corporate value and strengthening governance.

#### » Building a good partnership with the executive side toward achieving the goal of enhancing corporate value

In June 2023, one year after becoming an outside director, I assumed the position of Chairperson of the Board of Directors.

When I was asked to assume the chairpersonship, I accepted after confirming whether the Company had a firm idea or basis on how its governance should be.

I believe that if a company is serious about strengthening its governance, it should first take the initiative in implementing various efforts, rather than having outside directors take the lead.

At the time of my appointment as an outside director, Takasago Thermal Engineering was in the process of changing its organization design to strengthen its governance. During my one year as an outside director observing the Company’s activities, I amply sensed the seriousness of the Company’s efforts to strengthen governance.

As Chairperson, I would like to share the goal of enhancing corporate value with the executive side, and

focus on operation of the Board of Directors to build a good partnership with the executive side in order to achieve that goal.

A good partnership means that we will “accompany” the executive side in both the execution of the Medium-Term Management Plan, which is the “offense” to achieve the goals of the executive side, as well as the strengthening of governance, which is the “defense.” To put it simply, we will have “closeness without collusion.” While keeping a strict eye on everything, we will work together to achieve our goals through close communication. I will manage the Board of Directors with this pledge in mind.

#### » Strengthening governance and oversight functions premised of enhanced communication

I believe that Takasago Thermal Engineering’s recent change in organization design from a company with an Audit & Supervisory Board to a company with an Audit & Supervisory Committee will have many positive effects in terms of strengthening governance and the operation of the Board of Directors.

## Message from Chairperson of the Board

Becoming a company with an Audit & Supervisory Committee has enabled faster decision-making on the executive side, while at the same time significantly strengthening the monitoring function on the Board of Directors’ side. Another positive factor for the monitoring function is the clear path for information transmission, given, for example, that there has been an increase in personnel of the internal audit organization, which serves as the “eyes” of the President, and a dual line has been secured for reports from the Internal Audit Office to reach the Board of Directors and the Audit & Supervisory Committee. It can be said that these are all manifestations of the Company’s determination to have awareness of external eyes in its business operations.

In order to advance the enhancement of governance and further fulfillment of the supervisory function, the quality of discussions at Board of Directors meetings has been further deepened through enhanced pre-briefings on Board of Directors meetings. Communication is also being strengthened in various ways to eliminate information asymmetries between internal and external parties.

In addition to the pre-briefings for the Board of Directors, briefings for the Governance, Nomination and Compensation Committee, meetings between the President and the Chairperson of the Board of Directors, as well as meetings between the Chairperson of the Audit & Supervisory Committee and the Chairperson of the Board of Directors are held on a regular basis. Independent meetings of only outside directors are also held on a regular basis. Thus, there is communication not only between inside and outside directors, but also with other executives and employees. As the number of such initiatives and measures increases, there will inevitably be more opportunities for directors and the executive side to discuss solutions to issues together, which should lead to the realization of a partnership between directors and the executive side and “closeness without collusion.”

#### » The Board of Directors will continue to be a cheerleader for the executive side toward realizing the Company’s Purpose and the Medium-Term Management Plan

The Medium-Term Management Plan formulated by Takasago Thermal Engineering this time was not created solely at the initiative of the President or the Corporate Planning Division, but with the participation of all executives and employees of the Company. That is why I would like our employees to view the Medium-Term Management Plan as something personally relevant to them, and to remember that the executives and employees have the responsibility to commit to the Plan.

As the Company celebrates its 100th anniversary in November 2023, we have set forth “With our revolutionary environmental innovations, we activate the Earth’s future” as the focus of management and our Purpose to guide all activities. I see this as a

manifestation of Takasago Thermal Engineering’s strong determination to aim for all our business to contribute to the environment and society, and that all of our employees’ actions are always in line with the SDGs and ESG. In fact, under this Purpose, our employees are demonstrating their function to continue to change in response to the demands of the times and social changes as Environment-Creators™, expanding our environmental creation business areas, and taking on the challenge of creating new business value through both “carbon transition for building environments” and “carbon neutrality of the global environment” working in tandem.

I would like to ask all of our stakeholders to support Takasago Thermal Engineering and the Board of Directors. There are cases in which a company may say that something is “for the benefit of all stakeholders.” But the term “stakeholders” extends to include the country, shareholders, consumers, and employees, and it is extremely difficult to align the interests of all of them. However, I believe that all stakeholders share the common desire to increase the corporate value of Takasago Thermal Engineering.

That is why, as an outside director and Chairperson of the Board of Directors, I will strive to manage the Board of Directors and support the executive side in order to increase corporate value.

In order to realize our Medium-Term Management Plan, which has attracted the expectations and interest of many people and carries a great deal of responsibility, as well as our Purpose, which incorporates our desire to create value and contribute to society, I will accompany the executive side as a “cheerleader” to reach the same heights with an approach of “closeness without collusion.”





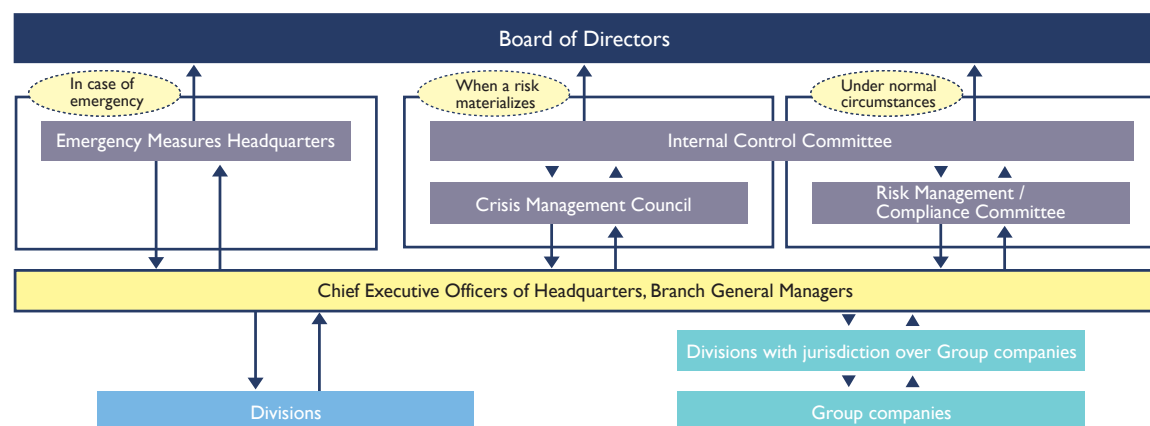
# Risk Management

We are committed to measures to prevent management risks from materializing and adequate initial measures and subsequent actions to minimize the impact of crisis.

## Risk management system

The Takasago Thermal Engineering Group carries out risk management to prevent all risks from materializing and minimize damage in case a risk actually materializes. To prevent risks from materializing, we established the Risk Management Committee chaired by the director in charge of risk management, in which the President and Representative Director serves as the chief officer, in accordance with the Risk Management Regulations. The committee is responsible for the development of the operating policy and plan for the risk management system, the identification of any risks that may have a significant impact on our Group, and the evaluation of the adequacy of measures to address risks. We have developed a system to minimize damage and loss in case a risk materializes to cause a crisis in accordance with the Crisis Management Regulations.

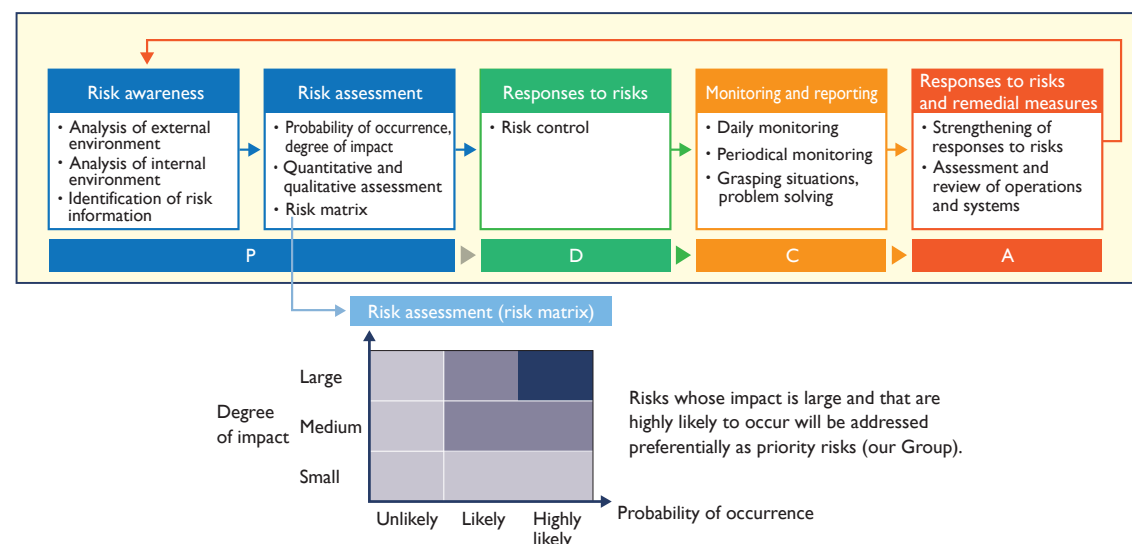
### ● Risk management system



## Risk management cycle

In our Group, the Risk Management / Compliance Committee is responsible for identifying and assessing risks to determine what risks to prioritize and to make sure that risk awareness is shared on a Group-wide basis. In risk management, we give first priority to the risks that especially have a large impact on business management and can occur with a high probability as focused key risks. By having the Group-wide Risk Management / Compliance Committee, whose sessions take place five times a year, review progress and problems every quarter, we enhance the PDCA cycle that contributes to risk reduction activities.

### ● Risk management cycle



## Promotion of information security measures

We view information security as an important business issue. To prevent information security accidents such as information leakage surrounding personal information, customers' and partners' confidential information as well as all types of confidential information handled in the process of work, we have the Basic Policy for Information Security in place to strengthen information security measures on a Group-wide basis.



### ● Information security management and promotion structure

In addition to appointing the officer responsible for risk management as the information security supervisor for the company and the entire Group, we have the Information Security Committee operating under the Company-wide Risk Management / Compliance Committee to strengthen information security measures and manage the state of their implementation, to provide security education to employees, and to respond to and control information security incidents.



### ● Information security measures

We established the digital transformation (DX) strategy "TakasaGO! DX toward the future;" regularly review information security risks to respond to the accelerated use of digital technology in our Company, unstable global situation, and increase in high-level, diversifying cyber-attacks; and maintain and strengthen information security measures.

- Revision of information rules and regulations to respond to new risks
- Strengthening of endpoint security measures
- Implementation of coding to reduce damage by accidents including information leakage
- Introduction of Security Information and Event Management (SIEM), and strengthening of the operational mechanism of the Security Operation Center (SOC) / Computer Security Incident Response Team (CSIRT)



### ● Education on information security

In addition to offering e-learning to all employees, we distributed a brochure that contains essentials on information security (general version and construction-site version) to raise employees' awareness of information management.



### ● Compliance

We comply with legislation concerning information security at home and abroad, personal information protection, data transfer, among others, and check relevant legislation when needed for appropriate responses and measures.

## Business and other risks

We have identified the risks that may have significant impacts on the financial conditions, corporate performance, cash flow, etc. of our Group as listed below. We will take various measures to address them to reduce the risks.

## ● Business environmental risks

Risk item	Assumed impact	Measures to address the risk
<b>Fluctuations in private capital investment</b>	As a result of the suspension, postponement, change, etc. of investment plans of customers, the demand for construction and HVAC systems may fall more than previously estimated.	▶ We will implement comprehensive company-wide measures including the reduction of fixed costs.
<b>Increase in costs and delays in delivery related to procurement of materials and equipment</b>	When material and equipment prices for ducts, piping, heat insulation, refrigerants, and other utility works have sharply risen due to the economic environment but it is difficult to reflect the cost increase on the contract amount, the costs of the construction work may increase more than previously estimated. Construction periods may also be delayed due to longer delivery times.	▶ We will strengthen our procurement function based on the advantage of scale by enhancing the system to control purchases and accelerating the integration of purchases by all offices. We will also address extended delivery periods by proposing to the purchaser to place an order ahead of time or to change the model or system.
<b>Shortage of technical staff and skilled workers</b>	We may fail to establish a sufficient construction structure to complete the construction work by the specified construction period and lose the trust of customers as a result.	▶ We will improve productivity through the establishment and use of an outsourcing system, and by streamlining operations and upgrading business processes through the use of DX. We will also secure technical staff through commitment to the recruitment of new workers in contract construction firms and the introduction of the construction career development system promoted by the MLIT.
<b>Application of overtime caps</b>	With the start of the application of overtime caps for construction work, a decrease in the total number of hours worked by engineers and other workers will lead to a reduction in construction capacity.	▶ We will work to improve productivity through means such as transforming the way construction is carried out by shifting from conventional site-by-site "construction management" to platform-based "production management" (T-Base® project).
<b>Overseas business development</b>	We may face various risks in our target countries such as regulations and supervision by authorities including voluntary regulatory bodies, economic and political instability and differences in business practices, as well as intensified competition with competitors that have a competitive edge in a specific country/region or the global market.	▶ We will promote the review of the strategic bases in our international businesses as a whole and implement proper monitoring through the constant exchange of information with overseas Group companies.
<b>Expansion of business fields</b>	In a target market, the technologies we own may not be suitable or we may not be able to achieve the initially anticipated results depending on the speed of the market expansion, the scale of the growth, or difficulty in entering the market.	▶ We will judge whether we need to withdraw from the market or not according to the predetermined criteria.
<b>M&amp;A/Investment</b>	Contingent liabilities may occur or unrecognized liabilities may be found after an acquisition. The possibility to recover invested capital may decline to losing the whole or part of the investment if the revenue cannot be produced as expected due to changes in the business environment, sluggish performance of the invested company, etc.	▶ Before an M&A or investment, we will perform due diligence on details including the financial statements and contractual relationships of the target company.
<b>Trends of the financial market / Decrease in the credit strength of our Group</b>	We may fail to raise funds in a timely manner under favorable conditions for our Group, which may constrain the execution of our business.	▶ We will successively communicate and exchange information with financial institutions.
<b>Occurrence of liability for damage or liability for non-conformity</b>	We may be required to pay compensation for damage that is too large to be covered by the umbrella liability insurance carried for unforeseeable circumstances.	▶ To prevent such a situation, we will thoroughly control health and safety through measures such as the provision of instructions on health and safety to sites and the establishment of a proper working environment.
<b>Aging of employees</b>	Decreases in the number of employees are anticipated due to increases in the employees who retire at mandatory retirement age, possibly leading to problems for our future business activities.	▶ We will promote long-term employment by reinforcing the retirement age extension and re-employment systems and increase productivity with labor saving and efficiency improvement through the visualization of techniques by using IoT, etc. ▶ We will enhance the use of diverse human resources including international personnel.

Risk item	Assumed impact	Measures to address the risk
<b>Appointment of young workers and professional human resources</b>	If we cannot appoint sufficient young workers and professional human resources, it may create problems for the continuity of our business activities.	▶ We will visit universities, etc. in Japan actively, organize recruitment workshops, and conduct an internship program while also increasing professional human resources by employing mid-career workers.
<b>Absence or infringement of patents</b>	The technologies, etc. used in our Group are not protected if we fail to acquire their patent rights and other intellectual property rights. In the meantime, in case we unintentionally infringe any patent rights and other intellectual property rights of others, we may be required to pay compensation for damage.	▶ We will establish a system to thoroughly investigate infringed patents and constantly share information among all departments.
<b>Asset holding</b>	Marketable stocks, etc. involve the risk of price fluctuations. We may suffer an impairment loss due to a significant decline in market prices and post it as an extraordinary loss.	▶ While paying attention to the economic trends, we will consider options, including the sale of the assets we own, to reduce the risk of a decrease in the value of the assets.
<b>Fluctuations in the exchange rate</b>	The financial results, assets and liabilities of overseas affiliates can be affected by fluctuations in the exchange rate because those figures are converted from the local currency to yen for the preparation of consolidated financial statements.	▶ When conducting a transaction in a foreign currency, we will try to reduce the risk of fluctuations in the exchange rate with foreign exchange reserves and other actions while paying attention to the economic trends.
<b>Possession of personal information and confidential information of customers</b>	In case of external leakage, abuse, etc. of information with illegal access, etc., we may be involved in a legal dispute and subject to punishment from supervisory authorities in Japan and overseas.	▶ We will take measures to address cyber-attacks and strengthen IT governance. ▶ To enhance our approaches to incidents, we aim to construct a Computer Security Incident Report Team (CSIRT) system while giving relevant training to employees and taking other initiatives to improve their information technology literacy.
<b>Application of legal regulations, etc.</b>	The operation of our Group may be subject to new constraints due to the establishment or revision of legal regulations, withdrawal of approval/license or punishment by supervisory authorities, the establishment or revision of new guidelines or voluntary rules, etc.	▶ We will promote cross-sectoral initiatives for compliance in the Group and report the status of the initiatives to the Risk Management Committee and the Board of Directors to ensure proper execution of duties while also conducting internal audits to reinforce the compliance system.
<b>Lawsuits, etc.</b>	Our Group may face lawsuits and other claims concerning various issues including the environment, labor and intellectual property rights.	▶ We will try to prevent them through the establishment of a crisis management system to prepare for emergencies, as well as the activities of the Crisis Management Council, while also taking necessary responses with our legal advisors, etc. as needed.
<b>Natural disasters</b>	The occurrence of large-scale natural disasters, such as earthquakes, typhoons and tsunamis, and pandemics of infectious diseases might result in a suspension or significant delay of construction works as well as a decline in the demand for construction due to the slowdown of economic activities in society as a whole.	▶ We will work to improve the accuracy of the business continuity planning (BCP) manual and develop measures to address emergencies.
<b>Human rights violations</b>	Insufficient efforts regarding human rights may result in suspension of transactions, claims for damages, and other issues.	▶ We have formulated our Basic Policy on Human Rights, and will establish a human rights due diligence system to prevent or mitigate the risk of human rights violations.
<b>Climate change</b>	Delays or lack of response to climate change may lead to a reduction in business activities due to a decline in reputation among investors, customers, workers, and other stakeholders, and a corresponding decline in corporate value.	▶ In order to handle the transition to a decarbonized society, the ESG Promotion Committee has been established to constantly monitor changing conditions, review environmental targets, and put in place a system to prevent and promptly address risks before they materialize.



# Intellectual Property Management

In order to improve our competitive advantage, we will formulate and implement strategies for the utilization of intellectual property, support the formulation of R&D strategies in line with management policies, and strengthen and utilize both patent capabilities and engineering technology (intangible assets such as know-how).

## Mission strategies

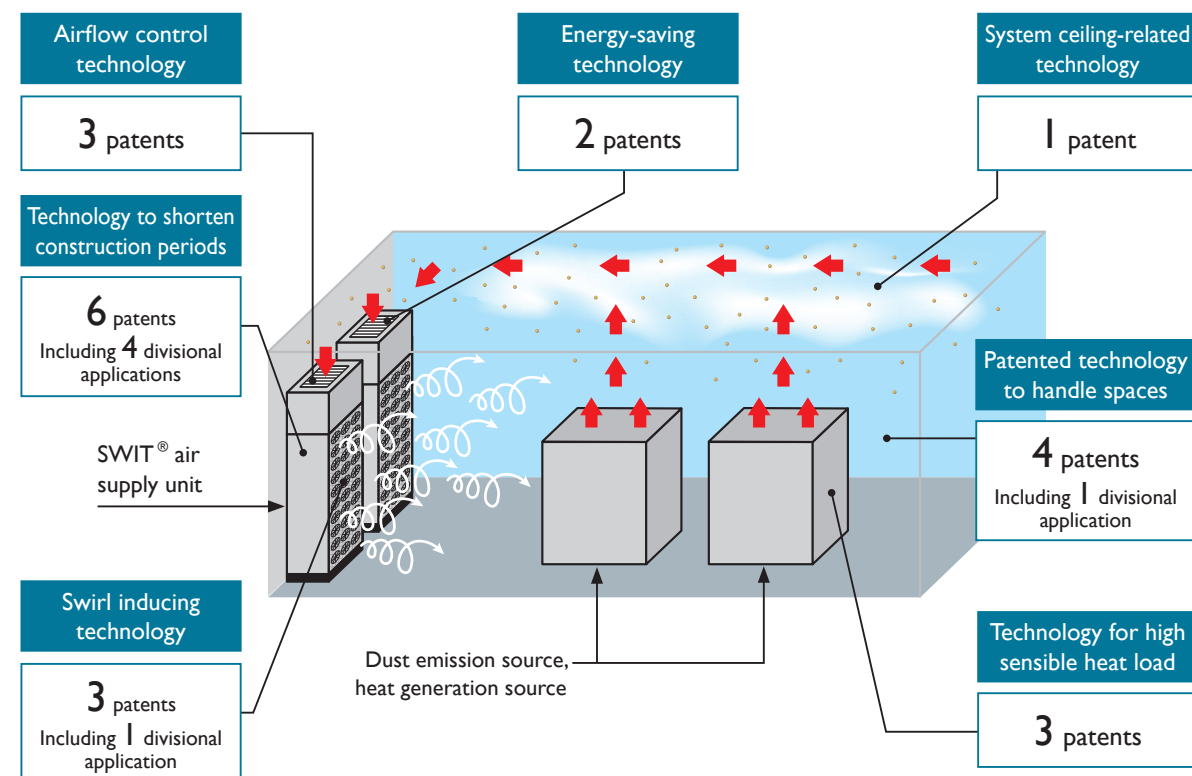
Our 2026 Medium-Term Management Plan sets forth three KPIs, which incorporate measures for reform of construction processes via T-Base®, research and development of environmental technologies, development of digital infrastructure based on BIM, establishment of a high-profit-margin received-order/net sales portfolio, and development of professional human resources. The Intellectual Property Management Office has been assigned the new mission of contributing to the realization of sustainable growth for the Company by planning and formulating the technology and intellectual property initiatives to be adopted for each of these measures, as well as protecting and utilizing the technological assets and other assets created through the implementation of the various measures in the 2026 Medium-Term Management Plan.

The source of competitive advantage for engineering companies is differentiation from other companies, and the most important intellectual property measure is to curtail imitations of differentiated technologies. The cornerstone of our intellectual property strategy is to enhance our patent-related capabilities for our cutting-edge environmental innovation technologies and services obtained through the various measures in our 2026 Medium-Term Management Plan, and to ensure the confidentiality of our engineering know-how.

## Enhancing our patent-related capabilities

In our core business, we focus on acquiring patents for energy-saving equipment technologies. In our new business domains, we focus on acquiring patents for hydrogen production, EMS, and DX-related technologies. With regard to energy-saving equipment, we will create new patent ideas at intellectual property review meetings with research and development divisions and make full use of the patent divisional application system to obtain patents in a wide range of areas, aiming to secure our business superiority in the engineering business of air conditioning and environmental facilities, curb the entry of competitors, and improve our profits. With regard to our new businesses, we aim to ensure our business freedom by obtaining patents in these domains so that they account for more than 20% of our total number of patents.

### Acquisition of patents for our proprietary SWIT® technology



## Confidentiality of engineering know-how

Our specific policy for ensuring the confidentiality of our engineering know-how entails raising awareness among on-site technical staff and others about measures to prevent technology leaks and ensuring that engineering know-how is managed confidentially and that appropriate nondisclosure agreements are concluded, in light of the characteristics of engineering companies.

The intangible asset of technological know-how on design, procurement, and construction is an important management asset for engineering companies. Points to keep in mind to prevent leakage and misappropriation of technological know-how accumulated on a daily basis are shared with the sites and elsewhere via meetings of patent contact personnel as well as distribution of leaflets.



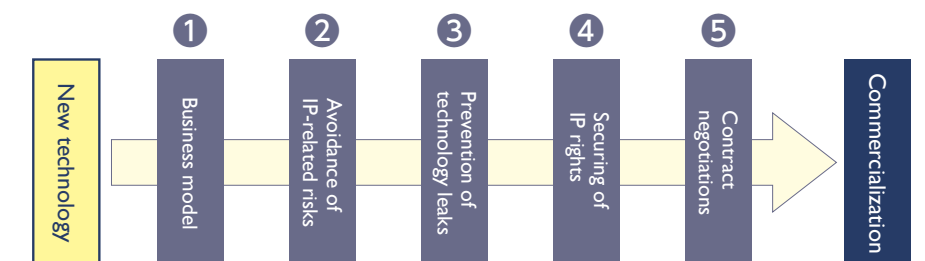
Meeting of patent contact personnel

## Utilization of intellectual property

The HVAC industry is facing the common issue of improving on-site productivity in its core business. Takasago Thermal Engineering is actively promoting the development of technologies for improving on-site productivity, such as the aluminum frame construction method, aluminum refrigerant piping systems, and on-site construction management tools, for the HVAC industry via equipment and material manufacturers and IT tool vendors. In developing these technologies for improving on-site productivity, we are aiming for mutually-beneficial co-existence with individual companies in the value chain of equipment and material manufacturers, IT tool vendors, and sales agencies, while at the same time recovering the costs incurred in the development of these technologies. We have completed development of 23 research themes, reaching a cumulative total of 34 companies, and the amount of recovered costs is increasing each year. We have also established a system for sharing useful on-site know-how via our internal website.

## Intellectual property management system

At Takasago Thermal Engineering, the Intellectual Property Management Office is organized in the headquarters structure under the Corporate Planning Division, while liaison employees are assigned to T-Base®, which houses the Technical Engineering Headquarters, and the Takasago Thermal Engineering Innovation Center, which houses the Research and Development Headquarters, to support various measures set forth in the Medium-Term Management Plan and Long-Term Vision from a corporate planning perspective. Furthermore, in order to play a role in maintaining and securing the competitive advantages of our core business and new businesses, the Intellectual Property Management Office is involved in the business process from new technology creation to commercialization, considers intellectual property and intangible asset utilization plans and business model plans, efficiently and appropriately strengthens patent capabilities through understanding the source of our profits, and is also responsible for setting appropriate terms and conditions for intellectual property-related contracts at the time of open innovation, thereby continuously strengthening our intellectual property personnel.



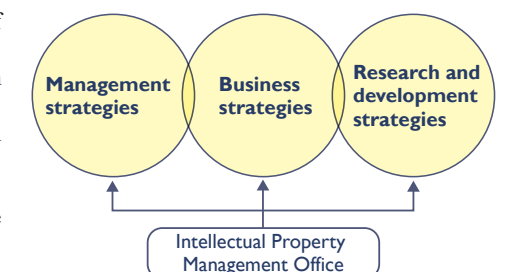
## Initiatives of the Intellectual Property Management Office

[Formulation and implementation of strategies on utilization of intellectual property]

- Formulation and implementation of measures to strengthen intellectual property-related capabilities  
Fortifying of our foundation for establishing a solid intellectual property position in the HVAC industry (use to win orders)
- Prevention of leaks of proprietary technology  
Maintenance and improvement of our competitive advantage in the HVAC industry (measures to achieve high profit margins)

[Support for the formulation of technology strategies in line with management policies]

- Governance compliance for intangible intellectual property assets  
Visualization of intangible assets as the basis for providing high added value and development into a transformation story (deepening and exploration)

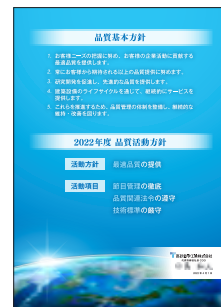


# Supply of Quality that Generates Satisfaction and Trust

To ensure that our sites can constantly achieve the aggressive target of “the creation of the best product quality,” we are committed to initiatives from multidimensional viewpoints.

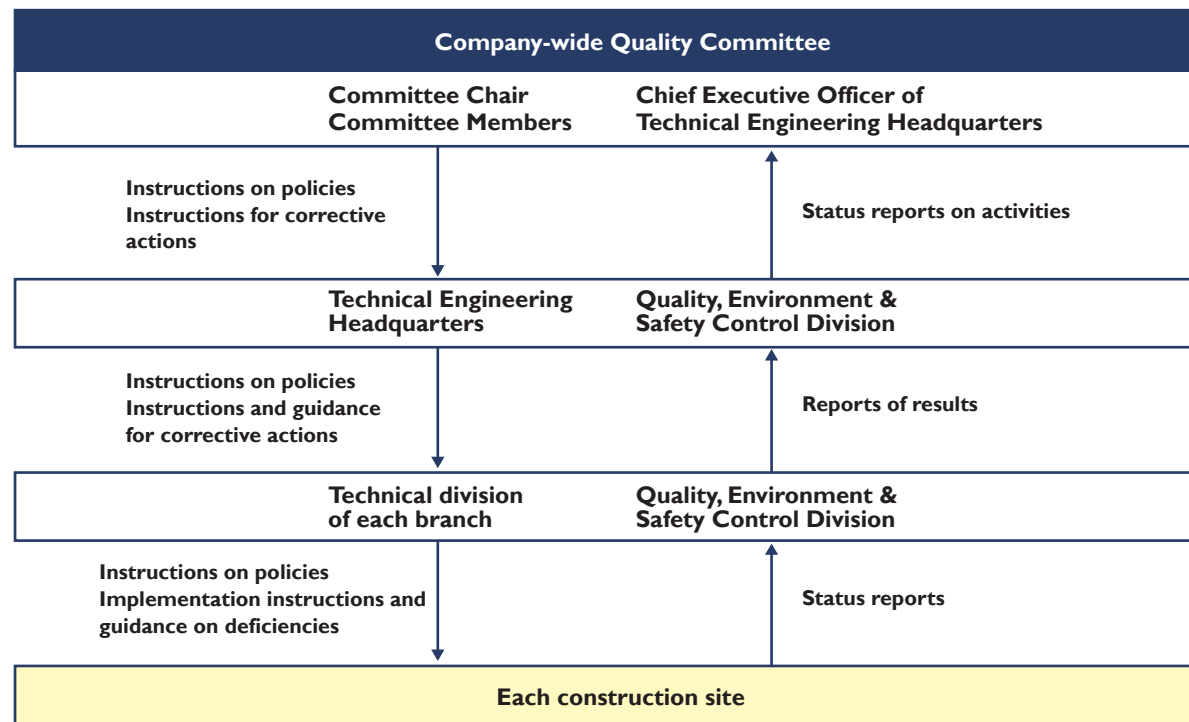
## What is the best product quality?

To provide value to customers and get them to realize the value, it is important to consider that customers can realize the value only when they make full use of the goods. Therefore, quality assurance cannot be completed without taking how customers use the goods into consideration. Our organization also has to establish a quality assurance system that not only meets the performance and service specifications required by customers, but also includes the process until customers can realize the value through the provided performance and services. We aim for an ideal quality assurance system where quality is based on the perspective of ensuring that customers can realize the value at the highest level, in addition to the performance of the goods.



## Quality control system

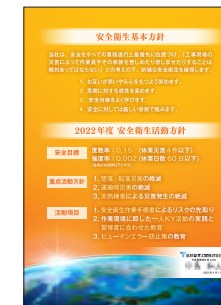
Based on the quality management system certification (ISO 9001:2015) obtained, we will improve ourselves continuously so that we can offer quality goods and services to customers as soon as possible. We will also proactively offer proposals concerning CO<sub>2</sub> reduction or energy-saving systems and their operation to create new added value in customers' facilities.



## Basic concept for occupational health and safety

Under our established safety and health philosophy "Safety is the top priority in carrying out all business tasks," we strive for health and safety activities on construction sites based on the basic approach "The employees working for Takasago Thermal Engineering and their families must never suffer from accidents at construction sites."

Furthermore, the president conducts on-site patrols during National Safety Week.



## Cooperation with partner companies

Kowakai was organized to enhance cooperation with our partner companies working together on the construction sites. It consists of the headquarters and branches. The health and safety cooperation committee established in each of them is committed to the communication of information on safety and health technologies, PR activities, and thorough dissemination of relevant laws. The branches implement activities to improve health and safety including the Branch Office Health and Safety Convention.

Kowakai also operates an online system for safety improvement, TKCS-s (Takasago Kowakai Communication Systems-safety), to share safety information.

## Analysis and identification of risks and measures to address them

We see the elimination of three accidents leading to serious accidents in recent years as a priority, coming up with actions to prevent them. To put the target into action, we compile concrete activities to do in the Safety and Health Activities Policy, which we issue early in each term, to disseminate them to all technical staff and partner companies. In addition, we include risk assessment in the safety and health management, urging each construction site to focus on prevention of risks and measures against them.

Toward achieving DX, we have developed the Company-wide Safety and Health Conference and the safety and health patrol carrying out in every spring into remote versions, trying to raise all employees' and partner companies' awareness of safety and health activities and risk management level.

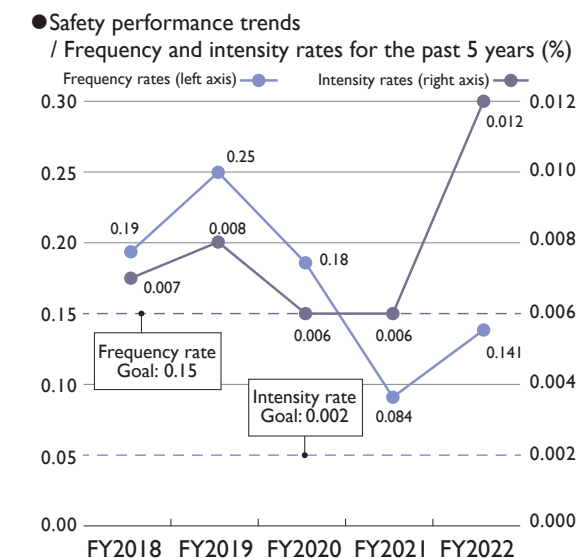
## Safety records by year and pursuit of the elimination of accidents

In FY2022, 35 accidents (five lost-time injuries and 30 non-lost-time injuries) occurred. As a result, we met our goal for the frequency rate of our safety targets, but did not achieve the intensity ratio target.

When it comes to the accidents leading to lost-time injuries in particular, we will incorporate recurrence prevention measures in the Safety and Health Activities Policy after a thorough analysis of cause to promote zero accidents.



Company-wide Safety and Health Conference held with an in-person audience for the first time in four years





# Compliance

To ensure that our sites can constantly achieve the aggressive target of “the creation of the best product quality,” we are committed to activities from multidimensional viewpoints.

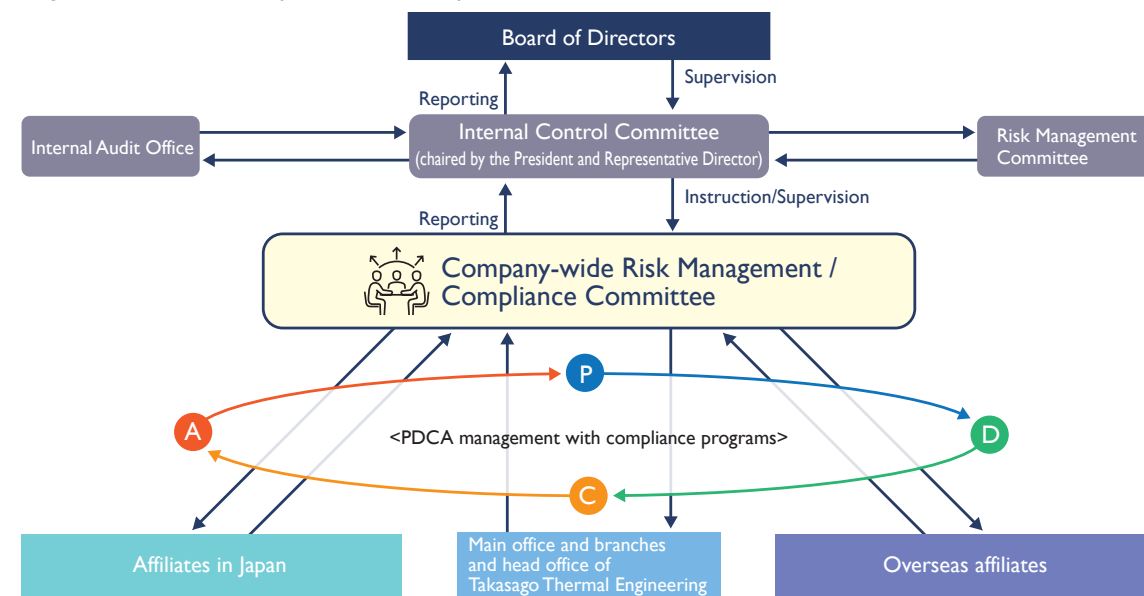
## Compliance promotion system

We have set up the Risk Management / Compliance Committee chaired by the officer in charge of the supervision of risk management in the Takasago Thermal Engineering Group as a whole. This committee takes various measures based on the basic policy on compliance. The Compliance Office, which is a dedicated section, is committed to establishing the compliance system and promoting measures for it including the transmission of information to executives and employees and the dissemination of the consultation and reporting counters.

While incorporating major subjects on compliance, such as the prevention of harassment and compliance with competition laws, into the compliance programs, we work to promote compliance through shared recognition of problems as well as the confirmation of progress in measures and the examination of cooperation and coordination between departments by the Company-wide Risk Management / Compliance Committee.

An officer in charge of corporate ethics and staff in charge of the promotion are appointed in each of our affiliates in Japan and overseas to enhance coordination with us and continuously develop the Group-wide system.

### ● Organizational chart of compliance in the Group



## Continuous activities to promote compliance

### » Awareness-raising activities with the Group Corporate Code of Ethics and various tools

We have established the Group Action Guidelines as the basic action guide for executives and employees and distributed the portable booklet “Group Corporate Code of Ethics” to executives and employees to use for daily duties, in-house training, and other purposes.

In addition, we organize various training programs on compliance for not only employees but also partner companies and periodically prepare and distribute tools for small study sessions in workplaces.

### » Compliance awareness survey

We conduct a compliance awareness survey once a year to grasp yearly changes and any new trends in the awareness of compliance among employees.

This survey asks questions about the awareness of various types of harassment and the awareness among employees about placing orders, as well as circumstances in the company, to identify any problems and solve them quickly.

The results of the survey in FY2023 brought some labor problems to the surface continuing on from last year, while there was a sign of improvement in awareness of compliance as a whole. The answers to harassment-related questions presented gaps between different positions and other attributes. Accordingly, we will continue to develop activities to prevent harassment and raise awareness of it.

The survey results are disclosed to all employees and used for compliance training and other purposes in each department. The analysis of the answers is reported to various committees to share the problems and help develop action policies and measures for improvement.

## Maintenance of proper relationships with customers (commitment to the prevention of bribery)

To maintain proper relationships with customers, we have prohibited excessive business entertainment, in addition to the offering of bribes to government workers, etc. and commercial bribery to private customers, in the Group Corporate Code of Ethics.

In consideration of the current international situation and other factors, we have also established rules concerning the prevention of bribery that explicitly prevent bribery in each of our subsidiaries in Japan and overseas. The effectiveness of the rules is enhanced through the adaptation of them to the local culture and business practices as well as regular monitoring.

## Measures to comply with the Anti-Monopoly Act

For thorough compliance with the Anti-Monopoly Act and other competition-related laws, we have specified and practiced measures for each of the stages from “prevention” to “detection and early discovery,” “response to the occurrence or suspicion of a violation” and “measures to prevent any violations from being forgotten or the rules from losing substance.”

Our executives and employees will strive for thorough compliance and we will continue to create an environment enabling the continuous execution of healthy operations.

<b>1 Prevention</b>	<ul style="list-style-type: none"> <li>Clarification of rules with the Basic Rules on Compliance with Competition Law and the Guidelines on Compliance with Competition Law, and periodical review of them</li> <li>Enhancement and improvement of training for compliance with competition laws</li> </ul>
<b>2 Detection and early discovery</b>	<ul style="list-style-type: none"> <li>Check and storage of records on contact with companies in the same industry</li> <li>Voluntary inspection by sales sections and management sections</li> <li>Internal audits or monitoring by legal sections</li> </ul>
<b>3 Response to the occurrence or suspicion of a violation</b>	<ul style="list-style-type: none"> <li>Establishment of procedures to prevent violations</li> <li>Development of an in-house investigation system</li> </ul>
<b>4 Measures to prevent any violations from being forgotten or the rules from losing substance</b>	<ul style="list-style-type: none"> <li>Periodical review and implementation of training in the “Compliance Month”</li> <li>Report of the status of management and operation of the Competition Law Compliance Program to the Internal Control Committee and the Board of Directors</li> </ul>

## Whistle-blower system that guarantees independence and anonymity

In addition to the consulting counters within the Company, we have established a wide range of reporting counters, including external services by a law firm that eliminates conflicts of interest separate from the legal counsel, thereby establishing reporting channels independent from the chain of command and order in business operations. We enacted and implemented the Rules on the Protection of Whistle-blowers in the Group, which ensure independence and anonymity.

In FY2022, we received a total of 10 reports through this system, including reports on harassment and opinions to the Company.

The reports are passed to the Company-wide Risk Management / Compliance Committee and the Internal Control Committee, while the protection of the whistleblowers is ensured, to identify and remedy problems early. The content of the reports is also reflected in the subjects selected for compliance training and other efforts to maintain and build appropriate systems.

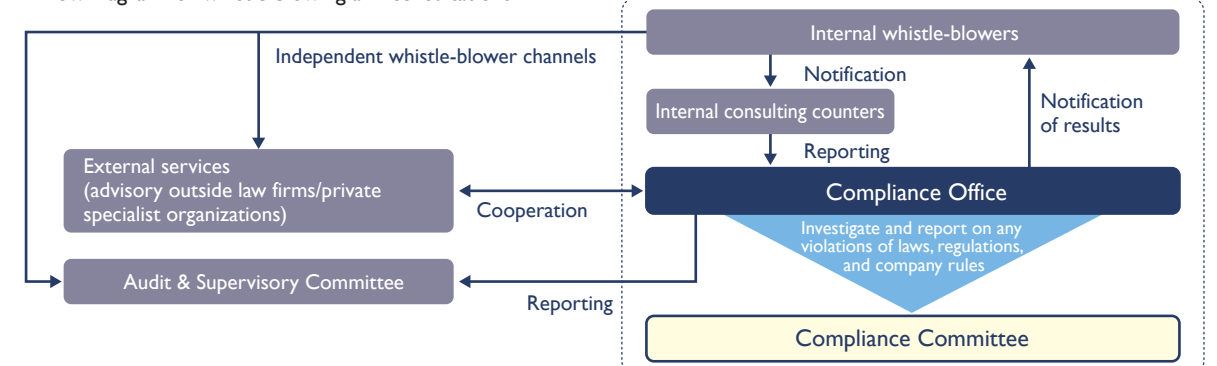
At our overseas bases, we work to make the whistleblower system known and promote the establishment of the counters in multiple languages.

### ● The number of reports made in the whistle-blower system by category

Category	FY2020	FY2021	FY2022
Harassment	4(1)	2(0)	4(0)
Opinions to the company or superiors	1(0)	4(2)	5(3)
Labor management, etc.	0(0)	1(1)	0(0)
Other	1(1)	2(2)	1(1)
Total number of reports	6(2)	9(5)	10(4)

Figures in parentheses are the number of cases not corrected

### ● Flow diagram for whistle-blowing and consultations



## Financial Data

\*Rounded down to the nearest million yen

Financial data (consolidated)	Unit	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022 (FY)
<b>Business results</b>											
Orders received	million yen	264,280	255,648	265,301	273,464	288,646	333,887	297,883	287,501	340,184	<b>372,774</b>
Net sales	million yen	237,389	243,582	251,291	260,204	289,933	319,834	320,893	275,181	302,746	<b>338,831</b>
Gross profit	million yen	27,308	27,800	29,526	34,082	39,550	41,877	43,376	36,845	41,396	<b>46,363</b>
Selling, general and administrative expenses	million yen	19,527	20,073	20,237	21,699	23,187	24,657	25,476	24,545	27,012	<b>31,036</b>
Operating income	million yen	7,780	7,727	9,289	12,383	16,362	17,219	17,900	12,300	14,383	<b>15,326</b>
Ordinary income	million yen	9,109	8,582	10,602	13,427	17,461	18,359	19,286	13,902	15,639	<b>16,685</b>
Net income attributable to parent company's shareholders	million yen	4,011	5,196	6,650	8,665	11,804	12,609	13,231	10,116	11,535	<b>12,227</b>
Net income per share	yen	53.24	69.28	89.40	117.83	160.41	173.29	186.49	145.56	169.38	<b>185</b>
Rate of return on equity	%	4.4	5.2	6.4	8.2	10.3	10.4	10.8	8.0	8.7	<b>8.9</b>
Ratio of ordinary income to total assets	%	4.3	3.9	4.7	5.9	7.0	6.8	7.1	5.2	5.5	<b>5.4</b>
Gross profit margin	%	11.5	11.4	11.8	13.1	13.6	13.1	13.5	13.4	13.7	<b>13.7</b>
Selling, general and administrative expenses ratio	%	8.2	8.2	8.1	8.3	8.0	7.7	7.9	8.9	8.9	<b>9.2</b>
Ratio of operating income to net sales	%	3.3	3.2	3.7	4.8	5.6	5.4	5.6	4.5	4.8	<b>4.5</b>
Debt equity ratio	times	0.05	0.07	0.09	0.05	0.14	0.14	0.18	0.23	0.24	<b>0.21</b>
R&D expenses	million yen	768	791	918	903	1,064	945	1,357	899	1,150	<b>2,621</b>
Capital investment	million yen	962	2,019	2,325	862	3,303	3,962	12,669	4,422	2,552	<b>5,430</b>
Depreciation and amortization	million yen	770	758	840	776	730	824	1,299	1,537	1,739	<b>2,278</b>
Net sales of general air conditioning equipment	million yen	152,796	150,547	157,511	162,818	181,341	194,658	188,968	151,115	160,202	<b>158,194</b>
Net sales of industrial air conditioning equipment	million yen	77,508	85,927	86,350	88,664	101,373	118,305	125,183	118,137	136,503	<b>173,822</b>
Manufacturing and sales of facilities and equipment	million yen	6,919	6,976	7,291	8,572	7,068	6,713	6,588	5,796	5,953	<b>6,722</b>
Other	million yen	163	130	138	148	149	156	153	132	86	<b>91</b>
Overseas	million yen	29,937	40,959	28,553	33,824	47,343	47,360	47,749	34,311	50,631	<b>62,707</b>
Maintenance	million yen	19,830	20,512	20,586	21,739	22,856	23,632	25,056	24,194	25,446	<b>26,653</b>
<b>Financial positions</b>											
Total assets	million yen	217,132	225,810	223,267	233,426	264,062	279,743	265,649	271,146	300,736	<b>313,391</b>
Net assets	million yen	97,416	108,362	104,613	111,574	124,484	126,208	125,861	135,849	136,897	<b>147,165</b>
Interest-bearing debt	million yen	4,447	7,700	9,435	5,527	16,277	17,402	21,733	29,933	33,058	<b>29,815</b>
Net assets per share	yen	1,248.38	1,413.59	1,392.30	1,487.29	1,637.63	1,704.31	1,757.68	1,907.64	2,009.35	<b>2,151.02</b>
Shareholder's equity	million yen	93,415	105,725	102,325	109,382	120,546	122,060	122,091	132,135	132,897	<b>142,470</b>
Equity ratio	%	43.0	46.8	45.8	46.9	45.7	43.6	46.0	48.7	44.2	<b>45.5</b>
<b>Cash flows</b>											
Cash flows from operating activities	million yen	13,575	(3,423)	(1,272)	23,528	6,170	14,892	(6,369)	22,568	1,186	<b>25,826</b>
Cash flows from investing activities	million yen	1,455	(4,921)	(5,398)	2,329	(5,685)	(6,069)	(8,187)	(324)	1,042	<b>(5,427)</b>
Cash flows from financing activities	million yen	(3,285)	(837)	(2,215)	(6,079)	7,107	(7,928)	(4,199)	3,642	(8,007)	<b>(8,325)</b>
<b>Dividends</b>											
Dividends per share	yen	25	25	28	36	50	52	56	56	60	<b>63</b>
Payout ratio	%	47.0	36.1	31.3	30.6	31.2	30.0	30.0	38.5	35.4	<b>34.1</b>
Ratio of dividends to net assets	%	2.1	1.9	2.0	2.5	3.2	3.1	3.2	3.1	3.1	<b>3.0</b>
<b>Number of employees</b>											
Number of employees	persons	4,405	4,471	4,576	4,831	5,714	5,912	5,899	5,890	6,018	<b>5,885</b>
Non-consolidated	persons	1,850	1,858	1,885	1,950	2,025	2,051	2,064	2,116	2,131	<b>2,166</b>
Consolidated subsidiaries in Japan	persons	1,938	1,940	1,999	2,040	2,120	2,218	2,201	2,182	2,198	<b>2,058</b>
Overseas consolidated subsidiaries	persons	617	673	692	841	1,569	1,643	1,634	1,592	1,689	<b>1,661</b>



## ESG Data

## E Environment

Item	Unit	2018	2019	2020	2021	2022 (FY)
<b>Greenhouse gas</b>						
Greenhouse gas (GHG) emissions (Scope 1+2+3)	t-CO <sub>2</sub>	—	4,970,121	4,006,329	4,653,237	<b>4,758,483</b>
Scope 1	t-CO <sub>2</sub>	—	2,924	2,183	2,334	<b>2,801</b>
Scope 2	t-CO <sub>2</sub>	—	4,070	3,202	2,739	<b>2,494</b>
Scope 3	t-CO <sub>2</sub>	—	4,963,127	4,000,944	4,648,164	<b>4,753,188</b>
<b>Waste</b>						
Total amount of industrial waste discharged	t	30,584	23,972	20,213	20,790	<b>16,667</b>
Final disposal volume	t	3,613	3,430	2,797	2,900	<b>2,128</b>
Amount of waste recycled	t	26,971	20,542	17,416	17,890	<b>14,539</b>
Recycling rate	%	88	86	86	86	<b>87</b>
<b>Contribution to water resources conservation through water resources and proprietary technologies</b>						
Amount of water resources input	m <sup>3</sup>	16,666	22,581	24,181	32,484	<b>42,283</b>
Number of sites with flushing water purification units (Reduction of environmental impact from wastewater at production sites)	number	47	49	56	52	<b>42</b>
<b>Other</b>						
Green procurement at offices	%	100	100	100	100	<b>100</b>
Percentage of main offices and branch offices with lights off during lunch breaks	%	100	100	100	100	<b>100</b>

## S Society

Item	Unit	2018	2019	2020	2021	2022 (FY)
<b>Promotion of diversity (non-consolidated)</b>						
Number of employees	persons	2,051	2,064	2,116	2,131	<b>2,166</b>
Employment rate of people with disabilities	%	2.26	2.26	2.48	2.57	<b>2.50</b>
Ratio of female employees	%	15.0	15.7	14.6	17.3	<b>18.2</b>
Ratio of female managers	%	1.3	1.3	1.5	1.6	<b>2.3</b>
Ratio of female manager candidates (Ratio of employees to deputy managers)	%	4.2	5.0	4.2	5.5	<b>6.3</b>
Average number of years worked	years	15.5	15.5	15.5	16.4	<b>16.4</b>
	Men	15.5	15.5	15.5	16.4	<b>16.4</b>
	Women	12.8	13.6	12.6	12.3	<b>11.8</b>
Turnover rate (turnover rate within 3 years of joining)	%	13.3	23.5	12.5	6.5	<b>11.5</b>
Percentage of male employees who took childcare leave	%	15.9	18.6	27.7	21.5	<b>85.1</b>
Ratio of mid-career professional hires	%	8.5	9.1	9.1	8.9	<b>16.5</b>
Ratio of foreign national employees	%	1.5	1.9	3.0	3.0	<b>3.5</b>
<b>Employee training</b> *Calculated from training held by Takasago Academy (excluding training held by the headquarters, main office, and branches)						
Total training cost	million yen	292	186	108	92	<b>160</b>
Total training time	hours	86,085	77,445	76,023	85,528	<b>119,200</b>
Training cost per person	thousand yen	142	90	51	43	<b>74</b>
Training time per person	hours	42.0	37.5	35.9	40.1	<b>55.0</b>

Item	Unit	2018	2019	2020	2021	2022 (FY)
<b>Health and productivity management</b>						
Percentage of employees who received health checkups	%	100	100	100	100	<b>100</b>
Comprehensive health risk	—	94	93	90	93	<b>92</b>
Productivity loss due to presenteeism	million yen	(1,908)	(1,901)	(1,756)	(1,985)	<b>(2,035)</b>
Percentage of employees who received stress checks	%	—	—	—	—	<b>98.2</b>
<b>Occupational safety and health</b>						
Frequency rate	Goal	%	0.15	0.15	0.15	<b>0.15</b>
	Actual result	%	0.19	0.25	0.18	<b>0.141</b>
Intensity ratio	Goal	%	0.002	0.002	0.002	<b>0.002</b>
	Actual result	%	0.007	0.008	0.006	<b>0.012</b>
<b>Social harmony</b>						
Contributions to NGOs and NPOs Amount invested in communities	million yen	45	69	58	44	<b>47</b>
Number of Kowakai member companies	companies	1,463	1,613	1,830	1,950	<b>1,996</b>

## G Governance

Item	Unit	2018	2019	2020	2021	2022 (FY)
<b>Compliance and risk management</b>						
Number of employees disciplined or terminated due to corruption, bribery, etc.	persons	0	0	0	0	<b>0</b>
Cost of fines and settlements due to corruption, bribery, etc.	million yen	0	0	0	0	<b>0</b>
Number of compliance (whistle-blower) reports	number	5	10	6	9	<b>10</b>
Compliance seminars, e-learning, awareness surveys	number of times held	3	3	3	3	<b>3</b>
<b>Governance</b>						
Number of directors (after the regularly-held General Meeting of Shareholders)	persons	9	11	11	10	<b>11</b>
Number of outside directors (after the regularly-held General Meeting of Shareholders)	persons	3	4	4	5	<b>6</b>
Ratio of outside directors	%	33.3	36.4	36.4	50.0	<b>54.5</b>
Number of issues of shares held for policy purposes	issues	112	110	105	102	<b>92</b>
Number of shares held for policy purposes	thousand stocks	21,592	19,547	17,357	16,252	<b>15,295</b>
Total sum posted on the balance sheet of shares held for policy purposes	million yen	33,686	26,130	29,879	26,929	<b>27,031</b>

# Corporate Overview

## Corporate overview

(As of March 31, 2023)

Company name	Takasago Thermal Engineering Co., Ltd.	Listed	On the First Section of the Tokyo Stock Exchange
Established	November 16, 1923		(now the TSE Prime Market)
Number of employees	2,166 (consolidated: 5,885)	Address	6-27-30 Shinjuku, Shinjuku-Ku, Tokyo, 160-0022
Capital	13,134 million yen	TEL	+81-3-6369-8212
Financial closing	March	FAX	+81-3-6369-9103

## Business description

(As of March 31, 2023)

- Air conditioning systems
- Clean rooms and associated equipment and devices
- District heating and cooling facilities
- Plumbing and sanitary systems
- Co-generation systems
- Electrical, instrumentation and communication systems
- Equipment diagnosis
- Failure diagnosis systems
- Dehumidifying/drying systems
- HVAC systems for nuclear energy facilities
- High-precision HVAC systems
- Waste vacuum transfer systems
- Construction work
- Exhaust heat recovery systems
- Heating/cooling systems
- Refrigerating/freezing systems
- Design, construction, production, installation and maintenance of other environmental control and thermal engineering systems
- Design, manufacture, import, export, sale and mediation of machinery, equipment and materials
- Consulting services concerning energy saving and environmental measures
- Business related to greenhouse gas emissions trading
- Purchase, sale, brokerage, lease and management of real estate
- Worker dispatch business
- Security business
- Cleaning business
- Energy supply business
- Power generation business
- Water treatment business

## License under the provisions of Article 3, paragraph (1) of the Construction Business Act

(As of March 31, 2023)

### [Special construction business]

#### License No.:

(TOKU-2) No. 5708 issued by the Minister of Land, Infrastructure, Transport and Tourism

#### License date:

December 4, 2020

#### Duration of license validity:

From December 4, 2020 to December 3, 2025

#### Licensed fields of construction:

Plumbing, machine and equipment installation, electrical work, telecommunications work and general construction work

### [Ordinary construction business]

#### License No.:

(HAN-2) No. 5708 issued by the Minister of Land, Infrastructure, Transport and Tourism

#### License date:

December 4, 2020

#### Duration of license validity:

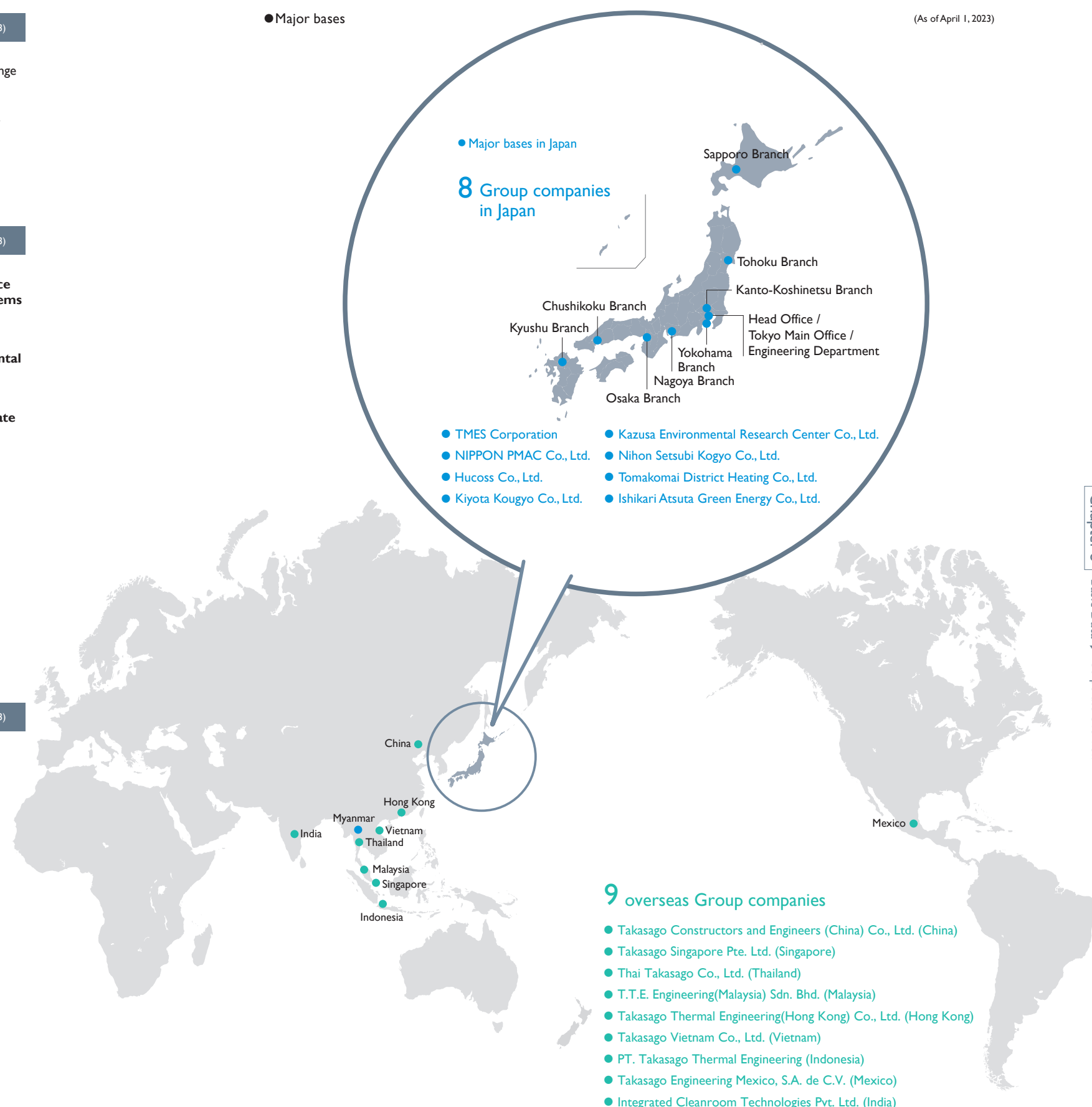
From December 4, 2020 to December 3, 2025

#### Licensed fields of construction:

Fire protection facility construction work

## Major bases

(As of April 1, 2023)

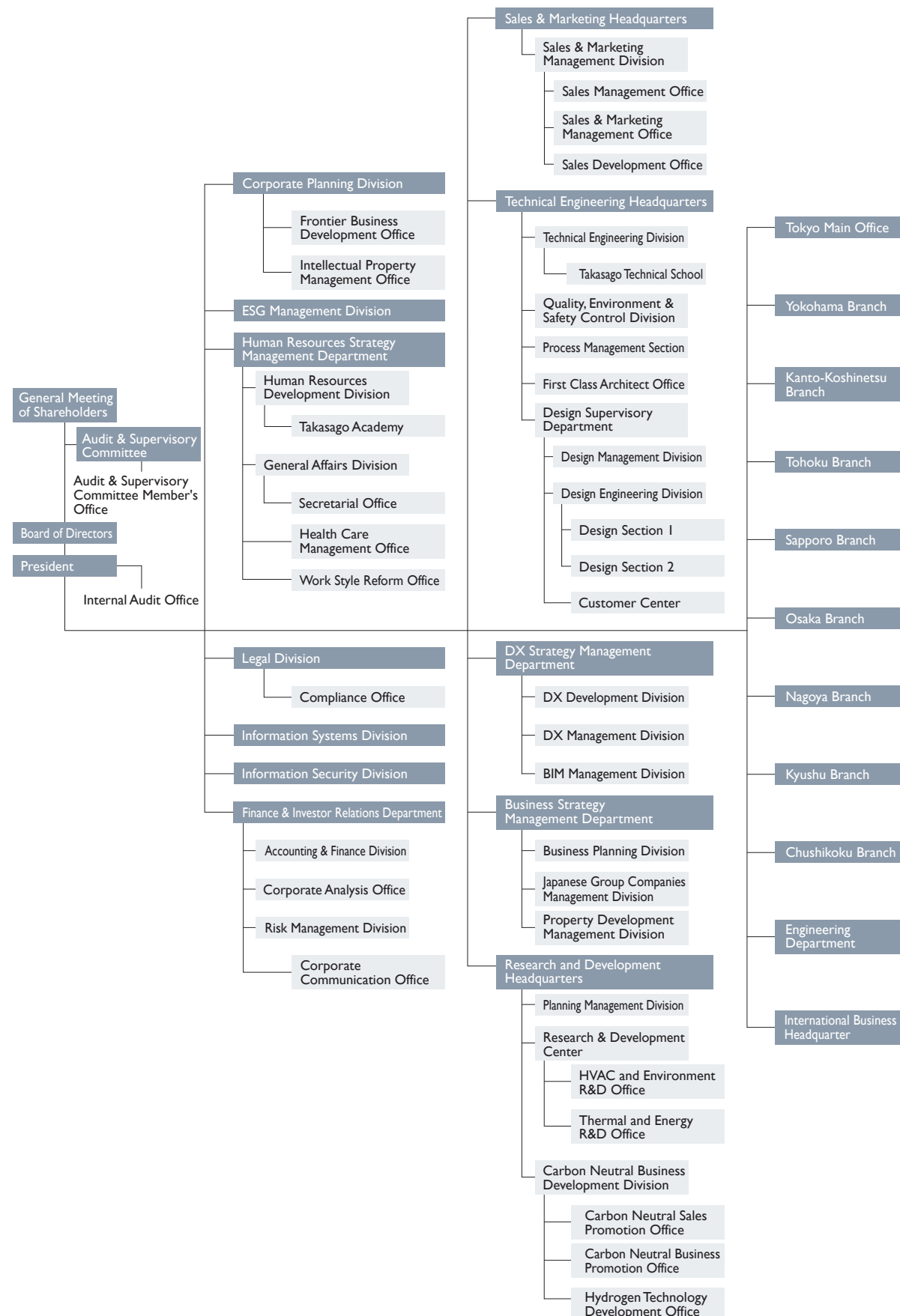


\*Myanmar Branch Office of Takasago Thermal Engineering has been established in Myanmar.



Organization chart

(As of June 23, 2023)



Stock information

Major shareholders (Top 10)

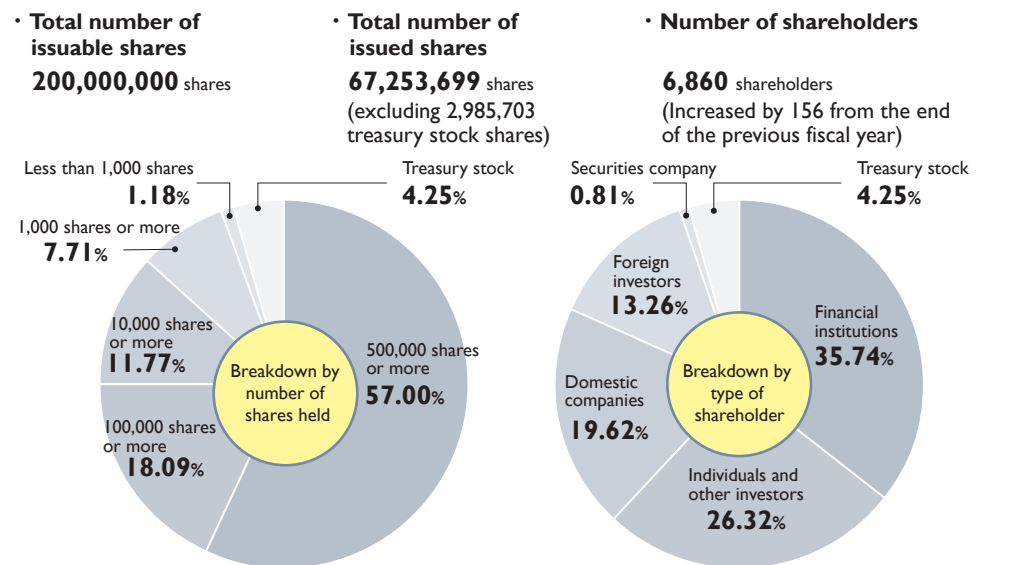
(As of March 31, 2023)

Shareholder's name	Number of shares owned (thousand shares)	Percentage (%)
The Master Trust Bank of Japan, Ltd. (Trust Account)	6,566	9.76
Nippon Life Insurance Company	4,560	6.78
Dai-ichi Life Insurance Co., Ltd.	4,231	6.29
Takasago Thermal Engineering Employee Shareholders' Association	3,485	5.18
Takasago Mutual Benefit Society	2,949	4.38
Custody Bank of Japan, Ltd. (Trust Account)	2,476	3.68
MUFG Bank, Ltd.	1,439	2.14
Mizuho Bank, Ltd.	1,210	1.79
GOVERNMENT OF NORWAY	1,184	1.76
STATE STREET BANK AND TRUST COMPANY 505001	1,171	1.74

- (Notes) 1. The number of shares owned is shown rounded down to the nearest thousand shares.  
 2. The treasury stock (2,985,703 shares) is excluded from the calculation of the shareholding ratio.  
 3. The shareholding ratio is rounded down to two decimal places.  
 4. The treasury stock excludes our shares owned by the executive remuneration BIP trust (472,820 shares).  
 5. The treasury stock excludes our shares owned by Employee Stock Ownership Plan (J-ESOP) (282,500 shares).

Status of shares

(As of March 31, 2023)



Stock price trends

The stock prices of Takasago Thermal Engineering and Nikkei Average are relative values with the prices at the end of March 2013 set to 100

