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To Achieve the "Optimum"
through Ceramics



Integrated Report **2025**

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■ Subject of Report

Period: Fiscal year ended March 31, 2025
(April 1, 2024 - March 31, 2025)
* Some information from other periods is
also reported.
Organization: Shinagawa Refra Group

*The future projections, plans, and initiatives described in this
Integrated Report are based on information currently available to
the Company, as well as on assumptions and judgments that
are deemed reasonable at the present time. Therefore, actual
results may differ materially from the forecasts stated here due
to various important factors, including economic conditions in
major domestic and overseas markets and fluctuations in
foreign exchange rates.

■ Editorial Policy

This Integrated Report aims to deepen all our stakeholders' understanding of the Group's efforts
to improve its corporate value over the medium to long term, and to lead to deeper dialogue with
them. Based on our management policy of advancing growth strategies and sustainability
initiatives, we have aimed to clearly convey the overall picture of our value creation process.



President and CEO
Hiroyuki Fujiwara

On the occasion of our 150th anniversary, we changed our company name and restructured our corporate philosophy. Together with our stakeholders, we aim to co-create corporate value that meets the demands of the next era.

We celebrated our 150th anniversary in October 2025. Our history began in 1875 when our founder, Katsuzo Nishimura, created the first private business manufacturing fire bricks to domestically produce the fire bricks used in gas-generating furnaces for gas lamps, a symbol of civilization. Since then, Shinagawa Refra has contributed as a leader in the domestic refractories industry. The Meiji, Taisho, and Showa periods were turbulent times for the nation of Japan. In the Heisei and Reiwa periods, the global society has undergone a major transformation. Amid these circumstances, we have overcome a number of difficult periods and have continued to grow to this day. It seems we possess the DNA to adapt to the changing times. We express our deep respect to our senior executives, who have made steady efforts and built a solid management foundation for our business to grow. We also sincerely appreciate the customers and stakeholders who have supported us for many years. I am also very proud to be in a company with such a long history.

The business environment is changing dramatically on a global scale, and in today’s world, when predicting the future is difficult, companies are required to transform themselves into organizations that can respond more flexibly and swiftly to change. We must continue to build on the history our predecessors created and carry it forward for the next 100, or even 150, years. With that in mind, we have turned our attention to this 150th anniversary milestone. There could be no better opportunity to promote awareness and align the mindset of all employees across the Group. We saw this major milestone as a new starting point for future growth. We wanted it to be an opportunity for new transformations aimed at establishing a management foundation for achieving sustainable growth. The important events for this purpose are the “company name change” and “restructuring of corporate philosophy.”

The decision behind changing the company name was driven by the fact that the current company name was no longer aligned with the reality of our business. While refractories were the starting point for the Group’s business, we currently operate not only in the field of refractories but also in three other sectors: Insulation, Engineering, and Advanced Device & Material, which focuses on fine ceramics. Therefore, by changing from the traditional term “Refractories” to the term “Refra,” we have signaled the Group’s intention to allocate management resources not only to the refractory business but also to other three business areas and promote and advance a diversified management approach. The other point is brand value. The former company name, Shinagawa Refractories, is well recognized globally within our customers’ industry. Therefore, when we changed our company name, we wanted to retain the name “Shinagawa,” as it holds strong recognition and significance globally with “SHINAGAWA.” With these ideas in mind, we changed our name from Shinagawa Refractories to Shinagawa Refra.

In today’s era of VUCA*, we believe that in order for the Group to continue building a long history going forward, we need to change our corporate culture, which has been somewhat stable, to one that has a more dynamic energy, as well a sense of urgency and speed, while continuing to value our traditions. From this perspective, I have promoted various management reforms since becoming President & CEO. This time, we have restructured our corporate philosophy into the 3 tiers of “PURPOSE,” “VISION,” and “VALUE” as clear guidelines for the Group to achieve sustainable growth. PURPOSE shows our business domains and our aspirations. VISION expresses what kind of corporate group we aim to become as we pursue our PURPOSE, or in other words, our aspirations. VALUE also sets forth the principles of conduct that we value to realize our PURPOSE and VISION (see P5-6 for the new corporate philosophy).

Based on its new corporate philosophy, Shinagawa Refra Group, together with its stakeholders, aims to co-create corporate value befitting the next generation. Please look forward to our new steps.

*VUCA: Volatility, Uncertainty, Complexity, and Ambiguity

150th Anniversary Slogan and Commemorative Logo



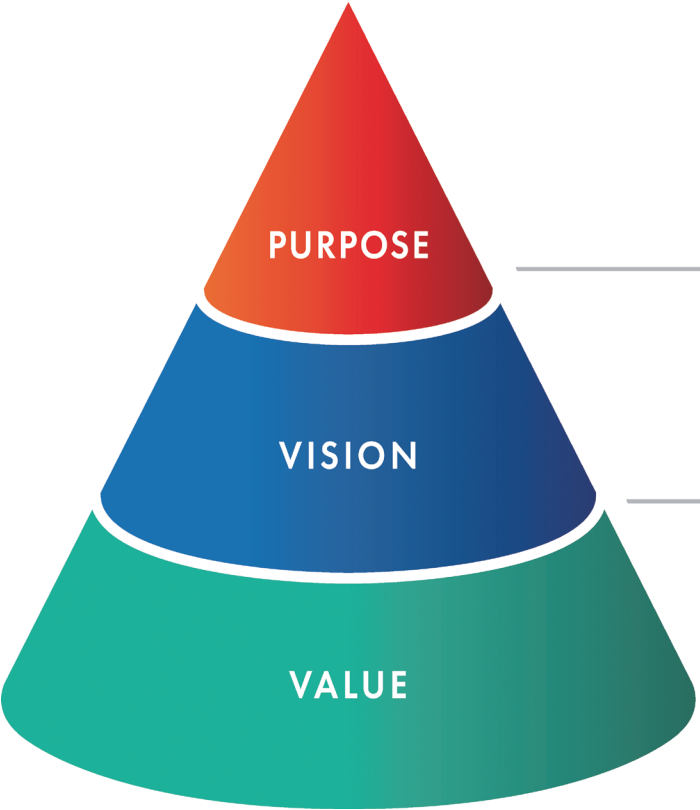
No Refractories, No Life
150th Anniversary

Shinagawa Refra was the first private company in Japan to start a fire brick business. Created to light up the gas lamps that illuminated the city, and subsequently, the hearts of the people, in the midst of “Civilization and Modernization” in Japan in the Meiji era.

Even now, 150 years later, that fire continues to burn within us in different forms of enthusiasm.
Enthusiasm to meet and further exceed customer expectations.
Enthusiasm to support the world’s industries and create a prosperous and vibrant society.
Enthusiasm for aiming for a sustainable society and taking on the challenge of solving social issues.
It’s always for the “people” beyond the industry. Never be stagnant: Always move forward.
As long as this enthusiasm is there, we won’t stop.

As times change, refractories change as well.
For a better future.
Our enthusiasm will continue for years to come.

New Corporate Philosophy



PURPOSE

To Achieve the “Optimum” through Ceramics

We offer customized solutions through ceramic technology, contributing to the advancement of industries and society globally.

VISION

We Share a Common Vision as One Group and Work Together Towards its Fulfillment

- To foster continuous growth by deploying global solutions.
- To cultivate a workplace where employees can experience personal growth and a fulfilling life.
- To pass on a better environment and society for future generations through our business.

VALUE

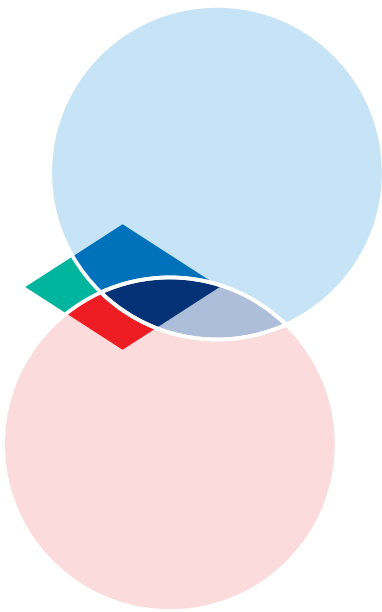
We Share the Values that are Important to Us as One Group:

- Endeavor:** We endeavor with courage, embracing challenges unafraid of failure.
- Rapidness:** We make decisions rapidly and take prompt actions.
- Flexibility:** We remain flexible, adapting to change and continuously reassessing our approaches.
- Accomplishment:** We pursue actions plans with dedication to accomplish our goals once committed.
- Relationship:** We actively build relationships through collaboration with individuals and organizations, both within and beyond our company.

Basic Structure of the New Corporate Philosophy

The new corporate philosophy clarifies the core business domains of the Group and provides guidelines for future business development. PURPOSE represents the Group’s aspirations. VISION expresses what kind of corporate group we want to become through achieving our PURPOSE. VALUE is what we want to value to realize PURPOSE and VISION. Based on this corporate philosophy, the Group will continue to innovate and take on challenges in a concerted effort to achieve sustainable growth and maximize corporate value to meet the expectations of our stakeholders.

New Corporate Logo



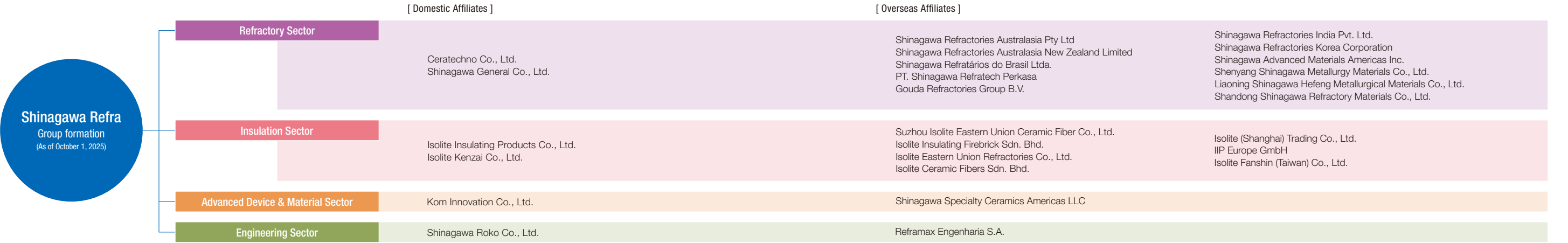
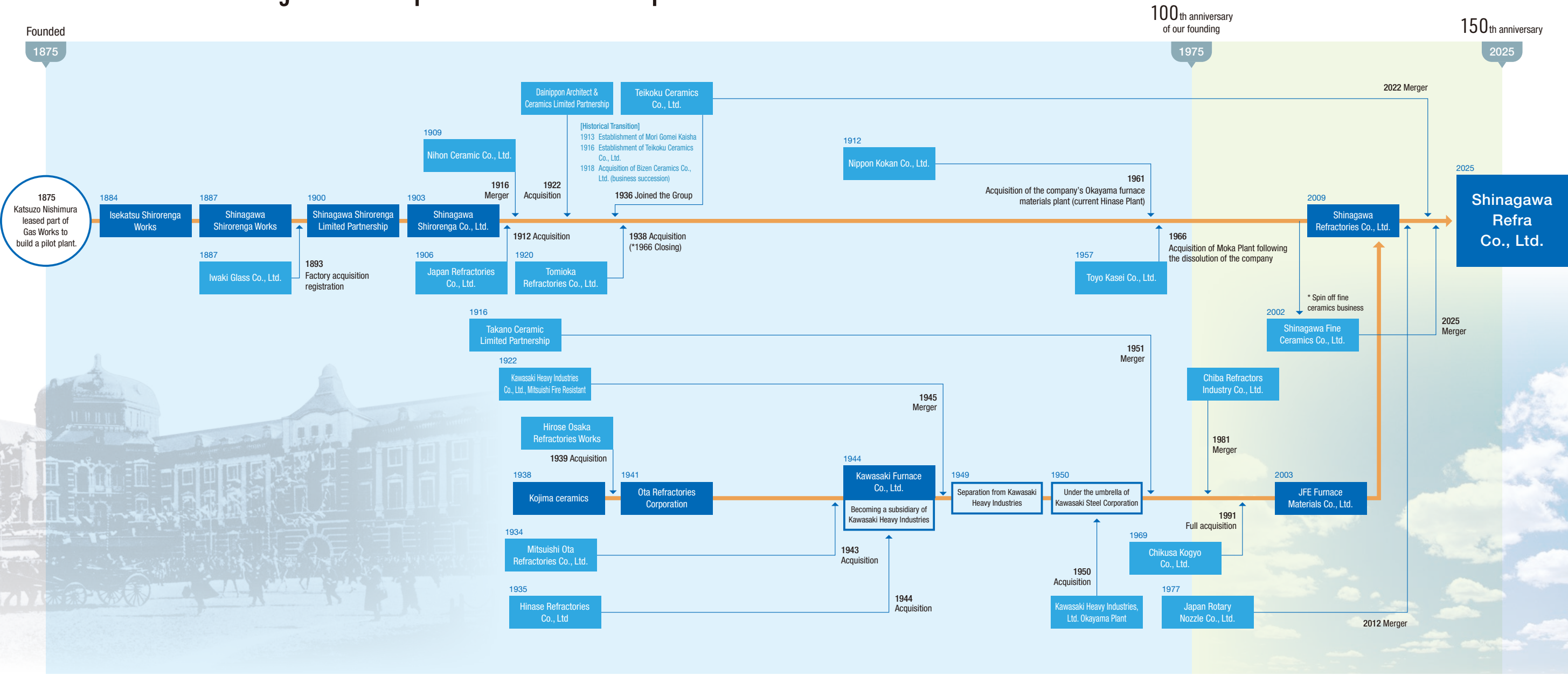
The idea embedded in the new logo design

We have inherited the diamond shape that has been our symbol since our founding, while incorporating green, which symbolizes the natural environment, into our design.

The businesses the Group developed, with the aim of achieving sustainable business management while leveraging the technological expertise cultivated over our 150-year history, are expressed in red circles (representing our original refractory business) and blue circles (representing our non-refractory businesses).

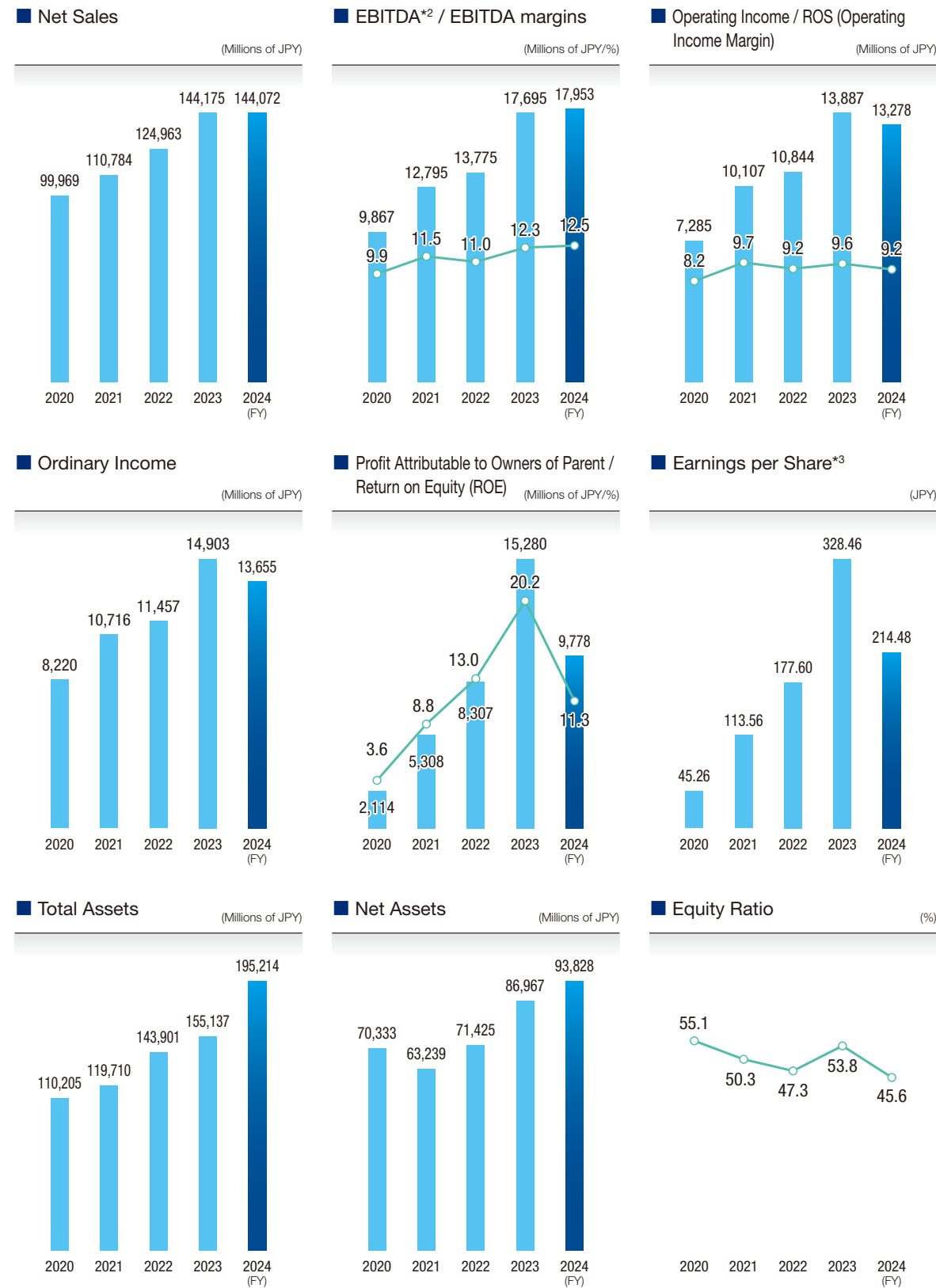
SHINAGAWA BLUE, where the red circle and the blue circle interact, represents the Group’s rapid global growth through collaboration among its people, organizations, and companies. It is also used for the company name logotype as a new corporate color.

150 Years of Continued Progress with Japan's Industrial Development

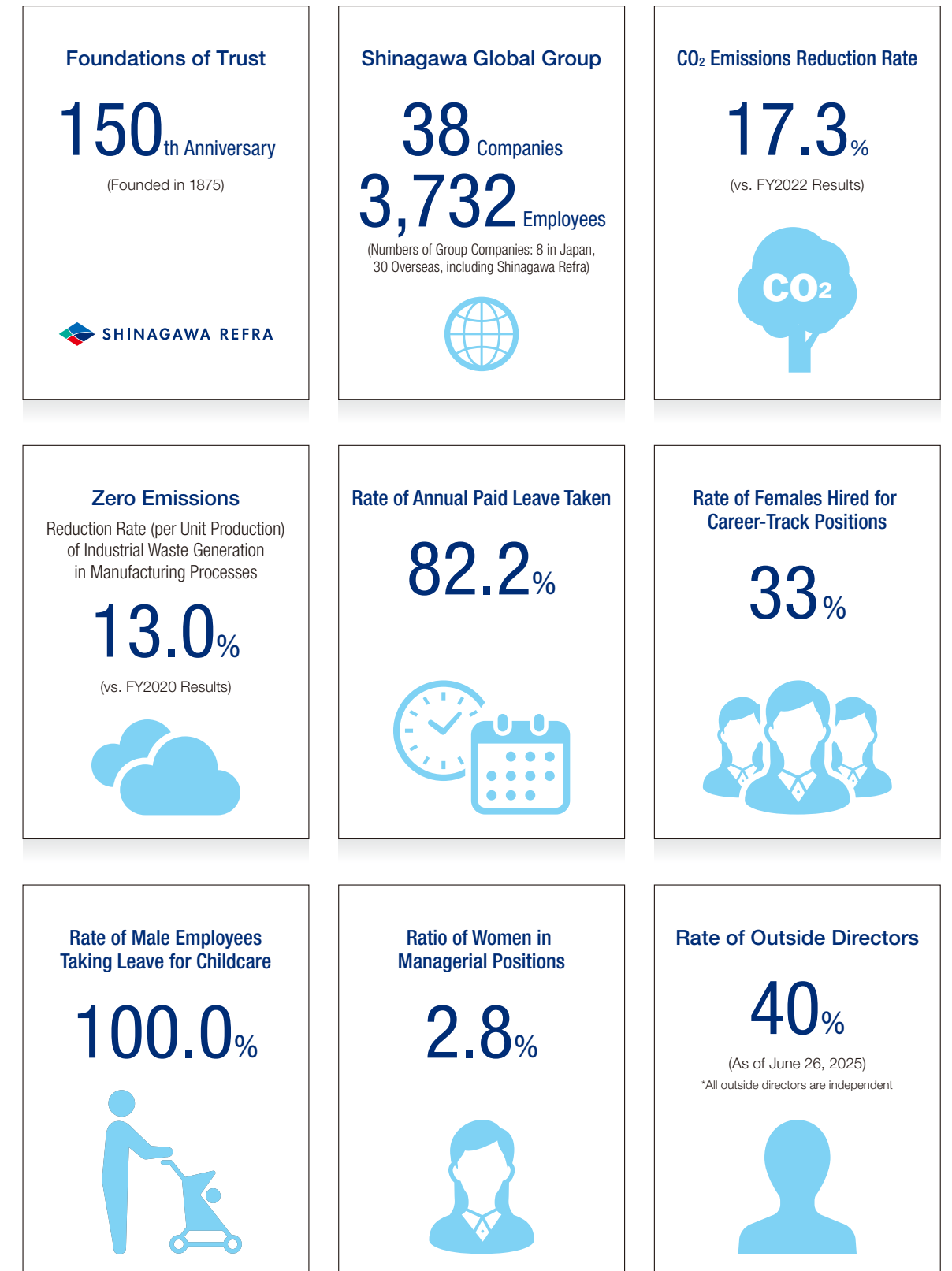


Financial Information*1

Non-Financial Information



*1: All data are historical results on a consolidated basis. *2: EBITDA = Operating income + Depreciation + Amortization of goodwill. *3: Effective October 1, 2023, the Company conducted a stock split at a ratio of 5 shares for 1 share of common stock. The net income per share is calculated as if this stock split had taken place at the beginning of FY2020.

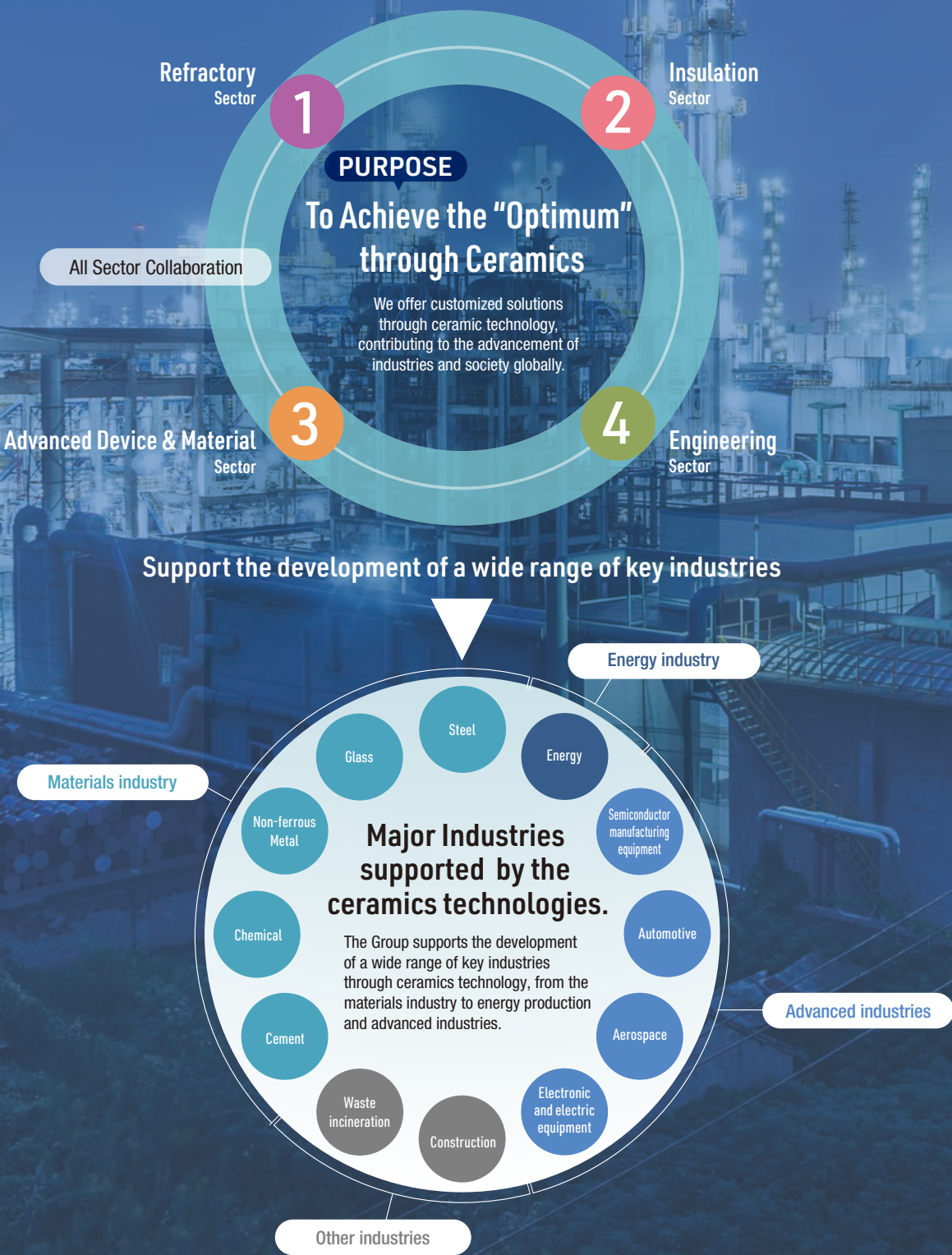


The above figures are non-consolidated results for FY2024.

Providing optimal solutions to customers through ceramics technology.

In addition to our original refractory business, our operations are related to ceramics in a broad sense, which includes insulation materials, fine ceramics (core products in the Advanced Device & Material Sector), and engineering services for design, installation, and repair. We, the Shinagawa Refra Group, have four sectors working closely together to generate synergies by maximizing the strengths of each field.

We will then provide customers with optimal solutions by making full use of the ceramics technologies that the Group has in place.



Total Support System Linked with Four Business Sectors

The Group's strengths lie in its ability to provide a one-stop response to a diverse range of needs related to ceramic products, furnaces, and other products through the collaboration of four business sectors in all high-temperature processes and leading-edge industrial fields. We provide integrated total solutions, from development and design to manufacturing, sales, installation, repair, and maintenance, and technical services, to provide powerful support for customers' problem-solving.



1 Refractory Sector

Development and supply of essential materials for industries requiring high-temperature processes

"Refractory" is largely classified into shaped refractories and monolithic refractories, with high-melting-point minerals as the main raw materials. Shaped refractories are formed by the high pressure of various press machines and are generally called "fire bricks". Monolithic refractories are in powder form at the product stage, and they exhibit heat resistance performance once they are hydrated and constructed at the place of use. Mold powder, which is not refractory but is used in the continuous casting process at steelworks, is also manufactured and sold by the Group.

Converter facilities and main products in steelworks

Converter facilities remove carbon components from pig iron to refine steel, and the refractory used on the inner walls of this equipment can withstand the temperatures inside the converter, which can reach temperatures of 1600°C or higher with high-temperature molten steel.

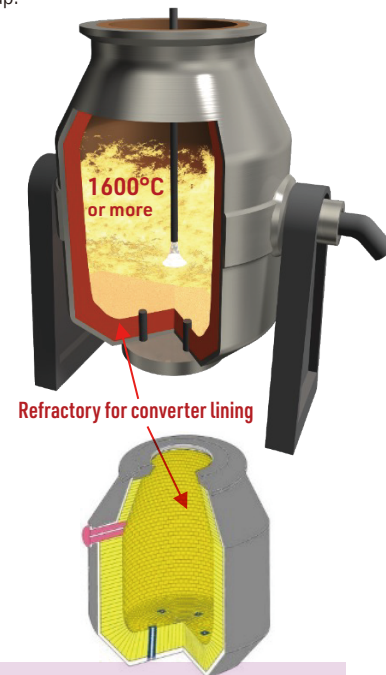
Shaped refractories

Shaped refractories are products that support all kinds of industrial ceramic furnaces and high-temperature treatment processes, and have high strength and dense quality.



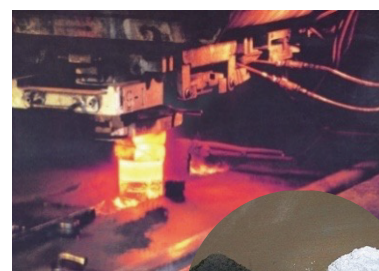
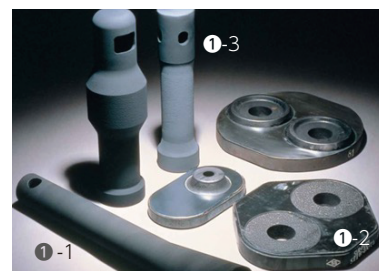
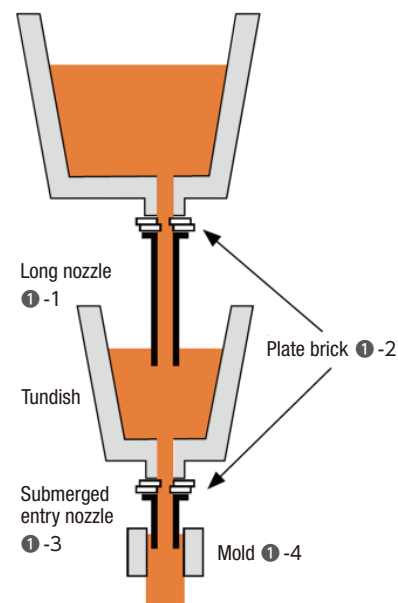
Monolithic refractories

Compared to shaped refractories, installation is simple. Monolithic refractories are classified into different types: casting material, gunning material, etc., according to the difference in construction method.



Continuous casting facilities and major products in steelworks

A continuous casting facility is a core facility for the steel-making process, in which the composition-adjusted molten steel is continuously solidified to produce semi-finished steel pieces. Functional refractories and mold powder, which affect the quality of steel, are used in this process.



Functional refractories

Products include plate-like and nozzle-like products, and their manufacturing requires advanced technology. These products play an important role in steel making, such as controlling the flow rate of molten steel and preventing oxidation.

Mold powder ①-4

In the continuous casting process of a steelworks, which converts molten steel into plate-like or bar-like steel ingots, mold powder serves the following roles: maintaining the temperature inside the mold, preventing steel oxidation, and lubricating the mold and the steel ingot.

It is one of the high value-added products handled by the Refractory Sector.

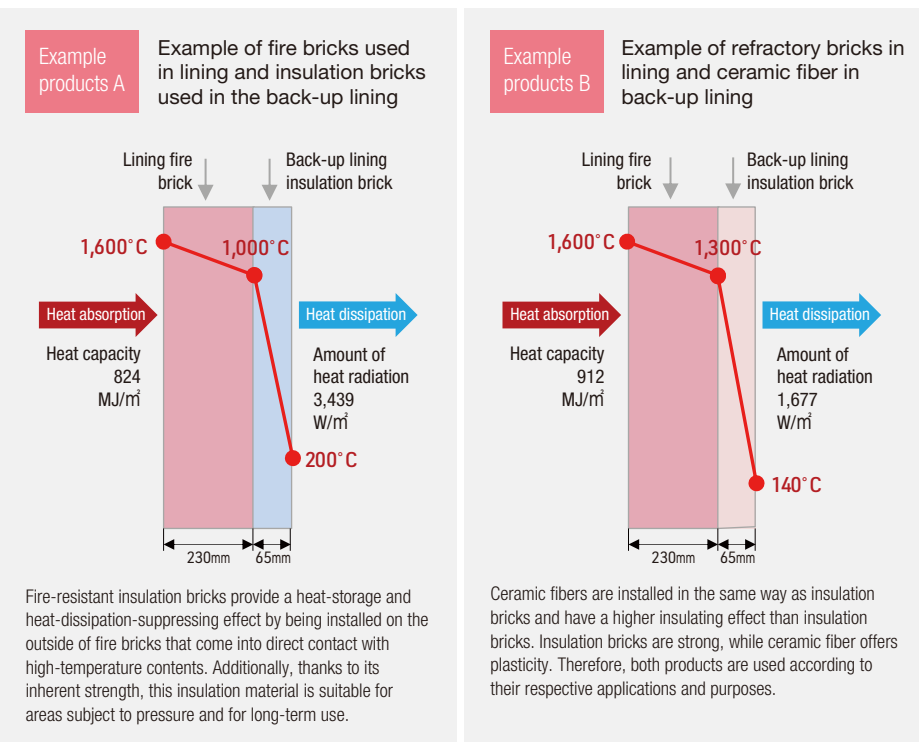
2 Insulation Sector

Development and supply of key technology materials for carbon neutrality

Insulation materials are divided into two main types: insulation brick and ceramic fiber. In addition to heat resistance, these have excellent heat insulation performance and are used in a wide range of industrial fields. Due to their superior performance, they are attracting attention as materials that can reduce the loss of thermal energy. Demand is increasing further, along with efforts made by various industries toward carbon neutrality in recent years. We also engage in the processing, assembly, and sales of laminated lumber that enables the effective use of wood. Through the development and sale of various products, we are developing as a sector that is environmentally friendly.

Basic performance characteristics of insulation materials

Insulation bricks and ceramic fibers are used as the lining material (cold side) of the refractory used in the back-up lining (heat side). They provide the heat storage effect of high-temperature contents and suppress heat dissipation to the outside.



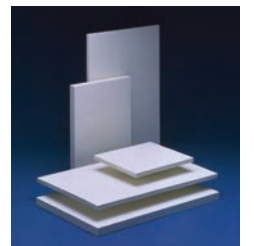
Insulation bricks

Insulation bricks have a certain level of strength and are used mainly in facilities such as coke ovens and hot stoves in the steel industry, as well as petrochemical plants.



Ceramic fiber

Products with high thermal insulation performance and excellent plasticity. Molded products of various shapes are also used in various industries.



Other major products in the Insulation Sector

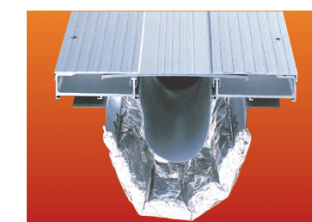
High-temperature dust-collecting filter

This product is made from ceramic fiber and is much more heat-resistant than a typical dust collection filter. It is mainly used as a dust collection filter in high-temperature environments, such as sludge treatment furnaces and biomass power generation facilities.



Fireproof construction materials (fireproof band, etc.)

Heat insulation for fire-proof buildings that combine cushioning and fire-resistant performance. It is mainly used as a joint material for joints in buildings and warehouses, and as a fire protection material for steel and wood.



Lumber products

Isolite Kenzai, an isolite insulating subsidiary, manufactures and sells wood products for public facilities and housing. Their WoodSonic sound-absorbing panel won the Wood Design Award in 2023.



3 Advanced Device & Material Sector

Development and supply of alternative materials for a wide range of metal parts

Advanced device & material generally refers to cutting-edge machinery and components manufactured using advanced technology and materials. Fine ceramics, the core product of this sector, have a denser structure than refractories and have higher heat resistance, as well as superior wear resistance and chemical attack. Because of these characteristics, they are mainly used as substitutes for metal parts across a wide range of fields, including the semiconductor manufacturing equipment field. We also handle inorganic paints and inorganic adhesives. These products are developed by applying the refractory technology that the Group has cultivated over many years. Furthermore, we are developing an assembly and inspection business for semiconductor manufacturing equipment and are promoting diversified efforts in advanced technology fields.

The use of fine ceramics in many of the important parts in semiconductor manufacturing equipment

Lithography

The process of transferring the circuit pattern to a wafer. Because extremely high accuracy and stability are required inside this equipment, fine ceramics with a low coefficient of thermal expansion are used.

Testing

The process of assuring the final quality of a semiconductor. Fine ceramics with high insulation and specific dielectric constants are used inside this equipment.

Inspection

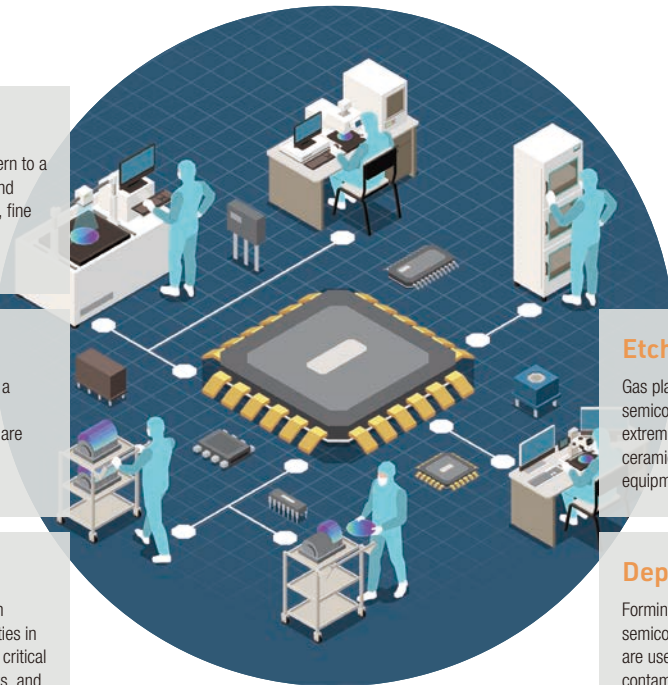
The process for detecting defects or foreign matter on the wafer surface and abnormalities in circuit patterns. Fine ceramics are used for critical components such as stages, guides, chucks, and other important parts of this equipment.

Etching

Gas plasma is used to form circuit patterns for semiconductor wafers. Because this process is extremely harsh, highly corrosion-resistant fine ceramics are used for the internal parts of the equipment.

Deposition

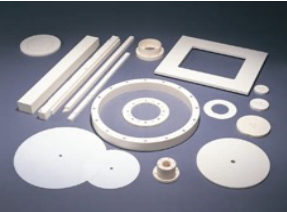
Forming a thin film on the surface of the semiconductor wafer. High-purity fine ceramics are used inside the system to prevent membrane contamination.



Main products and services in the Advanced Device & Material Sector

Fine ceramics

A high-precision ceramic material used in various fields such as semiconductor manufacturing equipment and molten metal equipment.



Wear-resistant ceramics

A ceramic material with excellent wear resistance that contributes to extending the equipment life of industrial machinery.



Inorganic paints/inorganic adhesives

They have superior resistance and electrical insulation properties, as well as enabling surface coating and bonding for applications that cannot be realized with organic materials.



Semiconductor manufacturing equipment-related business

This sector is responsible for the assembly and inspection business for semiconductor manufacturing equipment, a leading-edge industrial field.



4 Engineering Sector

Engineering services supporting industry with advanced technological capabilities

In the Engineering Sector, we design and perform construction work (including repair and maintenance) for various kiln furnaces using ceramic products such as refractories and insulation materials. We provide services for blast furnaces, converters, various industrial furnaces, incinerators, and other equipment mainly in steelworks, taking advantage of our abundant technologies and experience. We are also developing and manufacturing construction equipment for refractories, supporting improved efficiency and quality at construction sites. In addition, we are actively introducing the latest technologies to improve construction accuracy and work efficiency.

Examples of the provision of total engineering services in industrial ceramic furnaces

We provide integrated total engineering services from design to construction, repair, and maintenance of various industrial ceramic furnaces.

Design

We design lining for all types of industrial ceramic furnaces that use ceramic products. In designing, we take a comprehensive range of factors into consideration, including characteristics such as the material and shape of ceramic products, the furnace structure, service life, and thermal conductivity.



Construction work

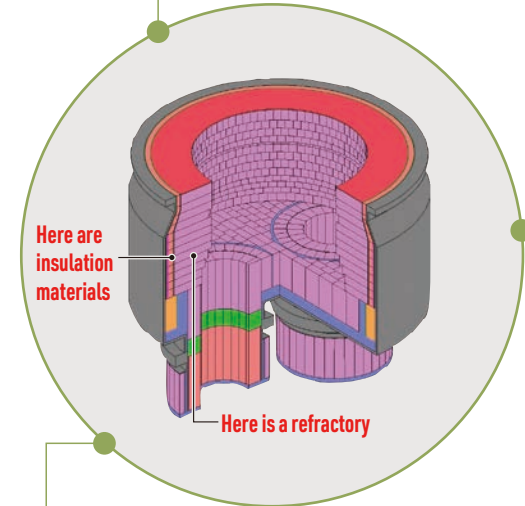
Based on our sophisticated technologies and abundant experience accumulated over many years, we carry out construction work across a wide range of fields, including various industrial ceramics and incinerators. In recent years, we have been actively promoting labor-saving through the introduction of the latest furnace installation technology and automation.



Repair and maintenance

Refractories that are installed in furnaces and exposed directly to high-temperature conditions will gradually wear and tear as they are used. We repair the worn parts with gunning materials or other monolithic refractors to prolong the life of the furnace. We also develop and manufacture refractory construction equipment for gunning materials.

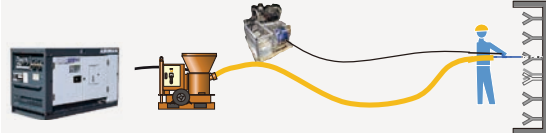




Main equipment and services in the Engineering Sector

New gunning technique (SIG)

SIG, a next-generation gunning technique developed by combining the performance properties of gunning materials and construction equipment. It is highly durable and easy to construct and has been developed in a wide range of fields.



KOALA-mini, a compactly designed, lightweight gunning machine

Compact and lightweight gunning equipment with portability. This equipment is ideal for emergency repair and for work in small spaces.

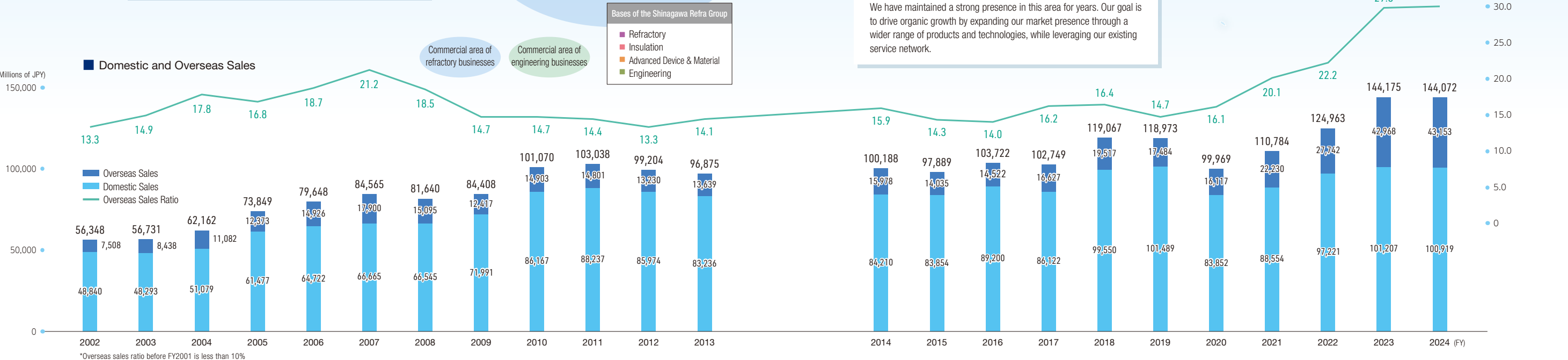
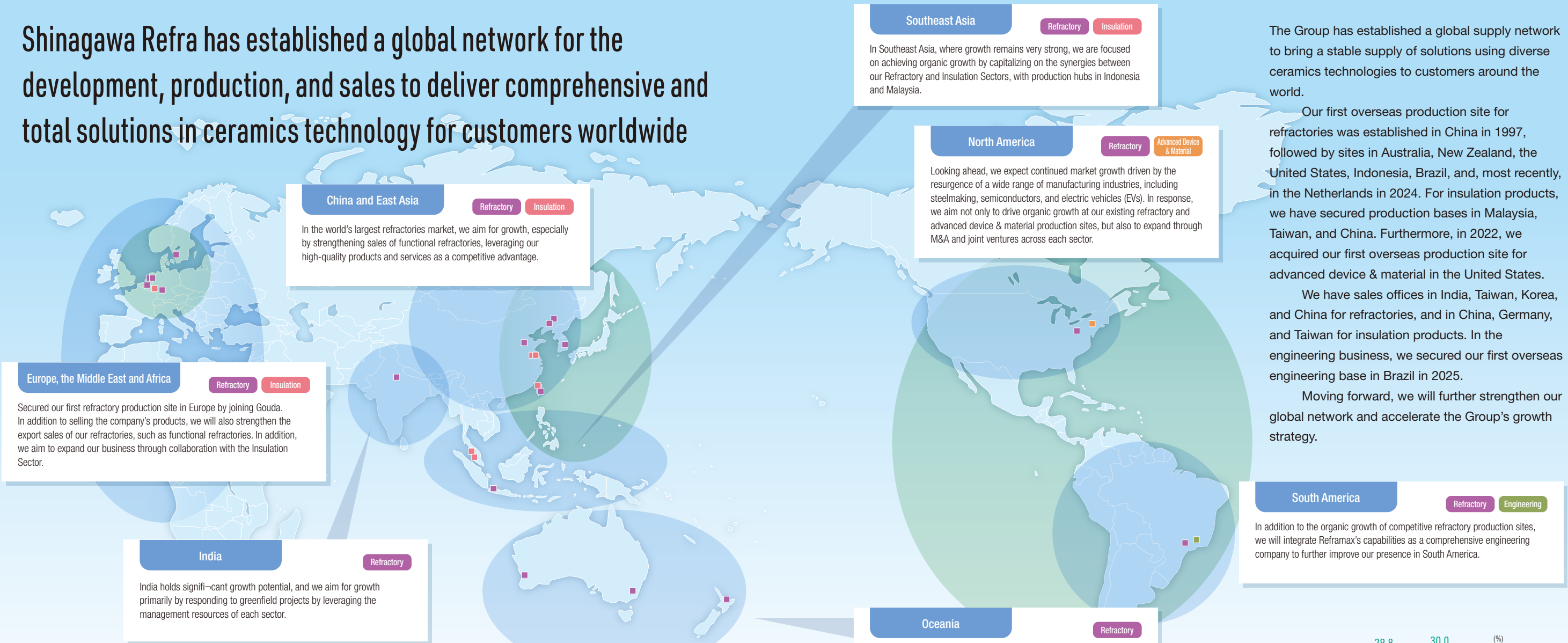


Promoting the introduction of the latest technology

We are actively considering and promoting the introduction of the latest technologies, such as inspection work for various industrial ceramics furnaces using drones.

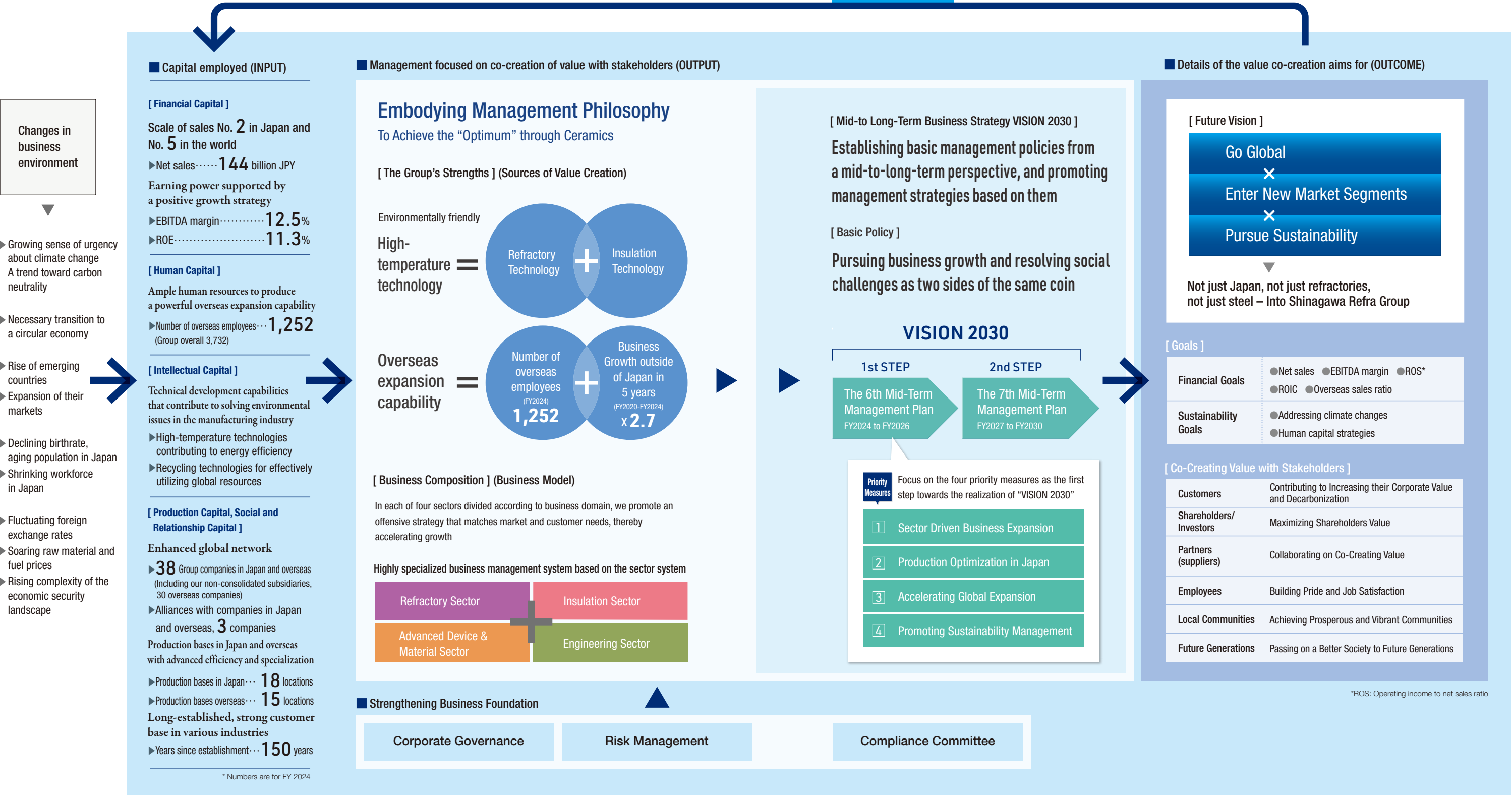


Shinagawa Refra has established a global network for the development, production, and sales to deliver comprehensive and total solutions in ceramics technology for customers worldwide



We aim for value co-creation with our stakeholders in accordance with our medium- to long-term growth strategy, based on our long-term vision

Cycle of Value Co-creation



Overview of “VISION 2030”

VISION 2030: Basic Policy

Pursuing **business growth** and resolving **social challenges** as two sides of the same coin

Future Vision Shinagawa Group's To Be

Go Global ✕ Enter New Market Segments ✕ Pursue Sustainability
~Not just Japan, not just refractories, not just steel – Into Shinagawa Refra Group~

[Growth axis] Financial Goals

	FY2024 Results	FY2030 Goals
Net Sales	144 B JPY	240 B JPY
EBITDA Margin	12.5%	16%
ROS (based on Operating Income)	9.2%	12%
ROIC	7.2%	10%
Overseas Sales Ratio	30.0%	50%

[Sustainability axis] Sustainability Goals

KPI addressing Climate Changes

CO₂ emissions (consolidated basis, Scope1,2)

FY2030 target 50% reduction compared to FY2022

Green raw material ^{*1} usage percentage (non-consolidated basis)

FY2023 10% Target for FY2030 20%

*1: Green raw materials include used refractory recycled materials, recycled materials generated internally, and by-products from other industries. These raw materials are regarded as having virtually no CO₂ emissions.

Human Capital Strategies

(1) Human resources and organizational development aligning with corporate strategy
(2) Further improving Diversity and Inclusion
(3) Creating a comfortable work environment

1st STEP for realizing the 6th Mid-Term Management Plan (FY2024 to FY2026) through VISION 2030

[Growth axis] Financial Goals

	FY2024 Results	FY2026 Goals
Net Sales	144 B JPY	180 B JPY
EBITDA Margin	12.5%	14%
ROS (based on Operating Income)	9.2%	11%
ROIC	7.2%	10%
Overseas Sales Ratio	30.0%	45%

Priority Measures

Sector Driven Business Expansion
We will deepen our growth strategy by further creating and strengthening our “earning power” to maximize corporate value

Production Optimization in Japan
Reorganize and consolidate domestic bases in the East and West to expand domestic sales and improve the production bases for growth in the global market

Accelerating Global Expansion
Promote strengthening of the “local manufacturing and local sales” system at the overseas locations, aiming for overseas sales of 82.2 billion JPY and an overseas sales ratio of 45% in FY2026

Promoting Sustainability Management
Promote climate change initiatives through business activities and human resource initiatives that underlie sustainable growth as two pillars

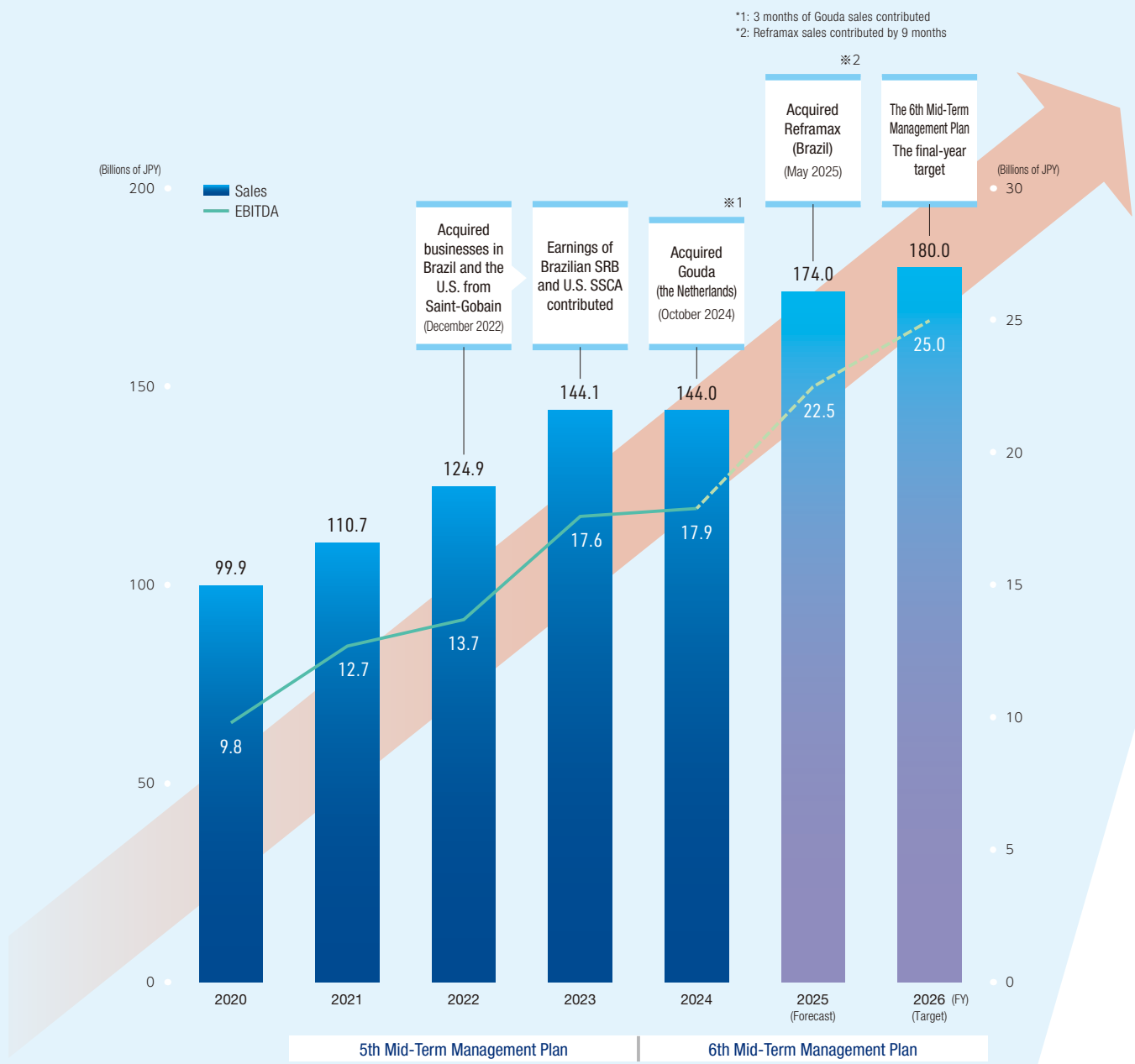
[Targets for FY2026]

From FY2024 onward, while factors such as the suspension of blast furnaces at major customers will certainly contribute to a decline in business results, Shinagawa Refra will strive to expand both sales and profits through business expansion, including overseas operations, and cost reduction initiatives.

Towards Achieving the Goals of the 6th Mid-Term Management Plan.

Consolidated earnings forecast for the Shinagawa Refra Group

Achievement of the 6th Mid-Term Management Plan is in sight through the acquisition of Brazilian Reframax, following the Brazilian SRB and U.S. SSCA and Dutch Gouda



We will continue to take on new challenges and pursue further growth to maximize corporate value.



President and CEO

Hiroyuki Fujiwara

Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5	Chapter 6
Introduction	Value Creation	Management Strategy	Sector Strategy	Sustainability	Data Book

Q1 Although it has only been a year since VISION 2030 was established in 2024, the business environment seems to have shifted drastically. Please share your understanding of the current business environment.

The business environment surrounding the Group is generally in line with the trends we anticipated. However, the recent speed and magnitude of changes have exceeded our expectations, resulting in some short-term developments beyond our assumptions. In Japan’s steel industry—our largest source of demand for the Refractory and Engineering Sectors—crude steel production has been declining at a pace far surpassing the projections in VISION 2030. Although the overseas steel industry is expected to grow in the future, current conditions show a mixed picture: crude steel production in India continues to grow steadily, while other regions remain stagnant. In the semiconductor manufacturing equipment field, which is a key market for our Insulation and Advanced Device & Material Sectors, demand is expected to expand reliably over the medium- to long-term. However, at present, demand is slow due to factors such as customer inventory adjustments. On top of that, new risks have also emerged recently, including trends in U.S. trade policy.

Nevertheless, we have already factored the possibility that the business environment underlying our medium- to long-term plans may not unfold exactly as expected. We regard our business strategies as hypotheses based on the business environment. When those underlying conditions change significantly, or when we determine that our strategic measures are not producing the intended effects, we promptly revise our course, modify our plans, and implement new actions. This approach is known as an “emergent strategy,” and I believe that business strategies and plans in the VUCA* era should follow this concept. I often tell our people that interpreting “management” simply as “control” is incorrect. Rigidly adhering to a fixed

plan and focusing solely on budget-versus-actual management represents only one part of the management process, not its entirety. The original meaning of the verb “manage” is to “make something work.” True management, in my view, is the ability to adapt—changing methods as circumstances evolve, deploying new measures one after another, and ultimately realizing the company’s vision despite the inevitable twists and turns. Therefore, even when the business environment diverges greatly from our initial assumptions, as it has in recent years, we continue to act with the determination to “make it work,” No matter what. We do not subscribe to the mindset of “the plan couldn’t be achieved because the environment changed.”

*VUCA: Volatility, Uncertainty, Complexity, and Ambiguity

Q2 The Group has completed its first-year initiatives (FY2024) of the 6th Mid-Term Management Plan, the first step toward realizing VISION 2030. Firstly, how do you evaluate the business results?

Although the business environment in FY2024 turned out to be more challenging than initially anticipated, net sales totaled 144 billion JPY (down 0.1% year-on-year), maintaining roughly the same level as FY2023. Regarding profits, EBITDA, which the Group considers a particularly important management indicator, increased to 17.9 billion JPY (up 1.5% year-on-year).

By sector, the Refractory Sector saw a decline in sales volume due to lower crude steel production in Japan and reduced activity levels among key overseas customers. Meanwhile, the fourth-quarter results of Gouda in the Netherlands, which joined the Group in October 2024, together with increased revenue in the Insulation, Advanced Device & Material, and Engineering Sectors, helped maintain overall sales. For profit levels below operating income, the Refractory Sector pursued

The Group’s Business Environment

The Group's Sectors	Key Markets	Assumed Business Environment at the Time of Formulating the 6th Mid-Term Management Plan	Current Business Environment
Refractory Sector	Iron & steel	• Gradual decline in domestic crude steel production • Steady activity levels among overseas customers	• Faster-than-assumed decline in domestic crude steel production • Concerns over risks related to U.S. trade policy trends, etc. • Low activity levels among overseas customers
Engineering Sector			
Insulation Sector	Semiconductor manufacturing equipment	• Demand expansion over the medium- to long-term • Gradual demand increases in the short term	• Demand expansion over the medium- to long-term • Sluggish demand in the current period
Advanced Device & Material Sector			

initiatives such as improving the sales mix and reducing costs. However, due to the aforementioned decline in sales volume and higher amortization of goodwill related to M&A, operating profit totaled 13.2 billion JPY (down 4.4% year-on-year) and ordinary income reached 13.6 billion JPY (down 8.4% year-on-year). Net income attributable to owners of the parent declined significantly to 9.7 billion JPY (down 36.0% year-on-year). However, this decline was primarily due to the significant gains from the sale of fixed assets, such as real estate, recorded in FY2023 were absent in this period, making this a one-off factor.

The Group has been proactively investing in business and capital expenditures to support future growth, and the resulting amortization of goodwill and other intangible assets inevitably puts pressure on accounting profits. However, EBITDA, an indicator of cash generation capacity, has been steadily increasing, reflecting the appropriate performance of a growing company. In FY2023, we achieved record-high business results through organic growth and M&A. Even in FY2024, despite a more challenging business environment, we steadily advanced initiatives to strengthen and expand our business, maintaining sales and securing an increased EBITDA, which I believe deserves recognition.

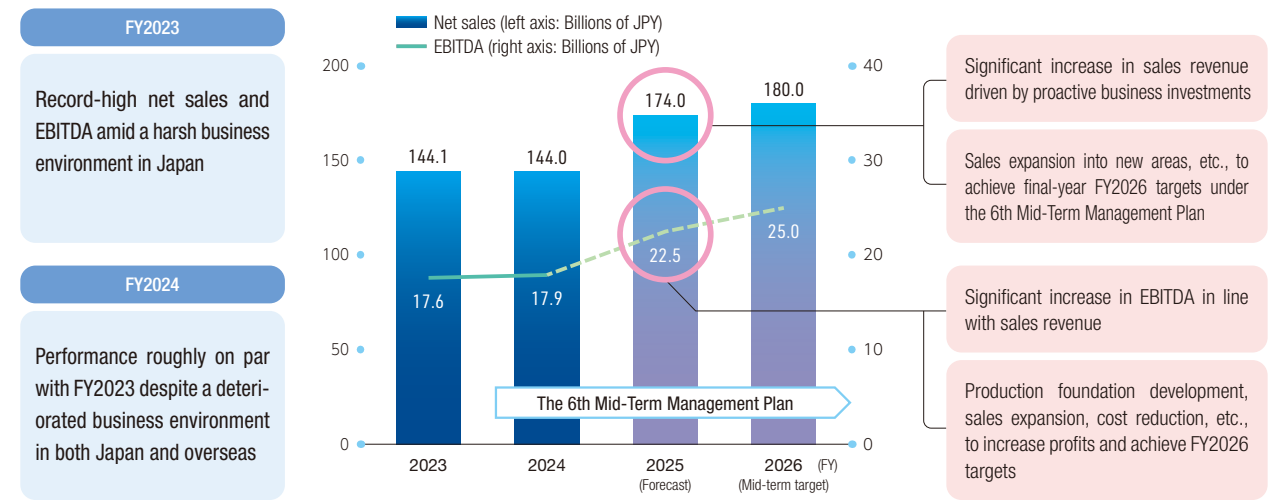
Q3 The FY2025 business forecast anticipates performance that will firmly place the final-year (FY2026) targets of the Mid-Term Management Plan within reach. Could you explain the background and factors behind this forecast?

As for the earnings outlook for FY2025, the full-year contribution

of the Dutch company Gouda, which we acquired in October 2024, will be reflected in the results. In addition, the results of the Brazilian company Reframax, which joined the Group in May 2025, will be reflected from the second quarter. Additionally, we have incorporated highly reliable sales expansion plans for our existing businesses in the Refractory, Insulation, and Engineering Sectors. These initiatives are expected to drive revenue up 21% year-on-year to 174 billion JPY. By streamlining production processes and reducing raw material procurement costs, we also plan EBITDA to increase 25% year-on-year to 22.5 billion JPY. In particular, improving efficiency in domestic production processes is expected to strongly support EBITDA growth. In recent years, we have instilled the mindset across all production sites that there can be no growth without proactive investment. Fundamental reforms in production, including internal logistics, have dramatically enhanced domestic manufacturing productivity and efficiency.

In April 2025, we implemented three major organizational changes to strengthen Group-wide competitiveness and accelerate our growth strategy. First was our overseas management division. While we have expanded our overseas business mainly in the Refractory Sector in recent years, we will now actively invest in overseas operations across all sectors. To support this, we have established the Overseas Business Department to manage our expanding overseas business across the Group. Second was domestic sales. We have integrated Sales Departments No.3 and 4 into three offices in Eastern Japan, Kansai, and Western Japan. We have also established the Customer Development Department to strengthen our approach to new business development in non-ferrous metals, industrial furnaces, and other fields, with

■ Previous Consolidated Performance and Forecast



a focus on expanding sales channels in previously underdeveloped areas. Lastly was the absorption merger of Shinagawa Fine Ceramics Co., Ltd. By absorbing the company responsible for the Group’s domestic fine ceramics business, we aim to enhance management efficiency through the integration of management resources, technologies, and human talent.

Our business environment in FY2025 is expected to become even more challenging. However, by steadily promoting the priority measures of the 6th Mid-Term Management Plan—“Sector driven business expansion,” “Production optimization in Japan,” “Accelerating global expansion,” and “Promoting sustainability management”—we have our final-year targets for FY2026 within sight: net sales of 180 billion JPY and EBITDA of 25 billion JPY.

Even if the business environment changes significantly, we will take every possible action based on the concept of emergent strategy previously mentioned to achieve the goals of the 6th Mid-Term Management Plan, which represents the first step toward VISION 2030.

Q4 Regarding overseas M&A driving the Group’s business growth, what is your fundamental approach and philosophy?

Overseas M&A is a critical pillar of the Group’s growth strategy. To pursue M&A, we must first identify target companies. In doing so, we require that the target company has its own unique strengths, the potential to have standalone growth, and create a complementary relationship in terms of geography and products with the Group’s existing businesses. Our rule is to evaluate synergies only to the extent that they can be reliably

achieved. While this makes our calculation of investment returns highly conservative, we use this method to evaluate the value of the companies for screening. We then thoroughly consider whether they can generate further synergies that are aligned with our global strategy and make our final decision. From a risk diversification perspective, our basic policy is to expand into diverse markets rather than concentrating on specific regions or business areas. Through this approach, we aim for stable growth even in high-risk overseas operations. In this way, we aim to enhance corporate value sustainably through M&A driven by a clear strategic narrative and controlled risk.

I believe that the two M&A projects executed during the 6th Mid-Term Management Plan period will play a pivotal role in accelerating the Group’s future global expansion.

First, Gouda has operating bases for the manufacture and sale of refractories and engineering services in Europe, along with a broad sales network in the Europe, Middle East, and Africa regions. Through this acquisition, we have secured geographic complementarity in regions where the Group had not been able to fully expand. In terms of product complementarity, Gouda has key business areas in the non-ferrous metals, petrochemicals, and energy industries where we had relatively little presence. Particularly in the petrochemicals field, the company’s engineering service department has obtained industry certifications, establishing a solid presence. Since the petrochemicals industry has an immense demand for insulation materials, we will focus on expanding sales of the Group’s existing products, including those in the Insulation Sector, through Gouda’s service department.

Next, Reframax operates the engineering business at 21 locations in seven countries, primarily in Brazil and other South American countries. Leveraging its robust presence in Brazil, the company is expanding its business globally. Furthermore, the company provides services related to electrical and mechanical works, civil engineering works, machining, and insulation works—areas the Group’s existing businesses had not previously covered. This M&A will expand the Group’s business in the stable markets of the Americas and lead to the global strengthening of our engineering business. I also have high expectations for the creation of synergies, such as the proactive use of the Group’s refractory and insulation material products by Reframax.

By harnessing multifaceted synergies between the Group’s existing businesses and these newly acquired companies, we will further strengthen and expand our business in the global market.

Q5

Driven by proactive M&A, the Group's key growth strategies of "Accelerating global expansion" and "Sector driven business expansion" are progressing steadily. Please tell us about the achievements so far and the important challenges going forward.

Building on the previous Mid-Term Management Plan, the Group has also been promoting "Accelerating global expansion" in the 6th Mid-Term Management Plan through proactive M&A and establishing joint ventures. As a result, the overseas sales ratio has risen from 16% in FY2020 to 30% in FY2023 and is expected to reach 43% in FY2025. Furthermore, VISION 2030 identifies overseas business as the key driver of the Group's growth, with a target of raising the overseas sales ratio to 50%. This is a challenging goal. However, we believe there is still considerable growth potential for the Group in the global market, and we are confident the target is fully achievable.

In future overseas expansion, guided by our new corporate PURPOSE, we will provide customers with optimal solutions through a wide range of ceramic technology. This includes not only refractories but also insulation materials, fine ceramics, and engineering services to install these products. To pursue proactive business expansion and diversification strategies, including M&A, both domestically and internationally, it is essential to generate stable profit and cash flow in our traditional domestic fields: the refractory and insulation materials business and the engineering business. These fields serves as the backbone supporting the Group's growth, and we will continue to strengthen our organization in these areas. We will then allocate the cash generated there to investments in growth markets, expanding our business globally.

Currently, the top global refractory manufacturer has

sales of roughly 600 billion JPY, with the second largest at about 400 billion JPY. Size is indeed a critical factor in inter-company competition, and in order for our Group to maintain and enhance its competitiveness in the global market, we believe it is necessary to reach a sales scale of approximately 240 billion JPY by FY2030. This has been set as our target in VISION 2030. However, this does not mean we are aiming for a specific ranking within the industry. As mentioned earlier, we instead aim to be a unique entity offering customers optimal solutions through comprehensive ceramics technology, encompassing refractories, insulation materials, fine ceramics, and engineering services. By doing so, we aim to remain a company group that is consistently chosen by customers, achieve sustainable growth while maintaining high profit margins, and appropriately share the resulting value with our various stakeholders—including investors, customers and business partners, employees, local communities, and future generations.

Q6

The Group's VISION 2030 outlines "Pursuing business growth and resolving social challenges as two sides of the same coin" as its basic policy. How are you working on these initiatives and what is your future approach?

Amid the global expansion of ESG investment and the growing demand for decarbonization across entire supply chains, the responsibilities and roles of corporations are becoming increasingly important. Therefore, it is essential to pursue various initiatives for addressing these social challenges as part of our business strategy; otherwise, such efforts will not be sustainable. In other words, it is about "Pursuing business growth and

resolving social challenges as two sides of the same coin," and we regard this as an indispensable perspective for the Group's sustainable growth.

As environmental initiatives, the Group is working to reduce energy consumption in manufacturing processes, reduce waste, and promote the adoption of renewable energy. These are fundamental responsibilities for any manufacturer, but in addition, we are placing particular emphasis on the following two initiatives. The first is to leverage the Group's core ceramics technology to reduce heat loss in customers' high-temperature processes, thereby lowering energy consumption and helping curb greenhouse gas emissions. The second is to actively promote the recovery and recycling of used refractories. Products that incorporate a certain proportion of these recycled materials are branded as "GREEN REFRACTORY," and we are promoting their adoption among customers. Promoting the use of recycled raw materials not only contributes to global environmental conservation through resource circulation, but also serves as an effective approach to mitigating raw material procurement risks.

Efforts to address climate change are positioned as part of our 'sustainable management,' but another crucial initiative for enhancing corporate sustainability is the strengthening of human capital. Most recently, we carefully analyzed employee feedback from an engagement survey conducted in February 2025, which enabled us to identify our current challenges. These insights are being used as critical data when considering specific measures to strengthen our organization. Going forward, we will continue to focus on enhancing diversity, equity, and inclusion (DE&I) and actively work to create a comfortable workplace environment where every employee can thrive. Furthermore, we are undertaking project activities to advance human resources and organizational development in alignment with our management strategies. We evaluate and provide feedback on the five VALUEs (Endeavor, Rapidness, Flexibility, Accomplishment, and Relationship) in our new corporate philosophy for each individual and workplace group. This is accompanied by discussions aimed at addressing issues at various levels, as well as offering necessary training opportunities. Through this multifaceted approach, we aim to enhance the capabilities of both our people and our organization.

To further deepen and strengthen our sustainable management efforts, we have revised the Board Director remuneration system, effective in FY2025, by adding sustainability indicators to the performance metrics used for bonuses. Specifically, these indicators relate to climate change initiatives

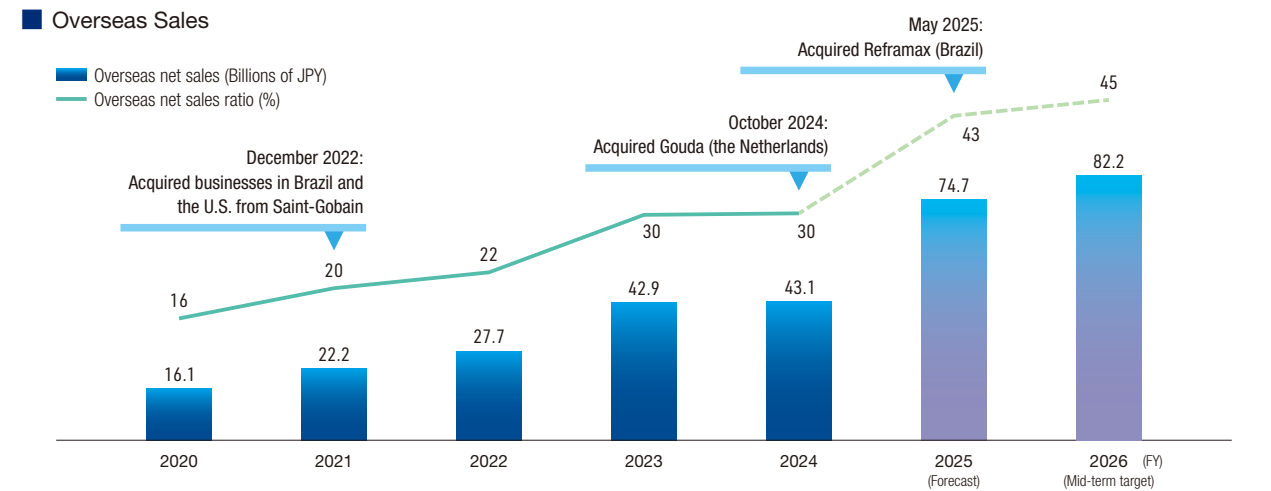
and employee engagement. They will encourage management to further commit to achieving sustainability objectives and to pursue concrete results.

Q7

Finally, please share some words for your stakeholders.

Shinagawa Refra has celebrated its 150th anniversary and positioned this milestone as a new starting point to carry it forward into the future and beyond. As we embark on this journey, the Group has restructured its corporate philosophy and announced its new VISION: "To foster continuous growth by deploying global solutions," " To cultivate a workplace where employees can experience personal growth and a fulfilling life," and " To pass on a better environment and society for future generations through our business." By pursuing this VISION, we will maximize the Group's corporate value and channel the achieved outcomes toward both reinvestment for further growth and enhanced returns to our stakeholders. We will also proactively disclose information to enhance communication with you. We welcome your feedback, including questions and critiques, and are committed to responding sincerely. We ask our stakeholders to look forward to the Group's future challenges and growth, and we thank you for your continued support.

Overseas Sales





Representative Director,
Managing Executive Officer,
Overseas Business Department
Heiki Miki

Q1 Please tell us about the role of the newly established Overseas Business Department, which was created as part of the organizational changes implemented on April 1, 2025.

As we celebrate our 150th anniversary, the company has rebranded its name from Shinagawa “Refractories” to Shinagawa “Refra,” a coined term taken from the first five letters of “Refractories.” Refra embodies our philosophy of fully inheriting the technologies, trust, and experience cultivated in our refractory business while simultaneously expanding the Group’s focus to insulation materials, advanced devices & materials, engineering, and related businesses in addition to refractories.

Regarding overseas business, we previously focused solely on refractories. However, in 2022, we acquired SSCA (Pennsylvania, U.S.A), which manufactures and sells ceramics related to advanced devices and materials, from Saint-Gobain in France. Furthermore, in 2025, we invested in Reframax (Minas Gerais, Brazil), which operates in the engineering business. Also in 2022, Isolite became our wholly-owned subsidiary, enabling integrated operations of the company’s overseas insulation materials business with our broader overseas operations. Today, it has become essential to operate our overseas business in an integrated manner across the entire Group under the “One SHINAGAWA” approach, regardless of business domain. In other words, we aim to pursue collaboration and synergies among our business companies, including those in Japan. The Overseas Business Department was established to function group-wide to lead these activities. The Department consists of the Overseas Planning Section and the Overseas Technical Support Section. The role of the Overseas Planning Section is to manage the aforementioned overseas business companies and lead collaboration among them. It is also responsible for planning and

executing new M&A projects by closely monitoring global business trends, not only in our Group’s business fields but also including our suppliers and demand sectors. The Overseas Technical Support Section, on the other hand, primarily provides technical support to overseas partners to whom we provide technology licensing. As global demand for our advanced technologies cultivated over many years continues to increase, we believe the scope of the section’s operations will further expand in the future.

Q2 Advancing growth globally is considered critical in achieving VISION 2030. Does this mean the Overseas Business Department will be responsible for planning and executing strategic overseas expansion in the future?

It is no exaggeration to say that our 150-year history is one of supporting the development of Japan’s heavy industry, mainly steel, and contributing to the country’s post-World War II economic growth. We have always stood by our customers, shared their challenges, and provided optimal solutions to help Japan’s industries thrive through refractories.

In 2025, the year of our 150th anniversary, our operations centered on steel in Japan will remain our core business. However, given the mature domestic market and a declining population, we cannot expect significant future growth there. Therefore, to continue growing as the Shinagawa Refra Group, proactive overseas business expansion remains indispensable.

Meanwhile, to succeed in overseas business, it is essential to understand the challenges of cross-cultural communication and cultivate the mindset to navigate them effectively. When interacting with people who have different values and cultural backgrounds, it is essential to not reject differences arising from history and culture, but rather

Accelerating global expansion as the key to the Group’s future growth strategy!

we must recognize that differences are natural and adopt a mindset of acceptance. Even if we feel uncomfortable during communication, it is important to understand that what is “normal” for us may not be “normal” for others, and to respect each other’s perspectives and values, building relationships based on mutual understanding.

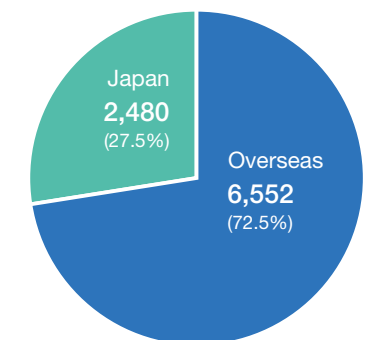
At the Overseas Business Department, cross-cultural interaction with people from diverse countries and regions is part of everyday work. From seasoned veterans of overseas business to younger employees offering fresh perspectives, our people operate globally with open minds without being constrained by past conventions.

Q3 Finally, please share with us your mission and awareness of challenges as the Managing Executive Officer in charge of the Overseas Business Department.

I myself have spent most of my business life—over 40 years—in overseas business, including studying abroad at a business school in the U.S. It has already been 11 years since I joined the Company. During this time, with the support of related departments, I have been able to plan and execute the establishment of strategic partnerships overseas, the formation of joint ventures, and M&A transactions. The Group’s overseas sales ratio, which was less than 20% when I joined the Company, is expected to exceed 40% by FY2025. Meanwhile, consolidation and realignment within the global refractory industry are accelerating, and the need to expand our overseas business is increasingly important to maintain and enhance our competitive advantages. Today, the Shinagawa Refra Group has truly become a global company, with more than half of our employees residing overseas and holding non-Japanese nationalities. Naturally, this requires further internationalization of the mindsets of

employees in Japan as well. Beyond language skills (English, Portuguese, Indonesian, Dutch, etc.), we need talent capable of serving as liaisons between cultures. Going forward, we will continue to recruit and develop international talent, including actively hiring mid-career professionals on an ongoing basis. Over my 40-year career, I have cultivated cross-cultural communication skills, experience as a liaison between cultures, and a global human network spanning multiple industries. By fully leveraging these assets, I am determined to contribute even more to the continued development of our Group.

■ Breakdown of Group Employees in Japan and Overseas*



* The number of employees at the Shinagawa Refra Group as of March 31, 2025, plus employees of Reframax at the time of the May 2025 acquisition



Marcus Schuchmann

Managing Director
Gouda Refractories Group B.V.



Alexandre de Campos Lyra

CEO
Reframax Engenharia S.A.



As a member of the Shinagawa Refra Group, which shares our vision and philosophy, we aim to further improve our services to customers worldwide

Everybody knows the city name Gouda, famous of course for delicious cheese and syrup waffles.

In our industry, however, the name Gouda stands for superior refractories, excellent services—in the broadest sense of its meaning—and the supply of solutions which help our customers to achieve their financial and quality goals. Globally, Gouda Refractories Group is a renowned supplier in demanding industries such as petrochemical, non-ferrous, and waste-to-energy.

It is exactly because of this philosophy that Gouda Refractories Group, founded in 1901, will celebrate its 125th anniversary in May 2026, and why there is a strategic and cultural fit with Shinagawa Refra. Both companies have a long history, are front runners in their respective markets, and continuously seek added value for their customers.

During the acquisition process of Gouda Refractories Group, it quickly became clear that the vision and philosophy of both companies were aligned. In the case of ‘Gouda’, supported by the decision of Shinagawa’s senior management, it was decided to keep the brand name after the acquisition in October 2024.

The newly born cooperation is, despite the different nature of refractories activities, fully complementary. It allows both parties to serve our customers globally even better and to capitalize on the technological know-how and

sales networks of both Shinagawa Refra and Gouda Refractories Group.

With pride, and on behalf of all employees of Gouda Refractories Group, we give great appreciation and thanks to the senior management of Shinagawa Refra for their professionalism during the acquisition process and making everybody at Gouda Refractories Group feel at home since the first moment.

At ‘Gouda’, we all look forward to our bright future together.

■ Corporate Profile

Corporate Office	Gouda, Netherlands
Founded (Incorporated)	In 1901
Number of Employees	Approx. 400 people
Business Activities	▶ Refractories production, sales, and engineering ▶ Focusing on petrochemicals, non-ferrous metals, and power generation from refuse incinerators ▶ Two production bases in the Netherlands and service bases in Germany, Belgium, Sweden, and the Netherlands
Business Results	2024 Results Sales amount: 15.7 billion JPY, Operating income: 1.9 billion JPY

Aim to establish an international engineering platform under a strategic partnership with Shinagawa Refra

Founded in 1999, Reframax has consolidated its position as a reference in refractory lining and thermal insulation, supported by the technical excellence of its team, continuous investment in training and safety, and an unwavering commitment to quality.

Until recently, the company operated under family ownership, with the founding members — Renato Ribeiro, Ruth Guimarães, Paula, and Fernanda — directly involved in the management and daily operations since its foundation.

Reframax’s trajectory began with maintenance service contracts at ArcelorMittal Tubarão/ES and João Monlevade/MG, employing approximately 500 professionals. In 2015, the company expanded its portfolio, enhancing its competitive advantages and delivering integrated solutions through the addition of access assembly (scaffolding), industrial painting, civil construction, and electromechanical maintenance services.

Currently, Reframax employs around 5,300 professionals, maintains operations at 49 active sites across 10 Brazilian states, and projects revenues of BRL 1 billion in 2025 (~ US\$ 190 million). The company’s sales are distributed across the following segments: Refractory (51%), Painting (22%), Civil Construction (12%), Electromechanical Maintenance (10%), and Scaffolding (2%).

In 2023, Reframax initiated strategic negotiations

with Shinagawa Refra aiming to incorporate technological innovations, advanced know-how, and enhanced safety practices, while also enabling international expansion. This partnership was formalized in May 2025. The alliance accelerates Shinagawa’s global growth strategy, strengthening its presence in the Americas and establishing an international engineering platform. In addition, it extends Shinagawa’s scope of services beyond refractory engineering, broadening its customer base and positioning the company to serve diverse industrial sectors.

■ Corporate Profile

Corporate Office	Belo Horizonte, Minas Gerais, Brazil
Founded (Incorporated)	In 1999
Number of Employees	Approx. 5300 people
Business Activities	▶ Engineering business focusing on refractory installation and insulation works ▶ Service portfolio expansion since 2015 (scaffolding, industrial painting, mechanical work, civil work and maintenance, insulation)
Business Results	2024 Results Sales amount: 23.5 billion JPY, Operating income: 2.6 billion JPY

Promote growth strategies and sustainability initiatives

Q1 Please tell us about the progress of your sustainability initiatives since the materiality assessment in 2022.

Over the past 3 years, we have focused on creating a framework for systematically tackling new themes, as well as themes that we have not been systematically working on. Despite establishing targets for reducing climate change and CO₂ emissions, there were challenges in embedding these into daily operations, making it difficult for employees to take ownership of them. The Sustainability Committee divided the previous KPI into the annual KPI targets and the final goal KGI and managed the progress. At the same time, the Company has worked to improve the system by clarifying which departments are in charge. With the expansion from a refractory-focused business to four sectors and the increase in overseas subsidiaries through M&A, we are moving from a focus on the standalone company to a consolidated scope.

The areas targeted by sustainability management are so broad that discussions tend to be scattered. Discussions on the KPI that were originally established were also deepened after the establishment. As we considered how the Group, with its low CO₂ emissions in business processes, could contribute to society, we take pride in defining refractory products as environmentally sustainable offerings—specifically GREEN REFRACTORY and heat loss reduction products—and establishing them as our future business model.

Alongside establishing a system and deepening discussions, we also advanced concrete tasks such as TCFD, various policy initiatives, and CDP responses. Although each task was new to us, the relevant departments worked together as one to achieve satisfactory results. In addition, we are preparing to utilize TNFD and natural capital-related activities, which are expected to be handled in the near future. Looking back, my impression is that the confusion at the outset has been resolved well. However, we believe that the employee’s sense of ownership is still insufficient.

Q2 Please tell us about future challenges and plans for “Climate-change and environmental impact reduction,” which is a priority focus area.

Our goal is to reduce CO₂ emissions by half in FY2030 and achieve carbon-neutral emissions by 2050 based on

our emissions in FY2022. We have a system in place to combat climate change and reduce our environmental impact, and various data are gradually becoming available. We have collected CO₂ emissions from the Group since FY2022 and have been able to show objective and reliable figures through third-party assurance. The ratio of sales of the aforementioned products with a reduced environmental impact of 40% is set as KGI (by 2030). This is reflected in KPI and monitored. Currently, things are proceeding largely as planned. To promote the establishment and expansion of business models that advance social contribution while achieving KGI, we established the Recycle Business Promotion Department in April 2024 to accelerate our refractory recycling operations and reorganized our sales structure in April 2025 to establish the Customer Development Department. We aim to expand the action plan from each sector, starting with what is feasible.

Q3 How about the other important theme, “human capital strategy?”

In July 2024, we launched the Human Resources and Organizational Development Project within the Committee for Promoting Key Issues and began analyzing the gap between the ideal and the current situation. We conducted an engagement survey in February 2025 to learn about the current situation. Comparisons are made with the entire industry population for the entire company and for each department. While there is some variation across departments, our company was positioned near the average for the manufacturing industry. Project members are exploring improvement strategies in areas with low engagement, age groups, etc. Specific activities are yet to come, but they are likely to be quite extensive. We also plan to conduct periodic engagement surveys to gauge the degree of improvement. We will also refer to a compliance questionnaire that is conducted once every 3 years.

Most specific KGI have been progressing smoothly. With regard to human rights, we conducted human rights due diligence and completed the process to identify our human rights risks. In particular, we are focusing our efforts on improving supply chain engagement, as it is closely related to both climate change and human capital. There are some very difficult KGI targets, but I would like to get even one step closer to achieving KGI by continuing to pursue them.

Chapter 1	Chapter 2	Chapter 3	Chapter 4	Chapter 5	Chapter 6
Introduction	Value Creation	Management Strategy	Sector Strategy	Sustainability	Data Book



Managing Executive Officers
In charge of General Affairs & Human Resources
Department and Sustainability Promotion Section
Yoshinori Tsuchiya

Q4 What are your thoughts on the issues for enhancing corporate value in the future?

Even if Japan’s population declines, its industrial structure changes, and the future outlook is uncertain, we must act with the future in mind. Sustainability management, which strikes a balance between corporate social responsibility and business sustainability, aims to drive business growth in this uncertain environment. We have VISION 2030, a management plan that integrates our growth strategy and sustainability initiatives, and furthermore, we have an ambitious KGI that aims to achieve carbon neutrality by 2025. We have also formulated a new corporate philosophy as we celebrate our 150th anniversary. The path and ideas are shown, and we need to go one step at a time in accordance with these plans and guidelines. We have also introduced a system to shift the mindset of management, such as incorporating the ratio of reduced CO₂ emissions to sales of products with reduced environmental impact as a compensation indicator for executives. The time one executive can dedicate to long-term goals is minimal. We must advance sustainability management while ensuring a smooth transition to the next generation. We believe that the following matters are important for the General Affairs

& Human Resources Department, and the Sustainability Promotion Section.

The first step is to prepare and implement a system for achieving the KGI. Major targets and directions have been determined. It is necessary to have a system to achieve long-term targets in cooperation within and outside the company. It is important to build sustainability-related investments into routine operations so that sustainability-related investments can be implemented while realizing long-term goals while achieving economic viability. Do this by adopting appropriate methods and means.

Next, it is essential to accumulate a foundation of transparent information disclosure and ongoing dialogue. As a prime market listed company, the disclosure of sustainability-related information is essential. It is important to disclose timely and accurate information to all stakeholders. We believe that the continuation of highly transparent information disclosure will increase the credibility of the Group. We are expected to create a new business model by actively promoting dialogue with stakeholders. We believe that accumulating activities from this perspective will win the praise of stakeholders and lead to the enhancement of corporate value.

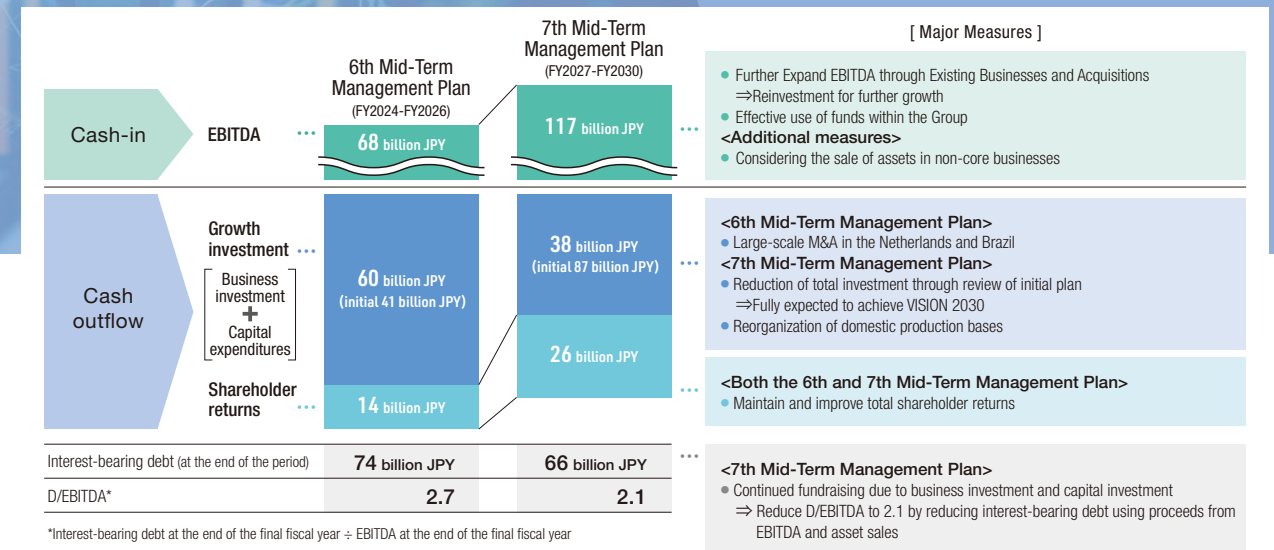
Major Initiatives Related to Sustainability

	E: Environment	S: Society	G: Governance
2021	• TCFD endorsement		
2022	<Setting of CO ₂ Emissions Reduction Target> • 50% Reduction in Scope 1 and 2 Emissions by FY2030 (vs. FY2013) • Achievement of Carbon Neutrality in FY2050		• Establishment of the Sustainability Committee • Establishment of the Sustainability Promotion Section • Establishment of a Basic Policy on Sustainability • Materiality Identification • Nomination and Compensation Committee Establishment
First edition of Integrated Report issued			
2023	• Calculation and understanding of GHG emissions (GHG Protocol.)	• Human rights DD initiative started • Establishment of basic human rights policy • Acquisition of human rights approval from business partners	• KPI setting of materiality • Introduction of sector system
2024	• Change in Base Year for CO ₂ Emissions Reduction (to FY2022) • CDP Responses (Climate Change: B, Water: B, Supplier Engagement Assessment: A) • Initiation of biodiversity conservation efforts	• Human Rights DD: Identifying Risks • Human Resources and Organizational Development Project launched • Employee engagement survey • Implementation of a questionnaire on sustainable procurement by suppliers	
2025	• Participation in the 30by30 Alliance for Biodiversity (Ministry of the Environment, Japan) <Setting of CO ₂ Emissions Reduction Target> • 25% Reduction in Scope 3 Emissions by FY2030 (vs. FY2022)		• KPI setting for all sectors • Establishment of Sustainability Index for Compensation and Bonus Calculation • Establishment of New Corporate Philosophy and New Corporate Logo



Managing Officer
In charge of Accounting & Finance Department, IR & PR
Department, and Corporate Planning Department.
General Manager, Corporate Planning Department.
Takayuki Shimoyama

■ Assumed cash flows (assumptions based on FY2025 forecasts)



Continue to pursue financial and capital strategies that contribute to enhancing the Group's corporate value

Q1 First of all, what is your review of this 1-year medium-to long-term growth strategy?

The 6th Mid-Term Management Plan (the 6th Mid-Term Management Plan), which began in FY2024, is positioned as the first step toward achieving VISION 2030, which was set as the Group's long-term vision. Through the utilization of M&A and organic growth in existing businesses, we aim to achieve the goals of the 6th Mid-Term Management Plan, which are net sales of 180 billion JPY and a ROS of 11%. In FY2024, we took a particularly aggressive approach to M&A, established SRP as a joint venture in Indonesia, and acquired Dutch Gouda. These, together with the acquisition of Brazilian Reframax in the first quarter of FY2025, will contribute significantly to the Group's results from FY2025 onward.

Q2 Please tell us about any changes to the medium-to long-term philosophy of making growth investments.

Growth investments originally planned in VISION 2030 consist of business investments related to M&A and capital expenditures related to existing businesses. Of this amount, the 6th Mid-Term Management Plan had originally planned for 41 billion JPY. However, due to the acceleration of the acquisition of Gouda in addition to the previously planned acquisition of Reframax, growth investments in the 6th Mid-Term Management Plan are expected to be 60 billion JPY, which exceeds the initial plan.

Meanwhile, the upcoming Seventh Mid-Term Man-

agement Plan reduces growth investments from 87 billion JPY to 38 billion JPY. There are two other reasons for this, in addition to the acceleration of the acquisition mentioned earlier. First, synergies from the sector collaboration with Gouda and Reframax are expected to be realized more quickly and significantly than anticipated at the time of the acquisition. Consequently, we have determined that the achievement of VISION 2030 will not be hindered even if we scale back the originally planned M&A to expand the scope of our business. Another reason is that the decline in domestic crude steel production is progressing at a much faster pace than initially anticipated, so we have reviewed some of our capacity-expansion investments in existing businesses.

While this represents a reduction in growth investments in our plan, the sales target of 240 billion JPY set in VISION 2030 is not a limit that we are not allowed to cross. Therefore, if investment projects arise that will contribute to future growth by 2030, we will actively pursue them, without being constrained by the revenue target amount of 240 billion JPY in net sales.

Q3 On the other hand, what is your basic approach to ensuring the soundness of your financial base, which supports your proactive growth investments?

The Group's interest-bearing debt balance has increased to an all-time high as a result of two mergers and acquisitions conducted from FY2024 to FY2025. Therefore, while

it is true that the financial health indicators, such as the equity ratio, D/E ratio, and D/EBITDA ratio, have declined compared with the previous levels, as my predecessor described in the Integrated Report issued in 2022, the Company has been making diligent efforts to strengthen its financial position during the period from the merger in 2009 to the Fifth Medium-Term Management Plan. While the indicators have declined, our financial position is not significantly lacking or remarkably weak.

However, as we intend to continue to invest aggressively in growth going forward, we also need to maintain our financial soundness and secure sufficient funding capacity. For this reason, we are considering monetizing assets that are not directly related to each sector's operations to maintain financial soundness and secure funding capacity by reducing interest-bearing debt and allocating it to investment funds. We are proceeding with discussions on the matter.

Q4 What is your view on balancing growth investments and shareholder returns?

For the financial policies of the 6th and 7th Mid-Term Management Plans, the fundamental policy is to prioritize growth investments. However, this does not mean that we are neglecting returns to our shareholders. Currently, as the amortization of goodwill arising from acquisitions has increased due to the active implementation of M&A, it is inevitable that accounting profits will be reduced. If the Company strictly adheres a dividend payout ratio of 40%, the total returns may be affected.

However, even if accounting profits are reduced by the amortization of goodwill, cash inflows, as expressed in EBITDA, are expected to steadily increase. Therefore, we intend to maintain the current level or improve the total amount of dividends from the current status, while balancing the implementation of growth investments and the

repayment of interest-bearing debt, as a guideline for the dividend payout ratio of 40%.

Q5 As the Managing Officer in charge of Finance, and as the Executive Officer in charge of the Corporate Planning Department, please share your future aspirations and challenges.

Achieving the VISION 2030 goals is the first milestone for the Group to establish its presence in the global market. A certain degree of progress has been made towards achieving the goals of the 6th Mid-Term Management Plan. Therefore, while being in charge of Corporate Planning Department, it will be necessary to consider how to formulate the growth measures for the next 7th Mid-Term Management Plan.

As one of our financial responsibilities, we need to provide a comprehensive back-up system for the investments we need to achieve growth, and we need to be prepared to steadily implement measures for growth when they exist. You must not do anything that might hold someone back.

Therefore, regardless of your role, it is necessary to maintain high energy when considering or implementing measures for the growth of the Group. On the other hand, it is also essential to identify and analyze risks, and to make a calm judgment and respond appropriately. For this reason, I believe it is important to constantly switch between the perspectives of the individual involved and a broader point of view, adjusting the throttle with the right foot while keeping the left foot ready to apply the brakes at any moment.

Accelerate DX advancement, which is essential for growth-oriented strategies, and drive innovation to create new value!

Q1 Please tell us about the main operations of the Information System Department.

The Information System Department plays a key role in supporting the company's overall IT environment. Specifically, we manage everything from the purchase and implementation of information and communication equipment, such as PCs, smartphones, printers, network equipment, and multifunction devices, to daily management and maintenance. We are also in charge of the planning, development, and operation of core systems that support the foundation of our operations and communication systems that promote information sharing. Furthermore, we support efficient and safe system operation through IT training and support for our employees. We are also actively improving our current systems and introducing innovative technologies. From the perspective of IT control, we are promoting the creation of internal rules and systems. We also provide support to affiliated companies, contributing to the improvement of IT capabilities of the entire Group.

Q2 What are your initiatives to promote DX and your basic policies for the future?

To date, we have pursued DX initiatives in accordance with the Digital Governance Code, established by METI for the industrial sector. First, the Business Improvement Subcommittee was established to formulate and implement a company-wide digital strategy. We are also focusing on strengthening governance. We are striving to ensure the transparency and consistency of our DX measures. To streamline business processes, we are reviewing operations previously conducted on a paper basis and introducing cloud services and RPA (robotic process automation) to speed up operations and reduce human error. These initiatives have been fully implemented since FY2025.

Going forward, we will further develop our existing initiatives while accelerating the improvement of operational efficiency and productivity. We will also actively introduce and verify innovative technologies and services. Through sustained innovation, we intend to strengthen our competitiveness and continuously pursue growth in business.

Q3 Please tell us about the progress you have made in implementing “defensive DX” and “offensive DX,” and what you are planning for the future.

It is crucial to pursue the two pillars of DX's “defensive” and “offensive” policies in a balanced manner. First, in the defensive DX, we are thoroughly visualizing the workflow to eliminate operational waste. By gradually closing the gap between the current situation and ideals, we are advancing new standardization and laying the foundation for DX. The defensive DX aims to improve existing operations and reduce costs. Through the automation of business processes and the facilitation of information sharing, it supports organizational stability and improves productivity. On the other hand, our “offensive DX” is centered on achieving data-driven management. We are creating a data platform capable of integrating and analyzing internal and external information. We aim to enhance our competitiveness and create new values by enhancing and speeding up decision-making. Through data-driven predictions and deeper customer understanding, we will be able to differentiate our products and services and create new businesses, which will directly lead to our corporate growth strategy. The “offensive DX” does not stop at merely improving operations. It also enables us to transform our business model and take a new approach to the marketplace. It serves as a driving force for enhancing a company's competitive advantage. In the future, we will hold regular training sessions and workshops to help employees improve their digital literacy, in order to strengthen their ability to think logically and analyze numerical data. Furthermore, by collaborating with the Citizenship Development Team and various divisions, we will work together to support field-led operational improvements. In this way, we will promote effective DX. Through enlightenment events and the development of support systems, we will also work to improve the IT literacy of the entire organization. We aim to achieve sustained increases in corporate value while balancing “defensive” and “offensive” DX.

Q4 Please tell us about your mission and aspirations as the Managing Officer in charge of the Information System Department.

In the rapidly evolving digital society, we believe that the safe and effective use of information is the source of our corporate competitiveness. To this end, it is my mission to

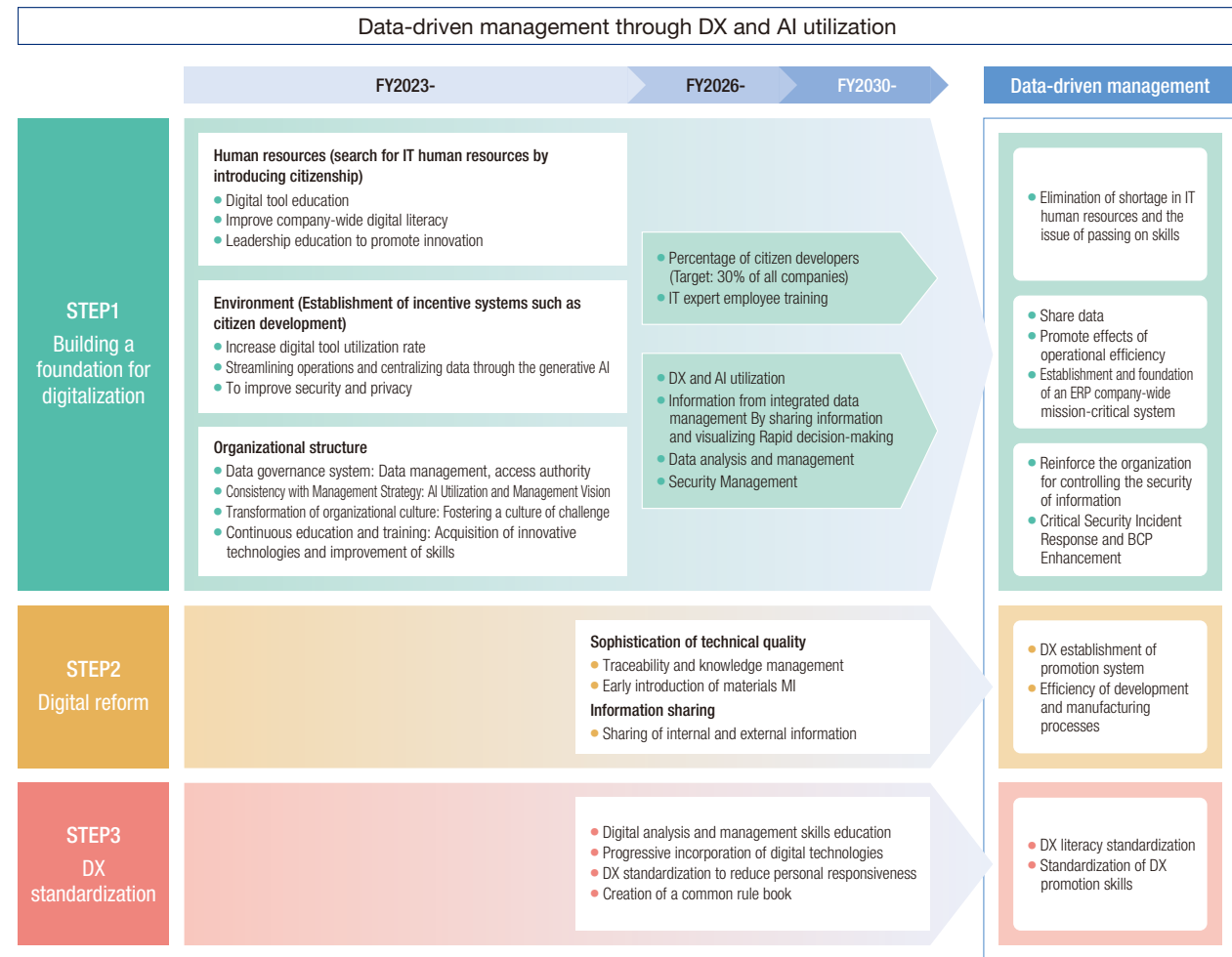


Managing Executive Officers
Information System Department.
Makoto Namba

respond flexibly to the changing technological environment while improving the awareness and skills of each and every employee. We strive to increase our corporate value and

secure the confidence of our customers by utilizing DX and generative AI and cybersecurity measures.

Outline of data-driven management through DX and AI utilization



We will accelerate growth by
advancing proactive strategies actively tailored to
the market and customer needs.

We have divided the Group’s business domains into four sectors: Refractory, Insulation, Advanced Device & Material, and Engineering, as the optimum divisions for each business to pursue their expertise. Each sector will attempt to maximize synergies between sectors to realize the “overall optimization” as a Group by closely collaborating between the sectors, and pursuing the “individual optimization” by autonomous operations.



Sales and profit outlook for each sector in FY2025		6th Mid-Term Management Plan		
		FY2024 (Results)	FY2025 (Forecast)	FY2026* (Initial Target)
Net Sales by Sector				
Forecasts for domestic crude steel production are difficult, and while the Refractory and Engineering Sectors are at risk of fluctuations, the two acquired companies are expected to contribute to sales growth. Sales are expected to increase in the Insulation and the Advanced Device & Material Sectors due to sales expansion into new fields, and others.				
Refractory Sector		95.8	107.1	103.4
Insulation Sector		18.7	20.1	22.0
Advanced Device & Material Sector		4.3	4.4	5.4
Engineering Sector		25.7	43.3	44.9
EBITDA by Sector				
In addition to the aforementioned factors behind the increase in sales, profit is expected to increase in all sectors due to sales expansion utilizing the global network, business expansion, cost reductions, procurement of low-cost raw materials, and others.				
Refractory Sector		11.0	12.7	14.3
Insulation Sector		4.0	4.7	5.1
Advanced Device & Material Sector		0.3	0.5	0.8
Engineering Sector		1.7	3.5	4.2
Sector Operating Income				
Profit is expected to decrease in the Refractory Sector due to an increase in amortization of goodwill and others. Profits are expected to increase in the Insulation Sector, the Advanced Device & Material Sector, and the Engineering Sector.				
Refractory Sector		7.6	7.3	11.3
Insulation Sector		3.2	3.8	4.2
Advanced Device & Material Sector		0.1	0.2	0.4
Engineering Sector		1.6	1.8	3.7

*The figures for each sector as of May 2024, when the 6th Mid-Term Management Plan was announced, do not reflect the impact of M&A deals in the planning stage. However, the impact of M&A deals completed between May 2024 and September 2025 has been added to FY2026 (initial target).

FY2025 Sector Policies

Refractory Sector

- Maintain domestic business scale by expanding sales to the non-ferrous industry under a gradual decline in domestic crude steel production
- Achieve an overseas sales ratio of 40% by expanding overseas businesses
- Exercise synergies in both business and BCP among companies belonging to the sector (procurement/production/sales)

pages 41-42

Insulation Sector

- Sustainable growth of core businesses and promotion of sales expansion in growth areas (semiconductor-related, storage batteries, etc.)
- Production and sales of high-value-added molded products overseas
- Collaboration with Gouda-SRP-SRB-Reframax to Develop New Markets and Generate Synergies Globally

pages 43-44

Advanced Device & Material Sector

- Restructuring production bases and expansion of production capacity through the start of operations at new plants
- Promote product development in growth fields and strengthen sales activities in the semiconductor manufacturing equipment field and the energy field
- Improved quality-of-products/services by introducing ISO9001

pages 45-46

Engineering Sector

- Strengthening of construction capabilities (development of new technologies, review of the construction system, promotion of M&As)
- Proactive entry into the industrial furnace field (non-ferrous and various furnaces) where growth is expected
- Leveraging synergies through collaboration with Reframax

pages 47-48



Representative Director &
Senior Managing Executive Officer
Head of the Refractory Sector
Masanori Ogata

REFRACTORY SECTOR

Contributing to the development of industry and society around the world with refractory technology, aiming to be “a refractory business that is the first choice of customers”

■ Changes in the Business Environment

Refractories are products that support the foundations of various core industries through high-temperature processes, and without refractories, the industrial society cannot function. The steel industry is the largest source of demand for refractories, and the refractory market is robust as global demand for steel continues to increase.

However, the steel industry is at a turning point due to the impact of excess crude steel production in China and the need to implement measures to address decarbonization. Domestic crude steel production, in particular, decreased more than anticipated under the 6th Mid-Term Management Plan (FY2024-2026). For this reason, this sector needs to make stronger efforts to “strengthen and expand overseas businesses” and “expand sales in the domestic non-ferrous metals and industrial furnaces sectors.”

In addition, to realize a carbon-neutral society, the steel industry has embarked on a mission to introduce large-scale electric arc furnaces, and our business needs to strengthen efforts to reduce greenhouse gas emissions as well. There is a wide range of sustainability initiatives, but in this sector in particular, the “Expansion of GREEN REFRACTORY” theme must be prioritized.

■ Strengthen and Expand Overseas Businesses

Dutch company Gouda joined the Group in October 2024. Gouda has strengths in refractories in fields previously unexplored by the Group, such as petrochemicals, non-ferrous metals, and waste incinerators power generation, enabling business expansion into new markets. Geographically, the company was strong in the European, Middle East and African markets, which helped strengthen the global

structure of the Group business.

In addition, synergies are emerging in the refractory business in South America with Reframax, a Brazilian engineering firm whose acquisition was completed in May 2025.

■ To Expand Sales in the Domestic Non-Ferrous and Industrial Furnace Fields

To develop new markets domestically, we are promoting the sale of refractories to the aluminum industry through the conclusion of an exclusive sales contract with Allied Mineral Products, Inc., of the United States. In April 2025, we established the Customer Development Department in the Domestic Sales Division to strengthen sales expansion activities in the non-ferrous and industrial furnace fields, which we have not yet entered.

The company was founded 150 years ago to domestically produce fire bricks for industrial furnaces invented during the Industrial Revolution in Europe. Since then, we have created a diverse range of products and have a wealth of know-how due to our years of experience. Utilizing these capabilities, we will promote sales expansion activities by providing a one-stop service that enables us to unify not only the supply of products, but also support the entire life cycle of products, from lining design to installation and after-use recycling.

■ Sales and EBITDA

In FY2026, the final year of the 6th Mid-Term Business Plan (FY2024 to FY2026), we are targeting consolidated net sales of 103.4 billion JPY for this sector. However, we expect to achieve this target ahead of schedule in FY2025 through the acquisition of Gouda. However, in order for

the Group to become one of the leading global players in the refractory industry and maintain a large presence in the field, we need to further expand our scale. In addition to the organic growth of domestic and overseas companies in this sector by leveraging their respective strengths, we will continue to promote the expansion of our business through M&A and JVs.

On the other hand, operating income will decline temporarily due to the impact of goodwill amortization associated with M&A. For this reason, we will emphasize EBITDA, which represents our ability to generate cash flow, as a measure of profitability in this sector. To improve EBITDA, domestic businesses must improve their sales mix and widen spreads by strengthening cost-competitiveness. In addition, the production consolidation of monolithic refractories in western Japan has been completed as scheduled, so next we will start rebuilding our production lines to strengthen competitiveness at the Okayama Plant, which is the production plant for shaped refractories, and at the Yumoto Plant, which is the production base for CIP(Cold Isostatic Press) products. In overseas business, Group companies will work together with the Engineering Sector and the Insulation Sector to realize synergies as a One SHINAGAWA.

■ Expansion of GREEN REFRACTORY

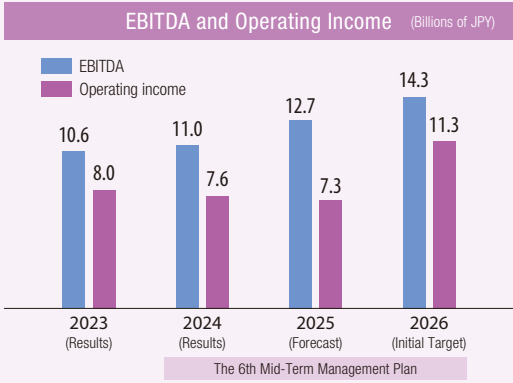
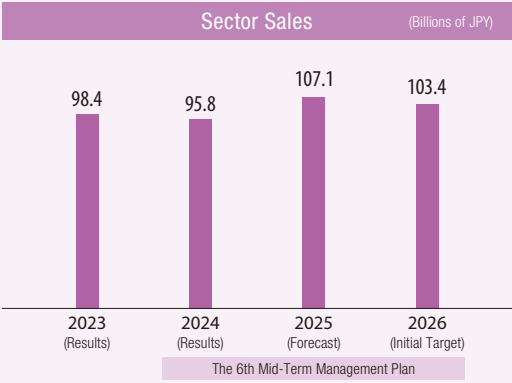
Approximately 70% of CO₂ emissions during the life cycle of refractories are generated during the production of raw materials. Therefore, in this sector, we are developing and

expanding sales of GREEN REFRACTORY that use more than 20% green raw materials, which are regarded as having virtually no CO₂ emissions, such as reclaimed refractory materials after use and by-products generated in other industries. In addition to reducing CO₂ emissions, recycling refractory after use also reduces geopolitical risks associated with procuring raw materials through a local production and consumption scheme.

Customers also contribute significantly to reducing CO₂ emissions at their sites where refractories are used by shortening the drying process during refractory installation and by reducing heat loss through improved heat storage and removal using refractories. A refractory that reduces heat loss is also defined as a GREEN REFRACTORY, and we are promoting its broader application.

■ Improving Corporate Value

Whether domestic or overseas, our goal is to build relationships of trust with our customers through PROXIMITY (physical, temporal, and relational proximity). In other words, by providing refractories suitable for their respective usage conditions or enabling new high-temperature processes through close proximity to customers, we aim to be “the refractory business operator that is the first choice of customers.” The Group’s PURPOSE is “To Achieve the ‘Optimum’ through Ceramics” and we are proud to contribute to the development of the industry and society worldwide with our refractory technology.





Board Director
Head of the Insulation Sector
Toshihiko Kaneshige

INSULATION SECTOR

Promoting business expansion through manufacturing with consideration for the global environment and global collaboration beyond sector frameworks

■ Business Environment and Major Issues

Fire-resistant insulation products managed in the insulation sector are broadly classified into two categories: insulation bricks and ceramic fibers.

The main uses of insulation bricks are for coke ovens, hot stoves, and petrochemical plants in the steel industry. After the insulation bricks are installed, the equipment will continue to operate for an extended period of time. As a result, the demand for insulation bricks is greatly influenced by the maintenance cycle and capital investment in the industry, and it can be said to be a product for the market that is significantly affected by fluctuations in demand.

On the other hand, ceramic fibers are used in a variety of fields, including various industrial furnaces in the steel and non-ferrous industries and ceramics industries, heat treatment furnaces for the manufacture of semiconductors and electronic components, energy-related equipment, including power generation and storage, and automobile-related equipment. As a result, we expect demand for ceramic fibers to increase even further in the global market. Molding products using ceramic fibers can also be adjusted to various shapes and depths, and the market for these products is expanding as they stably curb heat loss while maintaining heat resistance. Amid growing demand for ceramic fibers, we have begun construction of a line that enables us to respond flexibly to fluctuating markets, such as considering the sharing of manufacturing facilities within the Group, for products for the semiconductor and lithium battery markets, where demand is changing and technological innovation is rapid.

Furthermore, to realize synergies globally as a member of Shinagawa Refra Group, it is necessary to enhance

the lineup of products that satisfy all of the specifications required for each plant manufacturer in the non-ferrous industry and petrochemical plants, where the market for refractory insulation products is relatively large. The Group’s Dutch Gouda, Brazilian Reframax, and Brazilian SRB are engaged in refractories and engineering for non-ferrous and petrochemical plants. Expanding sales of insulation products through the business activities of these Group companies is an important and essential initiative for the Insulation Sector. We have begun quality improvement and new product development to fully meet the product specifications required for these markets and will promote business expansion by strengthening collaboration across sectors in the global market.

■ Growth Strategies (Basic Policies) in the Future Sectors and Important Points

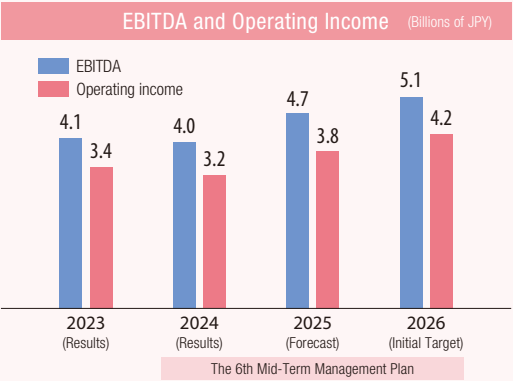
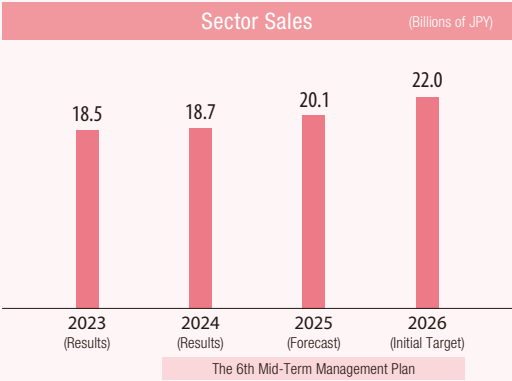
Energy conservation as a measure against climate change and efforts by domestic and overseas industries toward carbon neutrality provide a tailwind for the Insulation Sector, which oversees various thermal insulation products. We will not delay taking advantage of this tailwind but will expand sales in the following core business markets and expand globally into growth markets.

- “Insulation that improves thermal efficiency with energy conservation” on the global environment
- (1) Provision of optimal lining and structural solutions combining refractory and insulation for molten metal containers
 - (2) Measures to conserve energy in heating furnaces and heat treatment furnaces that are compatible with ammonia, methane gas, bio-combustion, and hydrogen
 - (3) Multiple applications and higher heat resistance of biosolubility fibers (AES: Alkaline Earth Silicate)
- “Global expansion of insulation to growth markets”
- (4) Heat treatment furnace for manufacturing semiconductors and electronic components
 - (5) Fuel-cell separator between cell
 - (6) Materials for improving the performance of storage batteries to ensure safety
 - (7) High-temperature ceramic filters used in dust collection
 - (8) Fire prevention materials for housing, buildings, and condominiums
- While valuing the basic technologies we have cultivated over many years as a pioneer in the domestic insulation business, we will expand into new applications by utilizing applied technologies from new perspectives and promote the sustainable growth of the Group’s insulation business.

■ Mission and Aspirations as the Head of the Sector, Enthusiasm, and the Perspective of Contributing to the Future Enhancement of Corporate Value

The core of the Insulation Sector is Isolite Insulating Products Co., Ltd., which manufactures and sells insulation products that are environmentally friendly. Another affiliated company is Isolite Kenzai Co., Ltd., which is based in Nanao City, Ishikawa Prefecture, which processes and sells wood products, and produces and sells consumer products such as stoves made from diatomaceous earth produced in Noto. The company also handles lumber products suited to the residential environment, and is working to strengthen sales of products that also contribute to the realization of a carbon-free society as a type of “insulation material” that utilizes materials with superior heat shielding, heat retention, and sound insulation properties. The 2024 Noto Peninsula Earthquake also affected the company. The entire Group is making concerted efforts to overcome the damage from the earthquake and continue to move forward together with local residents to rebuild the Noto Peninsula through manufacturing that uses Noto-made hiba and diatomaceous earth.

We, the Insulation Sector, are committed to contributing to society through global business development as a group that makes products with consideration for the global environment in the spirit of “co-existence and co-prosperity” with society, for a bright future for the earth and humankind.





Representative Director,
Managing Executive Officer
Head of the Advanced Device & Material Sector
Yoshio Fukusaki

ADVANCED DEVICE & MATERIAL SECTOR

Aiming to accelerate growth and maximize market presence by expanding business domains with a focus on the semiconductor manufacturing equipment market

Business Environment and Major Issues

In April 2025, Shinagawa Fine Ceramics Co., Ltd. was merged into the Fine Ceramics Business Division to ensure business expansion, as stated in VISION 2030. As a result, we will accelerate growth by investing management resources.

The Sector engages in leading-edge industries, such as the semiconductor manufacturing equipment industry and the aerospace industry. As a group company, the Semiconductor Manufacturing Equipment Industry Co., Ltd. and Isolite Insulating Products Co., Ltd., which oversees ceramic fibers for semiconductor manufacturing equipment, are also working together to develop business activities. Shinagawa Refra Group, which engages in these innovative industries, works together to upgrade and deploy technologies, thereby expanding its business.

The business environment surrounding this sector continues to expand without significant change from the conditions set forth in the 6th Mid-Term Management Plan, such as the spread of high-definition video, ultrahigh-speed data communications, artificial intelligence, advanced automotive driving technologies, and other emerging fields.

In particular, we will promote the development, manufacture, and sales of materials and components for high-quality semiconductor manufacturing equipment, targeting the semiconductor manufacturing equipment market, which is a growing field worldwide, as our main target. Kom Innovation Co., Ltd., a Group company, will also expand its business domains in the semiconductor manufacturing equipment-related business. In these areas, we will focus on speed to capture demand and promote the development of new markets, fields, and customers on a

global scale.

Growth Strategies (Basic Policies) in the Future Sectors and Important Points

In this sector, we will push ahead with the following growth strategies.

(1) In fine ceramics, we are building a new plant to rebuild our production base and expand production capacity by leveraging the strengths of our integrated production system, which encompasses everything from materials to precision finishing. The new plant is scheduled to launch in February 2026, and we will expand our product menu and build an advanced inspection assurance line to strengthen our competitiveness under high production management.

In addition, we will complete the development of fine ceramics-related technologies for use in new fields (aviation industry and energy field) where high growth is expected, and establish manufacturing technologies for production and establish a supply system.

At the same time, we aim to enter new markets through joint development with specialty industrial fields that require the unique technologies of fine ceramics that we have cultivated over many years, and we will expand our business by strengthening relationships with customers in these fields.

(2) In the Semiconductor Manufacturing Equipment-related Business, we will work with semiconductor manufacturing equipment manufacturers to improve design, assembly, and quality inspection technologies. At the same time, we will expand our business domains and enter other advanced industry-related businesses.

(3) Furthermore, to accelerate the expansion of our busi-

ness scale, we will promote the introduction and collaboration of external technologies through M&A and other means, and accelerate product development and sales expansion activities through the synergy effects of each of the Group's and partner companies' respective technological capabilities, contacts, and sales capabilities.

Mission and Aspirations as the Head of the Sector, Enthusiasm, and Perspectives to Contribute to the Future Improvement of Corporate Value, etc.

The Advanced Device & Material Sector is smaller in scale than other sectors and is expected to grow in the future. To accelerate growth, it is essential to push ahead with the aforementioned growth strategy and establish a supply system in response to the anticipated increase in demand due to the expected expansion of the market. Under the 6th Mid-Term Management Plan (FY2024 to FY2026), we will build a production system by constructing a new plant as planned to upgrade the deteriorating equipment, automation, and renewing of facilities, and increase capacity. In response to demand for composite characteristics, complex shapes, and high-dimensional accuracy for materials that are expected to increase in the future, we will aggressively introduce precision processing technologies that increase the added value of our products and expand our product menu to expand the related industrial fields.

In addition, we will actively recruit, utilize, and train human resources to expand sales and accurately understand business opportunities, as well as to build production

capacity that can respond quickly to changes in the market.

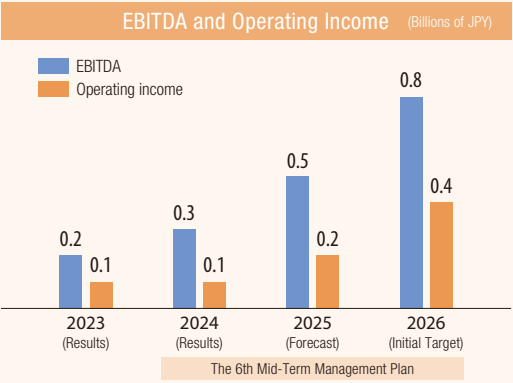
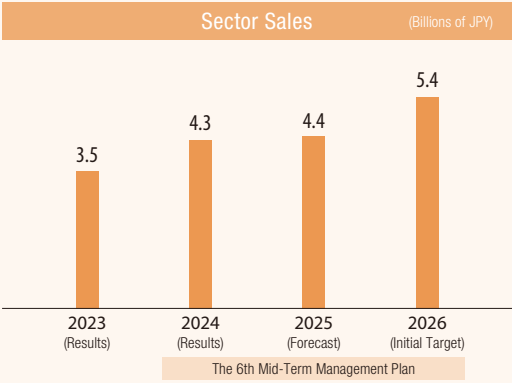
Under the 7th Mid-Term Management Plan (FY2027-2030), we plan to make new capital investments in new fields where market growth is anticipated.

To achieve the Group's VISION 2030, we will steadily implement our growth strategy, including strengthening our production base, and strive to achieve sustainable growth as the Advanced Device & Material Sector with a strong presence.



Image of the New Plant ... Site Area: 16,870 m²

- Scheduled to start operations at new plant in February 2026 (Setouchi, Okayama Prefecture)
⇒ Strengthen production base through 2-site system with an existing plant (Bizen City, Okayama Prefecture)
- Plans to conduct raw material processes and post-processing of fine ceramics products at the new plant





ENGINEERING SECTOR

Maximize synergies between us and Reframax to drive sustainable growth on the global stage

Head of the Engineering Sector
Shigeaki Goto

■ Business Environment and Major Challenges in the Engineering Sector

The Engineering Sector mainly engages in lining design and installation (including maintenance) of furnaces that use refractory and insulation. We have earned the praise of our customers and have achieved stable results. On the other hand, the pace of decline in demand for steel is faster than expected under the 6th Mid-Term Business Plan. In addition, domestic waste incinerators are on a downward trend as a whole in line with the projected decline in the total population, and the business environment for the engine engineering business is severe. We also recognize that securing a labor force is a critical issue, including restrictions on working hours and a decline in the construction labor population due to the declining birthrate.

In this challenging environment, the Brazilian engineering firm Reframax became our subsidiary in May 2025, enabling us to expand globally. Another major challenge is to quickly integrate Reframax’s technologies and expertise to maximize synergies. At the same time, we work with the Refractory and Insulation Sectors to grow sustainably globally. We hope to resolve these issues and develop activities to achieve VISION 2030.

■ Growth Strategies (Basic Policies) in the Future Sectors and Important Points

(1) Sustainable Growth through Collaboration and Globalization with Each Sector

Until now, this sector has worked with the Refractory and Insulation Sectors to pursue synergies in the Japanese domestic market by taking full advantage of the product lineups, technologies, and know-how of each sector. Meanwhile, Reframax, our first foreign engineering affiliate, has enabled us to implement similar initiatives in South America and North America. By sharing the refractory installation technologies and know-how accumulated by both companies and promoting activities that integrate materials and installation in collaboration with our overseas refractory products manufacturing companies, we will pursue the expansion of business scale and business scope and promote sustainable growth.

(2) Contributing to Sustainability and Entering Growth Areas

We will accelerate our initiatives towards achieving carbon neutrality in each industry that has high-temperature processes, particularly the steel industry. In this sector, we will quickly propose the best solutions in lining design and installation technology in response to new challenges, such as the development of new processes for customers, and we will continue to move forward with them. In addition, we have long been a one-stop shop for the design, production, and installation of carbon baking furnaces, and we will utilize the proprietary technologies we have developed over many years to contribute to growing fields (non-ferrous and various furnaces) and, at the same time, lead to our business’s

growth.

The refractory recycling business is a vital part of our sustainability management, including reducing CO₂ emissions during the production of refractory raw materials and conserving mineral resources. We consider the expansion of GREEN REFRACTORY to be a key management issue. The business of this sector is not only the installation of refractories at steelworks, but also the collection and reuse of refractories after use. We will further expand the scale of our business in the future, continuing to demonstrate the high-quality, low-cost treatment of recycled raw materials, and contributing to the expansion of GREEN REFRACTORY.

(3) Efforts for Labor Shortage

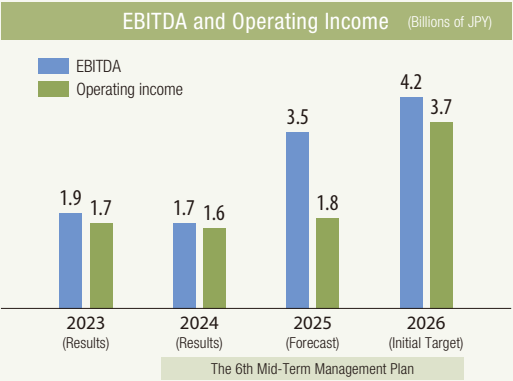
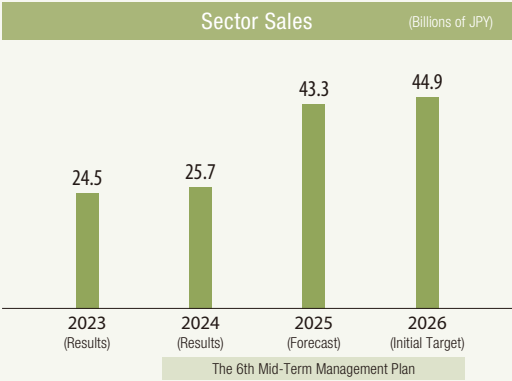
Labor shortages due to restrictions on working hours as well as the declining birthrate are some of the key issues the sector is facing. Many of the furnace installation operations are not yet mechanized, and the work environment has become even more severe due to the impact of global warming in recent years. As a result, it is becoming increasingly difficult to secure furnace installation workers year by year.

To secure a labor force, we will maintain close communication with each construction company in order to cooperate with each other. However, it is also important to respond through technology. We will respond to these challenges by developing and incorporating modern technologies, such as automation and mechanization, improving business efficiency through DX, enhancing the efficiency of inspection and diagnostic technologies, and developing

highly durable and highly reliable monolithic refractory installation technologies. In addition, we believe that enhancing the mobility of our organization through measures such as by increasing the number of employees, cross training, and flexible personnel allocation, is also effective in responding to labor shortages, and we will strengthen our efforts in those areas. On the other hand, we also believe it is necessary to diversify our supervisors and installers. In particular, we will actively consider utilizing the employees of Reframax, which has become a Group company as a builder, in Japan. This will be implemented as a means of resolving the labor shortage in the future.

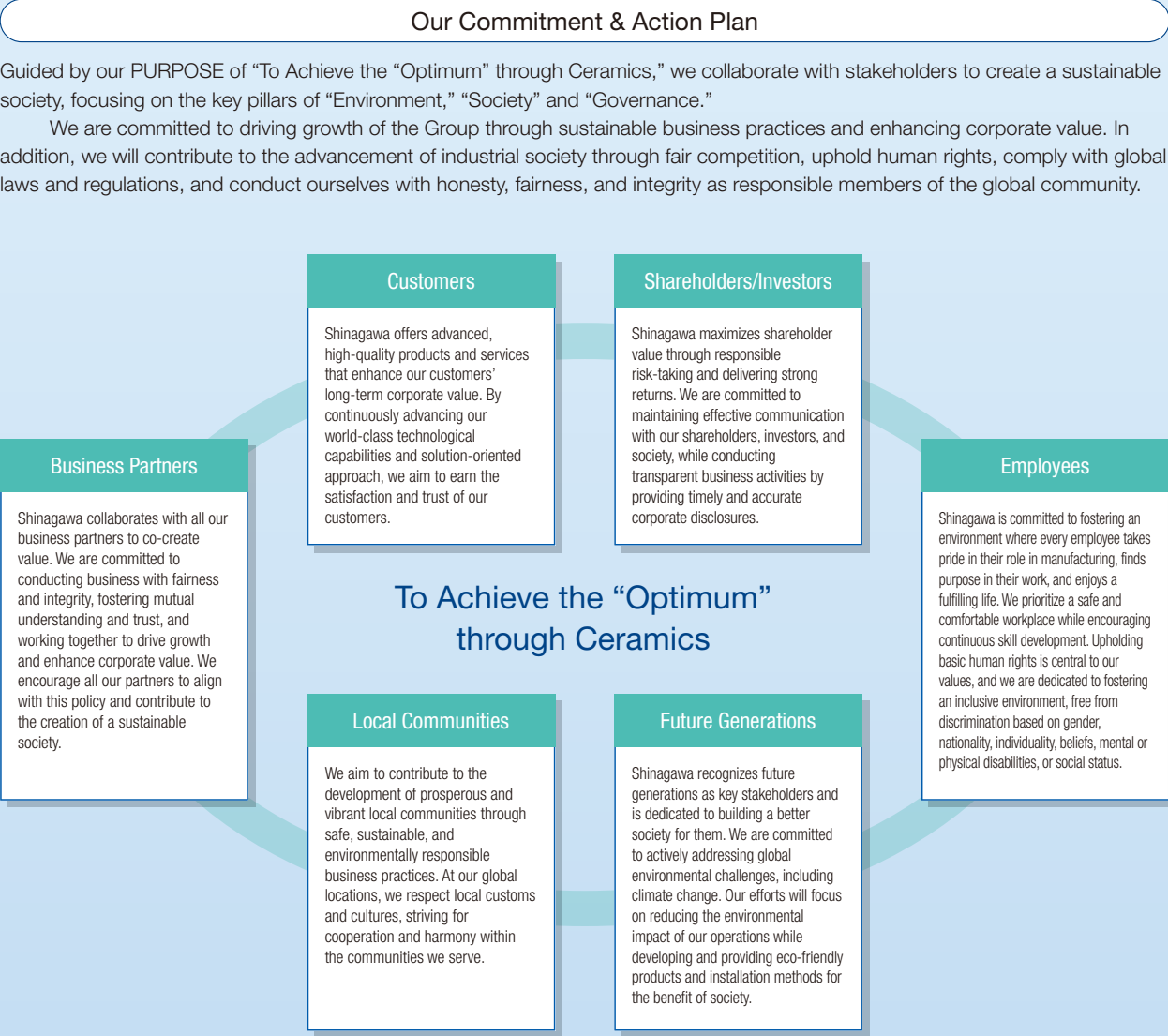
■ Mission and Aspirations as the Head of the Sector

I have been appointed as the head of the sector since FY2025, and I believe that I will be held in a tight position with major responsibilities. Until now, this sector has been highly evaluated by customers for its technological capabilities, which are considered to be the most essential element, and by constantly providing new installation and maintenance technologies optimally and promptly in addition to the technologies it has accumulated. In FY2025, Reframax, which joined the sector through further M&A, was able to expand its business globally. My mission is to organically and quickly integrate the technological strengths and know-how of both companies to co-create new value and to promote continuous growth.



We are implementing a sustainability management approach that integrates environmental, social, and governance (ESG) aspects from a long-term perspective, rather than just pursuing short-term profits.

As a key topic of sustainability management, we have set up measures to deal with climate-change, respect human rights, promote diverse ways of working, and a robust governance-structure. We have set specific targets for each of these issues (materiality) and are advancing initiatives linked to our business strategy.



Sustainability Governance

The Group has established a Sustainability Committee, chaired by the President and CEO, to address sustainability-related issues. The Committee meets at least twice a year to discuss the Group's sustainability management activities, including our response to SDGs and ESG investing. It works closely with the Internal Control Committee, reports directly to the Board of Directors, and receives supervision. We have also enhanced our sustainability initiatives by introducing dedicated sectors in each business area.

Strategy

To date, the Group has contributed to the advancement of a prosperous society by supporting the safe and efficient operation of our customers through the ceramics technologies, which integrates technologies of materials such as refractories, insulation and fine ceramics, and the engineering technologies that designs and installs industrial furnaces. We will continue to drive positive societal impact through these efforts, offering superior solutions to address key social challenges such as decarbonization and energy conservation. Our heat loss reduction and raw material recycling technologies will play a pivotal role in creating a sustainable society. We also believe these initiatives will strengthen and expand the Group's business, both domestically and internationally.

Enhancement of human capital is indispensable for realizing these goals. Believing that diversity is the driving force of innovation, we will leverage diverse human resources by closely linking human resources strategy and management strategy to realize sustainable growth and enhanced competitiveness.

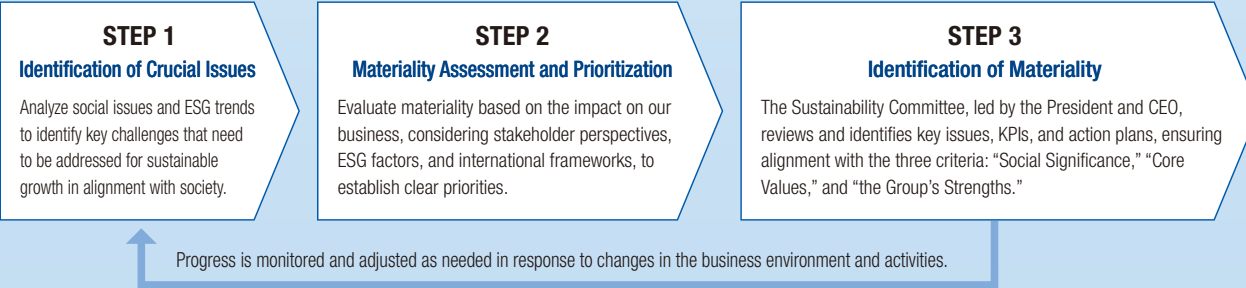
In May 2022, the Group identified seven themes and eleven key issues (materiality) that define our strategic direction. With these priorities in mind, we are committed to achieving sustainable business growth while contributing to the resolution of social challenges.

Materiality (Important Sustainability Matters)

SDGs	Topic	No.	Materiality
	Climate Change and Reducing Environmental Impact	1	Develop and provide environmentally friendly products and solutions to help reduce CO ₂ emissions and promote energy conservation.
		2	Reduce CO ₂ emission and enhance energy efficiency in production processes.
		3	Minimize environmental impact by promoting product-recycling and reducing waste.
	Quality Improvement and Supply Stability	4	Support customer operations by consistently delivering high-quality safe products and services.
	Innovation	5	Foster continuous technological innovation through active capital investment and human resources development to improve productivity and cost competitiveness.
	Health and Safety	6	Prevent accidents by continually improving safety conditions in workplaces, as well as providing ongoing safety training.
	Diversity, Inclusion, & Respect for Human Rights	7	Create inclusive work environments where a diverse workforce can thrive and take on active roles.
		8	Establish sound workplaces and responsible supply chains that uphold human rights.
	Compliance	9	Fully comply with laws and regulations to build fair and transparent relationships with employees and partner companies.
	Stakeholder Relations	10	Contribute to the sustainable development of local communities by promoting open communication and deepening engagement.
		11	Achieve sound profits through business activities and ensure they are returned to stakeholders.

▲ Color coding : E (Environment) : S (Social) : G (Governance)

Process for Identifying and Reviewing Materiality



Identifying and Responding to Risks and Opportunities

The Sustainability Committee, which meets regularly, deliberates on key sustainability issues. The content of these issues are reported to the Board of Directors and the Executive Committee. The Board of Directors and the Executive Committee carefully consider the risks and opportunities that sustainability issues pose to management and make decisions when considering business planning and preparing the annual budget. The Sustainability Committee considers risks and opportunities at short-term, medium-term, and long-term timelines and comprehensively evaluates its responses based on the status of our Group-wide sustainability efforts and postulated occurrences. As a consequence, the Committee identifies issues that are of high importance to our stakeholders and the Group as materiality. Currently, we have established medium- and long-term targets for materiality that we have identified, as well as annual targets for achieving those targets, and we are making steady implementation in responding to risks and opportunities.

Indicators and Targets

The Group has set ambitious indicators and targets for eleven key issues, establishing a clear strategic direction of sustainability management. We will steadily advance sustainability management by accurately managing progress through the Sustainability Committee. The Board of Directors also monitors the progress of the indicators using the Sustainability Committee's reporting. In addition, we will flexibly respond to changes in the status of activities, results, and the business environment, and revise indicators and targets as necessary.

Among the seven themes and eleven key issues, we prioritize the issues of climate change, environmental impact reduction, and human resource strategy, and we are advancing initiatives accordingly. For specifics, please refer to the Environmental Initiatives section (page 51-58) and the Human Resource Initiatives section (page 60-61).

Environmental Initiatives

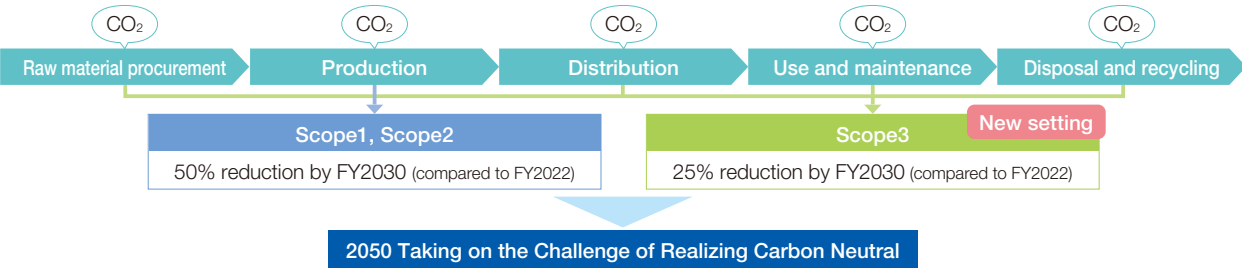
Support for the Task Force on Climate-related Financial Disclosure (TCFD) and its Recommendations

In order to properly assess risks and opportunities of climate-change on our business and to reflect them in our management strategy, we announced our support for the TCFD recommendations. We are disclosing climate-related information along the 4 pillars: "Governance", "Strategy", "Risk Management", and "Indicators and Targets".

Please refer to "Disclosures Based on the TCFD Recommendations" on our website for more information. ▶ <https://www.shinagawa.co.jp/sustainability/tcfd.html> (Japanese)

Strategy and Targets for Climate-Change

Among the materiality we have identified, we have positioned climate-change as one of our top priorities, and we are moving forward with a strategy that integrates them into our management. Our long-term climate change targets and specific efforts to achieve them are as follows.



These targets are based on scientific evidence, consistent with the "1.5°C target" set forth in the Paris Agreement.

Response to CDP

The results of these efforts are disclosed transparently to investors and stakeholders through CDP, a global information-disclosure platform. CDP2024's Climate-Change and Water-Security Questionnaires each received a B-rating. We will continue to enhance the quality of our disclosed information and aim to further improve our environmental performance.

Additionally, we were selected as a "Supplier Engagement Leader (A List)" with the highest evaluation in "Supplier Engagement Assessment: SEA".



Timeline and Impact Assessment for each Risk/Opportunity Category

A range of climate change scenarios are possible depending on what global warming prevention measures are implemented going forward, and their impact. In our assessment, we referred to climate change scenarios (below 1.5°C scenario, 4°C scenario, etc.) by the IPCC and IEA, and examined them on a medium- to long-term timeline to 2050 (short-term: within 3 years, medium-term: to 2030, and long-term: to 2050). Based on these climate change scenarios, we identified and evaluated our climate-related risks and opportunities.

1.5°C scenario: Society changes due to various technological innovations and stricter laws and regulations to decarbonize and curb global warming

Category	Postulated occurrence	Risk/ Opportunity	Timeline	Business Risks and Opportunities	Responses
Policies and Regulations	Establishment of new carbon pricing mechanisms and increased costs associated with strengthening greenhouse gas reduction efforts.	Risk	Medium to long-term	Carbon Pricing Costs: Bearing the costs of carbon pricing based on the company's greenhouse gas emissions.	- Greenhouse Gas Emission Reduction: Installation of energy-saving equipment, the introduction of fuel conversion, solar power generation, green power procurement, and storage batteries to reduce greenhouse gas emissions. - Internal Carbon Pricing (ICP): Promoting further energy-saving equipment investment through the introduction of internal carbon pricing.
			Medium to long-term	- Increased Raw Material Procurement Costs: Rising costs due to carbon pricing and environmental response efforts at suppliers. - Supply Instability: Unstable supply from suppliers due to stricter environmental laws and regulations, leading to escalating raw material costs.	- Recycled Raw Materials: Active use of recycled raw materials in production processes. - Carbon Footprint Reduction: Prioritizing procurement from environmentally friendly suppliers to reduce the carbon footprint (CFP). - Monitoring Carbon Pricing Trends: Continuous monitoring of carbon pricing systems and regulations in various countries.
			Short to long-term	Energy Cost Increases: Higher energy costs resulting from stronger environmental regulations (e.g., costs associated with energy-efficient equipment, fuel conversions, and increased use of renewable energy).	- Energy Consumption Reduction: Further reducing energy consumption per unit of production. - Improving Distribution Efficiency: Enhancing distribution efficiency by consolidating transport routes, shifting to more sustainable transportation modes, and improving truck loading rates.
Markets	Growing demand for CO ₂ reduction in customers' manufacturing processes.	Risk	Medium to long-term	Declining Demand for Conventional Steel Products: Reduced demand for traditional steel products as manufacturing processes evolve.	Refractory Sales Expansion: Increasing sales of refractories to support large-scale electric furnaces and high-grade steel production via electric furnace methods.
		Opportunity	Medium-term	Shift to Electric Furnace Process in Steel Industry: Transition from the blast furnace process to electric furnaces in the steel industry.	
		Risk	Medium to long-term	Changes in Fuel Demand for Industrial Furnaces: Reduced demand for conventional products due to shifts in fuel types used in industrial furnaces.	New Products Development: Developing and marketing refractories and insulation products optimized for the combustion conditions of new industrial furnaces.
		Opportunity	Medium to long-term	Clean Energy Industrial Furnaces: Commercialization of new industrial furnaces powered by clean energy sources such as hydrogen, ammonia, and biomass.	
	Shift in customer attitude towards ecology and a clean environment.	Risk	Short to medium-term	Recycled Raw Material: Tight supply of recycled raw materials driven by growing demand for green products, resulting in higher prices.	Recycled Raw Material Recovery: Strengthening collaboration with customers to ensure stable recovery of recycled raw materials.
		Opportunity	Short to medium-term	Green Procurement by Customers: Increased demand for environmentally sustainable products as customers accelerate green procurement efforts.	- Eco-friendly Products: Expanding the sales of environmentally friendly products (such as GREEN REFRACTORY) made from recycled raw materials. - Low-Environmental Impact Products: Increasing sales of low-energy-manufacturing products, such as low-temperature-fired and non-fired products. - Energy Efficiency through Insulation: Expanding the use of insulation products to improve energy efficiency and reduce heat losses.
					Increased demand for EVs.
Technologies	Intensified competition in technological development aimed at achieving a decarbonized society.	Risk	Short to long-term	Energy Efficiency Demands: Declining demand for conventional products due to the rising need for energy-efficient industrial furnaces.	Industrial Furnace Design: Accelerating product development and enhancing industrial furnace designs to support customers' new process developments, leveraging our expertise in heat resistance and insulation technologies.
		Opportunity	Short to long-term	Product Development for Carbon Neutrality: Acceleration of new product development focused on improving the energy efficiency of industrial furnaces in pursuit of carbon neutrality.	
		Risk	Medium to long-term	Declining Demand for Steel Products: Reduced demand for traditional steel products due to the development of innovative, decarbonized production materials.	New Products for Industrial Furnaces: Expanding the product lineup to include new insulation and ceramics suitable for emerging industrial furnaces and production processes.
		Opportunity	Medium to long-term	- Innovative Steel Manufacturing Methods: Practical application of cutting-edge steel manufacturing techniques such as carbon recycling and hydrogen-based reduction methods. - Unused Patents in New Markets: Potential to leverage unused patents in emerging markets.	
		Risk	Medium to long-term	Competitive Pressure: Loss of competitive advantage due to increased competition from environmentally friendly products offered by other companies.	- Trends in Technology: Monitoring technology development trends and promoting new technology research and development. - Research Collaboration: Actively collaborating with external research institutions to drive technological advancements. - Customer Collaboration for Innovation: Strengthening partnerships with customers to foster innovative technical developments.
					Opportunity
		Reputation	Decline in reputation and evaluation due to delay in climate change response and disclosure.	Risk	
Opportunity	Short to long-term			Improved Company Image: Enhanced company image and evaluation due to proactive climate change measures and transparent disclosure of climate-related information, potentially increasing access to funding and improving talent acquisition.	

4°C scenario: Decarbonization efforts fail to meet global targets, the world experiences significant environmental consequences due to extreme heat and severe weather.

Category	Postulated occurrence	Risk/ Opportunity	Timeline	Business Risks and Opportunities	Responses
Climate and Environment	Rise in the frequency and intensity of flood-related damages.	Risk	Short to long-term	• Potential damage to facilities and disruption of business operations due to the rise in natural disasters.	• Strengthening Business Continuity Plans (BCP) and enhancing measures to address flood and drought risks at business sites. • Reviewing and optimizing standard raw material inventory levels.
			Short to long-term	• Instability in raw material procurement caused by supply chain disruptions, leading to higher costs.	• Exploring alternative procurement methods to mitigate supply chain disruptions. • Assessing flood risk at key suppliers to ensure continuity of supply.
	Alteration of working conditions due to extreme heat.	Opportunity	Medium to long-term	• Increased demand for steel and cement driven by infrastructure development aimed at strengthening national resilience against natural disasters.	• Increasing production capacity to meet growing demand
		Risk	Short to long-term	• Decreased labor productivity and a shortage of workforce due to extreme heat conditions.	• Diversifying recruitment strategies to address workforce needs.
		Opportunity	Short to long-term	• Enhanced workplace safety, health standards, and overall environment through the promotion of comfortable workspaces, resulting in higher employee satisfaction and improved labor productivity.	• Automating manufacturing facilities and promoting environmental improvements within the workplace. • Expanding the use of labor-saving construction technologies, such as automatic gunning machines, to improve efficiency.

Environmental Policy

Basic Policy

Aiming to be one of the most Environmentally Friendly and Sustainable Companies, the Group prioritizes local and global environmental conservation as a core aspect of our business activities.

Action Policy

1. Development of Environmental Management System

We are fully committed to complying with environmental laws and regulations and meeting our commitments to local governments and communities. We set clear targets for environmental improvement, strive to achieve them, and work to develop a management system that supports continuous improvement.

2. Initiatives to Reduce Environmental Impact and Improve Environmental Performance

Considering the entire life cycle of all our business activities, including procurement, production, sales, distribution, and technological development, we aim to reduce environmental impact and improve performance by taking into account the following initiatives.

Promoting energy conservation and switching to renewable energy

Resource conservation and recycling promotion and waste reduction

Development and supply of environmentally-friendly products

Prevention and reduction of water, air, and soil pollution

3. Environmental Education

To ensure all our employees in the Group are aware of and actively participate in environmental conservation, we conduct on-going Group-wide educational activities aimed at raising environmental awareness.

4. Environmental Communication

To fulfill our social responsibilities in all the regions where we operate, we actively disclose and gather information. We collaborate with society to contribute to global environmental protection and conservation. For this reason, we will communicate with all stakeholders.

Environmental Management System (EMS)

To effectively implement our environmental policy, we appoint a managing officer responsible for overseeing all environmental management activities. In addition, the Environmental Management Headquarters Committee, chaired by the President and CEO, conducts management reviews annually and resolves matters requiring improvement.

Since obtaining certification in 2002, we have undergone annual audits by a certification authority to ensure full compliance with the ISO 14001 standard and to confirm the ongoing effectiveness of our environmental management system.

Environmental Impact Reduction Activities

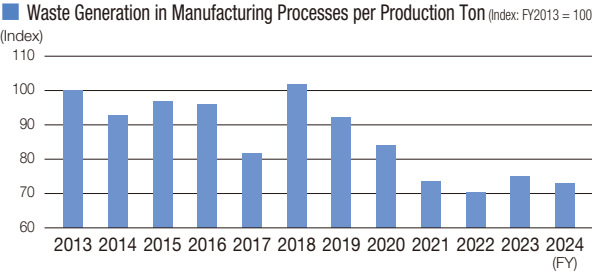
Shinagawa integrates Environmental Management System (EMS) activities into our business processes to ensure sustainable operations. In line with our environmental policy, we promote zero-emission initiatives in manufacturing, modal shifts in product transportation, and various efficiency measures to enhance our environmental performance. This includes the sustainable use of resources and energy conservation.

Zero Emissions Activities

Zero Emissions is the concept of a resource-recycling society proposed by the United Nations University in 1994, that generates no waste by effectively utilizing all types of waste as raw materials. The Group has embraced this concept as part of our sustainability efforts, with two key implications for our company:

(1) Zero Emissions as a Crucial Goal: With the growing importance of the SDGs, Zero Emissions has become a vital objective for us. We have allocated additional staff to intensify our efforts in reducing environmental impact.

(2) Waste Reduction as a Profitability Opportunity: We view waste reduction as a chance to improve profitability, operating under the principle that "losses (such as raw materials lost during production) equate to lost profits."

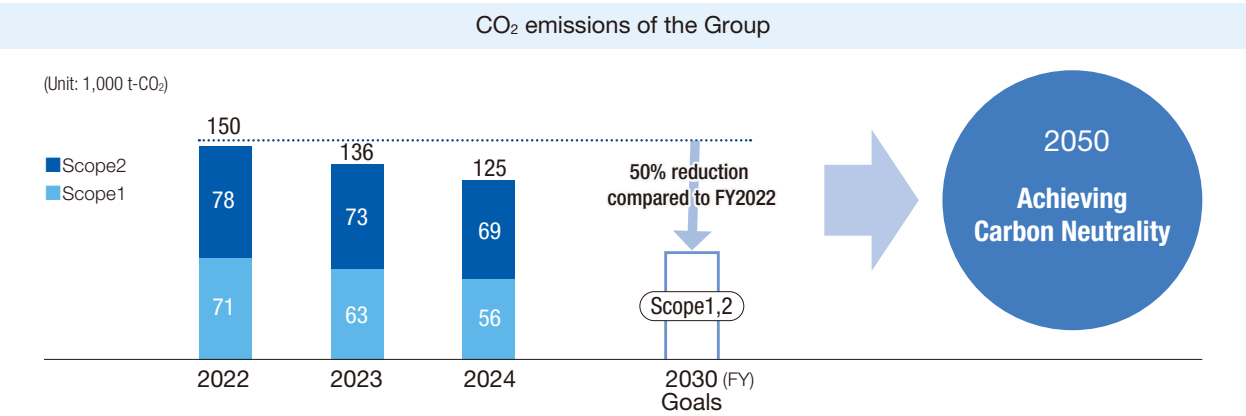
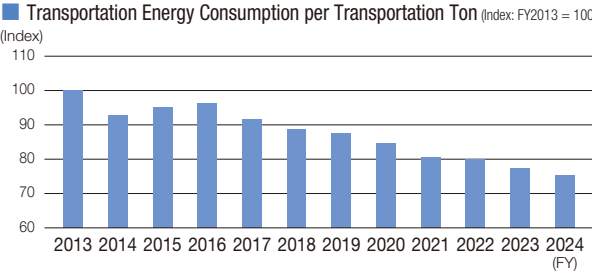


Activities to Reduce Transportation Energy

To support carbon neutrality by reducing greenhouse gas emissions, we are actively promoting a shift from truck transportation to rail and sea transport, which produce lower CO₂ emissions. We are also enhancing logistics efficiency by consolidating shipments and optimizing packing methods.

Additionally, transportation staff from both the manufacturing and sales divisions hold regular meetings to report on and discuss progress in promoting modal shifts and improving logistics efficiency. These meetings aim to maximize effectiveness and develop leadership on environmental issues.

With the continued expansion of our overseas production sites, we are not only reviewing loading and packaging methods for exports but also working to significantly reduce transportation distances, further decreasing CO₂ emissions.



■ Trends in CO₂ Emissions in the Value Chain (FY2022-FY2024)

Scope (category)		FY2022	FY2023	FY2024	Calculation Method
Scope1	Emissions from our own fuel usage, etc.*	71	63	56	Calculated in accordance with the GHG Protocol
Scope2	Emissions from purchased electricity and others from external suppliers (market-based) *	78	73	69	
Scope 1+2 Total		150	136	125	
Scope3	1. Purchased goods and services	944	862	862	Calculated by multiplying the quantity of raw materials purchased by their respective CO ₂ emission intensity
	2. Capital goods	18	21	23	Calculated by multiplying capital investment amount by their respective CO ₂ emission intensity
	3. Fuel and energy-related	24	23	19	Calculated by multiplying the amount of electricity and fuel consumed by their respective CO ₂ emission intensity
	4. Transport and distribution (from suppliers)	24	25	19	Calculated by multiplying the fuel consumption amount and distribution values from the Act on Rationalizing Energy Use report by their respective CO ₂ emissions intensity
	5. Waste from business	4	4	3	Calculated by multiplying the waste amount by their respective CO ₂ emission intensity
	6. Business trips	1	2	2	Calculated by multiplying the number of employees by their respective CO ₂ emission intensity
	7. Employee commuting	2	2	2	Calculated by multiplying CO ₂ emission intensity according to the location of work, personnel, and work style
	8. Leased assets	—	—	—	Outside the scope of calculation
	9. Transport and distribution (to customers)	—	—	—	Outside the scope of calculation
	10. Processing of products sold	—	—	—	Outside the scope of calculation
	11. Use of products sold	54	50	48	Calculated by multiplying the sales volume by their respective CO ₂ emission intensity, derived from the carbon content and average erosion rate of the product group.
	12. Disposal of products sold	6	5	4	Calculated by multiplying the waste quantity by their respective CO ₂ emission intensity, with the average waste rate determined based on product group data.
	13. Leased assets	2	2	2	Calculated by multiplying the total floor area of owned real estate by their respective CO ₂ emission intensity
	14. Franchises	—	—	—	Outside the scope of calculation
	15. Investments	—	—	—	Outside the scope of calculation
Scope3 total*		1,078	997	985	

(Figures for CO₂ emissions in previous fiscal years have been adjusted to reflect changes in the numbers of consolidated subsidiaries in the most recent fiscal year.)

* We received third-party certifications from a third party for the data at the time of the assurance review. As of October 1, 2025, CO₂ emissions for FY2024 are under review.

Method of Calculating Scope 3

Scope of Calculation
Group total

Converted Emission Factor

- Emission intensity database (Ver. 3.3) for calculating greenhouse gas emissions across the organization's supply chain.
- IDEA (Ver. 2.3) and other relevant tools.

Third-party certified

Since FY2022, we have received third-party certifications for greenhouse gas emissions and energy consumption for the entire Group. (Under review in FY2024)

GREEN REFRACTORY

GREEN REFRACTORY is a brand that encompasses multiple solutions we provide, including environmentally friendly refractory products and technologies. As a leader in high-temperature technologies, we are committed to developing new technologies for the future.

SOLUTION①

Refractory products that make use of at least 20% green raw materials
[(narrowly defined) GREEN REFRACTORY]

SOLUTION②

Refractories that reduce heat loss in high-temperature processes
[Heat Loss Reduction Refractories]

What is GREEN REFRACTORY?

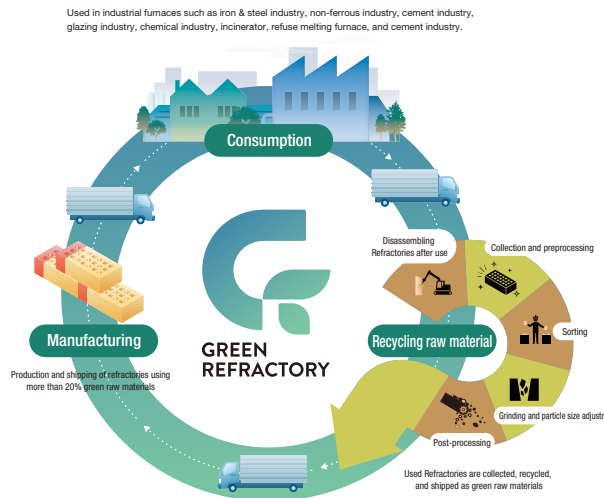
Approximately 70% of the CO₂ emissions in the life cycle of refractory products are emitted during raw material production. In order to reduce CO₂ emissions, we have developed GREEN REFRACTORY, which utilizes green raw materials that have virtually zero CO₂ emissions, such as recycled refractory materials and by-products from other industries.

An important factor in this criterion is the proportion of green raw materials used. Rather than merely adding a small percentage as an extender, as is often done with conventional recycled products, we define GREEN REFRACTORY as products newly developed from the material design stage and composed of at least 20% green raw materials.

The key to promoting wider adoption of GREEN REFRACTORY lies in the stable procurement of green raw materials. To build this framework, we are developing a scheme*1 in which used refractories are sorted and collected from customers, impurities are removed by recycling partners, and the recovered green raw materials are then used to manufacture and ship new refractories.

Meanwhile, in a broader sense of GREEN REFRACTORY, we also offer Heat Loss Reduction Refractories*2, that contribute to reducing CO₂ emissions in customers' refractory-using processes. By placing Heat Loss Reduction Refractories on the back side of furnaces, heat dissipation can be effectively suppressed. In addition, using Heat Loss Reduction Refractories as lining materials helps to reduce heat retention during the next operation cycle. Through these measures, our products help lower energy consumption and CO₂ emissions in customers' high-temperature processes.

*1 Used Refractories Recycling Business Scheme



*2 Heat Loss Reduction Refractories

By combining products according to their applications and reducing heat loss in high-temperature processes, we contribute to our customers' energy savings and reduction of CO₂ emissions.

Reduction of energy consumption through reduction of heat loss

Heat dissipation can be suppressed by installing heat loss refractories with excellent insulation performance on the back side of furnaces.

In addition, by using low-thermal-conductivity refractories as lining materials, heat accumulation during intermittent operations can be reduced, resulting in lower overall energy consumption.

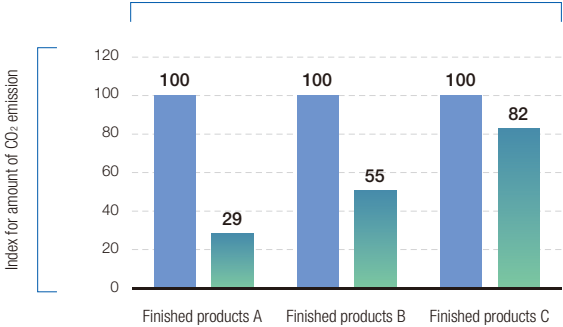
Reduction of CO₂ emissions by reducing heat loss

Controlling heat dissipation and accumulation (reducing heat loss) contributes to lowering energy consumption and CO₂ emissions in customers' high-temperature processes.

Improving process efficiency through shorter heating steps

Reducing heat loss in customers' high-temperature processes helps shorten the reheating process required for temperature compensation. In addition, process efficiency is improved by shortening the drying process during refractory installation and the preheating process before use.

CO₂ emissions associated with the production of 1 ton of bricks (from fuel and raw material sources)



Reducing CO₂ emissions

GREEN REFRACTORY utilizes more than 20% of its green raw materials, such as recycled refractories materials after use and by-products from other industries, for which CO₂ emissions are virtually nil.

Behind GREEN REFRACTORY's founding

Although we had been recycling refractories after use for some time, we launched a project to further promote our initiative in 2021, and established the Recycle Business Promotion Department in 2024. In addition to the Production, Procurement, and Technical divisions, several divisions, such as the Sales Division and the Engineering & Installation Business Unit, are involved in the project in separate roles, so close cooperation is essential. Accordingly, representatives from each division participated in a meeting to summarize their respective progress, which is held once every two months to facilitate cooperation.

The first step in implementation of the project was the establishment of a recycling scheme that includes customers and partner companies. For customers, the process of dismantling and separating the used refractories was complex, so we organized the flow and assembled a scheme so that the recycled materials could be recovered smoothly. Customers' collaboration was vital to building such a scheme, and sales representatives understood the significance of GREEN REFRACTORY through detailed explanation.

Different from metals and plastics, the difficulty of GREEN REFRACTORY is that refractories using recycled materials can provide similar durability, but the resulting refractory product will not be the exact same as the original. Recently, however, there has been a trend from customers to select environmentally conscious products. To meet customers' expectations, we will further accelerate our initiatives.

Introduction of case studies

A common feature among customers who have been introduced to GREEN REFRACTORY is their strong understanding of the importance of sustainable business practices.

Among the industries that use refractories, the introduction of GREEN REFRACTORY is progressing particularly in the steel and cement industries. In the steel industry, the cycle of collecting used refractories from steelworks, regenerating them through recycling processes, and introducing GREEN REFRACTORY products is now well established. The importance of GREEN REFRACTORY has also been recognized in the cement industry, where it is now being actively adopted.

GREEN REFRACTORY branded website

Only a small portion of customers are aware that used refractories can be recycled. To help these customers learn about the concept and significance of GREEN REFRACTORY, we have launched a dedicated website.

On the site, we have sought to present the unfamiliar concept of green products in an easy-to-understand manner, while paying special attention to the design to convey our genuine commitment to this initiative. Using deep green as the base color, the design evokes a sense of global environmental awareness.



<https://shinagawa-green.jp>
(Japanese)



Providing insulation materials that contribute to the prevention of global warming

New lineup of FL in super-insulated LTC series

- LTC series-a micro porous insulation material-offers super insulation performance and is extremely effective in preventing heat-energy loss.
- Contributing to energy conservation and reduced CO₂ emissions at customers through the use of the series of LTC
- Steady expansion of applications not only in Steel, non-ferrous and industrial furnaces but also in semiconductor-processing furnaces and battery-related materials
- Promotion to develop new product LTC-FL with flexible features and expand their use for a variety of applications

Typical quality characteristics			LTC-FL	LTC-A	LTC-ES	LTC-HT
	Max. operating temp (°C)		900	900	1000	1400
	Bulk weight (kg/m³)		300	410	250	430
	Flexural strength (MPa)		0.3	1.1	0.3	0.6
	Thermal conductivity (W/m · K)	at 600°C	0.03	0.04	0.03	0.09
at 800°C		0.04	0.05	0.04	0.10	



Environmental Initiatives in furnace construction

We are responding to the need for customers to reduce its environmental impact through a variety of technologies.

Aggressive participation in large-scale construction projects and carbon neutral development projects

- Stamp Charge Coke Furnace Established
- Carbon Neutral Project in Customers
 - ▶ Carbon recycling small test blast furnace construction, high quality steel production small test electric arc furnace construction

Invest human resources and expand orders in growth areas (industrial furnaces such as carbon baking furnaces)

- Develop and expand sales of carbon baking furnaces with high performance and reduced environmental impact
 - ▶ Building an automatic control system that can achieve high levels of in-furnace temperature and oxygen concentration control
 - ▶ Achievement of “Low environmental impact of exhaust gas”
Received orders for low-environmental-impact exhaust gas treatment furnaces thanks to further advances in exhaust gas treatment Technologies
Based on Technologies of operation of industrial furnaces developed over many years, we are planning and introducing high-efficiency fuels (fuel conversion) based on carbon neutrality at various locations.

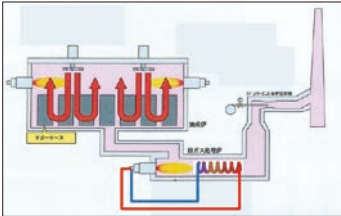


Image of Carbon Baking Furnace

New construction technologies and inspection promotion of work style innovation and work efficiency by introducing and developing technologies

- Develop next-generation cementless spray technologies (Shinagawa Improved Gunning: SIG)
 - ▶ Development of spraying material products completed ⇒ Durability is being confirmed by field construction test.
 - ▶ Compared to conventional spray-on materials, it has higher durability and workability, so it is now being applied to a wide range of applications, including environmental, non-ferrous and Iron & Steel fields.
 - ▶ Conventional Cementless Spray Technologies (Shinagawa New Gunning: SNG) requires special equipment and high-level installation skills ⇒ SIG simplifies and improves construction efficiency
 - ▶ Promotion to further expand sales with a view to expanding into foreign markets



Installation of photovoltaic generation

We are promoting to address climate change and reduce CO₂ emissions by improving energy efficiency in our business activities and introducing renewable energy.

Started operation of photovoltaic power generation facilities that provide electricity to the Okayama Plant, a manufacturing base for Shaped Refractories.

- Solar power generation facilities installed on our property in Bizen City, Okayama Prefecture
 - ⇒ Started operation in April 2025
- Supplies a portion of the electricity used at the Okayama Plant, where shaped refractories are manufactured.
- Promoting energy-saving initiatives in conjunction with switching to other fuels that can make CO₂ emissions less such as LNG.



The Okayama Plant



Aero-photograph of a solar power generation facility (former site of a company housing)

Initiatives for Biodiversity

We aim to minimize the impact of our business activities on biodiversity and to contribute to its conservation by effectively utilizing the natural capital owned by the company.

Activities to conserve the company-owned forests

We own multiple forests in Japan, and through proper management and forest conservation activities, we strive to contribute to the preservation of biodiversity. As part of these efforts, in March 2025 we joined the 30by30 Alliance for Biodiversity*1, an initiative promoted by the Ministry of the Environment.



*1 The 30by30 Alliance for Biodiversity is a voluntary coalition that promotes nationwide initiatives in Japan toward achieving the international “30by30” goal—one of the global action targets under the Kunming-Montreal Global Biodiversity Framework adopted at the 15th Conference of the Parties to the Convention on Biological Diversity (COP15) in December 2022—which aims to conserve and protect more than 30% of terrestrial and marine areas by 2030. The Alliance was established in 2022 by 17 founding organizations from industry, government, and the private sector, including the Ministry of the Environment. As of the end of March 2025, more than 1,000 companies, municipalities, and organizations have joined.

Since FY2025, we have begun initiatives to conserve biodiversity and recharge water resources through the conservation of company-owned forests located in Kochi Prefecture and Hokkaido.

1. Sustainable Forest Management of Company-Owned Forests (Kochi Prefecture)

The forests (approximately 50 hectares) owned by the company in the Tosayama area of Kochi City, Kochi Prefecture, are located in the headwaters of the Kagami River, the primary water source for Kochi City, and play an important role in the sustainable conservation of this vital resource. The company has entered into a “Forest Development Agreement” with the Kochi City Forestry Union and started forest management activities in FY2025. Through appropriate forest management, we aim to restore and maintain forest functions while contributing to biodiversity conservation and water resources recharge. Furthermore, we plan to use forest management activities as a training program to enhance employees’ environmental awareness and strengthen their engagement.



The forests in the Tosayama area of Kochi City

2. Preservation of Natural Forests (Hokkaido)

The forests (approximately 21 hectares) owned by the company in Fukushima town, Matsumae District, Hokkaido consist mostly of natural forests and are valuable for conserving biodiversity. On-site surveys conducted by experts confirmed the presence of several rare species of flora and fauna, including those listed as endangered in the Ministry of the Environment’s Fifth Red List and the Hokkaido Red Data Book 2001. We plan to continue long-term monitoring and recording of habitat conditions. In addition, we will work together with local governments and communities to carry out appropriate conservation activities.



Proven rare species: Calanthe tricarinata



The Japanese oak forests in Fukushima town

Management and greening of inactive mines

The Mitsuishi mine (Bizen City, Okayama Prefecture), owned by the company, completed the extraction of refractory raw materials such as Pyrophyllite and Silica in 2010, and is currently inactive. As acid mine drainage is generated mainly by rainwater infiltration into the mine, we have a responsibility to maintain strict water quality management to prevent any impact on the surrounding environment. Mine management is handled by Shinagawa General Co.,Ltd., a wholly owned subsidiary of the company. The subsidiary continuously monitors the quality of mine effluents, neutralizes them at our water treatment facilities until they meet wastewater discharge standards, and then safely releases the treated water into nearby rivers. We have also implemented comprehensive measures, including the improvement of drainage channels to prevent leakage and the installation of emergency generators to ensure continuous water treatment operations in the event of a power outage.

Furthermore, in FY2025, we decided to promote mine greening (afforestation) activities. In collaboration with soil environment experts, we aim to restore the natural environment from a long-term perspective by selecting appropriate vegetation and studying effective methods and technologies.

Human Rights Initiatives

Initiatives for Human Rights Respect and Human Rights Due Diligence

Basic Human Rights Policy

Shinagawa Refra Group recognizes that respect for human rights is a fundamental corporate social responsibility and a cornerstone of our management approach. In this context, we have established the Basic Human Rights Policy described on the right, committing to Group-wide efforts to uphold human rights and contribute to the creation of a society where human rights are universally respected

1. Full compliance with laws and regulations
2. Scope of application
3. Commitment to human rights
4. Human rights due diligence
5. Training and education
6. Transparency and information disclosure

Please refer to the “Basic Human Rights Policy” section of our website for details. ▶ https://www.shinagawa.co.jp/profile/humanrights_policy.html (Japanese)

Basic Approach

Our Group believes that respect for human rights is a corporate social responsibility and one of the pillars of our management. In May 2023, we formulated the Basic Policy on Human Rights as a code of conduct to be observed by Group companies, their executives, and employees, and have implemented the various initiatives described below.

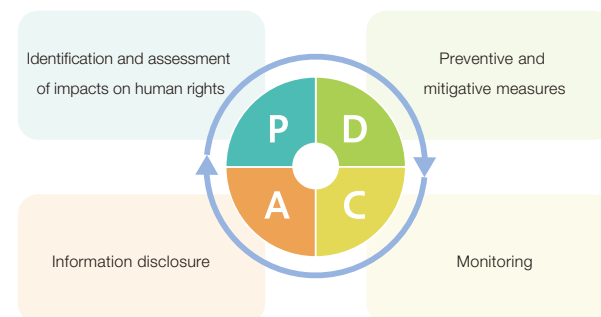
Implementation System for Respect for Human Rights

Sustainability Committee, chaired by the President and CEO, formulates group-wide policies in order to steadily promote initiatives for respect for human rights. In addition, we work with the Internal Control Committee to discuss the Group’s initiatives for respect for human rights and regularly reporting to the Board of Directors to receive supervision.

Initiatives for Respect for Human Rights

- Implementation of human rights due diligence
We identify and evaluate negative impacts on human rights in the Group’s business activities, and we are working to build a human rights due diligence process with the aim of preventing or mitigating such impacts. In FY2023, the impact on human rights was identified and assessed for us and our domestic affiliates.
Risks have been identified and assessed, and the implementation system has been established in order to take appropriate measures to prevent and mitigate adverse effects on human rights in the relevant departments in response to risks identified as having a high-priority response.
- Human Rights Training
Human rights training has been provided since FY2023. For all employees, including those at domestic affiliates, we conduct a variety of training programs on topics such as “human rights,” “business and human rights,” and “human rights due diligence” for the managers of business sites. We also provide training on compliance and power harassment prevention through new employee training and rank-based training.
- Whistle-blowing hotline
We have established a whistle-blowing consultation desk that enables employees of the Group and partner companies to report a wide range of compliance-related issues safely and with peace of mind. This hotline also covers consultations and reports related to human rights violations. Through these efforts, we are working to prevent human rights violations and to provide prompt relief from human rights violations.
- Response to Suppliers (Survey)
We conducted a questionnaire survey on sustainable procurement for our suppliers from January to February 2025. The questionnaire covers the entire ESG and confirms the status of initiatives related to respect for human rights. In the future, based on the findings, we will engage in the implementation of respect for human rights and consideration through dialogue with business partners.

Human Rights Due Diligence Process



Future tasks and how they should be addressed

Through the study of measures to prevent and mitigate human rights risks identified in FY2023, the assessment of effectiveness, and the disclosure of information to stakeholders, we aim to establish a mechanism for periodically repeating the human rights due diligence process throughout the Group. In this way, we will go through the PDCA cycle.

Human Resource Initiatives

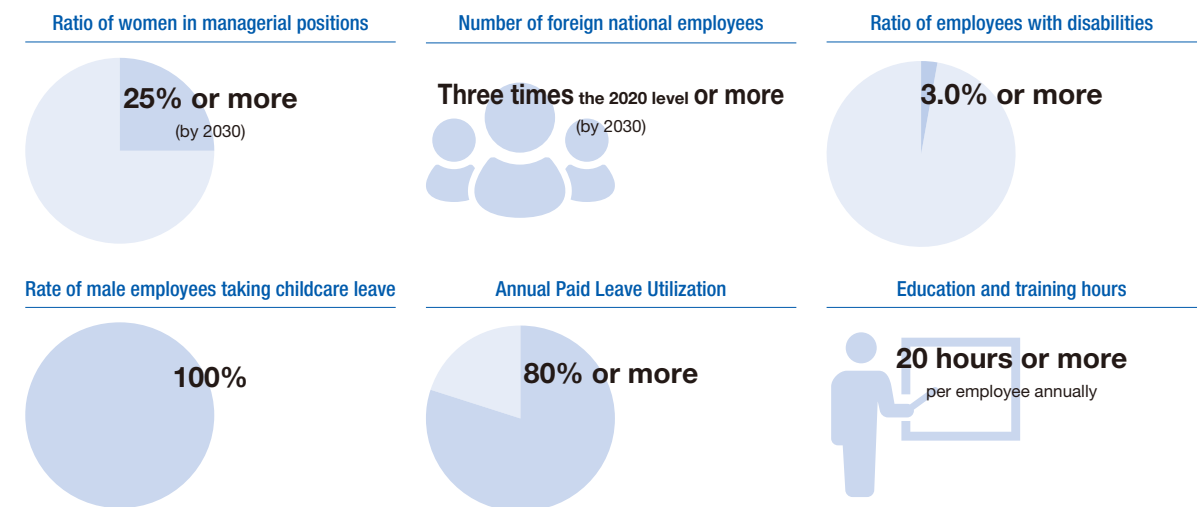
Human Capital Strategies

The Group recognizes that enhancing human capital is critical to advancing sustainability. We have established indicators and targets to create a working environment where diverse human resources can play an active role, and to measure the progress of our efforts, and aim to achieve this goal.

Major Initiatives Related to Human Capital Strategy



Human Capital Indicators and Targets



Basic Human Resource Development Policy

We aim to develop a workforce that is diverse, highly specialized, and capable of executing strategies to drive Shinagawa’s sustainable growth.

Goals of Human Resource Development

- We strive to cultivate a workforce with creativity and a Spirit of Challenge: Employees who are proactive, capable of identifying and undertaking their own tasks.
- Broad Perspectives and Expertise: Employees who can quickly and persistently carry out their duties, with a high level of knowledge and skill.
- Adaptability and Positive Mindset: Employees who can effectively respond to environmental changes, including intercultural communication and digital technological advancements.
- Management Skills: Employees who can effectively lead and contribute to achieving Shinagawa’s business objectives.

Proper Environment for Human Resource Development

- Respect for human rights and individuality
- Safe, secure, healthy, and comfortable workplace
- Objective and fair evaluation

Details of initiatives

● Implementation of company-wide projects
We consider the growth of each and every employee (human resource development) to be one of the most important issues for the sustainable improvement of corporate value. The five action principles that form the foundation of human resource development are the “Endeavor, Rapidness, Flexibility, Accomplishment, and Relationship” set forth in Value in the new corporate philosophy.

Based on this philosophy, we are implementing company-wide projects for human resource development. Under this project, we will clarify the gap between our future vision and the current situation as an issue and consider and implement measures to develop human resources and improve engagement to solve this issue. By doing so, we aim to create a framework that supports employee growth across divisional boundaries and build a stronger human resource base.

● Recruitment
Since the active participation of diverse human resources is indispensable for our growth, we actively engage in initiatives to recruit women, foreign nationals and people with disabilities. In the general action plan based on the Act for Women’s Participation and Advancement in the Workplace formulated in 2021, we have set a goal of increasing the ratio of women among new graduate recruits on the main career track to at least 10% annually, and we are continuing our efforts to achieve this goal.

In July 2025, we introduced the Alumni Recruitment (Comeback Hiring System) to create an environment in which employees who have left the company once can apply to enter again. In this way, we are promoting the re-appointment of human resources with diverse experience and values. Through these initiatives, we aim to create a workplace where everyone can demonstrate their abilities.

● Retention
Engagement surveys are conducted for all employees. Based on the results, we clarify the strengths and issues of the entire company and each workplace and implement improvement measures related to the workplace environment and work styles. Through these initiatives, we continuously implement PDCA cycles to improve employee retention and engagement.

● Education
[Job-level specific training and specialized training]
Throughout the year, we provide job-level specific training to enhance the management skills and capabilities required at each level, as well as specialized training to equip employees with the knowledge necessary for specific business functions.

[Internal correspondence education, e-learning]
We offer internal correspondence education led by experienced employees, covering a wide range of areas, such as refractories expertise, safety, quality, and compliance. These courses continue for more than a quarter of a century as part of promotion requirements.

Additionally, we provide a diverse selection of e-learning programs, including courses in management, labor relations, legal affairs, safety, and languages, creating an environment where employees can continuously acquire essential knowledge and skills.

[Promoting professional qualifications]
In addition to ensuring employees have the necessary qualifications for their roles, the company actively encourages and supports the acquisition of various professional certifications. This initiative is designed to enhance employees’ skills, improve work capabilities, and foster self-development.

[Management by objectives and self-assessment system]
Management by Objectives (MBO) clarifies the issues that each employee should achieve by setting operational goals for each employee every year. We translate the skills and initiatives required to achieve these goals into concrete forms of human resource development. Progress and results are jointly evaluated by the employees and their supervisors to ensure an objective and fair assessment.

The individual declares the setting of his/her own business objectives and his/her desirable career, etc., and determines them through interviews with his/her superior. By continuing this cycle every year, we are working to improve employee abilities and motivation, and to promote communication with supervisors.

[Language]
As part of our efforts to strengthen our global capabilities, we have introduced a foreign language certification exam system, which involves taking annual exams for English, Chinese, or Japanese (limited to non-native speakers) and providing incentives based on the difficulty of achieving the required score. We also provide English learning services for corporate employees.



A conference attended by multinational employees

List of Internal Correspondence Education Courses

Category	Course	Participants in FY2024
Introduction to Refractories	Fundamentals of Inorganic Materials	67
	Furnaces and Refractories	29
	Theory of Refractories	40
	Steel Manufacturing Methods	43
Various Fields	Fine Ceramics	47
	Furnace Engineering	22
	Quality Control Management	40
	Production Control	37
	Patents	30
	Accounting	26
Mandatory Courses	Human Resources Management	24
	Compliance	42
	Health and Safety	47
	Getting to Know Shinagawa Refractories	61
Total		555

Slogan - Safety First - For Ourselves and Our Families

Basic Health and Safety Policy

- Safety and Health as the Top Priority: We prioritize the safety and health of our employees above all else.
- Compliance with Legal and Internal Standards: We ensure the health and safety of employees by strictly adhering to all relevant occupational safety and health laws and regulations, as well as Shinagawa’s internal standards
- Ongoing Risk Reduction and Safe Work Environment: We are committed to continuously engaging in activities aimed at reducing workplace risks and ensuring a safe, comfortable work environment.
- Transparent Communication and Inclusive Participation: We promote open communication and foster a disciplined, inclusive workplace where all employees actively participate in safety initiatives.

Based on the recognition that “safeguarding the health and safety of all employees is fundamental to our management principles and our social responsibility,” we are actively committed to “fostering safe and comfortable workplaces” and “improvement of physical and mental well-being” for our employees.

Priority Action Items

- Developing Safety-Conscious Personnel
- Ensuring Intrinsic Safety of Equipment and Operations
- Sharing Safety Information Across Business Units
- Creating a Safe Work Environment through 5S
- Strengthening Mental Health Care

Health and Safety Management System

We have established the Central Health and Safety Committee, chaired by the President, to oversee the Group-wide health and safety initiatives. Additionally, the Health and Safety Promotion Committee, led by the General Manager of the Health and Safety Department, is responsible for planning and promoting health and safety activities across the entire Group. To further enhance efficiency, we have also created specialized subcommittees, including the Production and Engineering Subcommittees, to address common health and safety management issues that arise across multiple business units with similar operations and functions.

Health and Safety Activities

Our health and safety activities are built around three core pillars: Safety, Health, and Disaster Prevention.

[Safety Activities]
1) Developing safety-conscious personnel by ensuring adherence to safety rules and enhancing risk awareness, 2) Ensuring intrinsic safety of equipment and operations (ensuring safety without relying on human vigilance), 3) Sharing safety information across Business Units, 4) Creating a safe work environment through 5S

[Health Activities]
1) Strengthening the prevention of stress-related diseases by enhancing mental healthcare initiatives, 2) Implementing measures to prevent heatstroke, 3) Promoting health protection practices, particularly against risks posed by chemical substances

[Disaster Prevention Activities]
1) Strengthening disaster prevention infrastructure to safeguard employees and operations, 2) Conducting proactive activities aimed at preventing major accidents and ensuring preparedness

Health and Safety Education

Health and Safety education and training is a vital part in safeguarding the well-being of employees within companies and organizations. In 2025, we are enhancing Health and Safety training to raise safety awareness, including hazard prediction education, life-saving training, as well as falls and lower-back pain prevention education.

- (1) Education for New Employees (New Employee Induction Training)
In addition to training required by occupational safety and health regulations, we offer hands-on hazard experience trainings using real equipment and virtual reality (VR). To enhance awareness of pneumoconiosis and the development of health and safety management for workers handling refractories, specialized training on working in dusty environments is provided. Starting 2024, safety and health education on hazards and other aspects of chemical materials has also been incorporated.
- (2) Safety Training for Managers
Since FY2024, we have been providing specialized training on the Industrial Safety and Health Act, the Fire Service Act, and Chemical materials for managers. Previous safety training for managers covered general health and safety topics. However, this new program aims to provide deeper knowledge on safety, health, and disaster prevention necessary for managing and instructing their subordinates in the workplace.
- (3) Hazard Prediction Training
Insufficient hazard prediction contributes to over 40% of the accidents within the Group. As hazard prediction at the time of work is not adequate, the number of cases that suffer damage has been increasing. To address this, we have been conducting regular hazard prediction training since FY2024. This training encourages employees to proactively identify potential hazards in the workplace, improving their hazard awareness and enabling them to respond effectively.
- (4) Regular Emergency Lifesaving Course
Since FY2024, we have implemented internal training focused on providing quick first-aid allowances before emergency services arrive in the event of an injury or emergency sickness. This initiative ensures employees are equipped with essential first aid knowledge, which also contributes to the safety and well-being inside and in the local community.
- (5) Mental Health Training
Training sessions held each year are used to learn about self-care methods, such as how to recognize their own difficulties, positive thinking, and self-movement. In addition, we conduct mentor training for managers and supervisors, helping them develop the mindset and leadership qualities necessary to serve as role models. This training fosters an environment that supports staff well-being and encourages a positive workplace culture.
- (6) Seminar for the Prevention of Falls and Lower-Back Pain
As part of efforts to eliminate falls and falls, which have been on the rise in recent years, and to create safe workplaces that take into account the needs of older employees (age-friendly workplaces), in FY2025 we began offering seminars for managers and oversight to prevent falls and backaches.

Safety Performances

The number of occupational accidents (accidents with no lost time or more) has remained high since 2020. Additionally, we acknowledge the need to further intensify our efforts, as the Lost Time Injury Frequency Rate (the rate of injuries resulting in one or more days off work, excluding overseas affiliates) has averaged 0.59 over the past five years, indicating that lost time injuries continue to occur annually.

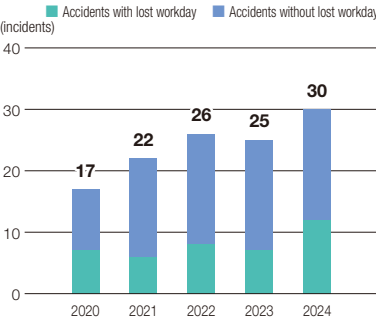
In 2024, accidents varied in nature, including incidents such as “pinching/trapping,” “cutting/rubbing,” “struck by flying/falling objects,” and “falling.” Half of the accidents were due to insufficient hazard prediction and rule violations, followed by inadequate management and faulty equipment. In particular, the proportion of accidents caused by insufficient hazard prediction is high. To address this, we conduct regular hazard prediction training to encourage consistent implementation. We are also focusing on developing safety-conscious personnel who act with heightened risk awareness and on promoting intrinsic safety in facilities and operations. These initiatives are positioned as key priorities throughout the company.

Lost time injury frequency rate (one or more lost workday, excluding overseas affiliates)

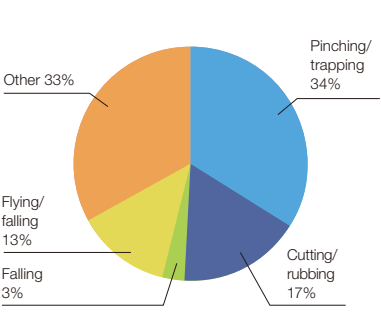
	2020	2021	2022	2023	2024
Lost Time Injury Frequency Rate	0.84	0.41	0.71	0.42	0.58

* Lost time injury frequency rate = (Accidents with one or more lost workday ÷ total work hours) × 1 million hours (2024 target: 0.2 or less)

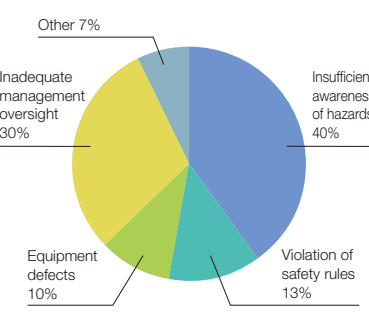
Number of Occupational Accidents
(Including Those with No Lost Workday)



Breakdown of Occupational Accidents by Type in 2024
(Including Non-Lost Time and More Serious Cases)



Main causes of Occupational Accidents in 2024
(Including Non-Lost Time and More Serious Cases)

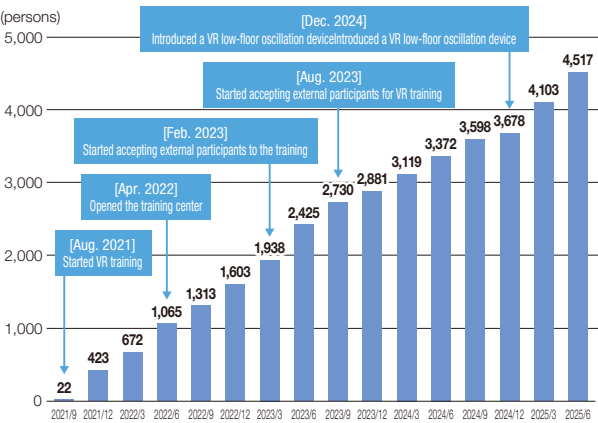


Activities

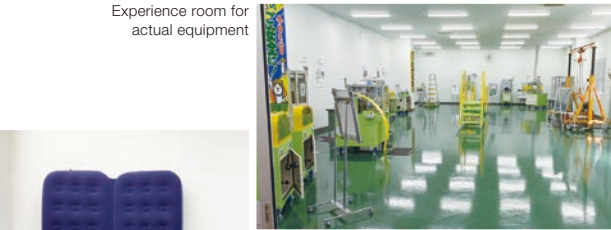
Usage Status of the Hazard Simulation Training Center

In April 2022, we opened the Hazard Simulation Training Center at the Okayama Plant as a key initiative for the development of safety-conscious personnel. The training center has 16 sensory devices (actual equipment, two of which were newly introduced in FY2025) that allow trainees to experience various occupational hazards. Additionally, 17 VR hazard simulation scenarios (three of which were newly introduced in FY2024) that allow trainees to experience hazards in a virtual environment. For VR, in December 2024, we added a low-floor swing device that is linked to scenarios and shake floors, enabling a more realistic experience. In June 2025, a total of 4,517 employees participated in the course. The number of requests for training and hands-on experience from outside the company is also on the rise, and plans are underway to hold “hazard simulation training” sessions for students. We will continue to make full use of our facilities in order to enhance the sensitivity to potential hazards of all participants, including those outside the company, through repeated training, to ensure the development of the skills needed to recognize and avoid danger.

Trends in Cumulative Number of Participants in Hazard Simulation Training



Training for experiencing falls while walking



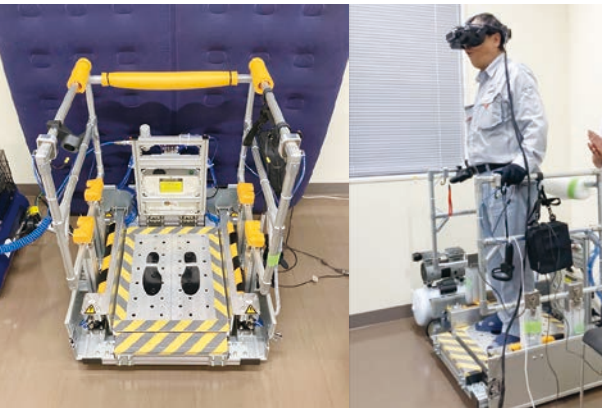
Experience room for actual equipment



VR experience room



Safety training room



Low floor oscillation device



Hands-on experience for overseas affiliate employees to understand the hazards of being caught in rotating machinery.

Mental-Health Service

For mental health care, it is important that the four types of care are carried out continuously and systematically: self-care, care in the line, care by industrial health staff in the workplace, and care by resources outside the workplace. In addition to conducting stress checks on all employees and working to improve the work environment through group analyses, we introduced an employee support program service in April 2025. In addition to consultation on mental difficulties and career development, we also provide counseling and guidance to managers and employees (management consultation) and support employees through active collaboration. We also support employees on leave to facilitate their smooth return to work in accordance with the “Return to Work Support Manual.”

Procurement Policy

As a reliable business partner to all our suppliers, Shinagawa conducts its procurement activities in a fair and transparent manner, grounded in mutual understanding and trust. Our procurement is guided by the core principles described at right:

1. Compliance
2. Fair Competition
3. Partnership
4. Supplier Selection
5. Green Procurement
6. Promoting CSR Procurement

Building a Responsible Supply Chain

To establish a responsible supply chain in collaboration with our suppliers as business partners, and other stakeholders, we communicate various policies, including our Basic Human Rights Policy, Procurement Policy, and CSR Procurement Guidelines. We are actively promoting human rights awareness and response to climate change, and working to secure the understanding and cooperation of our stakeholders. Currently, our efforts are focused primarily on our business partners, and we have received significant support in this regard.

CSR Procurement: Flow Chart

[CSR Procurement Guidelines]

- Building a CSR promotion system
- Compliance and Information Management
- Human Rights & Occupational Safety and Health
- Green Procurement
- Safe and Competitive Products and Services
- Prevention of Improper Quality Control Practices

Shinagawa → Suppliers → Procurement of Products and Services

For details, please refer to the Purchasing Policy page on our website. ▶ https://www.shinagawa.co.jp/en/company/purchasing_policy.html

Supply Chain Risk Management

We rely heavily on procurement from China for a majority of our refractory raw materials and purchased products.

To reinforce a stable procurement system and reduce our dependence on China, we are implementing the following measures:

1. Establishing multiple sources within China
2. Expanding procurement from outside China
3. Strengthening relationships with suppliers in Japan
4. Maintaining appropriate inventory levels to mitigate risks
5. Increasing the use of various recycled raw materials
6. Enhancing collaboration among Group companies in Japan and overseas

Status of expanding procurement from outside China

- [East Asia area]**
 - Magnesia
 - Flake Graphite
 - Bauxite
 - Silicon carbide and others
- [India/Middle East]**
 - Chromite
 - Flake Graphite and others
- [Southern Africa]**
 - Chromite
 - Sillimanite
 - Zircon
 - Flake Graphite and others
- [Australia]**
 - Zircon
 - Magnesia
- [Americas]**
 - Magnesia
 - Flake Graphite
 - Dolomite
 - Bauxite and others
- Specialty raw materials sourced from Japan include Silica and Pyrophyllite.**

Promoting Refractory Recycling

By recycling used refractories, we contribute to reducing CO₂ emissions in raw material production and conserving mineral resources, while also helping our customers achieve zero emissions and reducing environmental impact.

Additionally, these alternative raw materials are reliably sourced, further strengthening the stability of our raw material procurement.

Recycling targets

Green raw material ^(*) usage percentage (non-consolidated basis)

FY2023	10%
FY2030 target	to 20%

*1: Green raw materials are refractories recycled raw materials after use, recycled raw materials generated internally, by-products from other industries, and other raw materials that are considered to have virtually no CO₂ emissions.

Concept of resource recycling in the Group

Natural resources → Refractory raw materials

Supply of raw materials

Manufacturing

Recycling (3) Outside the value chain

Recycling (2) Within the value chain including customers

Recycling (1) From Internal Manufacturing Processes

Processing residues recovered dust

Supply of refractories

Specific customers

Various types of industrial furnaces

Open recycling

Used refractories produced by the company

Used refractories from each company

Manufacturing by each company

Supply of refractories

Initiatives for Sustainable Procurement

Promotion of Carbon Neutrality in the Supply Chain

Collaboration with our business partners is essential for future emission reductions, as a large portion of our CO₂ emissions originates from Scope 3 activities across the supply chain, particularly Category 1 (purchased goods and services).

Since FY2024, we have been holding multiple "Carbon Neutrality Briefings" to enhance understanding and encourage action throughout the supply chain. We first organized awareness seminars for our Procurement Division, inviting external consultants. This was followed by a hybrid briefing—combining in-person and online participation—held at the Okayama Plant for all suppliers. Subsequently, we conducted a series of three intensive training sessions for our key suppliers.

Through these initiatives, we have shared our carbon neutrality policies and encouraged collaborative efforts with our suppliers to advance carbon-neutral practices across the entire supply chain.

Implementation of a Sustainable Procurement Survey for Suppliers

We conducted a questionnaire survey among all suppliers of raw materials, components, and refractory products to assess their sustainability initiatives. The survey achieved a response rate of 80%.

It consisted of the following nine categories, allowing us to visualize the current status and identify issues for each supplier.

- Corporate Governance Related to Sustainability
- Human Rights
- Working
- Environmental
- Fair Corporate Activities
- Quality/Safety
- Information-Security
- Supply Chain
- Coexistence with Local Communities

The survey results will be utilized to further strengthen engagement with our business partners and serve as fundamental data for promoting sustainability across the entire Group.

Quality Policy

Basic Policy

Shinagawa Refra is committed to delivering high-quality products and services that meet the needs of our customers, contributing to a prosperous future and a sustainable society.

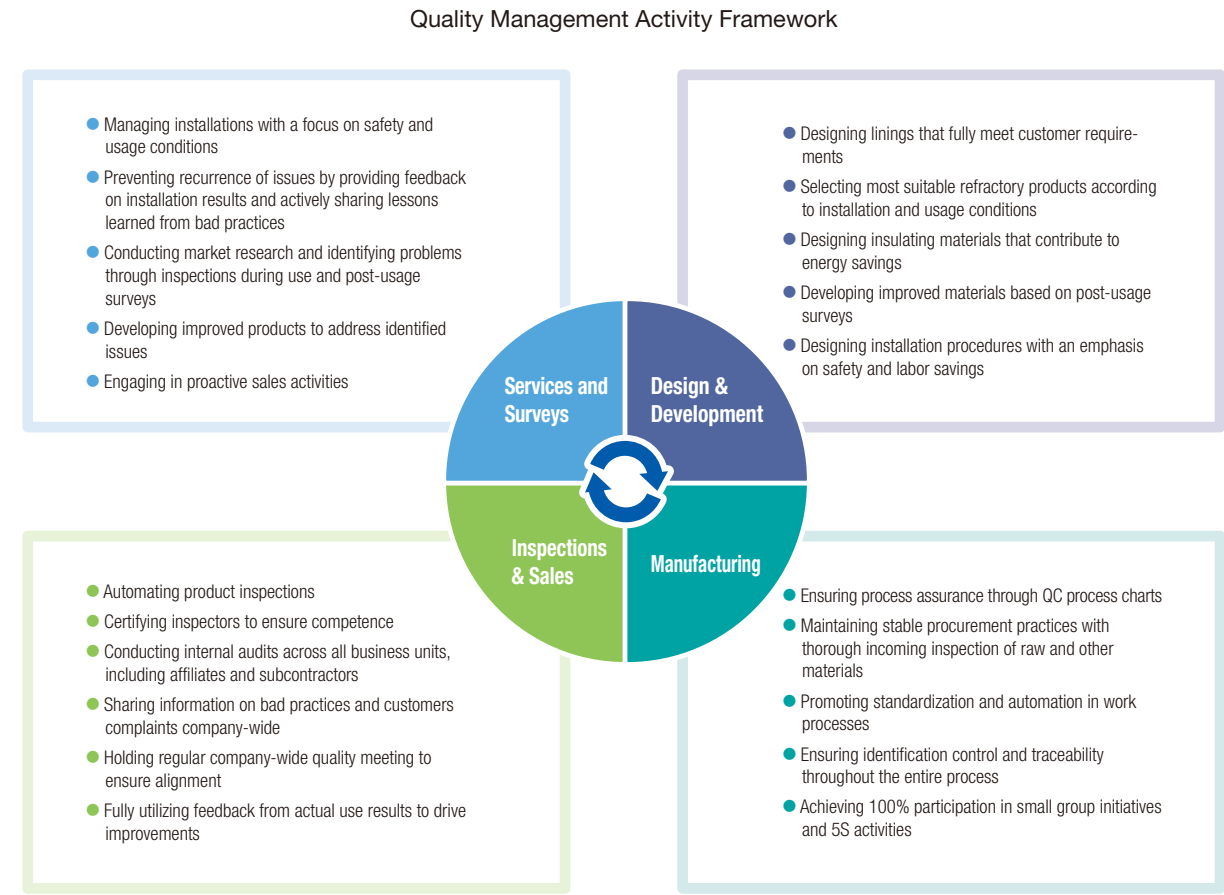
1. We engage in company-wide continuous improvement of quality management through our reliable quality assurance system.
2. We proactively work to enhance the quality of our products and services, creating new value through active communication with our customers.
3. We comply with all applicable laws and regulations, striving to contribute to a sustainable society.

Action Policy

1. We fully understand the importance and quality assurance processes and ensure their implementation across all aspects of our business activities.
2. We involve all employees in quality control through small group activities and 5S initiatives, fostering a quality-conscious workplace and cultivating the right quality mindset.
3. We ensure company-wide sharing of information related to product and service irregularities, as well as customer complaints, and take thorough corrective actions to prevent recurrence.
4. We prioritize understanding the actual conditions at the sites where our products and services are used, with teams from manufacturing, sales, R&D, and installation working together to propose quality improvements and create new value for our customers.

Quality Activities

In accordance with our quality policy, the Group conducts quality control activities with the aim of contributing to customers' operations by providing high-quality, safe products and services in a stable manner. The framework for quality control activities expresses the importance of a sense of responsibility regarding quality, and each process works together in a cycle to actively improve the quality of products and services.



Efforts in Quality Activities

(1)
Owing to certification to ISO 9001

The main production divisions of the Group have obtained ISO9001:2015/JIS Q 9001:2015 standard certification. In FY2025, we plan to acquire certification for the Production Section No.2 of the Ako Plant, which began operations in 2024, and for the Fine Ceramics Business Division (formerly Shinagawa Fine Ceramics Co., Ltd.), which was merged in April 2025. We will continue to promote expanding the scope of certification and striving to improve comprehensive services.



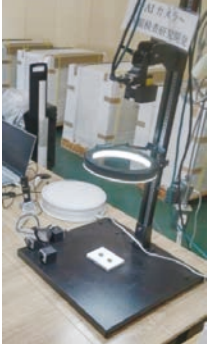
(2)
Customer satisfaction

In order to solicit customers feedback on the degree of satisfaction with our products/services, we are refining our survey methods, analyzing the findings and sharing the issues identified and customers' needs with relevant divisions. We aim to provide products and services that satisfy not only customers' needs but also potential needs.

Information on product and service defects is shared throughout the company and countermeasures are spread horizontally. The effectiveness of corrective actions is evaluated through internal quality audits and quality patrols to strengthen the prevention of recurrence.

(3)
Improving the reliability of quality inspections

We are promoting the digitization of inspection results, automation of measurements, and automation of inspection results publication in order to prevent human errors such as recording errors in product inspection data and judgment errors, and to prevent falsification and fabrication of inspection data. We are expanding the use of digital tools and 3-dimensional measuring instruments that can be automatically transmitted to PC, and are aiming to build a non-manual inspection system at all Group companies, from automatic storage of inspection results to issuance of inspection results tables.



(4)
Quality audit

To increase the trust of our customers, we regularly conduct quality audits not only at the company but also at affiliated companies and suppliers to ensure thorough quality compliance and compliance with quality standards and specifications. We identify weak points and continuously improve quality control.

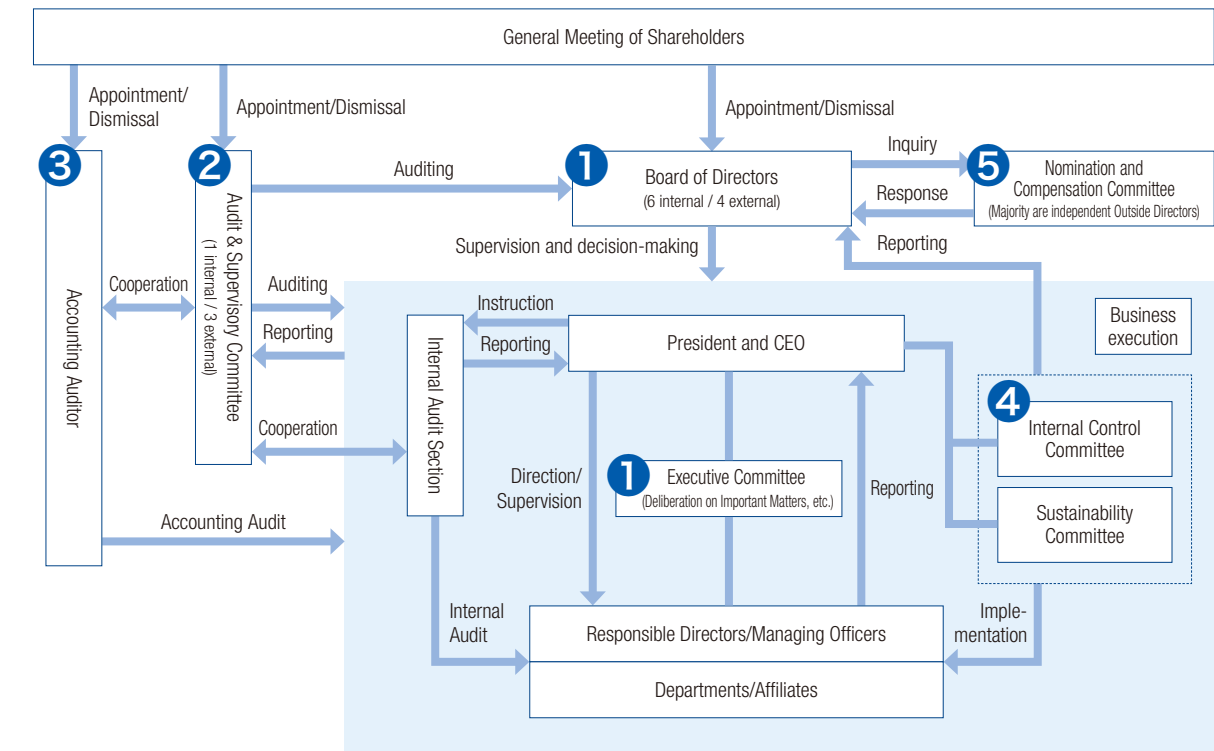


Basic Approach to Corporate Governance

To ensure appropriate corporate management aligned with our management philosophy and to strengthen the trust of all stakeholders, Shinagawa is committed to enhancing our corporate governance system. We aim to operate this system efficiently, ensuring management transparency, fairness, efficiency, and sound practices, all while upholding a high standard of compliance.

Please refer to the "Basic Corporate Governance Policy" section of our website for details. ▶ https://www.shinagawa.co.jp/profile/governance_guideline.html (Japanese)

Corporate Governance Structure



<Overview of Corporate Governance Structure>

1 Board of Directors, Executive Committee, Managing Officers Meeting

In addition to the Board of Directors and the Audit & Supervisory Committee, which organizes the auditing and supervision of business operations, we have set up management meetings that consist of Directors and some of the Managing Officers, as well as executive board meetings that consist of Executive Officers. We hold Board of Directors meetings once or twice a month, management meetings once or twice a month, and Managing Officers Meetings four times a year. Four Directors, including three Outside Directors, serve on the Audit & Supervisory Committee to audit and supervise overall management, and the company has established a system for monitoring management.

The Board of Directors makes key decisions on business execution in accordance with laws, regulations, the Articles of Incorporation, and the Rules of the Board of Directors, while other significant matters are decided by the Executive Committee. A full-time Audit & Supervisory Committee member, who is also a Director, attends all these meetings. Managing Officers, appointed by the Board of Directors, carry out their duties under the supervision of both the Board of Directors and the Representative Director, while overseeing the work of employees within their respective business units.

2 Audit & Supervisory Committee

We currently maintain an auditing and supervisory structure comprising four members of the Audit & Supervisory Committee, including three Outside Directors, supported by two full-time secretariat staff who assist the committee in its activities. In accordance with the audit policy set by the Audit & Supervisory Committee, its members oversee the execution of business by Directors by attending Board of Directors meetings and other key meetings, reviewing reports from Directors, and inspecting critical documents. To further strengthen the auditing process, committee members visit plants, sales offices, subsidiaries, and other relevant entities to assess the business execution of us and our subsidiaries. The Audit & Supervisory Committee holds monthly meetings to receive audit reports from each committee member and discuss related matters.

The secretariat of the Audit & Supervisory Committee collaborates closely with the committee and its members, assisting them in their activities and carrying out duties as directed by the Audit & Supervisory Committee.

3 Accounting Auditor

We have appointed KPMG AZSA LLC as our accounting auditor in compliance with the Companies Act and for accounting audits in compliance with the Financial Instruments and Exchange Act.

4 Internal Control Committee

We have established the Internal Control Committee, which oversees compliance, risk management, and information-security initiatives at each of our subsidiaries and affiliates.

5 Nomination and Compensation Committee

We have established the Nomination and Compensation Committee, an advisory body to the Board of Directors, composed of members selected by the Board, the majority of whom are independent Outside Directors. The committee is designed to enhance the fairness, transparency, and objectivity of the processes related to the nomination of board candidates, the determination of Director compensation, and other related matters

Directors' Remuneration

The total compensation for directors (excluding those who serve as Audit and Supervisory Committee members) consists of fixed monthly remuneration, short-term performance-based bonuses, and medium- to long-term performance-based stock compensation.

At the Board of Directors meeting held on June 10, 2025, it was resolved to add a new sustainability index to the bonus performance index from FY2025. Specifically, the performance indicators used as the basis for calculating bonuses will be as follows.

- Portion reflecting business results: Consolidated ordinary income target amount
- Sustainability Results Portion: -Employees Engagement
 - Climate change measures (consisting of the following 2 items)
 - Reduced CO₂ Sales Ratio of Products with Reduced Environmental Impact

For more information on executive compensation, please refer to our Securities Reporting for the year ended March 31, 2025. ▶ https://www.shinagawa.co.jp/finance/annual_report.html (Japanese)

Analysis and Evaluation of the Effectiveness of the Board of Directors

Article 3.8 of the Basic Policy on Corporate Governance stipulates that "the Board of Directors shall enhance the effectiveness of corporate governance by conducting periodic reviews to ensure that the execution of duties complies with laws and regulations, the Articles of Incorporation, and this basic policy." In line with this policy, the Board of Directors conducts an annual questionnaire (30 questions rated on a 4-point scale, with both free and overall responses for each question) covering four categories: **1. Composition and operation of the Board of Directors, 2. Responsibilities and roles of the Board of Directors, 3. Structure supporting the Board of Directors, 4. Relationships with stakeholders.** For FY2024, the average evaluation **questionnaire score exceeded three points (considered satisfactory) across all items. The overall score was 3.55, indicating that the Board of Directors is generally satisfied with its effectiveness, as required by the Corporate Governance Code.**

	FY2019	FY2020	FY2021	FY2022	FY2023	FY2024
1. Composition and operation of the Board of Directors	3.20	3.39	3.47	3.24	3.47	3.47
2. Responsibilities and roles of the Board of Directors	3.40	3.57	3.66	3.38	3.51	3.62
3. Structure supporting the Board of Directors	3.30	3.56	3.66	3.38	3.40	3.58
4. Relationships with stakeholders	3.23	3.29	3.29	3.19	3.44	3.48
Overall Average	3.30	3.47	3.55	3.31	3.47	3.55

Leadership (As of June 26, 2025)

Board Directors (Excluding Audit & Supervisory Committee Members)



President and CEO
Hiroyuki Fujiwara



Representative Director & Senior Managing Executive Officer
Masanori Ogata



Representative Director & Managing Executive Officer
Heiki Miki



Representative Director & Managing Executive Officer
Yoshio Fukusaki



Board Director
Toshihiko Kaneshige

Major concurrent roles

- President and CEO, Isolite Insulating Products Co., Ltd.



Outside Board Director
Keiko Yamahira

Major concurrent roles

- Outside Board Director, Joshin Denki Co., Ltd.
- Outside Board Director, Maruichi Steel Tube, Ltd.

Board Directors (Audit & Supervisory Committee Members)



Board Director, Full-time Audit & Supervisory Committee Member
Hirofumi Yamashita



Outside Board Director, Audit & Supervisory Committee Member
Shigeru Nakajima

Major concurrent roles

- Outside Auditor, Nissei ASB Machine Co., Ltd.



Outside Board Director, Audit & Supervisory Committee Member
Masafumi Nagano

Major concurrent roles

- Employer members of the Central Labor Relations Commission



Outside Board Director, Audit & Supervisory Committee Member
Chizuko Urabe

Major concurrent roles

- IACE Travel Corporation Outside Director

Composition of the Board of Directors (as of June 26, 2025)
and Attendance at Board of Directors and Other Meetings (FY2024)

The following outlines membership of each of our organizations. (Chair: ◎, Member: ○, Observer: △)

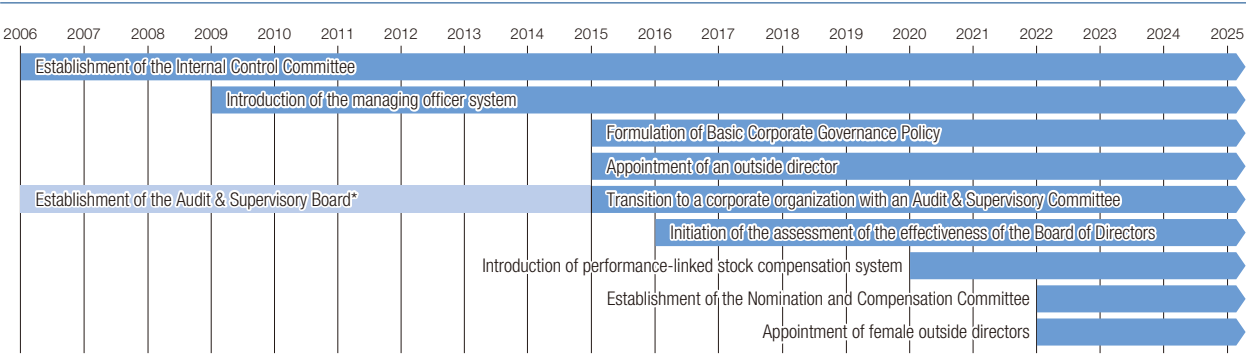
		Board of Directors	Audit & Supervisory Committee	Executive Committee (Note 1)	Managing Officer Meeting (Note 1)	Internal Control Committee (Note 1)	Nomination and Compensation Committee	Sustainability Committee (Note 1)	Attendance (FY2024)	
									Board of Directors	Audit & Supervisory Committee
President and CEO	Hiroyuki Fujiwara	◎		◎	◎	◎	○	◎	21/21	—
Representative Director & Senior Managing Executive Officer	Masanori Ogata	○		○	○	○		○	21/21	—
Representative Director & Managing Executive Officer	Heiki Miki	○		○	○	○		○	—	—
Representative Director & Managing Executive Officer	Yoshio Fukusaki	○		○	○	○		○	—	—
Board Director	Toshihiko Kaneshige	○		○	○	○		○	21/21	—
Outside Board Director	Keiko Yamahira (Note 2)	○					○		21/21	—
Board Director, Full-time Audit & Supervisory Committee Member	Hirofumi Yamashita	○	◎	△	△	○		△	21/21	12/12
Outside Board Director, Audit & Supervisory Committee Member	Shigeru Nakajima (Note 2)	○	○				◎		21/21	12/12
Outside Board Director, Audit & Supervisory Committee Member	Masafumi Nagano (Note 2)	○	○				○		17/17	10/10
Outside Board Director, Audit & Supervisory Committee Member	Chizuko Urabe (Note 2)	○	○						17/17	10/10

(Note 1) Committee members also include individuals designated by the President.
(Note 2) These individuals are independent officers registered in accordance with financial instrument exchange rules.

Skills Matrix of the Board of Directors (as of June 26, 2025)

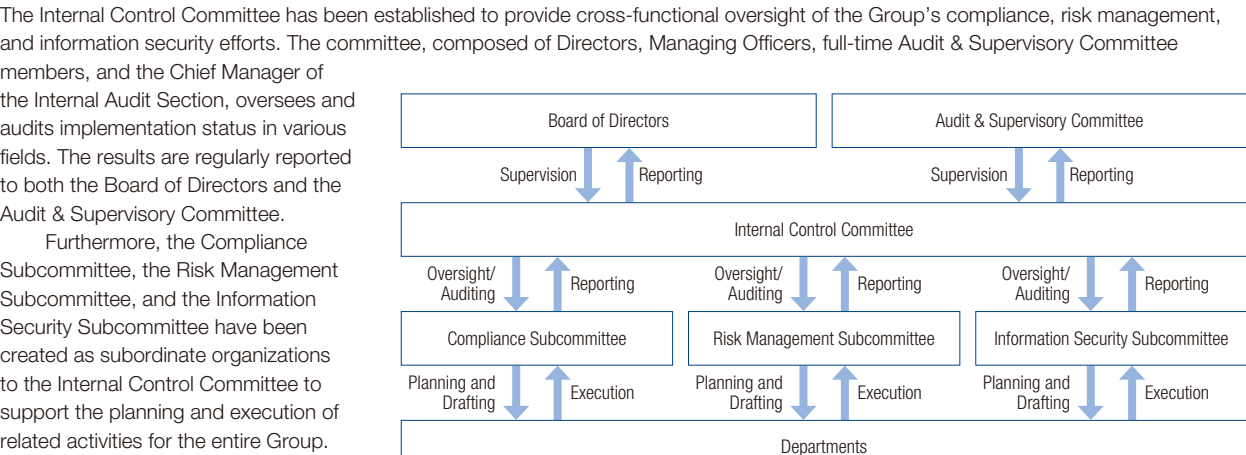
		Corporate Management/ Strategy	Procurement	Sales/ Marketing	Manufacturing/ Installation/ R&D	Accounting/ Finance	Organizational/ HR Management	Legal Affairs/ Risk Management	Global Business	Environmental Management
President and CEO	Hiroyuki Fujiwara	○	○				○	○	○	○
Representative Director & Senior Managing Executive Officer	Masanori Ogata	○			○				○	○
Representative Director & Managing Executive Officer	Heiki Miki	○		○					○	
Representative Director & Managing Executive Officer	Yoshio Fukusaki	○		○	○					○
Board Director	Toshihiko Kaneshige	○	○	○	○				○	○
Outside Board Director	Keiko Yamahira	○		○	○		○			
Board Director, Full-time Audit & Supervisory Committee Member	Hirofumi Yamashita	○				○	○		○	
Outside Board Director, Audit & Supervisory Committee Member	Shigeru Nakajima							○		
Outside Board Director, Audit & Supervisory Committee Member	Masafumi Nagano	○		○			○			
Outside Board Director, Audit & Supervisory Committee Member	Chizuko Urabe					○		○		

Initiatives for Strengthening Governance



* Outside auditors have been appointed since the 1940s.

Internal Control Committee



Annual Compliance Action Plan

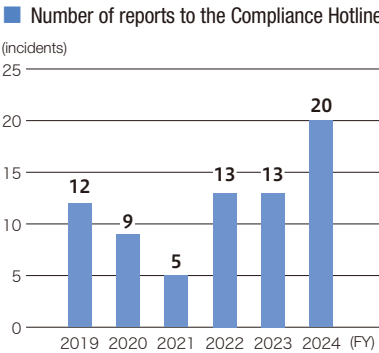
Item		April	May	June	July	August	
Management of the Compliance Subcommittee							
		Ad-hoc: Compliance incident occurs → Reported to the Compliance Subcommittee → Reported to the Internal Control Committee → Information sharing (awareness-raising and education) to all employees targeted for compliance education					
Structure, etc.	Dissemination of Changes to Laws and Regulations	Ad-hoc: Confirmation of changes in laws and regulations by departments in charge of laws and regulations, and notifications including affiliated companies					
	(1) Compliance Manual	▶ Distribution of the Compliance Manual					
	(2) Internal reporting						
	(3) Questionnaire (conducted in FY2024)	▶ Result Reporting					
	(4) Compliance Case Studies		▶ Begin Developing Compliance Case Studies				
Training, etc.	All members	Compliance Awareness Month					
		Company newsletters			▶ Psychological safety		
	Working hours management	▶ Correct reporting of working hours					
	According to hierarchy	Training for new and mid-career employees	[New graduates] April to May internal training [Mid-career] Training for new employees				
		Internal correspondence education	◀ Illustrative Compliance Management (April to September) ▶				
		External training	▶ Power harassment prevention training (targeted at non-participants in FY2024 and new managers and supervision staff)				
		e-learning	Ad-hoc: Held by Human Resources Section				
Only affiliated and cooperating companies			▶ [Domestic Affiliates and Cooperating Companies] Coordinating Committee in charge of general affairs and sharing results of FY2024 questionnaire				

Compliance

The Compliance Subcommittee, consisting of Directors and select Managing Officers, is responsible for planning and implementing various compliance-related initiatives. The key activities of the Compliance Subcommittee include the following.

(Main Initiatives)

- Compliance questionnaires**
Compliance questionnaires are conducted periodically, with the results reported to the Board of Directors and shared in the company newsletter.
- Compliance Hotline**
We have established both internal and external contact points for all employees of our company, Group companies, and partner companies. We also accept anonymous reports. The hotline is publicized through the company newsletter and posters displayed in workplaces showing contact information, and updates on the use of the hotline are regularly published in the company newsletter.
- Education**
 - Compliance Awareness Month: Every year we establish a topic and distribute related materials to conduct compliance training at each business site. In FY2024, the topic was “managing personal data” and e-learning was used to conduct training.
 - The Company Newsletter: Every issue contains a variety of Topic compliance-related articles (with comments from lawyers). We have covered Topic such as insider trading, antitrust laws, working hours, personal data control, and power harassment. The articles are also used as training materials.
 - Internal Correspondence Courses: Mainly targeting young employees, it is mandatory to take courses for promotion. We will conduct voluntary learning using educational materials tailored to each subject and tackle issues prepared by in-house instructors.
 - Information sharing of compliance incidents: Compliance incidents occurring within the Group are shared with each business site to ensure a thorough understanding and to prevent recurrence of similar incidents.



Risk Management

1. Overview

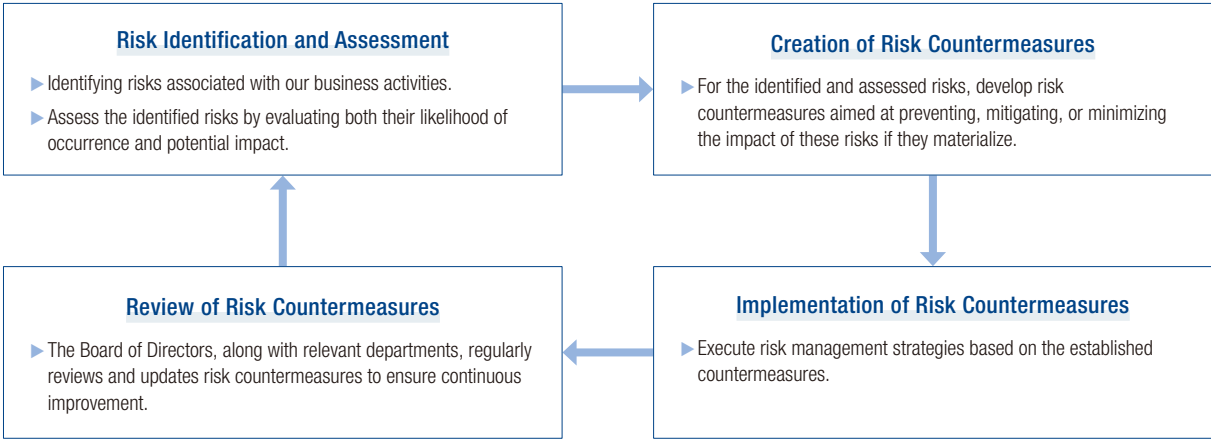
As the Group pursues sustainable growth and corporate value creation through our business activities, various risks may hinder progress. In response, we actively engage in risk management activities aimed at preventing and mitigating potential risks, as well as minimizing the negative impact when risks materialize. These efforts are guided by our Basic Risk Management Policy.

Each department identifies potential risks and evaluates countermeasures. The Risk Management Subcommittee reviews these evaluations, followed by an audit and deliberation at the Internal Control Committee, chaired by the President and CEO, which decides on future response policies. The Board of Directors receives regular reports on risk management from the Internal Control Committee and conducts reviews to ensure proper implementation of risk management strategies.

Among all potential risks, we have established specific procedures for managing internal business crises arising from natural disasters, fires, terrorism, and outbreaks of infectious diseases.

- (1) Emergency Response Plan (ERP)
The ERP defines procedures for initial responses to emergencies such as major earthquakes, windstorms, floods, and fires. The plan prioritizes three main objectives: (1) Protecting human life, (2) Reducing losses, and (3) Preserving creditworthiness.
- (2) Crisis Management Plan (CMP)
The CMP outlines specific measures to be taken during a business crisis, such as natural disasters, fires, terrorism, or outbreaks of infectious diseases, until the crisis is resolved.
- (3) Business Continuity Plan (BCP)
The BCP provides detailed procedures for maintaining business continuity when we face situations that threaten operations.

In addition to the above plans, we regularly conduct contingency response drills across multiple business sites and disaster prevention drills at each location to ensure that actions in response to contingency risks are effectively implemented.



2. Results of Risk Management Activities in FY2024

1) Risk Identification and Assessment

In FY2024, a total of 68 risks were identified, assessed, and categorized into the following levels according to the status of countermeasures.

Assessment Level 1	Countermeasures are in place and regulations have been established	: 58 risks
Assessment Level 2	Countermeasures exist but are insufficient	: 10 risks
Assessment Level 3	No countermeasures in place	: 0 risks

The primary areas assessed at Level 2 include safety, quality, labor management, and energy conservation. To elevate these areas to Level 1, we are prioritizing the development and enhancement of countermeasures and regulations.

2) Conducting Contingency Response Drills (BCP initiatives)

Emergency response drills are conducted annually, and in FY2024, drills were conducted in anticipation of a massive earthquake in the Nankai Trough in December. The following is an overview of the emergency response drill:

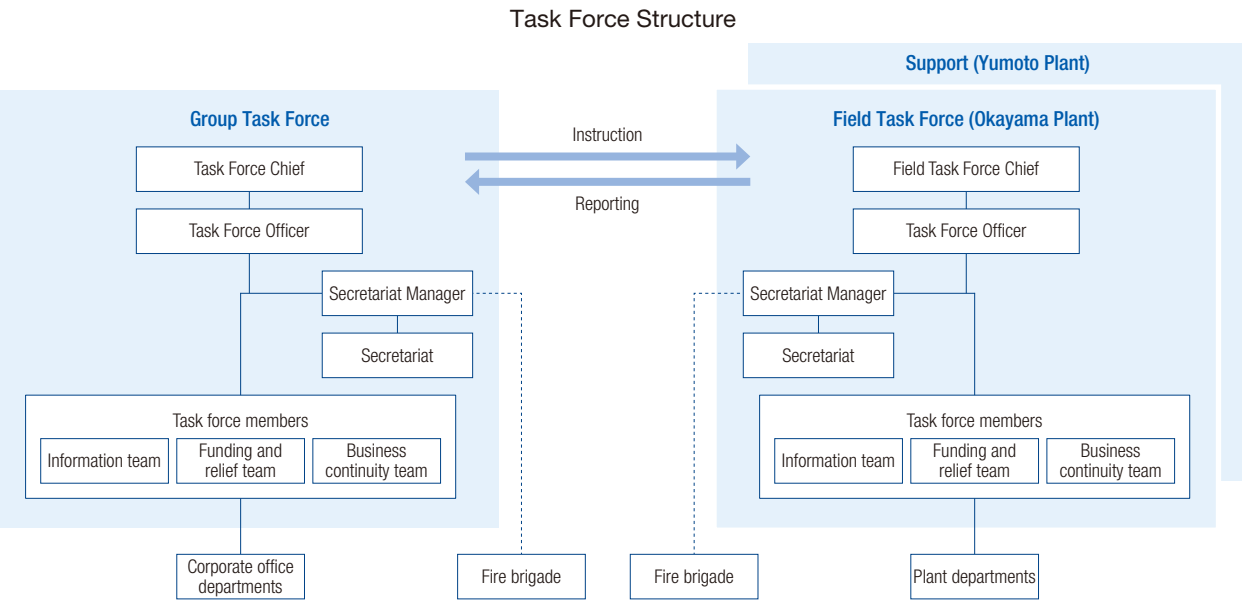
[Drill Objective]

- (1) To evaluate and identify improvements to the crisis management system.
- (2) To assess the effectiveness of information compilation forms used for collecting, sorting, and summarizing data during the event of a crisis.
- (3) To further advance the ongoing training programs and verify the effectiveness of cooperation with group companies.

[Drill Contents]

- (1) Initial response drill
The drill began with the activation of a task force in response to a major earthquake. The task force simulated the process of providing the headquarters with information about the disaster and internal damage on the day of the earthquake and the following day.
- (2) BCP coordination drill
The drill exercise, in which participants are divided into groups to discuss and present their conclusions within a limited time, is based on questions concerning decision-making, judgment, and response for the business continuity of critical operations, from the perspective of mutual cooperation and support among business sites in the event of a disaster occurring after the day following a large-scale earthquake or in the event of non-earthquake disasters—scenarios not covered in the initial response drill.

In this exercise, we examined the head office’s ability to assess the situation and summarize the damage, so it could explain it to customers, assuming the plant in western Japan would suffer severe damage and become nonfunctional. As a result of the drill, while participants effectively used information communication and sharing tools in an emergency and appropriately shared information to a certain extent, problems were identified with the system for supplying products to customers in the event of a disaster. We will focus on rectifying these points by reviewing our ERP, CMP, and BCP plans and preparing for the next drill.



Photos from the drill



Group Task Force (Corporate Office)



Field Task Force (Okayama Plant)

In order to connect the new shipment of the Group to a more secure future...

We are committed to further strengthening our corporate governance by enhancing the supervisory role of the Board of Directors. This is achieved through the audit and oversight responsibilities of the Audit & Supervisory Committee, the majority of whose members are independent Outside Directors. As of June 26, 2025, the Board of Directors of the company consists of ten members: six Directors (excluding those who serve as Audit & Supervisory Committee Members), including one Outside Director, and four Directors who serve as Audit & Supervisory Committee Members, including three Outside Directors.

In October 2025, we celebrated our 150th anniversary. At this major milestone, we restructured our corporate philosophy, renamed our company, and revamped our corporate logo. Accordingly, we have delivered a message from each of the four Outside Directors and one full-time member of the Audit & Supervisory Committee from the standpoint of a topic, which states, “In order to ensure that the Group’s new vessels will lead to a more secure future.”

From the perspective of the Outside Board Directors



Outside Board Director
Keiko Yamahira

We will continue to contribute to sustainable development for the next 150 years by taking advantage of external perspectives.

As we celebrate the 150th anniversary of our founding, we have renewed our corporate name, corporate philosophy, and logos, based on our long history. We have indicated our intention to create new value that transcends the boundaries of Refractories. In recent years, we have been investing in growth and global businesses, strengthening our earnings base and laying groundwork for the next generation. The Board of Directors has also been enhancing the effectiveness of its governance by engaging in multilateral discussions on these key issues. In a highly uncertain business environment, we believe that further strengthening these measures and Supervision and monitoring the execution of these measures by Board of Directors are crucial to achieving sustainable growth. As an Outside Director, I have worked to maintain fairness and transparency in management decisions while striking a balance between growing opportunities and risks. We will continue to make use of external perspectives to contribute to our sustainable development toward the next 150 years through constructive discussions.



Outside Board Director and Audit & Supervisory Board Member
Shigeru Nakajima

We want to contribute to the stable continuity of our business activities that are full of speed.

There are not many companies where the president and all other officers and employees are working as seriously as we do to meet the “expectations of society.” The expectations of society are changing rapidly. Until now, our main expectations have been “Business Growth.” However, now, expectations are growing in areas such as “Climate Change Measures,” “Workplace Environments that Value People,” and “Developing Cutting-Edge Technologies.” In response to these issues, we are contributing to climate change countermeasures through cooperation with our business partners. We are also striving to improve the work environment through Employees surveys and dialogues. Building on the technologies we have cultivated over the 150 years since our founding, we are actively engaged in developing cutting-edge technologies. We are steadily advancing globalization to truly achieve our objectives. On the other hand, the more we expand our business domains, the more we expand our Risk domains. As a Director responsible for the duties of the Audit & Supervisory Committee members, I am committed to overseeing the steady and continuous progress of our fast-paced business activities.



Outside Board Director and Audit & Supervisory Board Member
Masafumi Nagano

Aiming to further enhance corporate value through three key perspectives amid transformation

In October this year, we celebrated the 150th anniversary of our founding, and have made a start toward new reforms, including changing our company name, formulating a new corporate logo, and reforming our corporate philosophy. To this end, it is important to aim for further enhancement of corporate value through the following 3 approaches. The first is a bird’s-eye view. Overall management is taken from a high-level perspective, and based on the new corporate philosophy, we will support corporate growth and the resolution of social issues in order to achieve our medium-to long-term VISION 2030. The second is a worm’s-eye view. We will thoroughly observe the workplace to provide safe and secure products and services. At the same time, we will ensure thorough compliance and Risk management. The third is an eye for emerging trends. We will promote our sustainability management and implement climate-change measures and human-capital strategy in order to read the trends and make appropriate judgments in accordance with the times. As a member of the Audit & Supervisory Committee of the Board of Directors, I would like to contribute to the launch of a new vessel by the Group through these three perspectives.



Outside Board Director and Audit & Supervisory Board Member
Chizuko Urabe

Contribute to improving governance to support active debate and decision-making with a view to growth toward the next 100 and 150 years

We celebrated our 150th anniversary in October of this year. This is proof that we have continually adapted to the times without becoming complacent, guided by our technological capabilities and the trust that we have earned.

One year has passed since I became an Outside Director, and I feel that our Board of Directors and Audit & Supervisory Committee are making decisions and conducting operations with sincere discussion in an open-minded atmosphere regarding measures to grow for the next 100 and 150 years, centered on M&A of foreign companies, improvement of corporate governance, and sustainability-conscious management.

Going forward, based on our new management philosophy of “To Achieve the “Optimum” through Ceramics,” we expect to expand our business globally with a sense of unity as a “One SHINAGAWA,” which is also reflected in our new corporate logo. Group governance is also of greater importance than ever.

In light of this, we will continue to contribute to further enhancing the corporate value and corporate governance of the Group.

From the perspective of the Board Director and Full-time Audit & Supervisory Committee Member



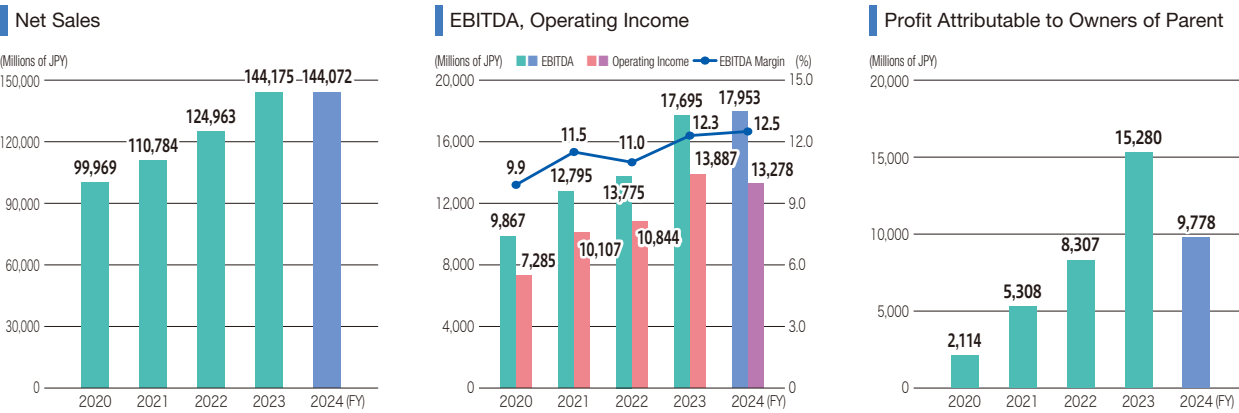
Board Director, Full-time Audit & Supervisory Committee Member
Hirofumi Yamashita

We will strive for accurate auditing activities to realize sustainable growth in the future.

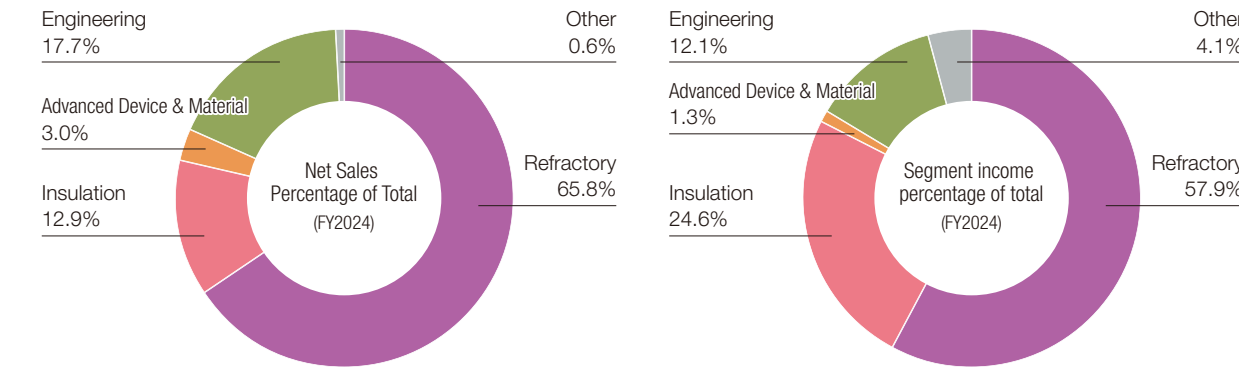
Based on our VISION 2030, which we formulated last year, we have significantly accelerated our growth into the future. At the same time, we have strengthened our efforts to reform our operations and implement internal controls and compliance in order to strengthen our corporate structure. We believe that these matters are being actively discussed by the various committees, the Board of Directors, and Audit & Supervisory Committee, taking into account the opinions of Outside Directors who possess specialized expertise. In addition, for the new Shinagawa Refra, which is set to start in 150, to steadily implement these efforts and achieve sustainable growth, it is important that PURPOSE, VISION, VALUE formulated together permeate each and every employee and be utilized in daily business activities. As a full-time Audit & Supervisory Committee member, we intend to carry out auditing activities in the executive divisions, including from such viewpoints.

Operating Results

- Sales volume in the Refractory Sector decreased mainly due to a decline in domestic crude steel production and a decline in the level of customers activity abroad. On the other hand, net sales were flat as a result of the contribution of the fourth-quarter performance of Gouda in the Netherlands and an increase in sales of Insulation, Advanced Device & Material, and Engineering Sector.
- In the Refractory Sector, despite efforts to widen spreads and reduce costs by improving the sales mix, income at various levels below operating income declined due to a decrease in refractories sales volume caused by deteriorating domestic and overseas demand conditions and an increase in amortization of goodwill and others. However, EBITDA secured an increase in profit.
- Profit attributable to owners of parent declined due to the absence of a significant gain on sales of fixed assets in the previous fiscal year.



<By Business Segment>



<Refractory>

Dutch company Gouda, which joined the Group in October 2024, contributed to sales in the fourth quarter (from October to December 2024). However, sales decreased 2.6% year on year, to 95.864 billion JPY, mainly due to a decline in refractories sales volume caused by a decline in domestic crude steel output and the level of customers activity abroad. Segment income totaled 7.694 billion JPY (down 4.6% year on year). Although the mainstay domestic refractories business secured an increase in profit by widening spreads through improved sales mix, cost reductions and other initiatives, this was partly due to an increase in amortization of goodwill and others, mainly due to a decline in refractories sales volume caused by deteriorating domestic and overseas demand conditions.

<Insulation>

In the fiscal year under review, net sales amounted to 18.779 billion JPY (up 1.1% year on year). Although sales of automotive-related products for overseas markets decreased due to a slowdown in demand for markets in Europe and China from the third quarter, sales of insulation bricks for the domestic market increased. Segment income, however, decreased 5.1% to 3.267 billion JPY mainly due to changes in the sales mix.

<Advanced Device & Material>

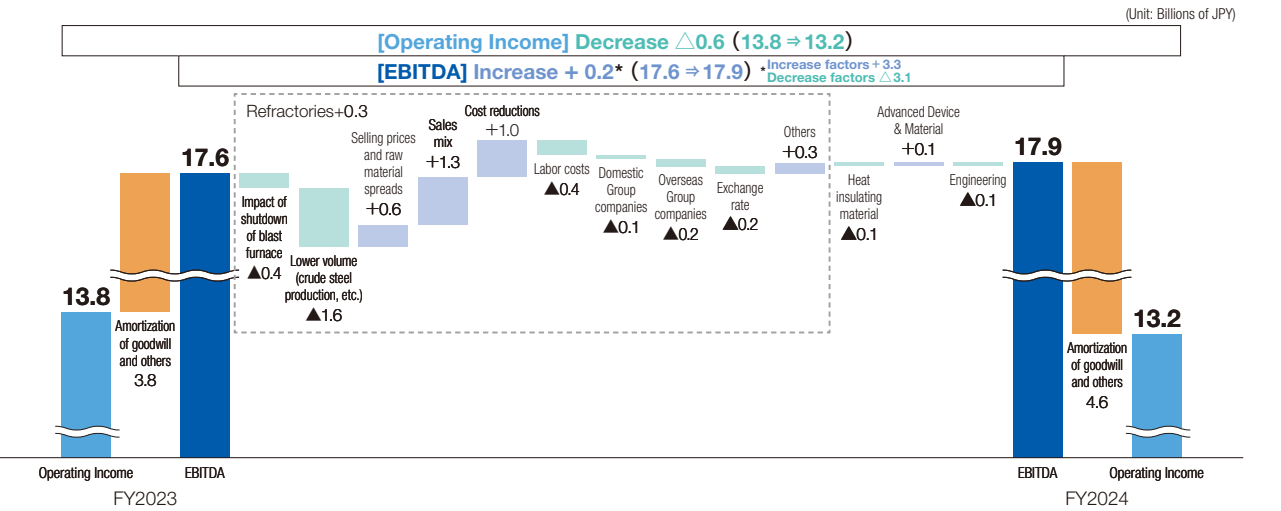
Net sales increased 22.2% to 4.34 billion JPY and segment income increased 23.3% to 170 million JPY due to the contribution of the newly added Kom Innovation Co., Ltd., which expanded sales of fine ceramics products.

<Engineering>

Due to a revision in the unit price of construction contracts accompanying a rise in personnel costs and an increase in construction projects at each site, net sales for the fiscal year under review were 25.73 billion JPY (up 4.8% year on year). Segment income was 1.614 billion JPY (down 6.4% year on year) due to the recording of related costs associated with the acquisition of Reframax in Brazil, which is described below.

<Factors behind changes in EBITDA, operating income (compared to the previous fiscal year)>

Operating income decreased by 600 million JPY to 13.2 billion JPY in FY2024 from 13.8 billion JPY in FY2023, primarily due to an increase in amortization of goodwill and others, as well as a decline in refractories sales volume amid deteriorating domestic and overseas demand conditions, despite the widening of spreads resulting from an improved sales mix and cost reductions. However, EBITDA in FY2024 increased by 200 million JPY from 17.6 billion JPY in FY2023, to 17.9 billion JPY.



Financial

<Total Assets>

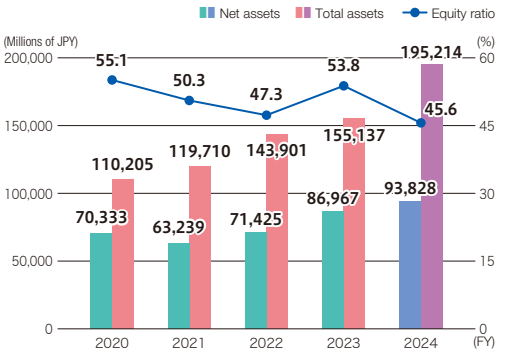
Mainly due to increases in “Cash and deposits,” “Machinery, equipment and vehicles, net,” “Lease assets, net,” “Goodwill” and “Other intangible assets,” net, amounted to 195.214 billion JPY, an increase of 40.077 billion JPY from the end of the previous fiscal year.

<Liabilities>

Mainly due to increases in “Short-term loans payable” and “Long-term loans payable,” net assets increased by 33.216 billion JPY from the end of the previous fiscal year to 101.386 billion JPY.

<Net Assets>

The increase in “Retained earnings” and “Non-controlling interests” was mainly attributable to an increase of 6.861 billion JPY to 93.828 billion JPY.



Cash Flows

Cash and cash equivalents (hereinafter referred to as “cash”) at the end of the fiscal year under review totaled 26.629 billion JPY, up 5.323 billion JPY from the end of the previous fiscal year. The net cash flows from company activities and other factors involved were as follows:

<Cash Flows from Operating Activities>

Net cash provided by operating activities was 13.104 billion JPY, an increase of 11.5% year on year. This was mainly due to an increase of 14.84 billion JPY in “Income before income taxes and minority interests,” 4.246 billion JPY in “Depreciation and amortization,” and 3.756 billion JPY in “Decrease in notes and accounts receivable-trade,” and a decrease of 7.86 billion JPY in “Income taxes paid.”

<Cash Flows from Investing Activities>

Net cash used in investing activities was 29.834 billion JPY (2.577 billion JPY provided in the same period of the previous fiscal year). This was mainly due to a decrease of 24.331 billion JPY in “Purchase of shares of subsidiaries resulting in change in scope of consolidation” and 5.793 billion JPY in “Purchase of property, plant and equipment.”

<Cash Flows from Financing Activities>

Net cash provided by financing activities was 21.995 billion JPY (11.489 billion JPY used in the same period of the previous fiscal year). This was mainly due to an increase of 27.321 billion JPY in proceeds from long-term loans payable, a decrease of 3.75 billion JPY in repayments of long-term loans payable, and a decrease of 3.692 billion JPY in cash dividends paid.

	(FY)	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Financial Information												
Consolidated Operating Results												
Net Sales	(million yen)	100,188	97,889	103,722	102,749	119,067	118,973	99,969	110,784	124,963	144,175	144,072
EBITDA	(million yen)	7,495	7,473	8,745	8,380	12,577	12,136	9,867	12,795	13,775	17,695	17,953
Operating Income	(million yen)	4,895	5,019	6,344	6,049	10,233	9,597	7,285	10,107	10,844	13,887	13,278
Ordinary Income	(million yen)	5,215	4,951	6,365	6,322	10,659	9,844	8,220	10,716	11,457	14,903	13,655
Profit Attributable to Owners of Parent	(million yen)	3,098	2,796	3,602	3,419	6,225	5,550	2,114	5,308	8,307	15,280	9,778
Capital Expenditures	(million yen)	1,918	1,703	3,006	2,003	2,849	4,968	3,426	4,417	5,181	5,588	6,484
Depreciation	(million yen)	2,493	2,453	2,400	2,330	2,344	2,538	2,581	2,684	2,931	3,689	4,246
R&D Expenses	(million yen)	870	980	992	1,007	1,022	1,153	1,151	1,244	1,382	1,548	1,589
Consolidated Financial Condition												
Total Assets	(million yen)	109,841	103,697	106,507	106,479	111,227	110,247	110,205	119,710	143,901	155,137	195,214
Net Assets	(million yen)	51,042	50,132	54,186	57,470	62,385	66,714	70,333	63,239	71,425	86,967	93,828
Interest-bearing Debt	(million yen)	22,108	20,399	18,526	16,700	15,688	14,745	13,682	22,854	34,304	28,079	61,917
Per Share Information (Consolidated) *												
Earnings per Share	(yen/share)	32.87	29.67	38.21	364.90	666.68	594.37	226.29	567.82	177.60	328.46	214.48
Net Assets per Share	(yen/share)	478.95	468.80	505.68	5,354.09	5,825.89	6,211.92	6,492.30	6,434.59	1,455.94	1,830.98	1,951.55
Consolidated Cash Flows												
Cash Flows from Operating Activities	(million yen)	4,448	4,390	5,459	1,578	4,288	7,769	9,327	9,494	10,281	11,753	13,104
Cash Flows from Investing Activities	(million yen)	129	△1,173	△1,825	△1,623	△1,179	△3,840	△4,006	△5,166	△15,950	2,577	△29,834
Cash Flows from Financing Activities	(million yen)	△3,730	△2,343	△2,526	△3,011	△2,286	△2,549	△2,411	△3,348	6,836	△11,489	21,995
Cash and Cash equivalents at End of the Period	(million yen)	11,908	12,659	13,627	10,620	11,347	12,669	15,564	16,763	18,197	21,305	26,629
Dividends												
Dividend Payout Ratio (Consolidated)	(%)	18.3	20.2	18.3	21.9	20.2	21.9	48.6	33.5	22.5	20.7	42.0
Annual Dividend *	(yen/share)	6.0	6.0	7.0	80.0	135.0	130.0	110.0	190.0	40.0	69.0	90.0
Major Management Indicators												
EBITDA Margin	(%)	7.5	7.6	8.4	8.2	10.6	10.2	9.9	11.5	11.0	12.3	12.5
Ratio of ordinary income to net sales (ROS)	(%)	5.2	5.1	6.1	6.2	9.0	8.3	8.2	9.7	9.2	10.3	9.5
Return on equity (ROE)	(%)	7.3	6.3	7.8	7.0	11.9	9.9	3.6	8.8	13.0	20.2	11.3
EBITDA to interest-bearing debt ratio	(%)	1.7	1.6	1.0	0.8	0.3	0.1	0.0	0.5	1.2	0.5	2.0
Debt-to-equity ratio (D/E ratio)	(times)	0.5	0.5	0.4	0.3	0.3	0.3	0.2	0.4	0.5	0.4	0.8
Equity ratio	(%)	41.1	42.6	44.8	47.0	48.9	52.6	55.1	50.3	47.3	53.8	45.6
Other												
Share Price at End of the Period	(JPY)	292	201	303	2,794	3,135	2,215	2,884	3,795	4,570	1,927	1,694
Number of Consolidated Employees	(persons)	2,751	2,839	2,786	2,805	2,847	2,876	2,836	2,817	3,340	3,373	3,732
Number of Consolidated Subsidiaries	(companies)	27	26	25	23	22	22	20	21	23	23	37

* Effective October 1, 2017, the company implemented a reverse stock split at a ratio of 1 share for every 10 shares of common stock.
Earnings per share, net assets per share, and annual dividends are calculated assuming that the reverse stock split took place at the beginning of FY2017.
Additionally, effective October 1, 2023, we conducted a stock split at a ratio of 5 shares for every 1 common stock.
Earnings per share, net assets per share, and annual dividends for FY2022, assuming that the stock split was carried out at the beginning of FY2022.

Company Profile

Company Name	SHINAGAWA REFRA CO., LTD.
Representative	President and CEO Hiroyuki Fujiwara
Founded (Business)	1875
Founded (Incorporated)	June 25, 1903
Capital	3.3 billion JPY
Business Lines	Manufacture and sale of refractories, design and construction of industrial ceramic furnaces, manufacture and sale of fine ceramics and others.
Number of Employees	Consolidated: 3,732 Non-consolidated: 1,224 (as of March 31, 2025)
Corporate Office	12th Fl., Sapia Tower, 7-12, Marunouchi 1-chome, Chiyoda-ku, Tokyo 100-0005, Japan TEL. +81-3-6265-1600 FAX. +81-3-6265-1616

Corporate Officers (as of June 26, 2025)

President and CEO	Hiroyuki Fujiwara
Representative Director & Senior Managing Executive Officer	Masanori Ogata
Representative Director & Managing Executive Officer	Heiki Miki Yoshio Fukusaki
Board Director	Toshihiko Kaneshige
Outside Board Director	Keiko Yamahira
Board Director, Full-time Audit & Supervisory Committee Member	Hirofumi Yamashita
Outside Director and Audit and Supervisory Board Member	Shigeru Nakajima Masafumi Nagano Chizuko Urabe
Managing Executive Officers	Yoshinori Tsuchiya Yoichi Amano Shigeaki Goto Makoto Namba Hirohide Uehara
Managing Officers	Takayuki Shimoyama Takuya Fujita Tadaaki Yamaguchi Masahiro Yoshikawa Yukiyoshi Oogami Tomoaki Omoto Shuhei Yamada Kenji Ishii

Status of Shares (as of March 31, 2025)

Total number of authorized shares	188,500 thousand shares
Total number of issued shares	47,146 thousand shares
Number of shareholders	13,162

Major Shareholders (as of March 31, 2025)

Shareholder name	Number of shares held (thousand shares)	Ratio of shares held (%)
JFE Steel Corporation	15,905	34.9
The Master Trust Bank of Japan, Ltd. (trust account)	3,150	6.5
Kobe Steel, Ltd.	1,762	3.9
Sumitomo Mitsui Trust Bank, Limited	1,225	2.7
Custody Bank of Japan, Ltd. (trust account)	1,033	2.2
Fukoku Mutual Life Insurance Company	1,000	2.1
Okayama SS Society	950	2.0
Mizuho Bank, Ltd.	852	1.9
Shinagawa Refractories Employee Shareholding Association	759	1.6
Nippon Life Insurance Company	706	1.6

(Note) Shareholding ratio is calculated excluding treasury shares (1,543 thousand shares).

Notes for Shareholders (as of March 31, 2025)

Fiscal year	From April 1 to March 31 of the following year
Ordinary General Meeting of Shareholders	Held in June
Date of Record	Ordinary General Meeting of Shareholders March 31 Year-end dividends March 31 Interim dividends September 30 Any additional dates, if necessary, as set in advance by public notice
Administrator of Shareholders' Register and Account Management Institution for Special Accounts	4-1, Marunouchi 1-chome, Chiyoda-ku, Tokyo, Japan Sumitomo Mitsui Trust Bank, Limited
Administrator of Shareholders' Register	4-1, Marunouchi 1-chome, Chiyoda-ku, Tokyo, Japan Sumitomo Mitsui Trust Bank, Limited Transfer Agent Department
Mailing Address	2-8-4 Izumi, Suginami-ku, 168-0063 Tokyo Sumitomo Mitsui Trust Bank, Limited Transfer Agent Department
Phone Inquiries	0120-782-031
Website URL (Japanese)	https://www.smtb.jp/personal/procedure/agency/
Method of Public Notice	Public notices are posted on our website (Japanese). https://www.shinagawa.co.jp

Consolidated Subsidiaries

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Shinagawa Roko Co., Ltd.

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(at JFE Steel Corporation site)
TEL. +81-84-941-1504

Shinagawa General Co., Ltd.

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Isolite Insulating Products Co., Ltd.

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TEL. +81-6-7711-5801

Isolite Kenzai Co., Ltd.

570, Okuharamachi-shimo Nanao, Ishikawa 926-0174
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Kom Innovation Co., Ltd.

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Shinagawa Refractories Australasia New Zealand Limited (New Zealand) [\[SRA-NZ\]](#)

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PT Shinagawa Refratech Perkasa (Indonesia) [\[SRP\]](#)

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Shinagawa Advanced Materials Americas Inc. (USA) [\[SAM\]](#)

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Shinagawa Refractories India Pvt. Ltd. (India) [\[SR India\]](#)

#1003 Level 10, Plot 18-20, Hindustan Times House, K G Marg, New Delhi 110001, India

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Liaoning Shinagawa Hefeng Metallurgical Material Co., Ltd. (China)

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Shinagawa Refratários do Brasil Ltda. (Brazil) [\[SRB\]](#)

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Gouda Refractories Group B.V (Netherlands)

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Suzhou Isolite Eastern Union Ceramic Fiber Co., Ltd. (China) [\[SIE\]](#)

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Isolite Insulating Firebrick Sdn. Bhd. (Malaysia) [\[IIF\]](#)

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IIP Europe GmbH (Germany) [\[IIP-E\]](#)

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Reframax Engenharia S.A. (Brazil)

Rua Bernardo Figueiredo, 33 Bairro Serra, Belo Horizonte, Minas Gerais 30.220-140, Brazil
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Equity-method Affiliates

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<Overseas>

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(As of September 30, 2025)

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