

Our Value Driver: Technology that Creates a Competitive Edge

Carbon Recycling Blast Furnaces: Advantages and Challenges

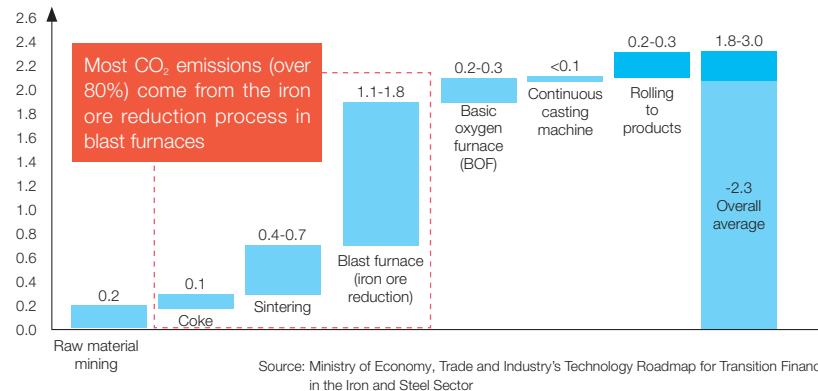
Aim to reduce
GHGs by
at least

50%

Features

- The blast furnace (BF) and basic oxygen furnace (BOF) process enables the highly efficient mass production of high-quality, high-performance steel. Approx. 80% of CO₂ emissions in the steel manufacturing process are from the iron ore reduction process in a blast furnace.
- Carbon recycling blast furnaces convert the emitted CO₂ into methane and recycle it as a reductant, significantly reducing the use of coke.
- We pursue carbon neutrality utilizing CCUS.

Ratio of CO₂ emissions from steel manufacturing processes (t-CO₂/t-crude steel)



Challenges

- Strive to develop world's first technology to reduce CO₂ emissions by injecting large amounts of methane along with oxygen blown into a blast furnace
- Strive to develop world's first integrated operation with large-scale methanation facilities

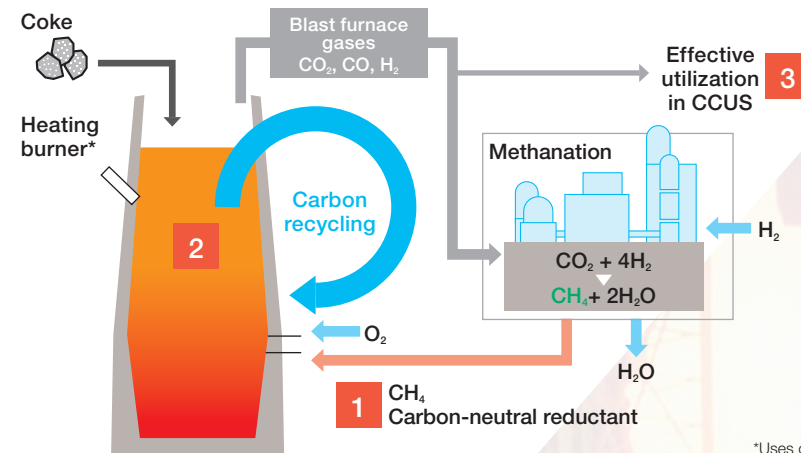
Advantages

- Highly efficient production, equal to that of conventional blast furnaces
- High-quality, high-performance steel manufacturing equivalent to that of conventional blast furnaces
- Most existing facilities can still be used
- Low-grade iron ore can be used

External hydrogen is used to convert CO₂ contained in gas emissions into methane, which is then blown into blast furnaces, significantly reducing CO₂ generated.

Technology

Carbon Recycling Blast Furnace Systems and Initiatives



We have built a pilot carbon-recycling blast furnace (150 m³ capacity) at the East Japan Works in the Chiba district. We completed the blowing-in of the furnace in May 2025 and began operations. Moving forward, we will work to establish carbon recycling technology (integrated operation of oxygen blast furnaces and blast furnace-methanation facilities) and conduct studies aimed at scaling up these furnaces.

Our Value Driver

Goal

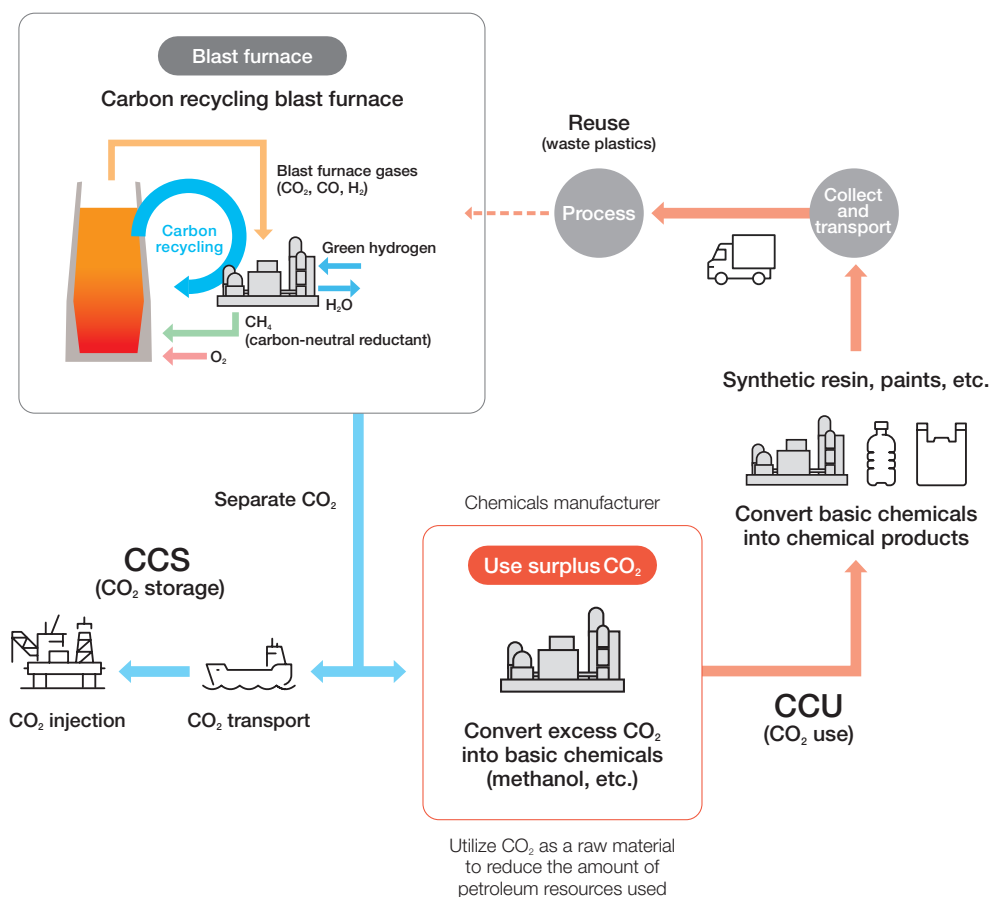
By developing ultra-innovative blast furnace and cyber-physical system (CPS) technology, we aim to reduce CO₂ emissions in the BF-BOF processes at least 50%, and strive to achieve carbon neutrality by combining these efforts with CCUS.

1 By using 100% oxygen and methane in carbon recycling blast furnaces, the combustion heat that conventionally is used to heat nitrogen gas can be used to heat the methane instead, maximizing the amount of methane utilized. This is the first attempt in the world to create a technology that reduces CO₂ emissions by utilizing large amounts of methane, which is carbon neutral, together with oxygen. Challenges remain, including addressing the resulting reduced furnace gas and raw material heating capacity, and expanding volume for commercialization.

2 Using real data from sensors inside blast furnaces, we have created a unique model to analyze the real-time internal status of the furnace as well as make predictions for the future, and use a CPS system to automatically, optimally control molten iron temperature and air permeability, which are critical factors in operating blast furnaces.

- 3**
- We are participating in a joint project with other corporations to build a value chain for carbon capture and storage (CCS) originating from Japan and inject and store CO₂ off the coast of Malaysia.
 - We are participating in a project with three other companies in Japan and Australia to build a supply chain encompassing CO₂ capture in Japan, transportation to Australia, and e-fuel production using Australian green hydrogen.
 - We will begin a pilot test, in collaboration with a chemicals manufacturer, to effectively utilize the CO₂ from our steelmaking processes to manufacture chemicals on the site of their industrial complex.

Carbon recycling value chain concept

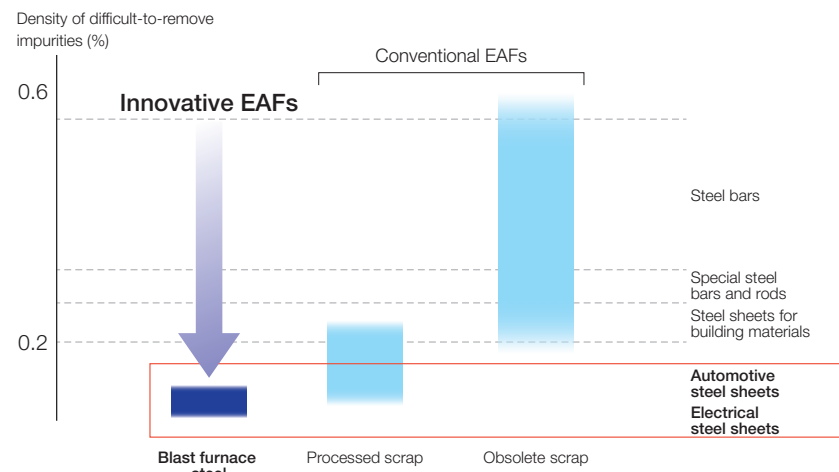


Our Value Driver: Technology that Creates a Competitive Edge

Innovative Electric Arc Furnaces: Advantages and Challenges of Large, High-Efficiency EAFs

Features

- CO₂ emissions from the electric arc furnace (EAF) method are roughly a quarter of those generated by the blast furnace (BF) and basic oxygen furnace (BOF) process, but challenges with production capacity and product quality remain.
- Innovative EAFs can produce high-quality, high-performance steel for the manufacturing industry (e.g. for vehicles, ships, energy facilities, and construction) equivalent to that of blast furnaces.
- We aim to achieve zero CO₂ emissions by utilizing hydrogen reduced iron and decarbonized electric power in the near future.



Source: German Steel Association's database on world steel companies (2018 edition), edited by JFE Steel.

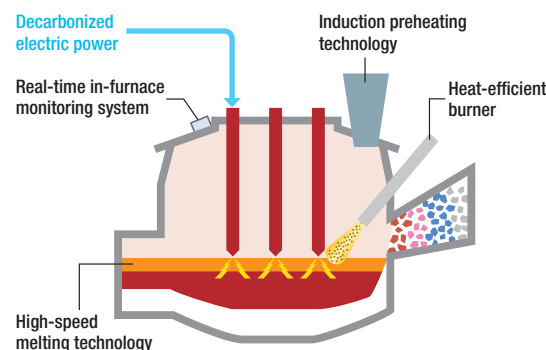
Large-scale
investment in
process conversion
to reduce GHGs

30%
or more by FY2030

Building a mass production system for high-quality, high-performance green steel produced from innovative EAFs

Technology

Introducing an innovative EAF to the West Japan Works (Kurashiki district)



Investment size	¥329.4 billion (including a maximum of ¥104.5 billion in government aid)
Investment details	Innovative EAF, external refining facilities, cold iron logistics facilities, seawall upgrades, power distribution facilities, etc.
Production capacity	Approx. 2 million tonnes/year
Production start	FY2028 Q1
GHG reduction effects	Approx. 2.6 million tonnes/year

An institutional decision was made in April 2025 to introduce the EAF to the West Japan Works (Kurashiki district) following a decision to authorize the Project to Support Energy and Manufacturing Process Conversion in Industries where Reducing Emissions Is Difficult (Project I: Steel), which is a government support measure utilizing GX economy transition bonds.

Advantages

- We can introduce innovative EAFs to replace blast furnaces faster than our competitors.
- We can solve issues by applying the processing technologies we have cultivated to date.

Challenges

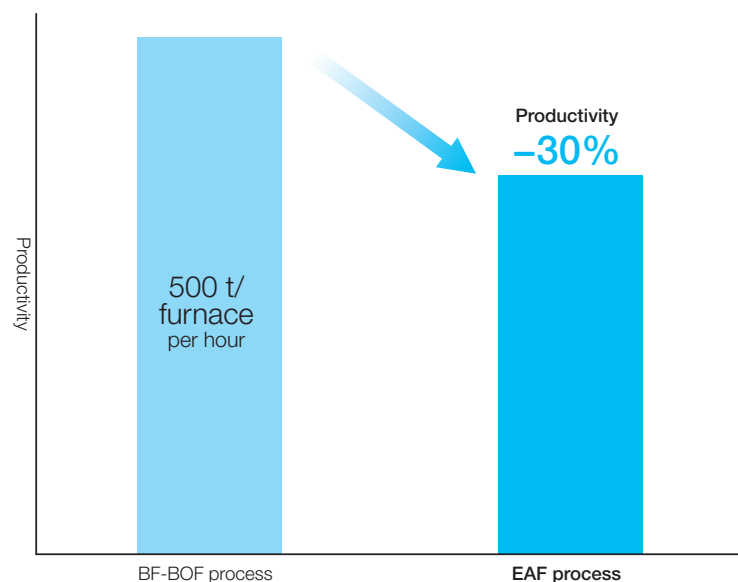
- Developing high-speed, high-efficiency melting technology for use in electric arc furnaces
- Developing technology to remove and neutralize impurities from scrap and direct reduced iron

Our Value Driver

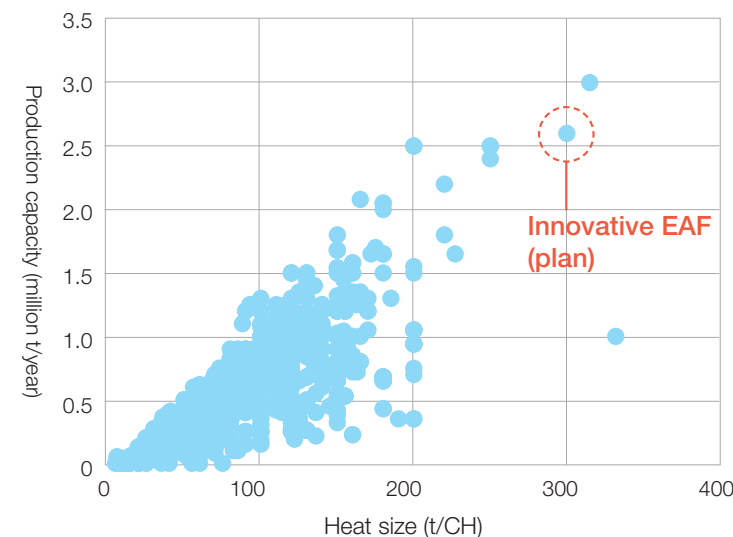
Target

Establishing highly efficient melting technology and high-quality, high-performance steel manufacturing technology using the EAF method

- The electric arc furnace melting process for scrap and other materials is considerably less efficient than the BF-BOF process, about 30% lower. Challenges with utilizing reduced iron include a further reduction in productivity and higher power consumption.
- R&D, enabled by the use of existing EAFs and tests at the Company's labs, is establishing a theoretical foundation for technology to enable high-quality production.
- To achieve higher efficiency, we plan to use NEDO's Green Innovation Fund projects and apply the development results (related to technology for preheating reduced iron, lance burners, and molten steel stirring) to innovative EAFs.
- Ahead of competitors, we will create a mass production system for high-quality, high-performance steel using one of the world's largest EAFs, and we will simultaneously secure the largest share of the domestic green steel market.



Source: Millennium Steel, Jumbo size 420t twin DC FastArc® EAF (2011)



Source: Jones, A.J.T., Assessment of the Impact of Rising Levels of Residuals in Scrap, Proceedings of the Iron & Steel Technology Conference (2019), edited by JFE Steel

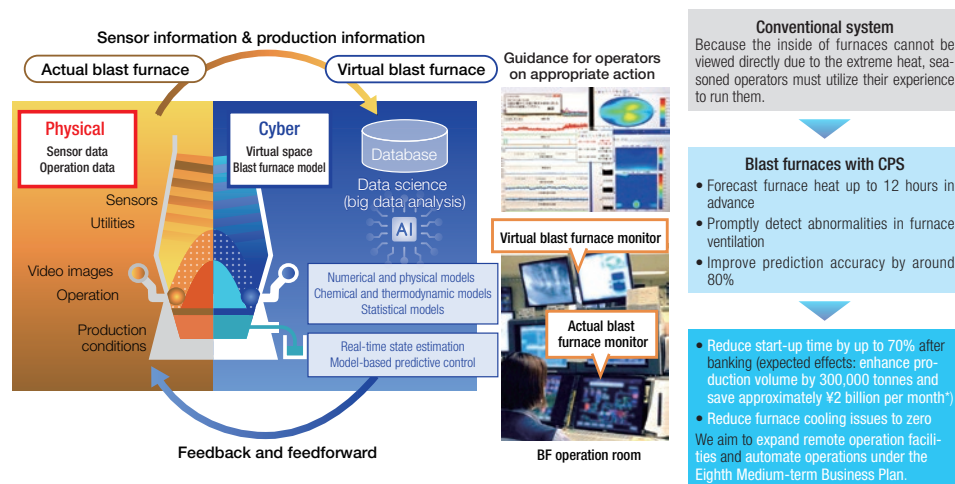
Our Value Driver: Technology that Creates a Competitive Edge

Aiming for Intelligent Steelworks through DX

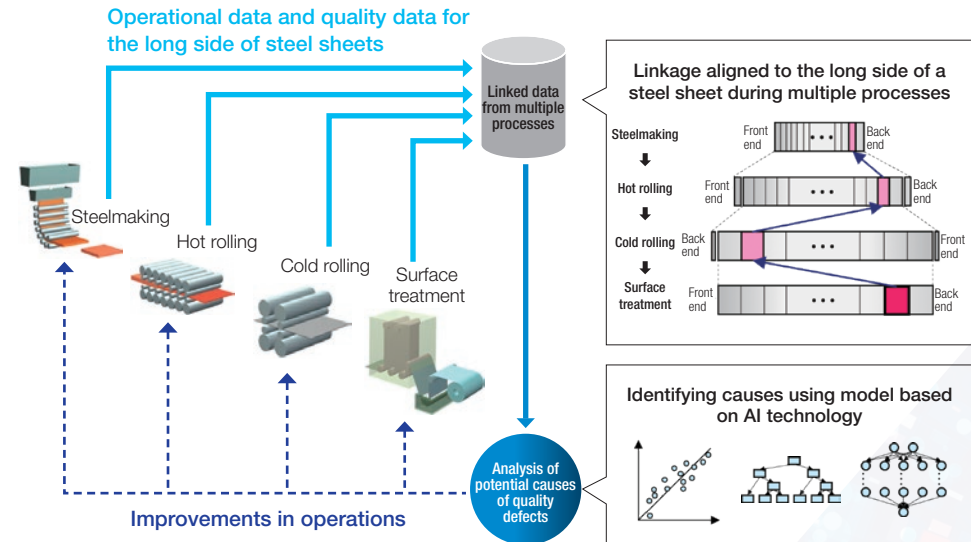
As part of JFE Steel's DX strategy, we are aiming to utilize cyber physical systems (CPS) to realize universally intelligent steelworks. CPS combine virtual models (cyber) with actual processes (physical) in real time to automate blast furnace operations, predict and detect anomalies, and perform virtual tests. CPS have already been introduced in all of our blast furnaces, preventing serious issues and improving efficiency and stability while also helping to reduce CO₂ emissions. In addition, we plan to explore ways to market this know-how through the solutions business.

Since the DX Strategy Headquarters was launched in April 2024, major achievements include the advanced integration of the operational technology (OT) domain (operational data) and the IT domain (manufacturing performance and product quality data), as well as the creation of J-DNexus™, which uses this integration to efficiently centralize CPS development and execution. According to the testing conducted thus far, we have been able to reduce the time required to build a CPS by 30% compared to conventional methods.

CPS have been introduced in all blast furnaces, enabling highly efficient and stable operations through the real time visualization of internal conditions.



* Based on profit per tonne for the second half of fiscal 2020



We use the J-astquad™ multiprocess integrated quality data analysis system as a framework for analyzing the effects of operations on the quality of automotive-use thin steel sheets by using operational data and quality data collected from manufacturing processes on the J-DNexus™ platform. In the data analysis, the use of models based on AI technologies allows identification of potential operational conditions that may cause a quality defect. This has improved operations, reducing the rate at which quality defects occur.



Developing a solutions business with our cultivated technologies and expertise

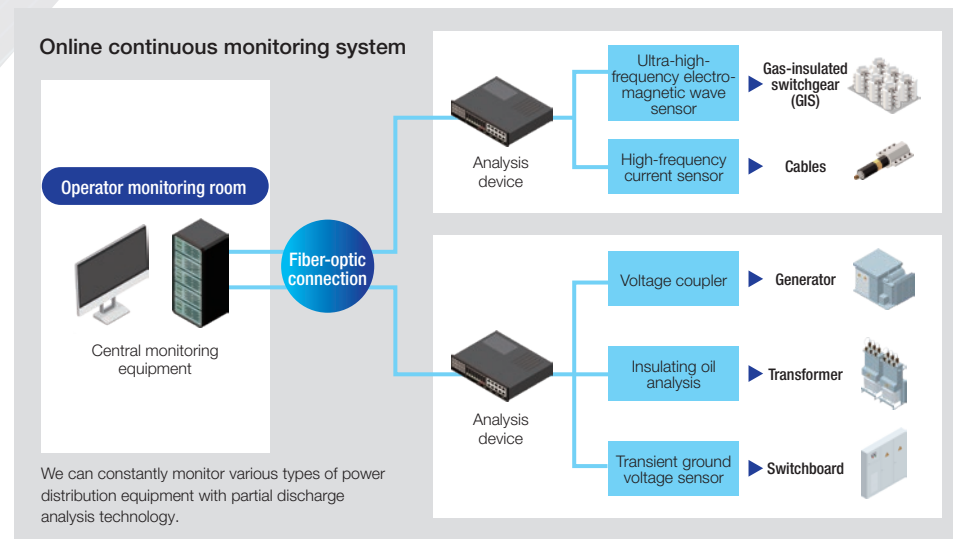
As part of its DX promotion, JFE Steel is developing the JFE Resolus™ business, which uses technologies developed in-house and our expertise in operational improvement to provide solutions to customers, with the aim of achieving innovative, highly productive, and stable operations. In 2024, a blast furnace CPS was installed at the No. 4 blast furnace of India-based JSW Steel's Vijayanagar Works, and trial operations commenced. We will look beyond the steel industry and

proactively offer the product to customers in a wide range of manufacturing industries.

By also proposing specially selected technologies developed by JFE Steel subsidiaries and associates, the group as a whole is working closely together to provide customers with optimal total solution packages tailored to their needs.

Versatile technologies

Smart maintenance technology for substation equipment



This technology prevents accidents arising from insulation breakdown in power distribution equipment. By measuring micro-electrical discharge signals with a highly sensitive sensor combined with continuous monitoring of signal processing results, the status of degradation can be determined.

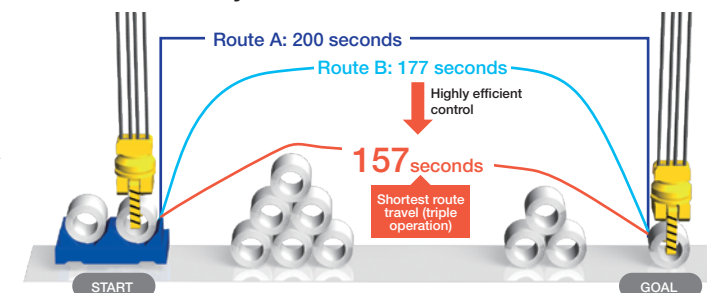
This technology has already generated impressive sales in both Japan and Southeast Asia.

Steel technology

Crane automation system

Example transport route that avoids coils

Shortest route setting

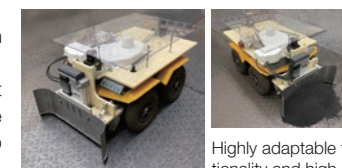


This technology automates crane operation. By combining automated crane operation, a storage system to manage the location of transported items, and an automatic system to determine removal order, this system enables the automatic loading, replacement, and removal of items. We are working with multiple JFE Steel subsidiaries and associates to produce this technology.

Versatile technologies

Highly efficient self-propelled cleaning robot

This self-propelled cleaning robot is capable of operating in such harsh conditions as the so-called "3Ks" (kitanai, kiken, kitsui—dirty, dangerous, demanding). The robot has a built-in sensor that determines its position and cleans along a defined route. We have received many inquiries about the use of this robot to help reduce the workload of cleaning workers at dust-heavy sites.



Highly adaptable functionality and high output

The JFE Group's Value Creation

Sources of Value Creation: The Value of Steel

Supporting safe and comfortable lives for an abundant world in the future

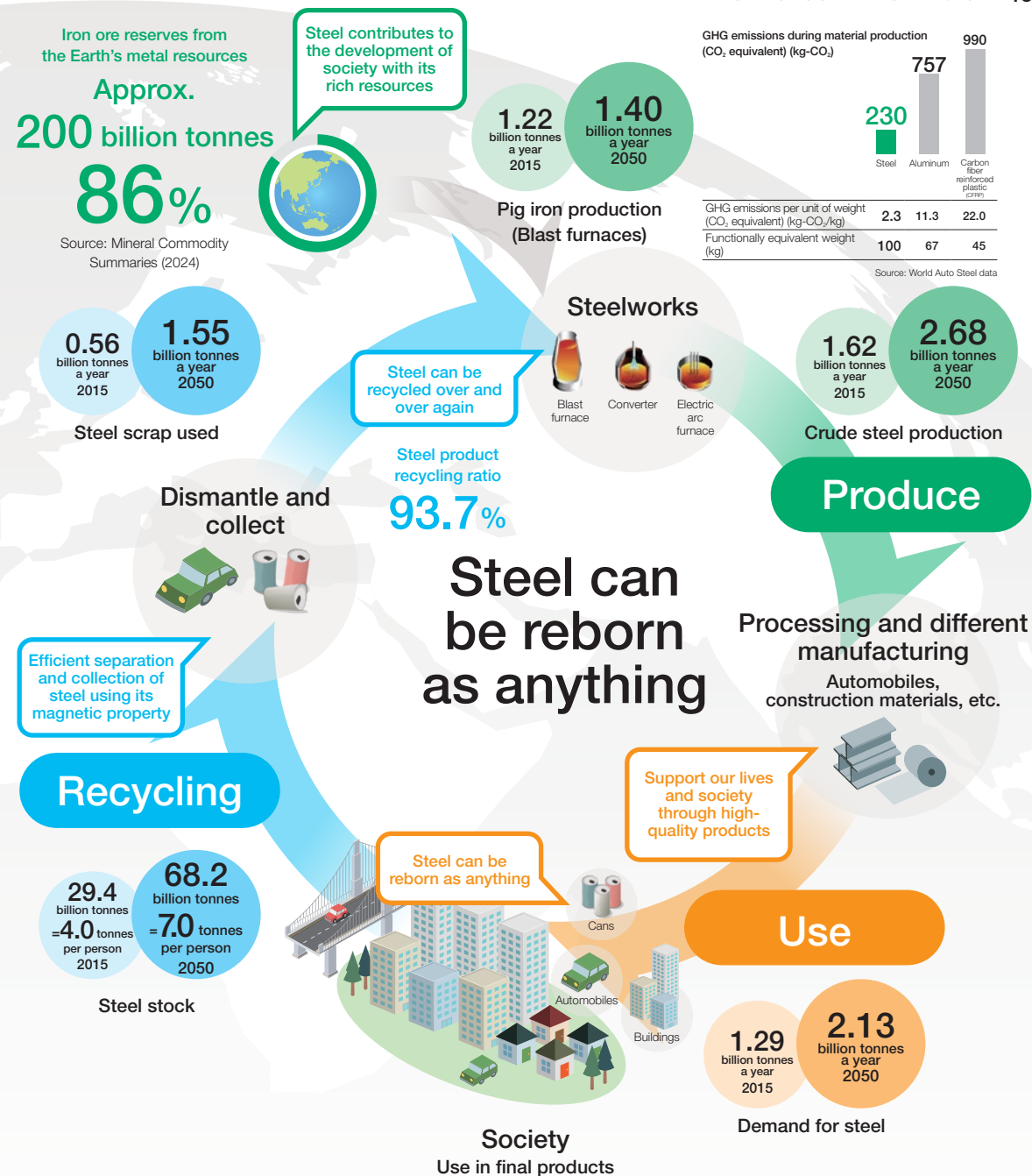
Approximately 30% of the Earth's mass is iron. Thanks to these rich reserves, steel can be mass produced at low cost. When compared to other materials, steel also has an extremely low environmental impact at the manufacturing stage and has excellent recyclability. Steel's highly sophisticated value chain encompasses production, use, and recycling. Through closed-loop recycling, steel can be repeatedly reborn for new uses with low environmental impact, thus contributing to the sustainable development of society. This makes it especially important to evaluate steel's environmental impact across the entire life cycle, including recycling.

During production, **steel** emits far less CO₂ than other materials, with greenhouse gas (GHG) emissions during the manufacturing stage just 1/4 to 1/5 those of aluminum and carbon fiber on an equivalent-function basis. Furthermore, the Japanese steel industry (converter furnace steel) produces steel with the lowest environmental impact when compared to other major countries in the world.

(On a 2019 index with Japan set at 100, the United States is 129.)
Source: Research Institute of Innovative Technology for the Earth (RITE)

In our lives, **steel** helps reduce our burden on the environment. For example, by using high-tensile steel (thinned-down steel sheets that keep their strength), automobile weight can be substantially reduced without sacrificing passenger safety during vehicle collisions, thereby contributing to lower CO₂ emissions in society as a whole.

Steel's closed-loop recyclability reduces the amount of natural resources being newly introduced, reduces the discharge of environmentally hazardous substances, and reduces waste, making it more sustainable than the open-loop recycling of other materials. Steel recycling thus contributes to the transition to a circular economy.



Produce

High economic efficiency and low environmental impact

Use

Foundation for daily life and society

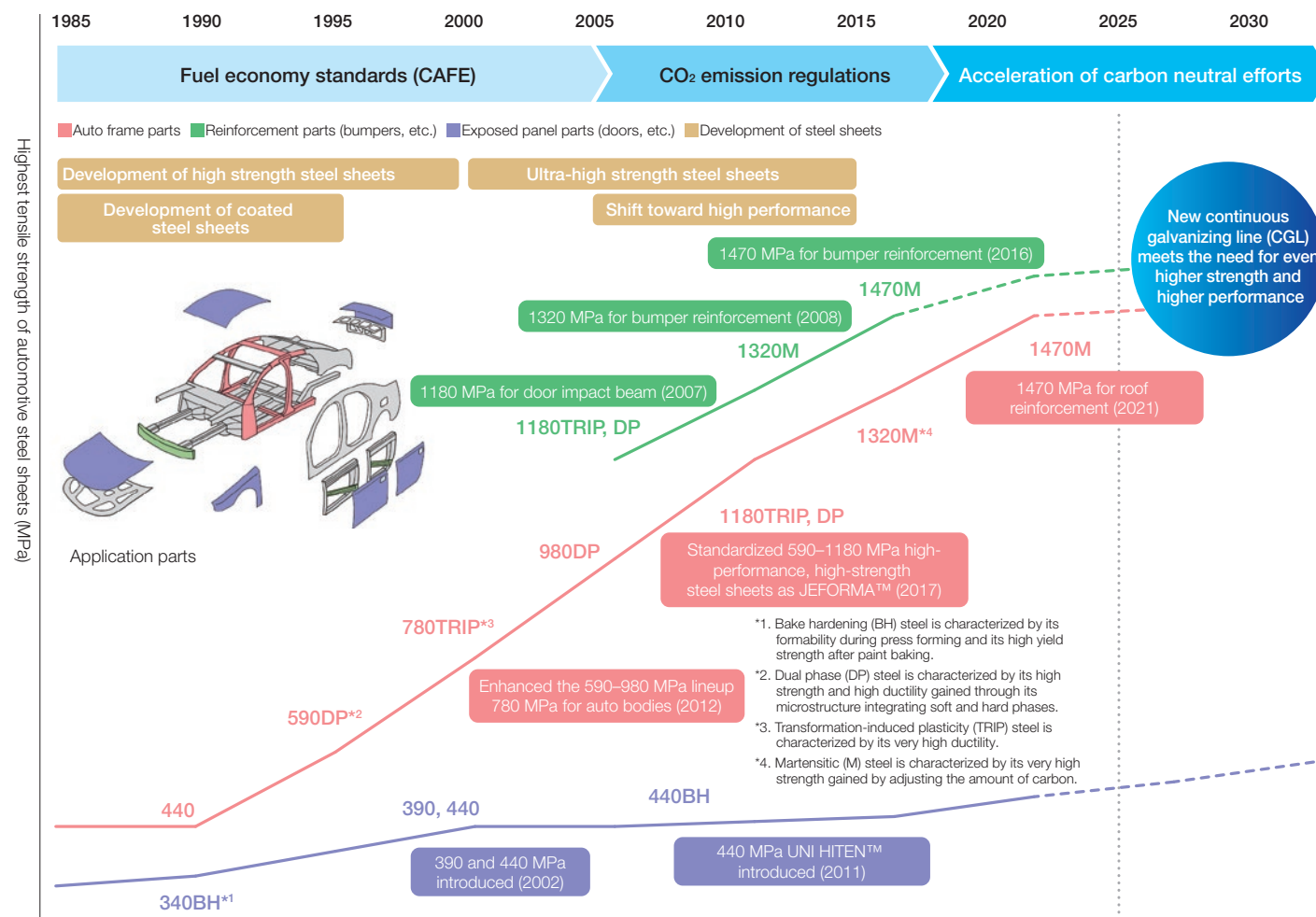
Recycle

Contribute to the transition to a circular economy

The JFE Group's Value Creation

Contributing to Society with Our Technological Capabilities

The need for thinner, higher strength automotive steel sheets has grown in line with changes to the social environment. JFE Steel is constantly developing leading-edge technologies and combining solution proposals with high-performance, highly functional, high-quality materials, thereby contributing to the development of the auto industry.



Progression of early vendor involvement (EVI) activities for automobiles

LEVEL 1 (~2000)

Only supplying materials



LEVEL 2 (2005~)

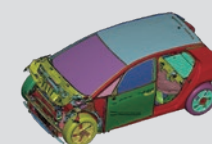
Providing materials and parts in sets with application technology (press forming, joining, anti-corrosion)



LEVEL 3 (2010~)

Providing design support and structures through auto body performance analysis (stiffness, collision, durability)

Standardized application technology as JESOLVA™ (2019)



Stress Reverse Forming™ adopted (2021)
*Springback suppression technology

LEVEL 4 (2015~)

Supporting optimal auto body designs (lighter weight, costs, multi-materials, part integration)

JFE topology optimization technology adopted (2023)



Developed integration technology for automobile frame components (2025)

JFE Group's Value Creation

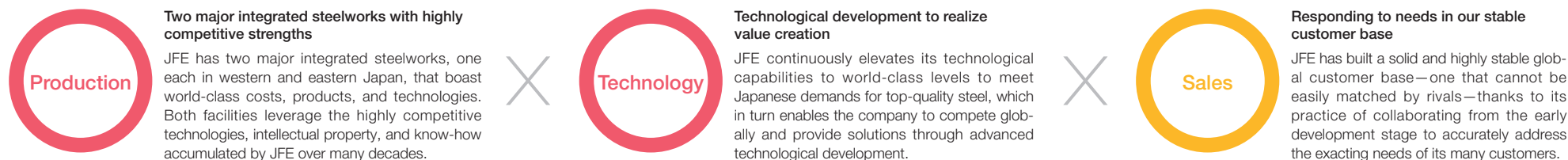
The Business Model Creating the High-Value-Added JFE Brand

Steel Business × Trading Business

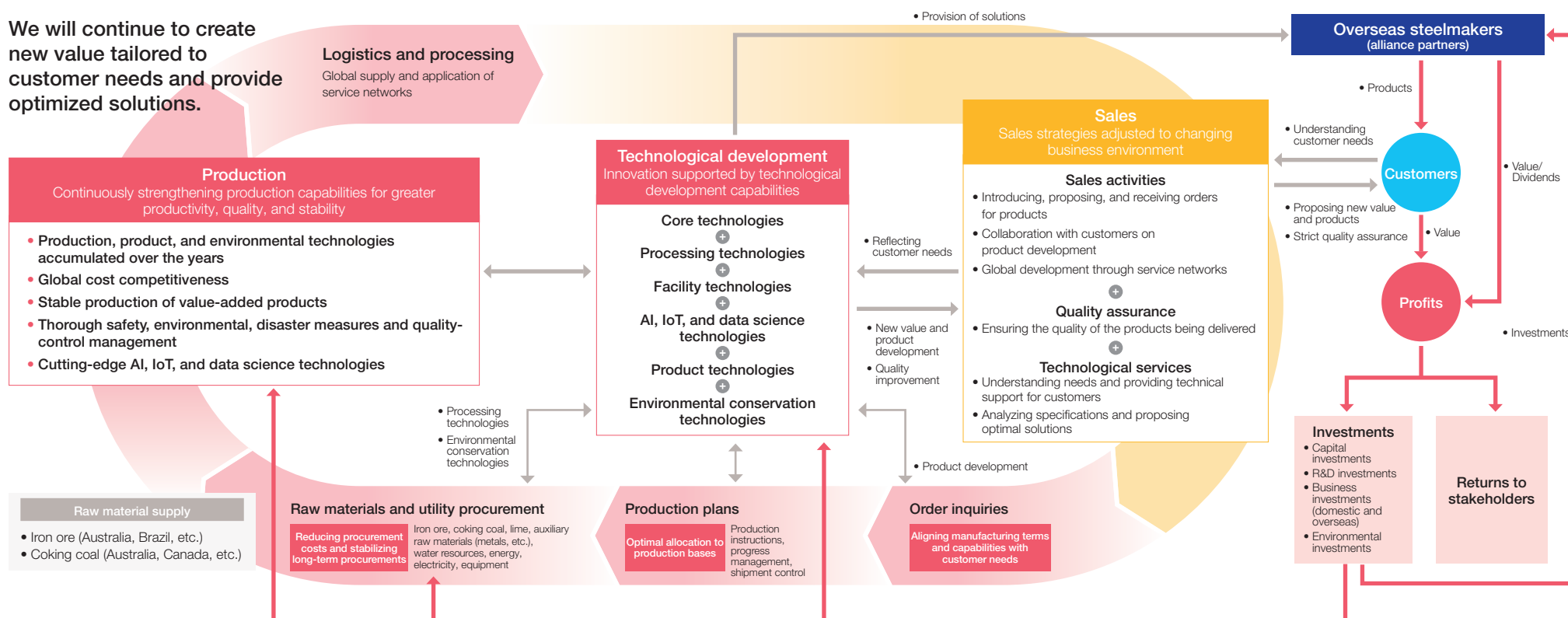
Focus points in the new medium-term business plan

- Building **world-class profitability** to beat the global competition
- Advancing a switch to **innovative electric arc furnaces** (highly efficient, large-scale electric arc furnaces)
- Expanding profit in **markets expecting long-term growth** (India and North America)
- Expanding the sales volume of steel processing and distribution in **strategic fields** (automotive, construction materials, electrical steel)

Sources of our competitive strengths



We will continue to create new value tailored to customer needs and provide optimized solutions.



JFE Group's Value Creation

The Business Model Creating the High-Value-Added JFE Brand

Engineering Business

Our competitive edge in the engineering business springs from:

- our “creation” capabilities—planning, engineering, procurement, and construction (EPC)—centered on building infrastructure that supports industry and human life
- our know-how—accumulated over the years—to “care” operations, maintenance, and management, especially in waste-to-energy power generation and waterworks plants
- our diverse human resources and DX projects “connecting” these strengths to realize more abundant life in the future.

Leveraging these advantages, we aim to help the world become carbon neutral while promoting a circular economy.

The circular economy will be the key to realizing a sustainable society. Because JFE Engineering supports the foundations of society through various phases from a multifaceted perspective, we believe we must play a leading role in the circular economy. Fully leveraging our unique integrated organization, we will continue working hard on innovative initiatives that go beyond the existing reduce, reuse, recycle (3R) framework. Our technology and experiences create new value with the aim of realizing a sustainable society.

Sources of Our Competitive Edge

Create Planning, engineering, procurement, and construction

Project execution capabilities with abundant experience and global structure

In a variety of fields, such as energy, the environment, and bridges, JFE has constructed numerous highly functional and high-quality structures that satisfy customer needs, covering everything from engineering to project handover. Moreover, we will strengthen our competitiveness by building out a global engineering system at overseas bases.

Care Operations management

Operations management capabilities with strengths in manufacturing expertise

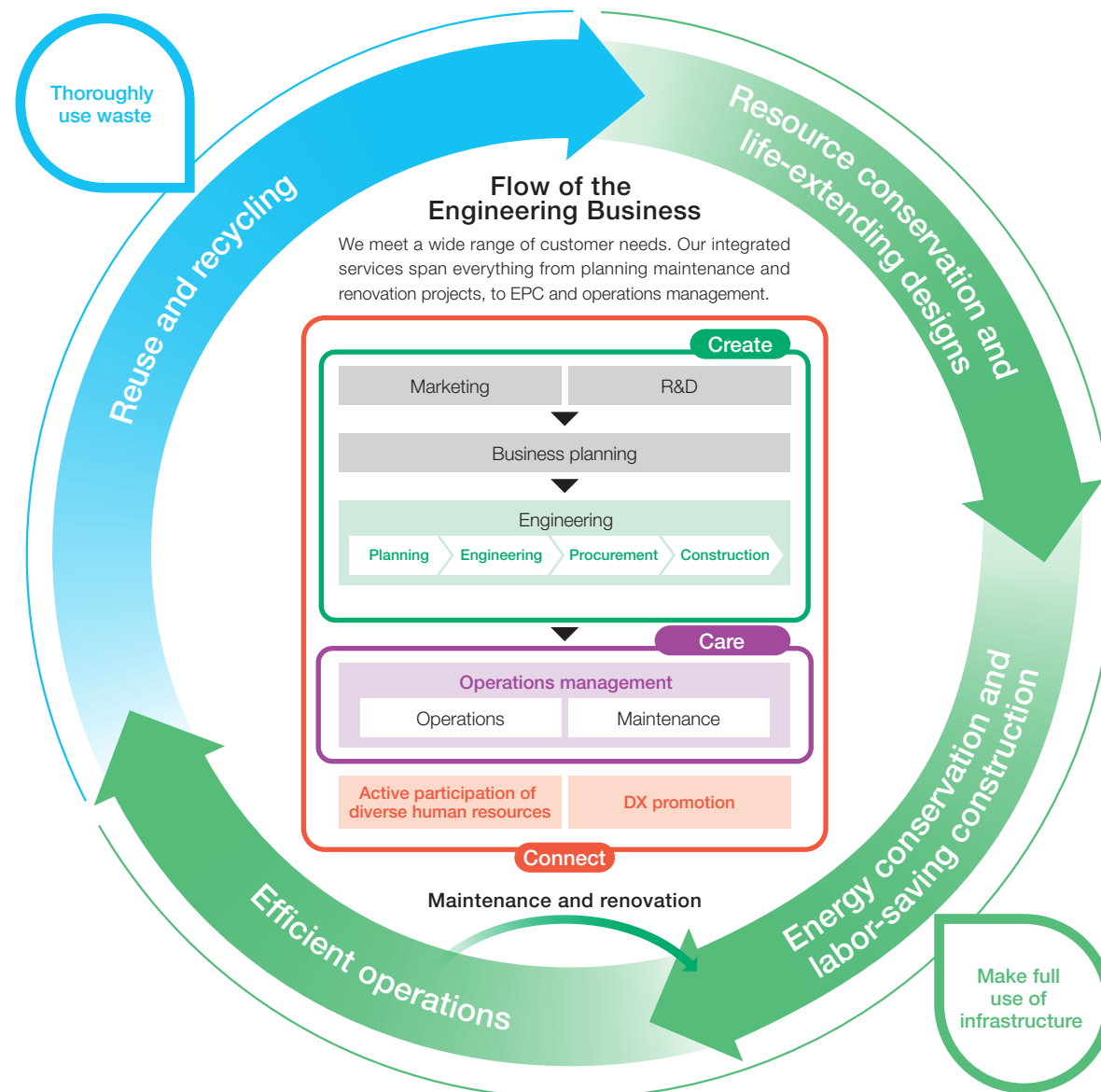
We have cultivated operational know-how, especially in plants such as waste-to-energy power generation and waterworks. In the public services field, the company has achieved an extensive track record in public-private projects. We also engage in our own recycling operations and renewable energy power generation business, and are expanding our presence in operation and maintenance (O&M) business domains around the world.

Connect Diverse human resources and DX

Diverse human resources to support the business and promotion of DX to support the evolution of the company

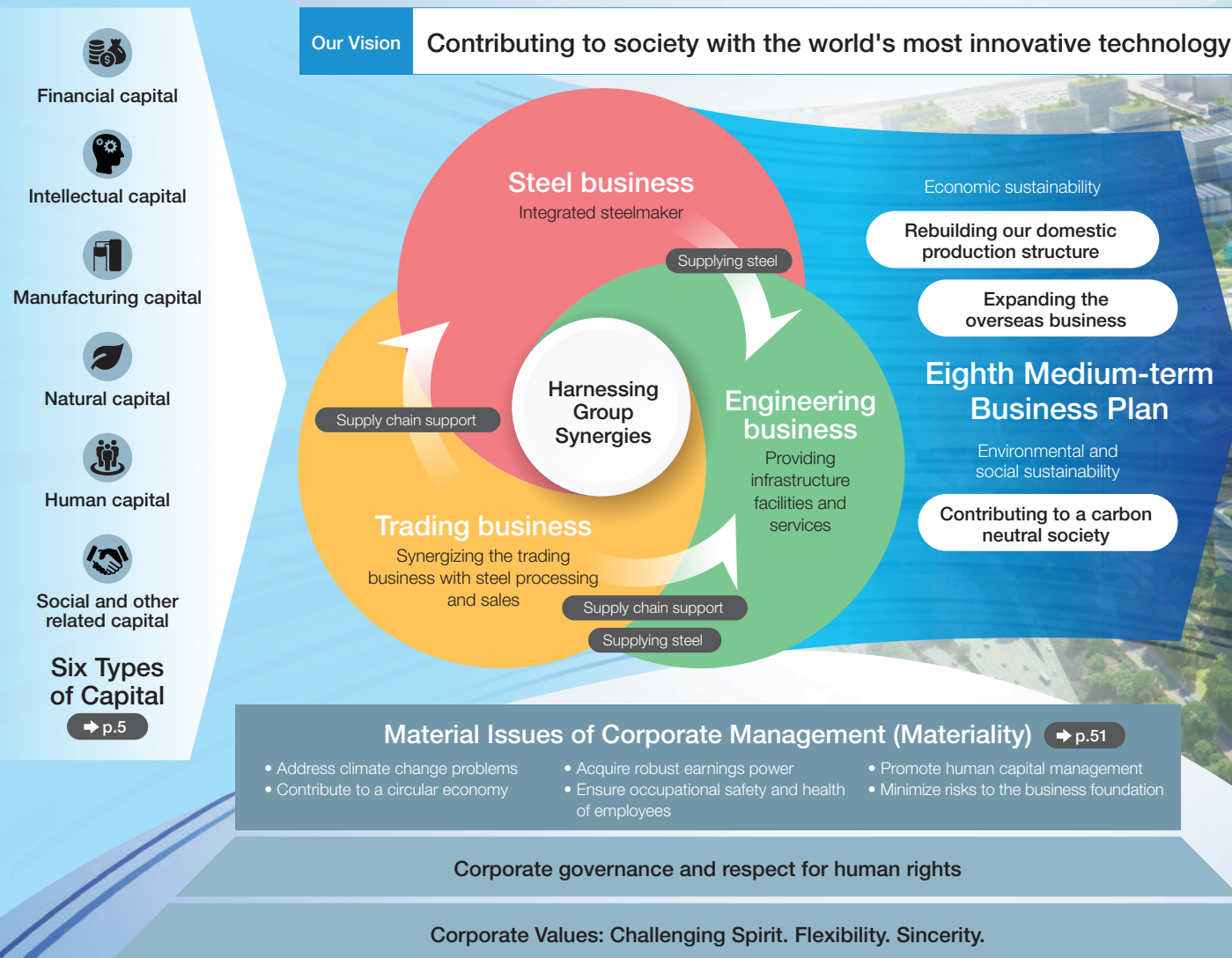
Approximately 40% of our employees have diverse backgrounds, such as women, foreign nationals, and mid-career hires. We also strive to create work environments that draw out the best abilities of each and every employee. We support the advancement of “creation” and “implementation” while digitalizing operations with AI and IoT.

The Circular Economy That JFE Engineering Works Toward



JFE Group's Value Creation

Process of Value Creation



Our Vision

The JFE Group will play an indispensable role in supporting people's daily lives, driving sustainable development and ensuring safe, comfortable lives for all.

JFE Vision 2035

- 1 Expand consolidated business profit (Segment profit: ¥700.0 billion)
- 2 Become the leader in carbon neutrality technology development

Realize carbon neutrality by 2050

The JFE Group's Value Creation

Material Issues of Corporate Management (Materiality)

Initiatives to Address Material Issues

The JFE Group has identified material issues and set KPIs to address them with the objective of determining how to invest Group capital to satisfy the needs of diverse stakeholders and minimize negative effects on society while also maximizing the creation of the Group's unique social value.

In the Eighth Medium-Term Business Plan, we have examined the issues addressed in the past and identified issues to focus on over the next three years to achieve JFE Vision 2035 from the perspectives of building a management foundation for sustainable growth and implementing growth strategies. Then, we assessed the importance of each issue and identified material issues of corporate management to prioritize (16 issues in 6 focus areas).

Review of Fiscal 2024 Results and Setting KPIs for Fiscal 2025

We evaluated the performance of KPIs during fiscal 2024 against the material issues of corporate management determined in fiscal 2021, and established new KPIs for fiscal 2025 for the material issues included in the Eighth Medium-Term Business Plan, as described in the following process.

Results for fiscal 2024 and the KPIs for fiscal 2025 were finalized after deliberation at management meetings at every operating company, as well as discussion at the Group Management Strategy Committee and the Board of Directors. Realizing our targets for the KPIs will contribute to both our corporate social responsibility as well as help reduce risks to the business foundation, secure strong profitability, and achieve our financial goals.

Areas of Focus	Material Issues of Corporate Management
Address Climate Change Issues	1. Reduce the JFE Group's GHG emissions and contribute to reducing GHG emissions across society
Contribute to the Transition to a Circular Economy	2. Promote initiatives for achieving a circular economy
Acquire Robust Profitability	3. Steel business: Improve sales and manufacturing capabilities, expand and advance the business area
	4. Engineering business: Improve profitability and competitiveness, promote investment in growth areas
	5. Trading business: Revitalize the management foundation, advance insider status in overseas growth markets
Ensure Occupational Safety and Health for Employees	6. Prevent workplace accidents
	7. Promote health and productivity management
Promote Human Capital Management	8. Improve work engagement
	9. Promote diversity, equity and inclusion (DEI)
	10. Promote talent acquisition and development
Minimize Risks to the Business Foundation	11. Respect the human rights of each person involved in our business
	12. Ensure adherence to corporate ethical standards and compliance
	13. Provide appropriate quality assurance
	14. Improve the level of information security
	15. Coexist with local communities, society, and nature
	16. Maintain a sound financial position

(➡ pp. 54–55 Fiscal 2025 KPIs)

Please see the JFE Group Sustainability Report 2025 for the KPI results from fiscal 2024.

The JFE Group's Value Creation

Process for identifying material issues of corporate management

In the course of creating a new medium-term business plan, we reevaluate material issues for corporate management. During the formulation of the new Eighth Medium-term Business Plan, we identified material issues for corporate management through the following process.

STEP 1 **Reevaluate the material issues for corporate management in the Seventh Medium-term Business Plan**

We reevaluated the performance and results of the Company's efforts to address the material issues for corporate management set out in the Seventh Medium-Term Business Plan as well as their respective KPIs.

STEP 2 **Extract candidates for material issues**

We created a long-term vision with an eye to 2035 and selected 28 potential material issues from the perspectives of realizing a business foundation for sustainable growth as well as growth strategies to achieve our vision.

- Prevent workplace accidents
- Preserve environmental air and water quality
- Promote health and productivity management
- Reduce disaster risks at production sites
- Respect the human rights of each person involved in our business
- Address aging social infrastructure
- Ensure adherence to corporate ethical standards and compliance
- Ensure employee safety during emergencies
- Promote appropriate quality assurance
- Address economic and security risks
- Improve the level of information security
- Implement measures for natural and other disasters
- Coexist with local communities, society, and nature
- Appropriately disclose information
- Maintain a sound financial structure
- Return profits to stakeholders
- Reduce the JFE Group's CO₂ emissions and contribute to reducing CO₂ across society
- Widely provide products and services to society by expanding and advancing the business areas
- Improve work engagement
- Sustainable manufacturing based on improvement in sales and manufacturing capabilities
- Promote diversity, equity and inclusion (DEI)
- Realize the scope of profits to ensure sustainable growth
- Promote talent acquisition and development
- Expand business through ongoing investment in operating businesses
- Promote initiatives for realizing a circular economy
- Improve operational efficiency and productivity through digital technology
- Improve competitiveness of products and services through DX
- Balance trade and business profits

STEP 3 **Narrow down material issues**

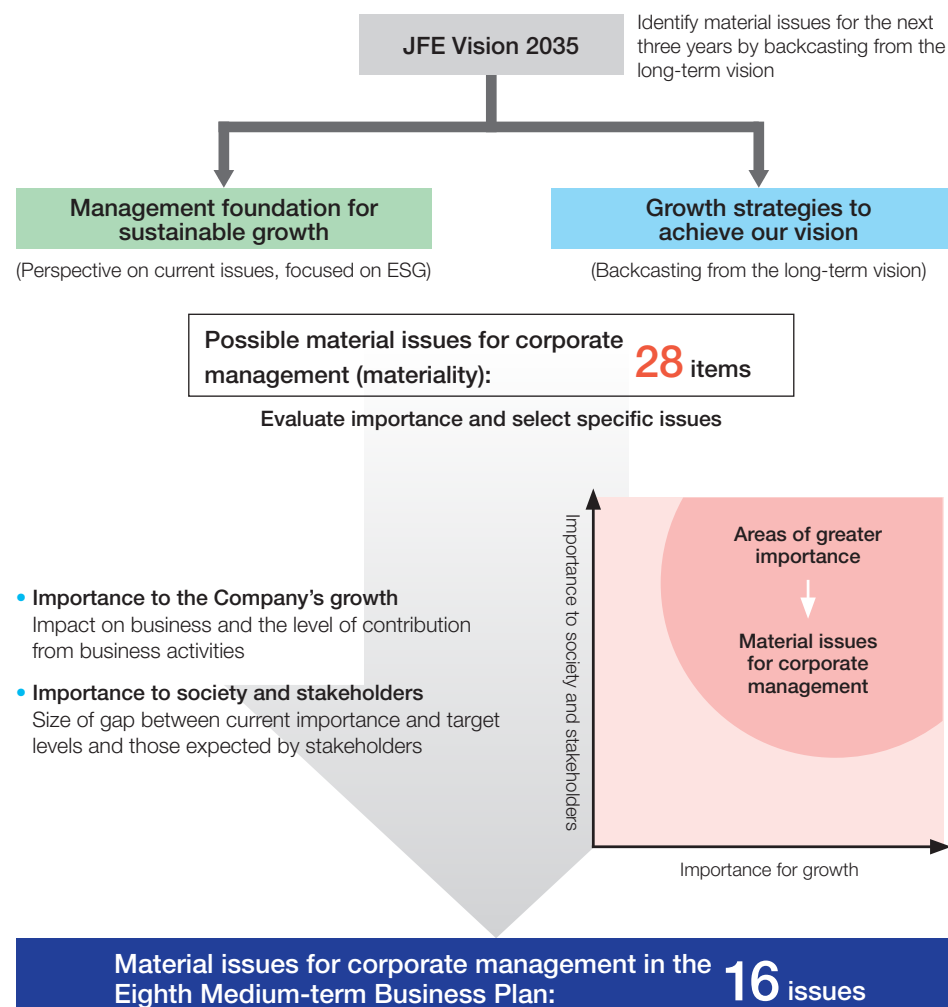
We assessed the importance of the identified issues to the Company's growth as well as to society and stakeholders, and identified 16 material issues for corporate management to be incorporated into the Eighth Medium-Term Business Plan.

STEP 4 **Determine aspirations and targets**

We have established the aspirations and targets for the identified material issues for corporate management, as well as set KPIs to indicate management of activities for achieving such goals.

In addition to reevaluating the material issues for corporate management during the formulation of the medium-term business plan, we are also conducting an annual assessment that includes a review of the status, performance, and importance of the KPIs.

Material Issues for Corporate Management: Consideration Process



The JFE Group's Value Creation

Initiatives to Address Material Issues of Corporate Management

Initiatives for improving financial indicators

It is essential to improve financial indicators, which drive improvements that lead to us achieving our financial targets. By keeping an eye on the relationship between an initiative and its relevant financial target and increasing their effectiveness, we can connect this to enhanced corporate value over the medium to long term.

Improve sales revenue growth rate

We will strive to expand growth businesses, such as by advancing our inside status in overseas growth regions as well as with businesses that contribute to realizing a circular economy. In addition, we will conduct activities to increase revenue by setting KPIs, such as increasing the ratio of high-value-added products in the steel business, increasing the number of new products and technologies under development, and improving profitability of projects in the engineering business.

Improve manufacturing cost rate

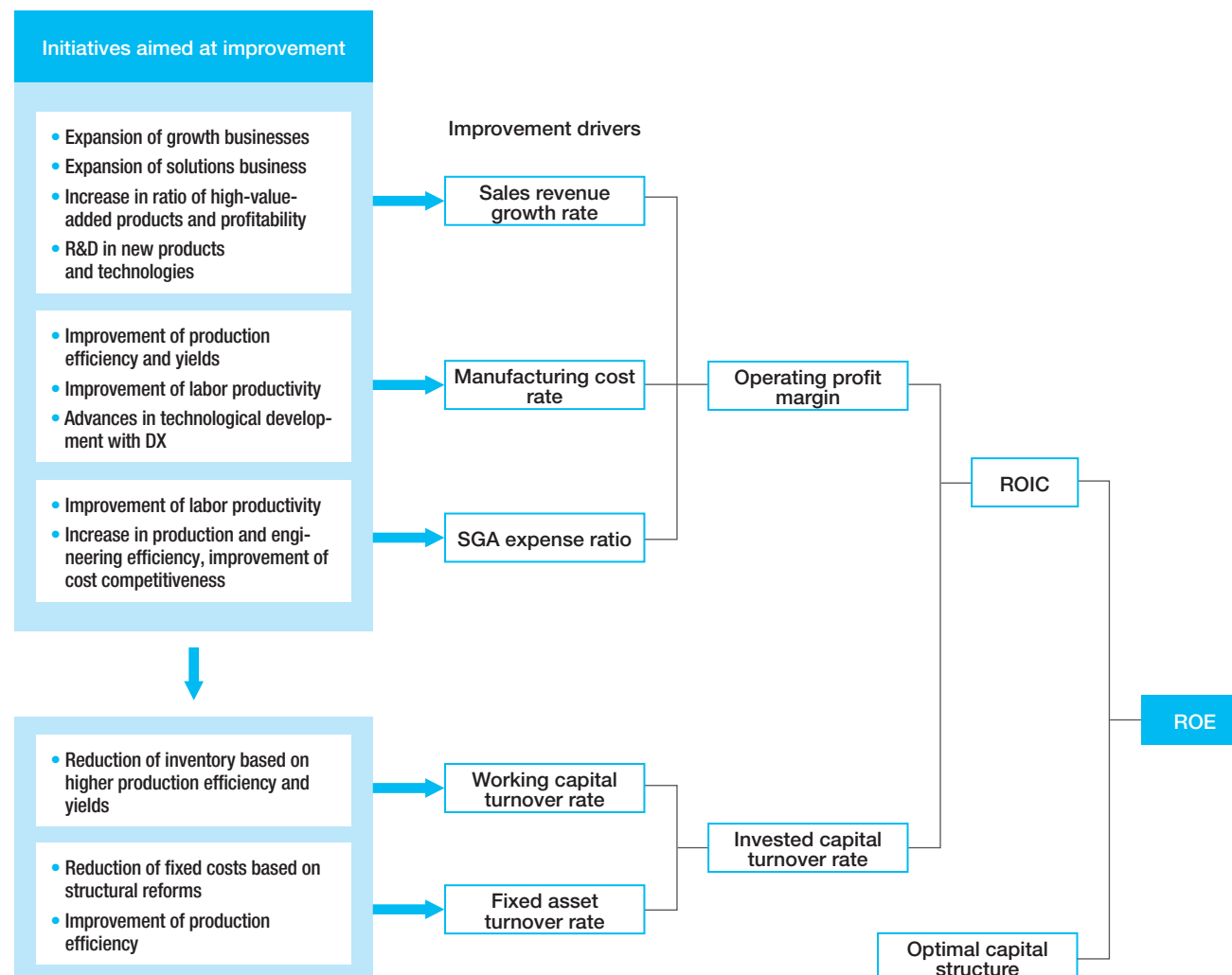
We will continue working to enhance production efficiency and yields, as well as to improve the manufacturing cost rate. Also, to further implement DX-related improvements, we have set a KPI for the number of advanced DX talent trained and developed.

Improve SGA expense ratio

To improve labor productivity, we will revamp core systems in every business to enhance operational efficiency and automation. In the steel business specifically, we will manage a KPI measuring profit contributions from higher labor productivity and rationalization enabled by the revamped core systems, data science, and automation. We will also manage a KPI measuring our labor-saving efforts attuned to the declining workforce and general population.

Impacts on working capital turnover rate and fixed asset turnover rate

In addition to the previously mentioned improvement activities, as well as appropriate inventory management, we will also strive for such improvements as ensuring an optimal domestic structure, restructuring and integrating businesses, and land utilization in the Keihin district. We will also set a KPI for managing and expanding business revenue from the solutions business, leveraging the knowledge and expertise accumulated thus far, primarily in the steel business.



The JFE Group's Value Creation

Initiatives to address Material Issues in Corporate Management

Fiscal 2025 KPIs

Areas of Focus	Material Issues	Aspirations	FY2025 KPIs
Address climate change Issues	Reduce the JFE Group's GHG emissions and contribute to reducing GHG emissions across society	Steel business FY2030 GHG emissions reduction rate: 30% or more FY2027 GHG emissions reduction rate as a milestone: 24% or more (compared to FY2013)	1. Approval rate for GX investment designed to reduce GHG emissions by 30% or more by FY2030: 95% 2. Green steel sales: 100,000 tonnes per year
		Engineering business Reduction rate of CO ₂ emissions in owned plants and offices: 40% or more (compared to FY2013)	Promote use of own renewable energy Non-fossil fuel electricity use: 90% or more
		Engineering business Contribution to reduction in CO ₂ emissions: 13.5 million tonnes per year	Contribute to reduction of CO ₂ emissions in society by providing renewable energy power generation facilities and expanding the power supply business: 12.5 million tonnes per year
		Trading business Domestic CO ₂ emissions reduction rate (compared to FY2019) FY2027: -27.5% FY2030: -35%	FY2025 domestic CO ₂ emissions: 22.5% (compared to FY2019)
Contribute to the realization of a recycling-oriented society	Promote initiatives for realizing circular economy	Steel business Improve resource recycling of iron sources, co-products, etc.	1. Expand collection and use of collected "return scrap": 2.0 times (compared to average volume under the Seventh Medium-term Business Plan) 2. Recycle co-products generated in the Company (recycling rate of slag, dust, sludge, etc.): 99% or more 3. Expand use of steel slag products for marine area use (cumulative total under the Eighth Medium-term Business Plan): 50,000 tonnes
		Engineering business Expand bases for business that contribute to a circular economy	Expand bases for recycling/new regional electricity/waste-to-energy power generation business, etc.: 3 sites or more
		Trading business Expand products that contribute to a circular economy	Expand product lineup to contribute to a circular economy • Increase products handled by at least three in addition to current products with over 3,000 tonnes in volume per year
Acquire robust profitability	Steel business Improve sales and manufacturing capabilities, expand and advance business areas	Expand domestic steelmaking business profitability: ¥90 billion	1. Companywide OPY: +0.3% (compared to FY2024 results) 2. Develop new products and technologies: 20 or more 3. Increase revenue from high-value-added products (proportion, profitability index): 54% 4. Improvements through streamlining (core systems, data science, automation) and labor productivity enhancement: Achieved FY2027 target of 25% 5. Time saved by generative AI and low-code development: 3,000 hours per month 6. Labor-saving initiatives in response to declining labor force and population: Reduced by more than 80 employees
		Expand profits in the overseas steel business, domestic Group companies business, and solutions business Overseas steel: ¥75 billion Domestic Group companies: ¥90 billion Solutions business: ¥15 billion	1. Overseas steel business profit: ¥30 billion 2. Domestic Group companies business profit: ¥80 billion 3. Solutions business profit: ¥8 billion 4. Increase in foreign patent applications: 109%
	Engineering business Improve profitability and competitiveness, and promote investment in growth areas	ROS: 6%	Improve project profitability Proportion of high-value-added and differentiated projects: Aim for over 50% by FY2027, and over 40% by FY2025
		Stabilize profits by expanding scale of O&M business	O&M business sales: Over ¥290 billion
		Improve labor productivity	Progress of operational reforms (to improve business efficiency by FY2035): Completed workflow analysis for specified departments in FY2025, aiming to complete optimization of all business processes in FY2027
		Expand DX solution revenue	Progress of external sales activities for DX solutions: Aim for 20% more new customers in FY2027, and 10% more in FY2025 (compared to FY2024)
	Trading business Revitalize the management foundation and advance insider status in overseas growth markets	Overhaul core systems	• Aim to complete core system overhaul by FY2027 • In FY2025, visualize current operations and complete workflow creation for over 75% of total
		Trade and business profit: ¥30 billion each	Implement growth investments to achieve profits (¥85 billion over 3 years)

The JFE Group's Value Creation

Areas of Focus	Material Issues	Aspirations	FY2025 KPIs
Ensure occupational safety and health for employees	Prevent workplace accidents	Establish safe work environment to achieve zero accidents	Serious injuries: 0 Lost-workday injuries: Steel business 0.10 or less Engineering business 0.25 or less Trading business 0.15 or less
	Promote health and productivity management	Realize a workplace in which everyone can work with good physical and mental health for a long time	Proportion of employees who are physically and mentally healthy and working at an 80% or higher performance level (presenteeism below 20%): 67% or higher
Promote human capital management	Improve work engagement	Realize an environment in which every employee can maximize their potential	Engagement survey Affirmative response to questions about job satisfaction: Steel business 75% or more Engineering business 80% or more Trading business 80% or more
	Promote diversity, equity and inclusion	Realize an environment in which the experience, abilities, and individuality of diverse talent can be maximized	1. Women in managerial positions: Aim for at least 10% by April 2030 (including at least 20% in management and sales departments), with a target of achieving 5.7% by April 2026 2. Percentage of male employees taking childcare leave: 65% or more
	Promote talent acquisition and development	Build a talent portfolio to realize business strategies	Steel business 1. New international employees trained: +33 2. Advanced DX employees trained (cumulative): 800 Engineering business 1. New international employees trained: +10 2. Advanced DX employees trained (cumulative): 30 Trading business New overseas secondments: +25
Minimize risks to the business foundation	Respect the human rights of each person involved in our business	Identify, prevent, and mitigate adverse impacts on human rights in the supply chain	1. 100% attendance from the target audience for human rights awareness training 2. Promote human rights due diligence Promote the following initiatives to realize respect for human rights throughout the supply chain: • Continue conducting human rights due diligence at both the Company and Group companies • Build a system for managing human rights risks of suppliers
	Ensure adherence to corporate ethical standards and compliance	Raise awareness of compliance	Compliance training participation rate: 100%
	Promote appropriate quality assurance	Steel business Zero serious quality assurance issues	1. Quality audit implementation at Group companies: 100% of planned number 2. Quality assurance investment execution: 30%
		Engineering business Zero quality compliance violations	1. Strengthen quality check functions through third-party audits of product departments, including at Group companies: 10 departments 2. Permeate quality compliance awareness e-learning participation rate: 100% of planned participants
		Trading business Consistently deliver products that satisfy quality requirements	Major quality problems: 0
	Improve the level of information security	Continue zero serious security incidents (Level 3 incidents that impact the business foundation)	1. Thorough management of vulnerabilities 2. Improve resilience against cyberattacks
	Coexist with local communities, society, and nature	Steel business Ensure that steelworks and other plants are trusted by their local communities	Serious environmental or disaster accidents: 0 1. Continue improving efforts towards more transparency in steelworks 2. Create opportunities for communication with local communities at business sites and conduct social contribution activities tailored to local needs
		Steel business Expand contributions to biodiversity	New collaborative activities with local governments to improve blue carbon and marine area environments: +2 projects per year
		Engineering business Advance efforts to biodiversity conservation	Conduct conservation activities (i.e., reforestation) and assess biodiversity impacts in the infrastructure construction sector
	Maintain sound financial structure	R&I rating: AA	Eighth Medium-term Business Plan Targets: 1. Debt/EBITDA ratio: Approx. 3 times 2. D/E ratio: Approx. 60%

Business Strategies

Steel Business

JFE Steel Corporation

We will enhance our earning power through high-value-added products and innovation technology, including carbon neutrality technologies, which is the source of the competitive advantage of our enhanced domestic steelworks. In overseas growth regions, we will expand business in collaboration with top-tier partners utilizing superior technologies, products, and human resources.

Initiatives in Fiscal 2024

Crude steel output stalled at 21.95 million tonnes in fiscal 2024 due to a challenging business environment. This included a larger than expected decline in domestic demand and stagnation in the overseas steel market brought about by annual Chinese steel exports exceeding 100 million tonnes.

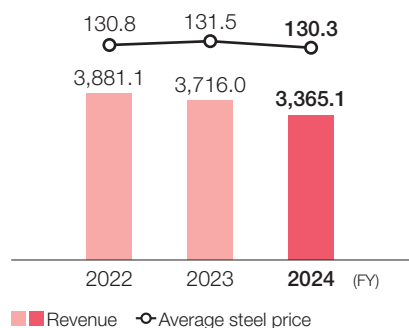
Even amid this challenging environment, we successfully surpassed our target spread by revising our domestic sales pricing system. We also made progress on shifting our focus from quantity to quality in part by raising the ratio of high-value-added products to 48%, including high-performance electrical steel sheets and ultra-high-strength automotive steel sheets. We decided on large domestic investments in growth fields and carbon neutrality. We invested approximately ¥70 billion to install a new continuous

galvanizing line for manufacturing ultra-high-strength steel sheets, which is slated to come on line in October 2028, at the Fukuyama district. We also invested ¥329.4 billion in installing a new innovative electric arc furnace, slated to come on line in the first quarter of 2028, at the Kurashiki district.

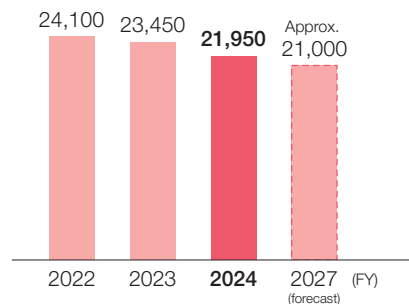
In addition, we proactively executed strategic overseas investments. We invested around ¥170 billion to establish and acquire companies that manufacture and sell grain-oriented electrical steel sheets jointly with India-based JSW Steel. We also acquired a 10% stake in the Blackwater coal mine in Australia for approximately ¥54 billion.

Fiscal 2024 results

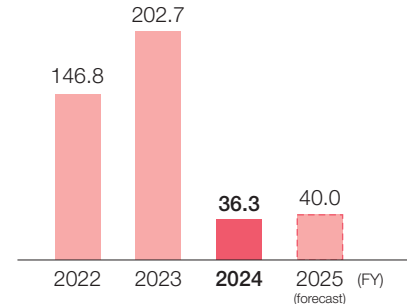
Revenue/Average steel price
(billion yen)/(thousand yen/tonne)



Non-consolidated crude steel output
(1,000 tonnes)



Segment profit
(billion yen)



PURPOSE

**Dream for your Future,
Steel takes you Further.**

Medium- to Long-term Strategy and Future Initiatives

The Company has outlined its long-term vision as: "Become the leader in carbon neutrality (CN) technology development" and "With our resilient domestic production structure as a solid foundation, we will achieve new growth by boldly engaging in the overseas steel business and new businesses." We will continue to execute business strategies with a focus on the long term.

(→ pp. 22–25 Eighth Medium-term Business Plan, Steel Business)

Domestic steelmaking business

- Enhance earnings capabilities by rebuilding an optimal production structure
- Enhance profit per tonne of product by increasing the ratio of high-value-added products

Domestic business, including Group companies

- Strengthen competitiveness through cooperation with domestic Group companies and partner companies in response to changes in the market environment

Overseas growth strategies

- Expand overseas businesses "from the inside" with top-tier partners in overseas growth regions
- Capture growing overseas steel demand by launching the Company's technological capabilities in growth markets

Solution Business

- Further expand the solution business using technologies borne from our wide range of business fields and our operational data and know-how accumulated over the years, both of which are sources of our competitive edge.

Business Strategies

TOPIC 1

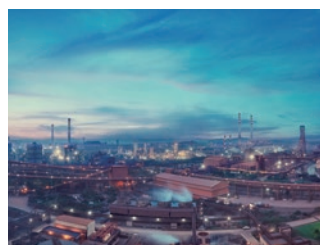
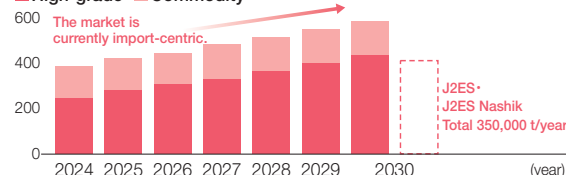
Aiming to be the No.1 supplier of grain-oriented electrical steel sheets in India

India boasts the world's largest population and, with its economic expansion, demand for grain-oriented electrical steel sheets is rapidly growing. This surge is being driven by rising electricity demand, expanding renewable energy use, increasingly efficient transformers, and an increase in the number of data centers. Significant growth is expected in the market for grain-oriented electrical steel sheets and the Company aims to become the clear No.1 supplier in the expanding Indian market. We are now undertaking measures, totaling around ¥290 billion, jointly with JSW Steel.

Expected size of the grain-oriented electrical steel sheet market in India

(1,000 t)

■ High-grade ■ Commodity



JSW Steel's Vijayanagar Works

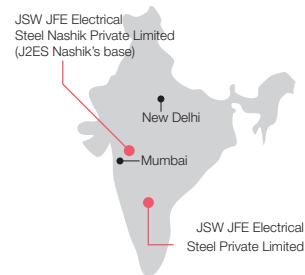
Note: The Company's estimates based on the World Energy Outlook

Strategy to expand the grain-oriented (GO) electrical steel sheet business

In the expanding Indian GO market, we executed the following strategies totaling around ¥290 billion jointly with JSW Steel.

- February 2024: Founded a company that manufactures and sells grain-oriented electrical steel sheets (name: J2ES; investment: approx. ¥100 billion; launched in FY2027)
- January 2025: Acquired a thyssenkrupp subsidiary that manufactures and sells grain-oriented electrical steel sheets (name: J2ES Nashik; investment: approx. ¥70 billion)
- August 2025: J2ES will double its manufacturing capacity from initial plans to around 100,000 t/year, and J2ES Nashik will incrementally expand capacity from the current 50,000 t/year to around 250,000 t/year. In this way, we have decided to significantly expand production to a total of 350,000 t/year as of 2030 (investment: approx. ¥120 billion).

Locations of the companies that manufacture and sell grain-oriented electrical steel sheets



TOPIC 2

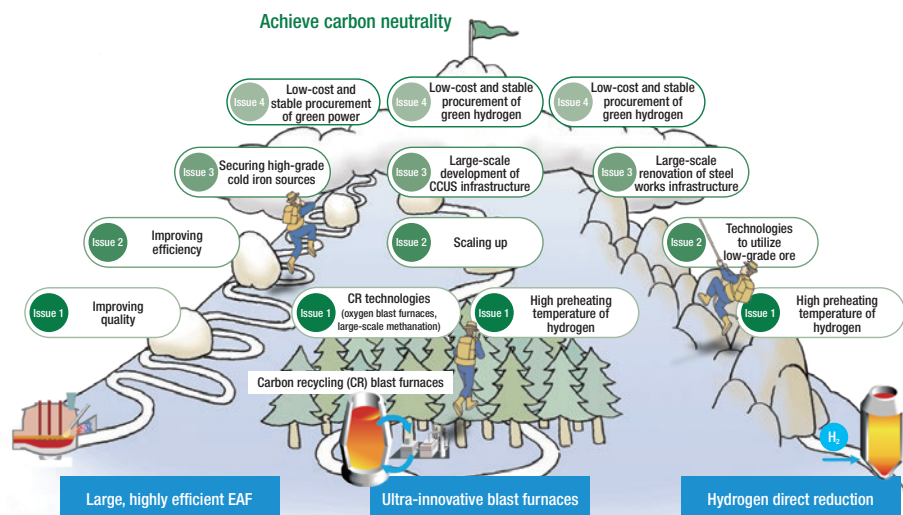
Aiming to realize carbon neutrality by 2050

Technologically, there are a wide range of pathways and a plethora of issues to achieving carbon neutrality by 2050. Because we cannot foresee which pathway will prove the fastest, we are promoting technological development along multiple routes. In January 2022, we began work on developing ultra-innovative technologies as a Green Innovation (GI) Fund project and built pilot facilities in the Chiba district related to an ultra-innovative blast furnace, hydrogen direct reduction, and an innovative electric arc furnace. These facilities came on line sequentially from December 2024. We aim to complete developing carbon neutral technologies in steelmaking processes by around 2035.

In addition, we invested ¥329.4 billion of these GI Fund projects in innovative electric arc furnaces that can be quickly launched and decided on work to convert processes from the No.2 blast furnace in Kurashiki. We will install one of the world's largest innovative electric arc furnaces and spearhead efforts to realize a mass supply structure for high-quality, high-performance steel materials, aiming to achieve the top share of the domestic green steel market.

(→ pp. 63–67 GX Strategy)

Technological Multi-track Approach for Carbon Neutrality



Business Strategies

Engineering Business

JFE Engineering Corporation

In the field of engineering, which uses steel to support safe and comfortable living, we leverage our capabilities in advanced core technologies, diverse product development, proven project execution, and solid business management. With these strengths, we are expanding globally to contribute to both carbon neutrality and the circular economy.

Initiatives in Fiscal 2024

JFE Engineering has been expanding into the operation and maintenance (O&M) business that supports the foundation of life, including public-private partnership (PPP) projects, power generation and electric power businesses, and recycling operations, in addition to its traditional engineering, procurement, and construction (EPC) business. As a result, revenue has reached record highs for three consecutive fiscal years.

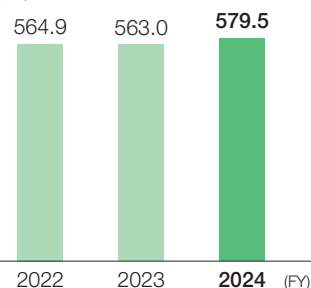
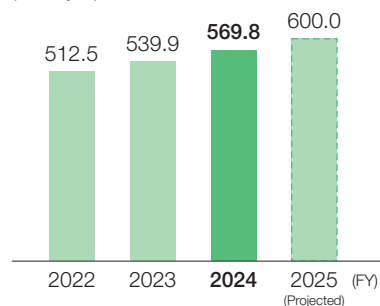
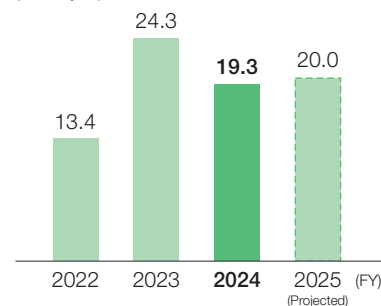
The EPC business “creates” the foundations of life. Last year, centered on the infrastructure field, we successfully executed large-scale projects in Japan and abroad including environmental plants, pipelines, and bridges: our areas of excellence. Earnings have risen due in part to a higher ratio of O&M businesses, including electric power businesses like new regional power projects, as well as M&A involving chemical plant-related companies.

In the Waste to Resource field, Group company J&T Recycling, which engages in the recycling business, has built and commenced operation of one of Japan's largest plastic recycling facilities, which is located along the Kawasaki coastal area.

As part of our efforts to achieve carbon neutrality, we are conducting demonstration tests of CO₂ separation and capture technologies at various plants, as well as our waste chemical recycling technologies, in addition to ongoing renewable energy EPC and business management.

In the infrastructure field, we are expanding beyond the construction of elevated bridges and railway bridges in countries across Asia, Africa, and Central America by operating road PPP projects in India, thereby further expanding our business domain.

Fiscal 2024 results

Orders received
(billion yen)Revenue
(billion yen)Segment profit
(billion yen)

PURPOSE

Create, Care, Connect
The Foundations of Life
Just For the Earth

Medium- to Long-term Strategy and Future Initiatives

Building on from the Seventh Medium-term Business Plan, we will continue to promote active business integration and industry reorganization while establishing a framework for providing sustainable, safe, and reliable infrastructure services, thereby enhancing our competitive advantage in international markets.

In addition, by leveraging our diverse business portfolio, we will further strengthen our earnings base and expand our business fields by realizing a circular economy. Furthermore, we will continue expanding business activities that help reduce greenhouse gas emissions and bolster our initiatives to address climate change issues.

(→ pp. 26–27: Eighth Medium-term Business Plan, Engineering Business)

Waste to Resource

Domestic

- Advance EPC and O&M businesses for waste treatment plants
- Establish a recycling value chain that includes final disposal sites and expand plastic recycling operations

Overseas

- Create markets through business investment in Asia
- Establish a cost-competitive global engineering structure centered on our local subsidiary in India

Carbon Neutrality

- Expand our strengths in storage and transportation technologies into the CN plant field
- Broaden renewable energy sources and energy services
- Commence full-scale operations at the Kasaoka monopile plant for offshore wind power

Infrastructure

Create and deliver new products, methods, and materials to enhance the resilience and extend the life of infrastructure

Business Strategies

TOPIC 1

Waste to Resource: Commencing operations at the Kurashiki Western Clean Center

We won and successfully completed the order to build the Kurashiki Western Clean Center, with operations commencing in April 2025.

By utilizing an ultra-high-temperature, high-pressure boiler, the new facility delivers power generation efficiency at the highest level for municipal waste treatment facilities in Japan. Furthermore, with remote monitoring and operational support from our Global Remote Center, we provide safer and more advanced facility management.

Kurashiki City boasts one of the highest recycling rates in Japan. By fully recycling all of the incineration residue (bottom and fly ash) through this project, we will continue working with the city to help reach its policy goals.



Kurashiki Western Clean Center

TOPIC 2

Carbon Neutrality: Launch of JFE-METS™, an integrated multi-site energy network service, at House Foods

The integrated multi-site energy network service JFE-METS (Multi-site Energy Total Service), developed by the Company, is a system that connects multiple corporate sites and enables energy sharing among them, thereby achieving company-wide cost reductions.

JFE-METS was introduced to the House Foods Group and commenced operations in April 2024. Surplus electricity from a gas co-generation system installed at the House Food group's Shizuoka Plant is supplied nationwide to multiple sites operated by the group, while the waste heat is converted into steam and hot water for effective use in production activities such as retort pouch food preparation. As a result, this will reduce CO₂ emissions across the entire group and achieve significant energy savings at the Shizuoka Plant.



Gas co-generation system installed at the House Foods Shizuoka Plant

TOPIC 3

Infrastructure: Completion of an elevated bridge in the Republic of Ghana

The Company finished construction in Phase 2 of the project for the improvement of the Tema Motorway Roundabout in the Republic of Ghana, and it opened in December 2024.

Economic growth has led to severe traffic congestion in Ghana. The improvement of the Tema Motorway Roundabout—where international arterial roads converge—has alleviated congestion and facilitated the smooth movement of people and goods.

This project represents the first bridge project in Africa for which JFE Engineering received a sole contract covering both the substructure and superstructure. Our overseas bridge business is well regarded for its technology and proven results, and in recent years we have expanded our activities beyond Africa to Central and South America.

We will continue to provide high-quality infrastructure and contribute to solving transportation issues and developing transportation infrastructure around the world.



Tema Motorway Roundabout, the Republic of Ghana

Business Strategies

Trading Business

JFE Shoji Corporation

As the core trading company of the JFE Group, we always consider overall optimization, sharing our strategies with other Group companies as we strengthen our own functions. We aim to further enhance our proposal and communication capabilities and become a company with a greater presence, capable of achieving sustainable growth together with customers. In addition, we will contribute to the realization of a sustainable society by, for example, providing eco-friendly products and practicing resource recycling on a global basis through our corporate activities.

Initiatives in Fiscal 2024

In the final year of the Seventh Medium-term Business Plan, the JFE Shoji Group continued to strengthen the processing and distribution functions of core businesses—electrical steel sheets, automotive steel sheets, overseas construction materials, and domestic steel.

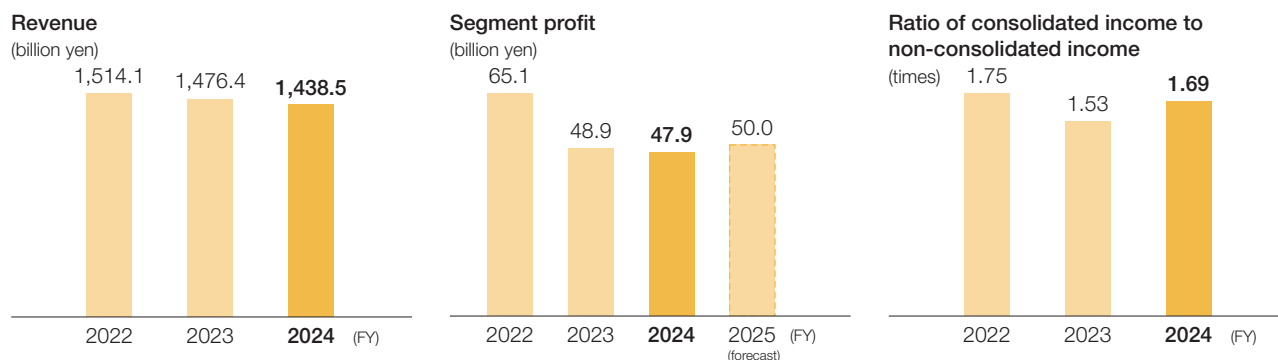
Overseas, we made progress in constructing a factory for JFE Shoji Serbia d.o.o. Indjija, an electrical steel sheet processing and sales company in the Republic of Serbia. We plan to begin operations at this facility by the end of fiscal 2025. Moreover, in India, we augmented our steel processing capabilities to accommodate growing demand related to electric power infrastructure, which is expected to expand going forward. In the overseas construction materials business, we acquired the U.S.- and Australia-based businesses, engaged in the manufacture and sale of steel sheets for construction use, from Studco, with the aim of accommodating

demand for construction materials in both countries.

As part of new regional strategies, we upgraded JFE Shoji Australia into a regional headquarters, thereby establishing a local management structure capable of making autonomous and swift decisions.

In the domestic steel business, we strengthened our processing and sales structure for Japan as we have positioned it as a top priority region. To this end, we acquired Maruhachi Steel Pipe, which has served as our exclusive steel pipe distributor and is an industry leader in the east Japan district in terms of inventory and processing capability. In the west Japan district, we work in collaboration with Hoshi Kinzoku, a JFE Group company in the same field, to push ahead with strengthening our inventory, processing and sales structures.

Fiscal 2024 results



PURPOSE

Steel and More:
Bridging Global Progress

Medium- to Long-Term Strategies and Future Initiatives

Our overseas operations are expected to expand and we will develop them into a pillar of growth by leveraging the JFE Group's brand strength, backed by technological capabilities and reliability, as well as its overseas network. In this way, we will secure stable profit even in the face of a changing business environment, create a company capable of achieving lasting growth, and contribute to society. Furthermore, with challenge and transformation as keywords, we will foster a corporate culture that devises new business frameworks and puts them into practice.

➡ pp. 28–29: The Eighth Medium-term Business Plan, Trading Business

Domestic business

Steel

- Having positioned Japan as a top priority market region, we focus on handling a greater volume of steel and securing a greater number of orders.
- We establish a lean organizational structure while strengthening profitability.

Raw materials and machinery

- We expand the scope of our business activities by, for example, strengthening the green raw materials business, which is expected to grow, with the aim of establishing a new profit base.

Overseas business

- Having positioned the overseas market as a pillar of growth, we bring external businesses into the Group as we promote complete local businesses in regions that offer superior business opportunities.

Business Strategies

TOPIC

Acquisition of U.S.- and Australia-Based Companies That Manufacture and Sell Steel Sheets for Construction Use

In May 2024, we acquired the U.S.- and Australia-based operating companies from Studco Global Holdings, Inc., which is engaged in the manufacture and sale of steel frames for construction use, door-related products and other offerings.

One of the acquired operating companies is headquartered in Webster, New York, the United States and maintains a manufacturing base in the same location while engaging in sales activities primarily targeting the eastern part of the country. Following the acquisition of CEMCO in 2022, the above acquisition is intended to secure a new business base in the United States in addition to stepping up initiatives to seize opportunities arising from local demand for construction materials even as we

coordinate the two acquired companies based in this country.

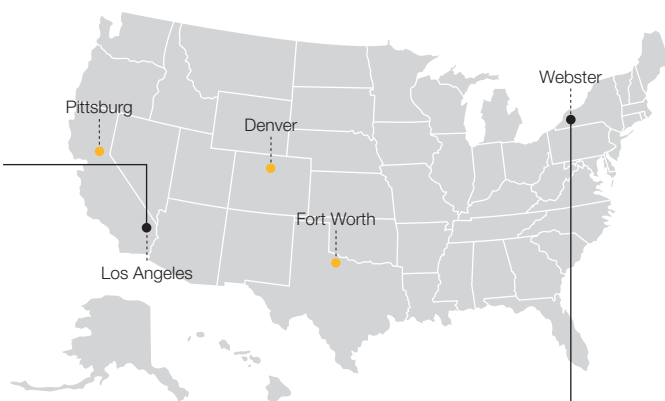
Meanwhile, the other newly acquired business is headquartered in Melbourne, Victoria, Australia. In addition to maintaining its manufacturing base in Melbourne, this business runs sales bases in three locations within the country and commands the second largest share of Australia's steel frame market. Through this acquisition, we will make a full-fledged entry into Australia's market for steel sheets for construction use, which boasts strong potential for demand growth. By doing so, we will establish a foundation for achieving sustainable growth in the Australian market.

United States

- Manufacturing bases
CEMCO (four locations)
Studco (one location)



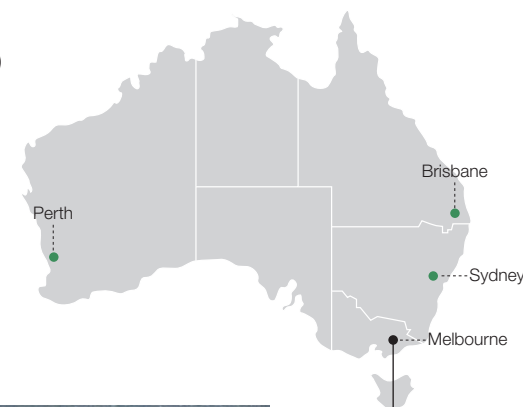
- Headquarters
CEMCO, LLC



- Headquarters
Studco Global Holdings, Inc.
- Manufacturing base
Studco Building Systems US, LLC

Australia

- Sales bases
Studco (three locations)



- Headquarters
Studco Australia Holdings Pty Ltd
- Manufacturing base
Studco Australia Pty Ltd

Business Strategies

Shipbuilding Business

Japan Marine United Corporation (equity-method affiliate)

Boasting a leading level of shipbuilding capability in Japan, we produce around 30 vessels every year while maintaining outstanding technological strengths that make it possible to address such social issues as the pressing call for decarbonization and alternative fuels, the development of autonomous vessels capable of labor-saving operation, and the popularization of offshore wind power plants. We will take full advantage of these strengths to become a leading company in the world's shipbuilding sector as a representative of Japan's shipbuilders.

Initiatives in Fiscal 2024

Merchant ships business

We completed 25 vessels, including LNG dual-fuel bulk carriers. We also secured orders for 27 vessels, including 13 new fuel ships. Moreover, we initiated capital expenditure aimed at resolving bottlenecks in the construction of new fuel ships after being certified under the "Zero Emission Ship Construction Promotion Project," which is jointly sponsored by the Ministry of the Environment and Ministry of Land, Infrastructure, Transport and Tourism. In addition, we launched discussions involving a total of seven shipping and shipbuilding companies in Japan to establish standard specifications and designs for liquefied CO₂ carriers. As such, we have made a major step forward toward achieving zero emissions in 2050.

Naval ships business

Against the background of the increased national defense budget, which led to a growing number of naval ship repair projects, we proactively handled the major renovation of large naval ships, the repair of U.S.-owned naval ships, and other projects requiring highly sophisticated skills. We have also made steady progress in constructing arctic research vessels, icebreaking patrol ships, mine-sweepers, and other ships.

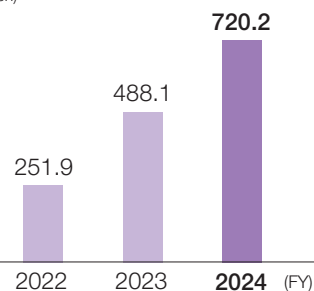
Offshore and engineering business

A floating offshore wind power generation project run by a consortium whose membership includes JFE Engineering and ourselves, was adopted as a pilot project under the GI Foundation Phase 2. Thus, we launched R&D aimed at achieving the widespread adoption of this power generation method.

Fiscal 2024 results

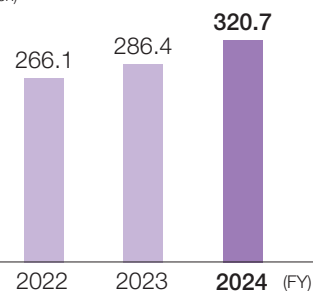
Orders received

(billion yen)



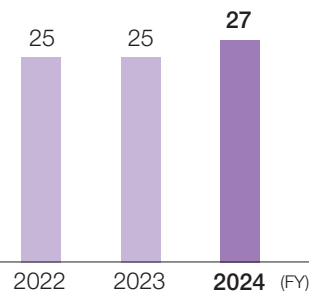
Net sales

(billion yen)



Vessels built

(vessels)



PHILOSOPHY

Contribute to societal development through technology and *monozukuri* in the shipbuilding and marine sectors.

Future Initiatives

In the current fiscal year, we will formulate a medium-term business plan spanning five years leading up to fiscal 2030. By doing so, we will crystallize and promote business strategies that enable us to undertake ongoing investment in businesses, technologies, and human resources.

Merchant ships business

We will enhance the competitiveness of our new fuel ships through the execution of major capital expenditure as well as the DX of design and production processes. In this way, we will keep the annual number of ships built unchanged from the conventional level even as we pursue sales growth.

Naval ships business

We anticipate expansion in business opportunities related to the repair of both naval ships and merchant ships due to growth in the national defense budget and the introduction of new fuel ships. Accordingly, we will optimize our resources while accommodating demand, with the aim of diversifying our profit structure.

Offshore and engineering business

In anticipation of the coming era with demand for floating offshore wind power plants, we will promote the upgrading of our elemental technologies and the development of business models. At the same time, we will focus on building offshore support vessels as well as renovating such vessels.