Koji Kakigi
President and CEO
JFE Steel Corporation

Steel Business

Responding to new needs with advanced steel and an evolving workforce

We refine steel with advanced technologies and respond flexibly to changing needs as a company valued by society.

Steel's power to respond

Steel has supported the development of civilization with its unparalleled advantages, including relatively low manufacturing costs, wide availability, tremendous strength, easy processing, and easy recycling. Going forward, I believe that expectations for steel will increase as the world continues to undergo dramatic changes. Steel's power to respond is evident, for example, in thin but strong high-tensile steel that is helping to reduce the weight of electric vehicles and construction materials that are enabling customers to save labor in response to Japan' shrinking workforce. JFE will continue to provide new value and respond flexibly to ever-changing needs by developing products and technologies that leverage steel's infinite potential.

The driving force behind such initiatives is our highly competitive production system, which is consolidated into two large-scale steelworks in east and west Japan. We continue to make strategic investments to dramatically increase our productivity and enhance our cost competitiveness. We are also establishing a robust system to manufacture 30 million tons of crude steel (non-consolidated), including by incorporating advanced IT technologies for significantly improved productivity.

Furthermore, the technological and quality capabilities that we nurture in Japan are also being applied to our overseas operations. We continue to expand our business globally through new investment and use of raw materials from overseas sources to ensure our sustainable growth in the face of declining demand in Japan.

Flexible workforce and a willingness to accept challenges

To bring out the full potential of steel and contribute to society, diverse human resources are essential. JFE is responding to dramatic global changes with flexibility and speed by establishing workplaces where employees can work comfortably and are encouraged to take on new challenges. Technologies are being passing down to younger workers through the application of artificial intelligence (AI) and the Internet of Thing (IoT), which is facilitating the transfer of on-site skills and expertise, one of the sources of our strength in manufacturing.

Business Overview

JFE Steel is an integrated steel manufacturer that possesses world-class production scale and advanced capabilities for technological development. The company supplies steel products that meet the diverse needs of global customers.

Competitive production centered on two large-scale steelworks

The production bases of JFE Steel consist of two large coastal steelworks—the East Japan Works comprising the Chiba and Keihin districts and the West Japan Works comprising the Kurashiki and Fukuyama districts. The company also operates the Chita Works specializing in steel pipes and the Sendai Works to produce steel bars and wire rods. JFE Steel's highly efficient and competitive production system makes extensive use of leading-edge technologies for the manufacture and sale of high-quality steel products.

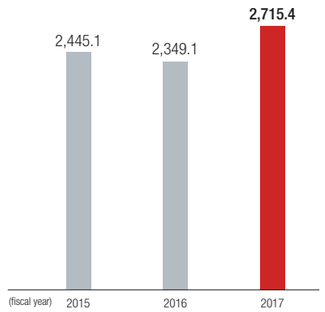
Global supply system that fully responds to worldwide steel demand

JFE Steel has actively expanded its business globally in response to growing demands for steel, especially in Asia. In recent years, the company has prioritized automobiles, energy and infrastructure materials and has expanded operations into Mexico, the UAE and Myanmar. JFE Steel leverages its advanced technologies and expertise cultivated in Japan to sell high-quality steel materials that respond to local needs.

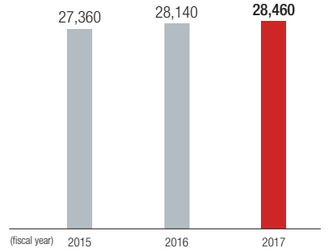
June 2017 NUCOR-JFE STEEL MEXICO groundbreaking ceremony

FY2017 Results

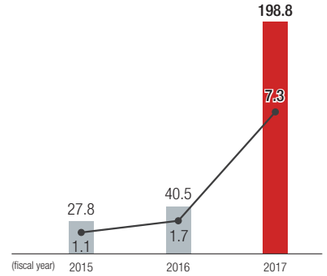
Net sales (billion yen)



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



Ordinary income (billion yen) **and return on sales** (%)



Sixth Medium-term Business Plan

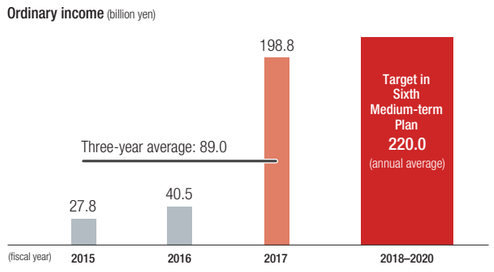
Pursuing growth through advanced technologies and strengthened manufacturing capabilities

We will develop technologies to meet the needs of society and conduct highly customer-oriented sales.

By expanding the JFE brand through leading-edge technologies, we aim to steadily create new value and grow with customers.

Earnings target Consolidated ordinary income

220 billion yen per year (annual average)



Core Strategy 1 Pursue growth through advanced technologies

We will actively apply IT to develop products focused on automobiles, infrastructure materials and energy as well as technologies for environmentally friendly production, responding to the needs of society and customers.

1 Product development in focus areas

– **Creating new value through products that respond to change**

Three areas of focus

(1) Automobiles: Products that respond to trends in technological innovation, including extra-light and electric-powered vehicles
(2) Infrastructure materials: Products that enable highly efficient construction to help customers save labor
(3) Energy: Products that can be used in extremely harsh environments

2 Eco-responsible processing

– **Technological innovation focused on reduced-impact upstream processes**

- Manufacturing technologies for Ferro coke (innovative blast furnace feed that dramatically reduces CO_2 emissions)
- Technologies for hydrogen-reduction steelmaking and the separation and retrieval of CO_2 (COURSE50)

3 Application of IT

– **Enhanced competitiveness though more productive people and facilities**

- Data science technologies (AI, IoT, Big Data, etc.)
- Robotics technologies

R&D costs **110 billion yen over three years** (up 10% from previous medium-term plan)

Core Strategy 2 Strengthening manufacturing capabilities

We will strengthen manufacturing capabilities, including by focusing investment on our West Japan Works, which possesses world-class scale and cost competitiveness.

Capital investment in Japan About **850 billion yen over three years** (up 10% from previous medium-term plan; decision making basis)

*Based on decisions made

1. Investments mainly in West Japan Works to boost capabilities and maximize performance
2. Investments focused on upstream processes for cost advantages
3. Continued development of manufacturing base
4. Strategic investments to enhance product mix
5. Continuous investments in systems, including to update steelworks

Stable production of crude steel, targeting 30 million tons (non-consolidated)

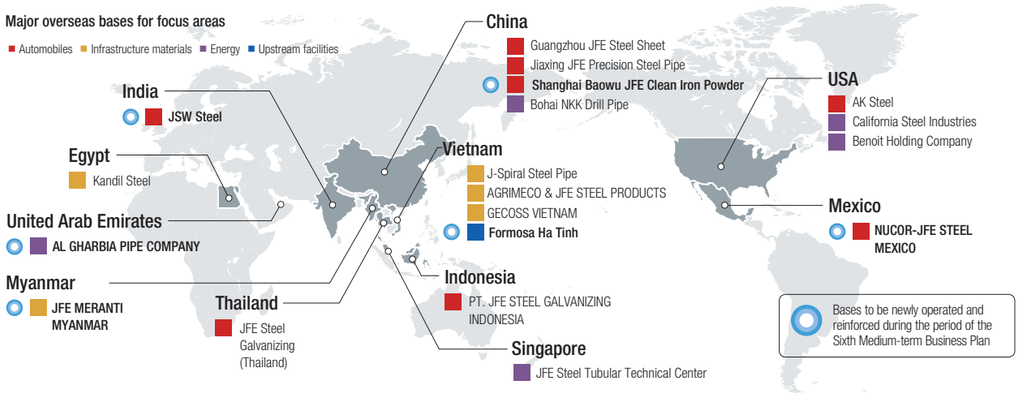
Cost reductions: at least 105 billion yen (over three years)

- Effects of investments
- Reduction of external-procurement costs due to reinforced sintering
- Increased application of technologies involving low-cost materials

Improved product mix

Core Strategy 3 Leverage overseas business as the core of long-term growth

We will work to increase profitability, mainly in our focus areas, by enhancing production systems, ultimately for sustainable growth. We will also enter growing markets directly with business models designed to expand our business income, including from integrated steel manufacturing, in parallel with our traditional vertical-specialization model.



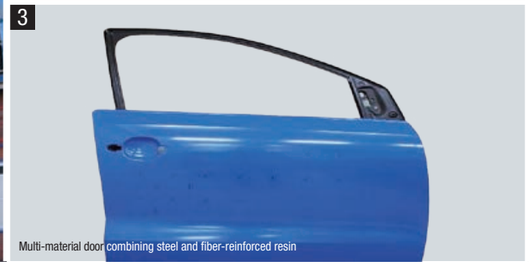
Core Strategy 4 Focus sales and other initiatives on customer needs

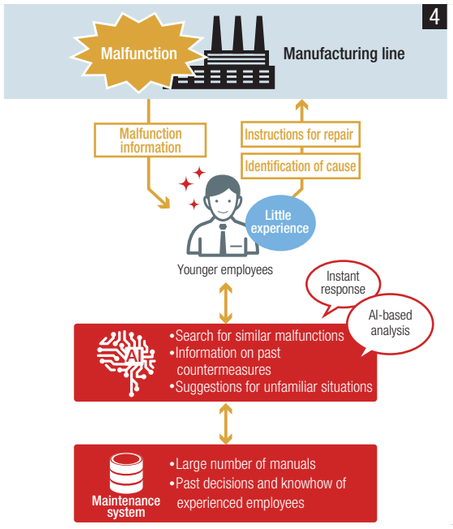
We will provide solutions that help customers resolve specific issues. This will be done by strengthening manufacturing capabilities to handle high-volume orders and by integrating product development and sales to strengthen proposals to customers. By making the JFE brand better known around the world through such initiatives, we expect to increase earnings on a sustainable basis.

Overview


Renovated coke oven

Groundbreaking ceremony for plant construction in March 2018


Multi-material door combining steel and fiber-reinforced resin




Awards ceremony (Above) Super-SINTER™ incorporating brittle-crack arrest technology (Below) Mega-container carriers

Childcare facility in Fukuyama District

1 Strengthening manufacturing capabilities

In December 2017, JFE Steel invested 27 billion yen to renovate Fukuyama coke oven's A and B batteries. The renovation, which follows similar renovations in Kurashiki and Chiba facilities, is scheduled for completion in fiscal 2021. The benefits will include more efficient and environmentally friendly operations. In the same month, 40 billion yen was invested to begin constructing a new continuous casting machine in Kurashiki, which will further strengthen the company's manufacturing capabilities.

2 Thin steel sheets for construction materials in Myanmar

In October 2017, JFE Shoji Trade Corporation formed a joint venture with Marubeni-Itochu Steel Inc., HANWA Co., Ltd., and MERANTI STEEL PTE. LTD. (Singapore) to construct Myanmar's first factory for high-grade construction materials. The facility, which is scheduled to start operating in 2020, will respond to the country's dramatic increase in demand for thin sheets needed for construction materials.

3 Multi-material initiatives

Reduced-weight vehicles are being designed to reduce CO_2 emissions and improve fuel efficiency. In December 2017, JFE Steel and Mitsubishi Chemical Corporation introduced a lightweight, high-rigidity steel door that combines the high cost performance and superior press formability of steel with the low weight and high rigidity of fiber-reinforced resin. JFE continues to develop multi-material products that leverage the many advantages of steel for reduced-weight vehicles.

4 Application of data science

In October 2017, AI was adopted for facility maintenance tasks to support the transfer of skills at manufacturing sites. The initiative has created a system in which the expertise of experienced employees can be accessed and applied swiftly. JFE Steel is utilizing IT to pass down technologies, boost productivity and increase its competitiveness. Data bases and other data sciences are being integrated into the steelworks' core system, which has been steadily overhauled since 2015.

5 Seventh Monozukuri Nippon Grand Awards

Super-SINTERTM, which dramatically reduces the amount of CO_2 emissions when manufacturing sintered ore, and mega-container carrier incorporating brittle-crack arrest technology for enhanced safety and environmental protection, were both awarded a Prime Minister's Prize in the Seventh Monozukuri Nippon Grand Awards. The Prime Minister's Prize is the highest award in all categories. JFE continues to develop breakthrough technologies and products based on world-class technologies.

6 Work-style reform initiatives

JFE began reforming its workstyles in 2017 by introducing designated no-overtime days and minimum intervals between work hours on a trial basis. Moreover, the company has begun incorporating IT such as robotic process automation. The aims include improving labor productivity and shifting to working styles that generate higher added value. The company also is striving to establish workplaces where employees can work comfortably and with vitality, such as by launching in-house childcare facilities in Kurashiki and Fukuyama, similar to a facility operating in Chiba.

2017 Highlights

2017

April
- Started operating No. 2 coke oven in Kurashiki
- No. 5 CAL in Fukuyama broke Japanese record for monthly production volume
- Development and manufacturing started for ECOGAL-Neo®, a hot-dip 5%-zinc Al steel sheet offering high corrosion resistance
- Introduced JEFORMA™ as Japan's first high-tensile-sheet series for automobiles
- Awarded 49th Ichimura Prize in Industry for Distinguished Achievement for JNHF-Core® and JNSF-Core® resource-saving silicon-gradient steel sheets

May
- Started developing Byerwen mine in Australia
- Held festivals in Fukuyama and Keihin
- Awarded Minister of Education, Culture, Sports, Science and Technology Award in 2017 National Commendations for Inventions for ultrasound online inspection technology using electric-resistance welded pipe made with extra-tough Mighty Seam®

May
- Acquired rating for new Kongo-pile® method featuring Japan's highest bearing capacity (pile-based construction for foundations featuring enlarged tip foot protection)
- Ignited first blast furnace in FHS integrated steelworks project in Vietnam

June
- Started full-scale operation of JFE Integrated Database for Supply Chain Management
- Received order for 230,000 tons of line pipes for PTT Public natural gas transport project in Thailand

July
- Started constructing pilot plant to produce Ferro-coke in Fukuyama

August
- Developed stud-type damper composed of visco-elastic materials and two steel columns for vibration damping in buildings

September
- Developed FM1000S nickel-free alloy steel powder for metallurgy offering high strength and toughness

October
- Started offering hot-dip coated and color steel sheets for construction materials in Myanmar

November
- Held festivals in Kurashiki and at Chita Works
- Introduced AI technologies for steelmaking-facility maintenance

December
- Developed high-function spot-welding technologies
- Renovated Batteries A and B of No. 3 coke oven in Fukuyama
- JFE topology optimization technologies adopted for use by Mitsubishi Motors Corporation
- Developed lightweight, high-rigidity steel door combining fiber-reinforced resin
- Began constructing new continuous casting machine in Kurashiki

2018

January
- Awarded Prime Minister's Prizes in Seventh Monozukuri Nippon Grand Awards for development of Super-SINTER™, which reduces CO_2 emissions when producing raw materials for steelmaking, and mega-container carriers incorporating brittle-crack arrest technology for enhanced safety and environmental protection

February
- Received 2017 Energy-Efficient Machinery Awards' Agency of Natural Resources and Energy Director General Prize for two-step jet burner used to ignite sintering machines
- Received Japan Machinery Federation Chairman Award for self-exhaust emission-recirculating radiant tube burner

March
- Established company-led childcare facilities in Kurashiki and Fukuyama

Hajime Oshita

President and CEO
JFE Engineering

Engineering Business

An engineering company that “Creates” and “Ni·na·u*” the foundation for life

Under our Fifth Medium-term Business Plan, we achieved annual net sales of 400 billion yen and ordinary income of 20 billion yen. Under our new Sixth Medium-term Business Plan, we are now targeting stable ordinary income of 30 billion yen through profitable creation (construction) businesses and a full-fledged entry into the field of “Ni·na·u” business.

*“Ni·na·u” is a Japanese word meaning supporting and remaining responsible.
We aim to provide solutions with our engineering and manufacturing know-how.

Ensure revenue increase in domestic and in overseas projects

Earnings of the company are the accumulation of profits generated from each project, and we view securing profitability per project as an important management issue. We will address this issue by appointing experienced members and working as an organization to detect risks at an early stage and implement effective countermeasures.

The development of infrastructure such as urban environments, water treatment plants and bridges is our mission and it is deeply rooted in the lives of people in the world. In pursuit of this mission, we are focusing on emerging market, primarily in Asia, to steadily expand through our bases we have built so far and increase earnings of our overseas businesses.

Combining products and services for expansion

Ever since the establishment, we have engaged in the “creation” business in diverse fields, from the planning and designing of various plants and infrastructure facilities through to construction. In particular, our development initiatives in Japan have directly addressed vital environmental and energy issues, resulting in our accumulation of extensive expertise.

In recent times, private companies have become increasingly involved in the management of infrastructure on behalf of local governments. We worked on this trend by engaging in infrastructure operation, maintenance and related undertakings. In addition, we launched business for renewable-energy power generation and waste recycling.

JFE Engineering is now applying its vast expertise in a full-fledged expansion into “Ni·na·u” businesses, which is a combination of plant facilities built by us and daily operation management services. This will serve to reduce the risk where business performance is largely affected by the volatile order intakes. We will also build earning structure that can stably secure 30 billion yen in ordinary income.

Business Overview

JFE Engineering’s core business is the construction of essential infrastructure, including waste-to-energy plants, water treatment plants and bridges. By focusing on these business fields, we propose integrated services that include business planning, and operating business covering from EPC to O&M (Operation and Maintenance) stage.

Environment

- Waste-to-Energy Plants
- Recycling industrial waste, food and consumer appliances

Photo courtesy of Clean Authority of TOKYO

Aqua

- Water treatment plants (water and sewage)
- Water pipelines

Energy

- Natural gas treatment plants
- LNG bases
- Pipelines

Infrastructure

- Transportation and logistics infrastructure (bridges, ports and harbor facilities)
- Disaster-prevention infrastructure (seawalls and breakwaters)

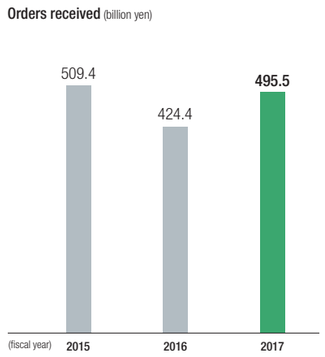
Machinery and systems

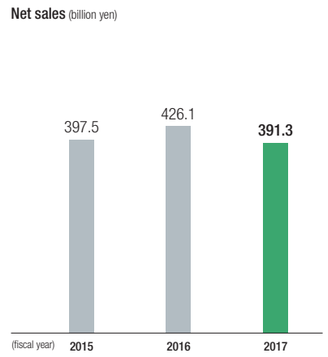
- Industrial machinery (cranes and steam turbines)
- Environmental equipment for ships
- Logistics systems

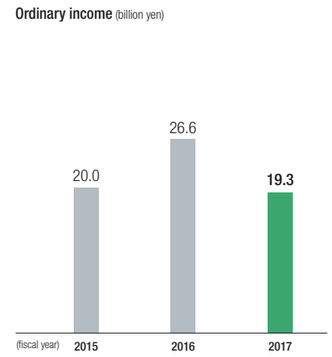
Power generation and electricity

- Retail sales of electricity and regional new power systems
- Renewable-energy power generation (biomass, geothermal, wind and solar)
- Energy Service Provider (comprehensive energy supply to corporations or regions)

FY2017 Results







Sixth Medium-term Business Plan

To build earning structure that can stably secure 30 billion yen in ordinary income

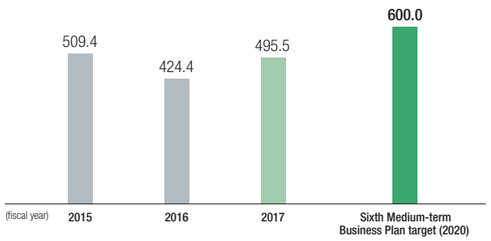
Our current Medium-term Business Plan is focused on expanding operating business, increasing revenue in overseas businesses and research and development and investment for the future. To build earning structure of both domestic and overseas projects, we are applying capital resources toward production and investments that anticipate our next medium-term business plan, aiming to make a dramatic leap forward.

Medium-term targets

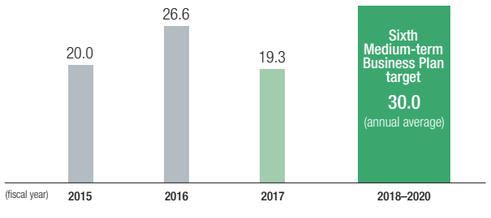
Orders **600** billion yen (FY2020)

Ordinary income **30** billion yen (annual average)

Orders received (billion yen)



Ordinary income (billion yen)



Core Strategy 1 Expansion of operating business

We aim to expand operating business, which include Public and Private Partnership (PPP) business, recycling business, power generation and electric power businesses, in addition to EPC which we have pursued. By applying diverse energy sources, such as biomass energy, geothermal power and LNG, we will meet our customer needs by proposing integrated services that cover business planning to management, aiming to expand a stable source of earnings.

Public and Private Partnerships (PPP)

- Waste-to-Energy Plants
- Aqua business

Recycling

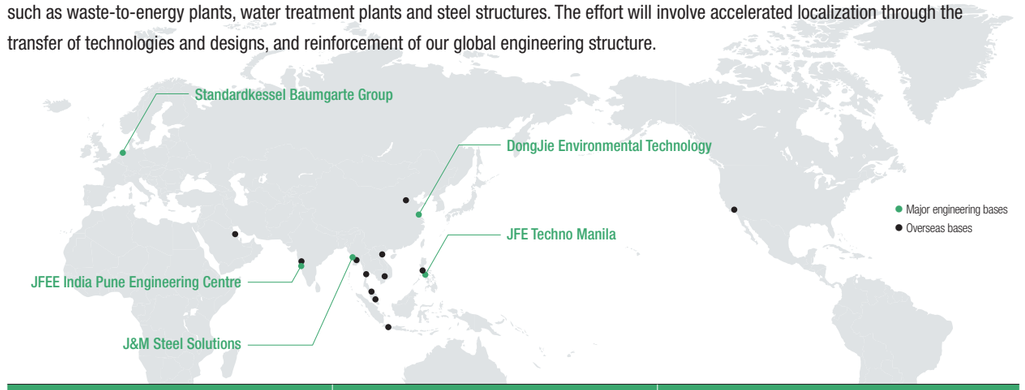
- Industrial waste, food and consumer appliance recycling
- Contaminated soil and PCB waste management

Power generation and electricity

- Retail sales of electricity and regional new power system
- Renewable-energy power generation
- Energy Supply Provider (ESP) business

Core Strategy 2 Profitable overseas businesses

Centering on bases outside of Japan, we will steadily achieve profitable overseas businesses by focusing on product fields in which we excel, such as waste-to-energy plants, water treatment plants and steel structures. The effort will involve accelerated localization through the transfer of technologies and designs, and reinforcement of our global engineering structure.



Base	Business	Initiative(s) under Sixth Medium-term Business Plan
Standardkessel Baumgarte Group	Comprehensive engineering for Waste-to-Energy plants	Focus on large scale Waste-to-Energy plants in Europe and Asia
J&M Steel Solutions	Designing and manufacturing steel structures	Acquire more orders from outside of Myanmar Develop new product fields
JFE Techno Manila	Planning, designing and project management in all product fields	Reinforce human resources for overseas project Enhance functions as a branch of Global Remote Center
JFEE India Pune Engineering Centre	Planning and designing of Waste-to-Energy plants	Become a design hub for overseas projects: e.g. Waste-to-Energy plants
DongJie Environmental Technology	Comprehensive engineering for Waste-to-Energy plants	Focus on Waste-to-Energy plants in China

Core Strategy 3 Development and investments for the future

We will invest 50 billion yen intensively in the fields that will support the next medium-term business plan, such as operating business, overseas businesses and AI and IoT. We aim to increase the number of orders by speedily developing and supplying new products that meet the needs of customers and markets.

Investment targets

- Operating business
- Overseas businesses
- AI and IoT

Major development themes

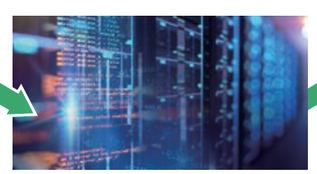
Highly efficient waste power generation	Sludge incinerator power generation	Electricity storage systems
Automated plant operations	ICT-supported smart manufacturing	Robot-supported plant construction

Automated plant operations

Vigorous investment in AI-supported automated-operation technologies for Waste-to-Energy Plants

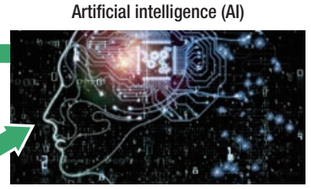
Plants

Incineration image analysis: AI enables real-time analysis, monitoring and control of incineration at Waste-to-Energy Plants



Big data server

Artificial intelligence (AI)



AI enables the accumulation, management and on-site search of operations know-how and maintenance information.

Overview

1 Completion of Toyohashi Biomass Utilization Center

This facility, one of the largest composite-biomass facilities in Japan, generates electricity with biogas generated from methane derived from sewage and septic tank sludge and raw garbage. Previously, these three biomass sources had been processed separately. The residue generated from methane fermentation is also carbonized into fuel. Toyohashi Bio-will, a private-finance-initiative (PFI) operator, has commissioned JFE Engineering to construct, operate and maintain the facility for the next 20 years.

2 Completion of Kesennuma Oshima Bridge, one of the East Japan's longest arch bridges

The Kesennuma Oshima Bridge (also known as Tsurukame Ohashi), one of the longest (356m) arch bridges in East Japan, was completed to connect Kesennuma, Miyagi Prefecture, with Oshima Island. JFE Engineering employed a single-operation erection, drawing on extensive know-how it has cultivated in domestic and overseas construction business. The much-anticipated bridge has been long awaited by local residents, who have had to use boats for the journey up to this time. This is the first-ever island bridge in the Tohoku area and a symbol of the Tohoku's recovery from the Great East Japan Earthquake in 2011.

3 Installation of pier jacket begun at Thilawa Port in Myanmar

Installation work on a pier jacket at Thilawa Port began through a joint venture with TOYO CONSTRUCTION. Myanmar Port Authority placed the order as part of the country's build-up of port facilities in the Thilawa Special Economic Zone (SEZ) of Yangon. The installation work is being implemented as Official Development Assistance (ODA) from the Government of Japan. The pier was manufactured by J&M Steel Solutions, a joint venture between Myanmar and JFE Engineering that is creating jobs for local citizens.

4 Installation of giant crane in Tokyo port

At the Port of Tokyo, which handles more containers than any other port in Japan, JFE Engineering has installed three container cranes, each with a total length of 108m and height of 53m. They are located in the Y1 berth area near Haneda International Airport, so they feature center-folding mechanisms to conform to aviation-related height regulations. For maintenance and inspections, the cranes incorporate a surveillance system to monitor cargo from the company's Yokohama Head Office.

5 Steady progress in processing disaster waste from Fukushima

JFE Engineering has been incinerating and otherwise processing waste related to the 2011 disaster in Fukushima Prefecture. Five temporary incinerators have been installed in the prefecture to process waste at Katsurao, Minamisoma (furnaces 1 and 2), Date and Naraha. A sixth facility is currently under construction in Futaba. The company is applying its total know-how based on extensive experience to contribute to the reconstruction of Fukushima.

(Photo) Temporary incinerator facility in Naraha

6 Completion of submarine shield pipeline across Nagoya Port

JFE Engineering completed a 5km submarine shield tunnel that supplies natural gas to the West Nagoya Thermal Power Plant for Chubu Electric Power. The plant, which had previously used petroleum as fuel, has been relaunched as an efficient natural-gas power plant with reduced CO_2 emissions. All Chubu Electric Power thermal power plants in Ise Bay have been connected to the natural gas supply network, aiming to realize more stable fuel supplies and more efficient operations.

2017 Highlights

2017

April
- Started operation of two new Cycle Tree® automated bicycle-parking structures in Tokyo
- Introduced telework system
- Began developing BOG re-liquefaction device in partnership with AG&P in Philippines
- Started operation, maintenance and management services for water facilities throughout Fukuyama city
- Completed 50MW biomass power plant for SIGMA POWER Ariake
- Started operation of center-folding container cranes at Matsuyama Port
- Received order from Morioka Shiwa Environmental Facilities Association to improve principal waste-incineration facilities
- Delivered PET diagnosis system to Yamanashi PET imaging clinic

May
- Started operation of smart agriculture plants in Sapporo city
- Received an order for two container cranes for to be installed in the Oi Container Terminal in Tokyo
- Completed the first Waste-to-Energy plant in Myanmar

June
- Completed LNG reload facilities in Sodeshi
- Received order for Meguro Clean Plant from Clean Authority of Tokyo

July
- Completed steam turbine for Ube Industries
- Received order for an expansion of chemical plant in Singapore

August
- Formed partnership with The Nisshin OilliO Group to optimize energy at its Japan bases

September
- Completed submarine shield pipeline for Chubu Electric Power
- Signed memorandum to promote smart agriculture business with Russia's state-owned Sberbank
- Completed second Kuchidaki elevated bridge for Sanindo Taki/Asayama Road

October
- Completed construction of composite biomass energy facility in Toyohashi
- Received order from Imaizumi Factory in Sendai to improve principal facilities
- Received order from Thailand for industrial waste power plant
- Signed contract with Hamamatsu to operate public sewage treatment plants
- Completed container cranes at Y1 berth in Port of Tokyo
- Completed Kesennuma Oshima Bridge

November
- Awarded 2017 Good Design Award for water steel pipe for crossing faults
- Received order from Sri Lanka for elevated bridge
- Completed first smart agriculture plant in Niigata Prefecture
- Started talks with Tokorozawa city, etc. for regional power system using renewable energy
- SBG: Received order in Germany for waste-heat recovery boilers
- Received order from Sasayama Clean Center to improve facilities for waste incineration
- SBG: Received order in Scotland for Waste-to-Energy plant

December
- JFE Kankyo: Started operation of plastic pallet recycling factory
- Received order from Tokorozawa East Clean Center to refurbish and operate facility long-term

2018

January
- MiReLiS® BOG re-liquefaction facilities received Energy Conservation Grand Prize's Minister of Economy, Trade and Industry Prize for excellent energy conservation equipment
- Received order from Tokyo Gas to construct principal gas pipelines in Ibaraki Prefecture

February
- Awarded Japan Institute of Energy Award for application of counterflow combustion to waste power generation

March
- Received order to construct city-gas distribution facilities for Ohgishima
- Received order from Futaba, Fukushima Prefecture for disaster-waste processing
- Released Japan's first explosion-proof access point for advanced radio communication
- Established Global Remote Center in Yokohama Head Office
- Completed seismic retrofitting work for receiving pier at Chita LNG base

Naosuke Oda
President & CEO
JFE Shoji Trade Corporation

Trading Business

Growing sustainably with customers as a company with presence

JFE Shoji Trade reinforced its corporate culture while working to boost the profitability of its domestic and overseas companies during the Fifth Medium-term Business Plan. Our overseas profitability increased dramatically, backed by the stable foundation of our domestic core, and we achieved our profits targets for the medium term. Although profits were focused on trading income, including sales and procurements of steel products, raw materials and equipment, consolidated income amounted to more than double non-consolidated income, reflecting our greatly expanded business income in the processing and distribution fields, especially among our group companies. Such positive results were a clear sign that our profits structure is evolving favorably.

Creating a stable profits base and striving to boost profits

We will strive to establish a solid footing under current conditions while also moving aggressively to realize future growth, stabilize our profits base and increase profits through trading and other business activities under the Sixth Medium-term Business Plan.

Regarding our core profits–trading income–we will make the best possible use of the JFE Group's resources as well as expand transactions outside the Group.

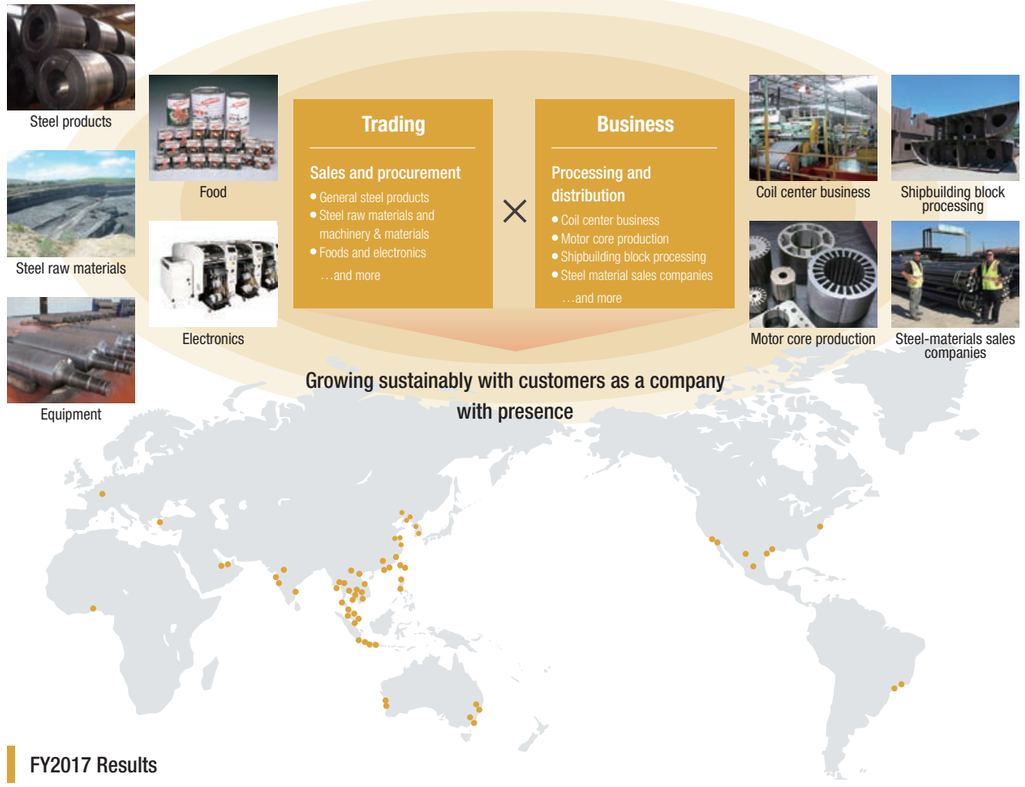
For business income, in addition to strengthening both upstream and downstream factors and reinforcing processing and distribution operations, we will use M&A to expand the scope of our activities.

Although the Japanese business environment is expected to remain firm and stable, demand will decrease over the medium to long term. For this reason, we will optimize our processing and sales systems, including through reorganization and consolidation in non-conventional areas. A four-region structure centering on Japan but also including China, the Americas and ASEAN will be introduced to ensure that we can respond to growing overseas demand and generate well-balanced global profits.

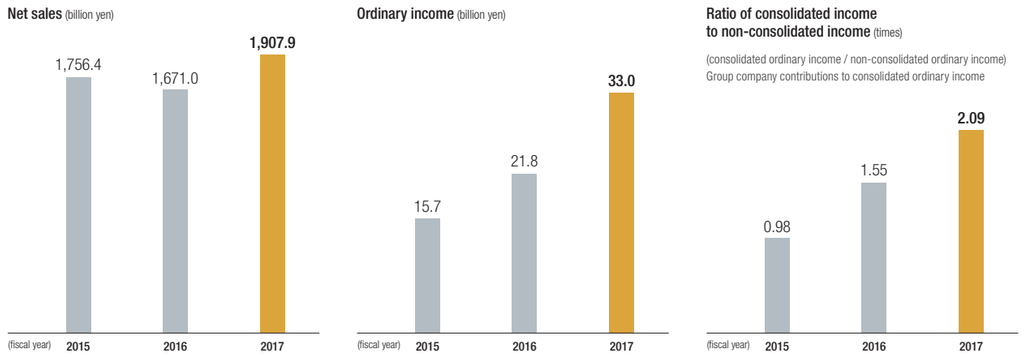
We aim to establish a stable profits base, both domestically and overseas, by implementing such measures to be a company of presence for our customers.

Business Overview

JFE Shoji Trade focuses on steel products but also handles steel materials, non-ferrous metals, chemicals, fuels, equipment, marine vessels and even food and electronics. The company provides global services that add value to supply chain operations including inventory, processing and retail sales. Its global network encompasses 94 companies in 19 countries.



FY2017 Results



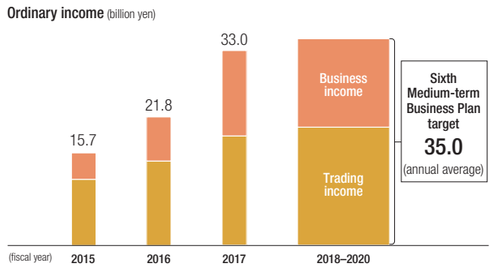
Sixth Medium-term Business Plan

Establish a stable profits base and increase profits through trading and business

We aim to grow sustainably with customers as a company with presence. We will firmly respond to market needs by enhancing our proposal and communication capabilities, establishing a stable profits base and reinforcing our global and regional strategies centered on Japan.

Profits target Consolidated Ordinary income

35 billion yen per year (annual average)



Core Strategies

1 Establish a stable Profits base (trading income + business income)
2 Reinforce global and regional initiatives (Japan, China, Americas and ASEAN)
3 Strengthen capabilities through increased training for core personnel and adoption of IT

Reinforce the global four-pillar system (Japan, China, the Americas, ASEAN) centered on Japan

We will boost trading and business income through increased collaboration between overseas bases, along with collaboration between our headquarters and divisions

	Key themes \ Region	Japan	China	Americas	ASEAN	Other regions
Trading income	**Make full use of JFE Group resources** (materials from FHS, JFE Meranti, JSW India, etc.)		Increase transaction amount for handling materials from overseas alliances		Raw materials for FHS and equipment sales	
	Boost transactions outside of JFE Group (leverage knowledge and expertise regarding internal transactions)	Expand sales into electricity field		Increase transactions with steel manufacturers outside of Group		
Business income	**Increased downstream initiatives** (detailed analyses of growing fields for secondary and tertiary processing, and new retail sale systems)	Added-value processing of construction materials and steel pipe	Electrical steel sheet press processing (in-vehicle motor cores)	Secondary and tertiary processing for electrical steel sheets (iron cores for transformers)		
	Reinforce existing operations (enhance and complement functions for maintaining and boosting profitability)	Enhance processing and distribution businesses	Reinforce food and electronics businesses			
	Enter new fields (expand regions, merchandise and grades, and participate in local supply chains)			Construction material field Energy field Expand business scope through M&A		

Overview

1 Major reinforcement of motor-core compress capacity to enhance downstream factors

Our operating company in China, Zhejiang JFE Shoji Steel Products (KSZ), reinforced its press and peripheral equipment from 2017 to 2018 to increase its production of motor cores, the main component of high-efficiency motors for vehicles, etc., for which demand is rapidly increasing. It has established a motor-core manufacturing base with a monthly production capacity of over 4,000 tons, making this plant one of the top producers in the world. KSZ is now striving for stable mass production and sales of these motor cores, which are difficult to manufacture. It also is considering production of driving motors for electric vehicles.

2 Invested in Suga Steel's Thai plate processing and sales company

We acquired shares in Suga Steel (Thailand) Co., Ltd., a subsidiary of plate processor Suga Steel Co., Ltd., our first such investment in Thailand. The company was founded in 2012 and has been processing and selling plate-fusing products, mainly for Japanese construction equipment manufacturers in Thailand. In view of the expected increase in demand for construction equipment, we will coordinate sales strategies with Suga Steel (Thailand) to respond effectively to the needs of our customers in Thailand.

2017 Highlights

2017

April
- Established ASEAN Business Division
- Qualified as Premier Partner of Fuji Xerox for sixth consecutive year
- JFE Shoji Steel Indonesia received Best Partner Prize from PT. Suzuki IndoMobil Motor, automaker Suzuki's manufacturing base in Indonesia

May
- JFE Shoji Electronics formed capital alliance with Routrek Networks to develop ZeRo. Agri soil hydroponic system for greenhouse digital farming

July
- Reinforced motor core press capabilities at KSZ

August
- JFE Shoji Steel Malaysia named Best Partner by Panasonic Appliances Airconditioning Malaysia

October
- Tohsen and JFE Shoji Trade Steel Construction Materials invested in Mitsuwa Tekken steel materials processing company
- Niigata Steel's plate operations (Kashiwazaki Plant) transferred to Hokuriku Steel
- JFE Steel, Meranti Steel and two other trading companies established JFE Meranti Myanmar
- Kitakanto Steel updated its fusing facilities and reinforced its extra-thick plate processing functions

November
- JFE Shoji Trade America, Prolamsa and Sankin Corporation and Pro-SANKIN Tuberia de Precision celebrated the start of their cold-drawn tube joint venture

December
- Steel materials processor Thailand Steel Alliance Service Center acquired inspection certificate from JFE Steel Galvanizing (Thailand)
- Mizushima Steel Corporation installed new slitter line and reinforced sheet processing capabilities

2018

January
- Invested in Suga Steel (Thailand), Suga Steel's subsidiary for plate processing and sales

February
- Celebrated JFE Shoji Usuitakenzai's 10th anniversary
- Named to 2018 Certified Health and Productivity Management Organization Recognition Program's "White 500" large enterprise category

March
- Kawasho Food Corporation's imported Chilean wine, Caleuche Classic Carmenere 2016, received Diamond Trophy from SAKURA Japan Women's Wine Awards 2018
- Wound iron-core manufacturer JFE Shoji Cormec celebrated 50th anniversary

Kotaro Chiba

President & CEO
Japan Marine United Corporation

First Malaccamax-type very large crude oil carrier (VLCC), "Eneos Arrow", completed in December 2017

500-ton patrol vessel, "HITACHI" for Japan Coast Guard, completed in February 2018

Established shipbuilding

Business as equity-method affiliate

Contributing to the ship and offshore field with the finest products and services

Japan Marine United Corporation was founded in 2013 by consolidating the shipbuilding divisions of four steel or heavy-industry companies. As Japan's top shipbuilding company boasting a leading combination of engineers and research facilities, we can respond with unmatched skill to demands for advanced merchant vessels, naval ships and other offshore undertakings. To fulfill our mission of supplying customers with newest and best ships, we are continually reinforcing our development, technological and manufacturing capabilities as well as swiftly adopting the latest environmental and ICT technologies.

Upgrading our business performance as the shipbuilding market recovers

Although a perception of over-tonnage persisted in the market due to expanding construction capabilities and mass-construction initiatives in China and South Korea, the market for new merchant vessels is gradually recovering. The most pressing issue for our company, which has continued to struggle, is to recover our business performance in an upward-trending market. We will channel all of our efforts into achieving this goal, including by reinforcing our competitive power through employee education, work reviews and deepened communication not only internally but also with our client, Maritime Cluster.

Reaching new heights with leading environmental and energy-saving technologies

Many technologies are transcending industrial boundaries. This is also true in the world of shipbuilding. Through research, we are working to lower environmental impact through highly fuel-efficient ships and to automate ship operations for increased marine-transport safety. We believe that these and other initiatives hold great promise for our future business. Meanwhile, in our journey to become a world-class company we will leverage our proven shipbuilding technologies to swiftly meet needs for ships equipped with leading environmental and energy-saving technologies.

Overview

1

2

1 Completion of a large passenger/car ferry "SUNFLOWER FURANO"

Japan Marine United completed the large passenger/car ferry "SUNFLOWER FURANO" at its Yokohama Shipyard (Isogo Works) and delivered to MOL Ferry Co. in April 2017. Entered service between Oarai, Ibaraki Prefecture, and Tomakomai, Hokkaido Prefecture, the vessel carries 590 passengers, 160 large trucks and 100 passenger cars. Its optimized design incorporates greenhouse gas-reduction and excellent fuel-saving technologies such as contra-rotating propellers. Also, its hybrid propulsion system uses both engines and motors as driving sources to ensure that the vessel is highly maneuverable, a vital attribute for a large ferry. It also offers special features for extra-comfortable passenger cabins. Going forward, the "SUNFLOWER FURANO" is expected to enjoy a long life as a cherished ferry that is both friendly to the environment and passengers.

Vessel overview

Principal dimensions	Length (o.a.) 199.7m x Breadth 27.2m
Gross Tonnage	13,816
Service speed	24 knots

2 Completion of "JFE VENUS" product transport vessel for JFE Steel

Japan Marine United also constructed ,"JFE VENUS", cargo ship at its Yokohama Shipyard (Isogo Works) and delivered it to Toyokaiun Co., Ltd. in January 2018. The "JFE VENUS" is chartered by JFE Logistics Corporation to transport products for JFE Steel Corporation. As a Ro-Ro (roll-on/roll-off) vessel, it is equipped with special ramps that connect to berths to allow wheeled vehicles with products to be driven directly on and off the vessel. Designed and built with JMU's world-top class technological capabilities, it incorporates advanced features for energy savings, safety and operability. Excellent fuel efficiency is achieved with an improved stern shape and low-friction hull coating paint. Enhanced maintenance and operability promote extra-efficient loading/ unloading operations and the crew cabins are also improved more confortably.

Vessel overview

Principal dimensions	Length (o.a.) 151.3m x Breadth 30.0m
Deadweight	6,200 tons
Gross Tonnage	9,378
Main engine	Two Hanshin Diesel Works LA34G diesel engines
Service speed	11 knots
Complement	15

2017 Highlights

2017

- **April**: Delivered the first ship, "SUNFLOWER FURANO", a large passenger/car ferry
- **July**: "DRIVE GREEN HIGHWAY", a large car-carrier received the Ship of the Year 2016's Grand Award; "NYK BLUE JAY", a mega-container ship received Ship of the Year 2016's award in Large Cargo Ship category
- **October**: Participated in Project for Ship Performance Evaluation on Actual Seas, a joint research project hosted by multiple marine organizations in Japan
- **December**: JMU employee awarded nation's The Order of the Sacred Treasure, Silver Rays during Autumn Conferment of Decorations for contribution to steel stress relief skills
- **December**: Delivered "ENEOS ARROW", Malaccamax-type very-large crude oil carrier, the first design of JMU's latest energy-efficient oil tanker

2018

- **January**: JMU, JFE Steel Corporation and IHI Corporation received the Seventh Monozukuri Nippon Grand Award's Prime Minister's Prize for brittle-crack arrest technology applied to mega-container carriers; Delivered "JFE VENUS", Ro-Ro cargo ship chartered by JFE Logistics for transportation of JFE Steel's products
- **March**: Delivered "HIRADO", the largest FRP minesweeper to Japan Maritime Self-Defense Force