NIPPON STEEL

# Nippon Steel Integrated Report

# 2019

Nippon Steel Corporation Integrated Report 2019 (April 2018 to March 2019)

NIPPON STEEL CORPORATION





## Editorial Policy

Nippon Steel has decided to publish an integrated report from fiscal 2019 onward, instead of an annual report which has been published in the past.

To facilitate deeper understanding of the company, this report not only covers the current status of business and other financial information, but also describes the special properties of steel, the company's corporate philosophy and history, the company's value-creating story toward future growth in anticipation of future risks and opportunities, as well as ESG (Environmental, Social, Governance) initiatives, which are the base supporting sustainable growth.

We sincerely hope that this integrated report helps stakeholders better understand Nippon Steel.

We plan to continue improving the report in the years ahead.

In addition to making continued efforts to gain the understanding of stakeholders through publication of the integrated report, we will continue to do our best in achieving sustainable growth of our basic business.

**Period covered**
Fiscal 2018 (April 1, 2018 – March 31, 2019)

**Organizations covered**
Nippon Steel Corporation and
Nippon Steel Group companies

**Publication date**
November 2019

**Reference for guidelines**

- The International Integrated Reporting Framework(IIRC)
- The Guidance for Collaborative Value Creation(the Ministry of Economy, Trade and Industry)
- Environmental Reporting Guidelines 2018 (the Ministry of the Environment)

In preparing this report, we have referred to the following guidelines and materials in identifying materiality among ESG initiatives.

- Sustainability Reporting Standards (Global Reporting Initiative)
- ISO 26000
- Various ESG rating and evaluations

## Contents








# Corporate philosophy / Group's values / Group's contribution to SDGs

NIPPON STEEL

A shared brandmark for Nippon Steel and the Nippon Steel Group companies, adopted on April 1, 2019 on the occasion of its trade name change to Nippon Steel Corporation

Nippon Steel is moving ahead as a growing global steelmaker with origins in Japan, incorporating a diversity of DNAs of people and companies

## Corporate Philosophy

**Our Values**

Nippon Steel Corporation Group will pursue world-leading technologies and manufacturing capabilities, and contribute to society by providing excellent products and services.

**Management Principles**

1. We continue to emphasize the importance of integrity and reliability in our actions.
2. We provide products and services that benefit society, and grow in partnership with our customers.
3. We pursue world-leading technologies and manufacturing capabilities.
4. We continually anticipate and address future changes, innovate from within, and pursue unending progress.
5. We develop and bring out the best in our people to make our Group rich with energy and enthusiasm.

## Nippon Steel Group's Values

- Paying every possible attention to critical matters of safety, environment, disaster prevention, quality, and compliance is basic to our existence as a responsible manufacturing company that delivers excellent products and services.
- The development of excellent personnel is a prerequisite for our production of excellent products.

### Our Thoughts Incorporated in the Corporate Logo

- Aiming to become the best steelmaker with world-leading capabilities
- Aiming at the summit
- Representing the unlimited future of steel

The triangle in the logo represents a blast furnace and the people who create steel. It reflects the fact that steel, indispensable for civilization, brightens the world. The center point can be viewed as a summit, representing the best steelmaker. It can be also viewed as the destination of a road, representing the unlimited future of steel as a material. The blue color represents leading technology and reliability.

## Nippon Steel Group's Contribution to SDGs

In keeping with our dedication to the Nippon Steel Group's pursuit of world-leading technologies and manufacturing capabilities, and to contribute to society by providing excellent products and services, we have taken up numerous challenges in order to play an important role supporting social infrastructure through steelmaking. We firmly believe that contributing to the development of a sustainable society through our group's initiatives will also work for achievement of the United Nations' 2030 Agenda for Sustainable Development, featuring Sustainable Development Goals (SDGs).

SUSTAINABLE DEVELOPMENT GOALS

1 NO POVERTY · 2 ZERO HUNGER · 3 GOOD HEALTH AND WELL-BEING · 4 QUALITY EDUCATION · 5 GENDER EQUALITY · 6 CLEAN WATER AND SANITATION · 7 AFFORDABLE AND CLEAN ENERGY · 8 DECENT WORK AND ECONOMIC GROWTH · 9 INDUSTRY, INNOVATION AND INFRASTRUCTURE · 10 REDUCED INEQUALITIES · 11 SUSTAINABLE CITIES AND COMMUNITIES · 12 RESPONSIBLE CONSUMPTION AND PRODUCTION · 13 CLIMATE ACTION · 14 LIFE BELOW WATER · 15 LIFE ON LAND · 16 PEACE, JUSTICE AND STRONG INSTITUTIONS · 17 PARTNERSHIPS FOR THE GOALS

## Nippon Steel's E (Environment), S (Social), G (Governance) Materiality

| | |
|---|---|
| 1 Safety, environment, disaster prevention | (1) Industrial Safety and Health<br>(2) Environment: ① Measures to prevent global warming; ② Contributing to construction of Circular Economy; ③ Environmental risk management<br>(3) Disaster prevention |
| 2 Quality | (1) Quality control and assuarance<br>(2) R&D and intellectual property management<br>(3) Solutions that result in customer satisfaction |
| 3 Production | (1) Stable production and supply |
| 4 Securing and fostering of personnel | (1) Respect for human rights and Diversity & Inclusion<br>(2) Utilization and fostering of personnel<br>(3) Health enhancement |
| 5 Harmony with local communities and society | (1) Environmental preservation/creation activities in communities<br>(2) Contribution to society mainly in the support of education, sports, and arts |
| 6 Corporate value enhancement and profit distribution | (1) Generation of profit and corporate value enhancement<br>(2) Profit distribution |
| Thorough implementation of compliance | Adhering to laws and regulations as a base of all activities |

# Steel for all of us and the Earth

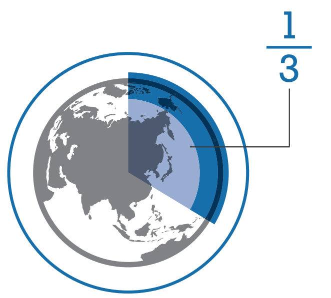
Steel is one of the most familiar materials of which things are made and is indispensable for our daily lives. With its diverse properties and infinite potential, steel can be recycled endlessly, contributing to reduction in environmental impact and to a sustainable society.

Steel for all of us and the Earth

## Earth is an "iron planet"

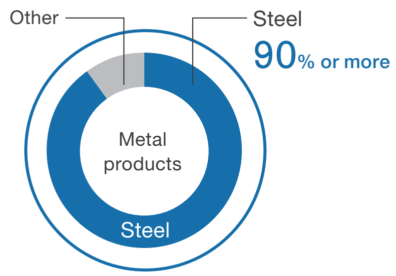
### Steel is an abundant, easy to procure, and sustainable material

Iron is believed to constitute one-third of the Earth's weight.




Steel is an affordable material and is cheaper than water in a plastic bottle (in comparing price per unit weight).


Steel represents 90% or more of metal products, as steel, being abundant, cheap, and having good workability, has a wide range of applications.

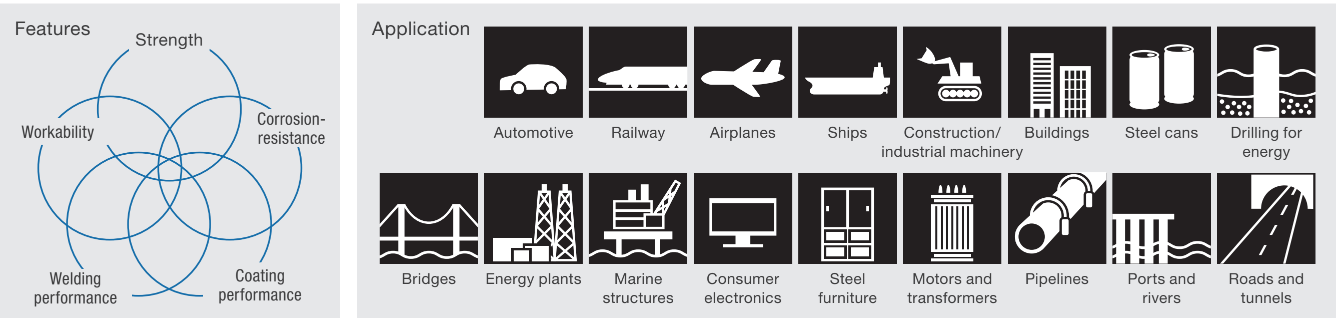



## Diverse properties and infinite potential of steel

### Diverse properties and a wide range of applications

Due to diverse advantages such as strength and easiness to work, steel has been used in a wide range of applications and deserves recognition as the most outstanding material for the infrastructure of society, a material that supports people's lives and overall economic development. Steel is close to us and we cannot live without steel products.

Steel is for here for all of us now and will be with us in the future.



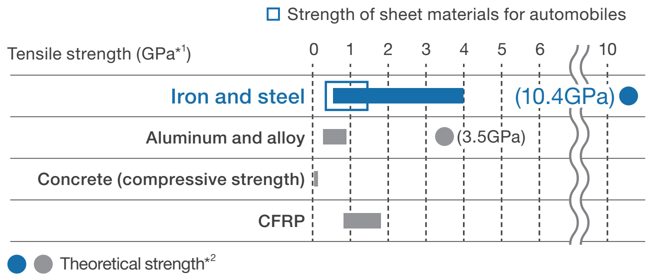

### Infinite potential

Steel is a material with great potential due, in part, to its having a much higher theoretical strength than other materials.

Steel can also be described as a natural composite material to be adjusted for specific uses by controlling the level of carbon content. This also imparts diverse properties to it.

In addition to adjusting carbon and other content, steel's properties can be advanced by controlling the combination of its temperature and rolling at the manufacturing stage. The greater the understanding of the nature of different kinds of steel, the greater is its potential and real value.

**Potential capacity and present application level of material strength**




*1:Gigapascal (GPa) is a unit to measure tensile strength. Giga denotes a factor of one billion ($10^9$).

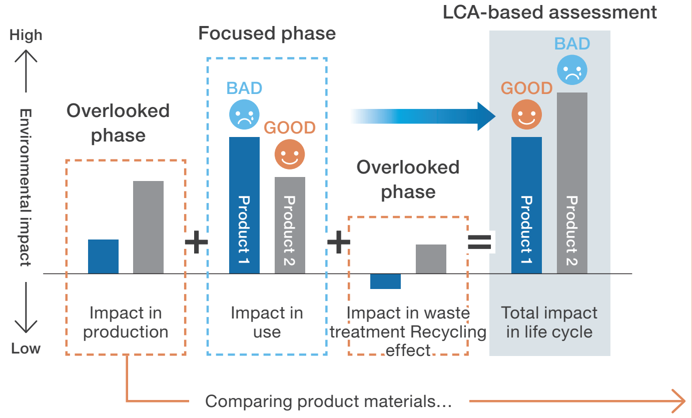
*2:Theoretical strength is said to be 1/5 to 1/7.5 of the modulus of rigidity. The above data uses 1/7.5.



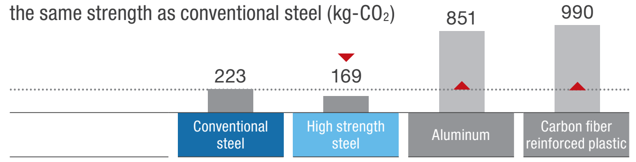
## Steel as Environmentally Friendly Material Recycled endlessly into all kinds of steel products

Life Cycle Assessment Thinking is important when assessing environmental impacts of products such as vehicles and buildings. It means to think about the entire life cycle of what we make, from production of the raw materials to the end of useful life and ultimate disposal of what we have produced and used, and the environmental impact at each phase. Through environmentally friendly steelmaking, thinking over life cycle of products, we are contributing to reduction of the environmental impact of products that support our life and industry.

### Thinking of the environment in a product life cycle: LCA-based assessment




Comparison of $CO_2$ emission in producing an automotive part that has the same strength as conventional steel (kg-$CO_2$)




| | Conventional steel | High strength steel | Aluminum | Carbon fiber reinforced plastic |
|---|---|---|---|---|
| Weight per equivalent performance (kg-material) | 100 | 75 | 67 | 45 |
| $CO_2$ emissions per unit weight (kg-$CO_2$/kg-material) | 2.2 | 2.3 | 12.7 | 22.0 |

**Steel's environmental impact in production is extremely low,** despite steel being heavier than other materials.

* The high strength steel weighs 25% less than conventional steel and causes less environmental impact.

Source: WorldAutoSteel

### Steel is a material with enabling infinite recycling

Steel is a flexible material that has a sustainable recycling system, contributing to reduction of the of environmental impact of products.

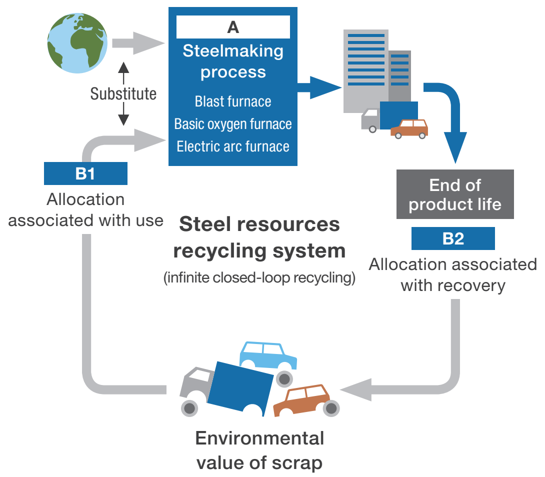
**Requirements for sustainable material recycling**

| | |
|---|---|
| **1 Easy to sort** | Steel is easily sorted from other materials due to its magnetic property. |
| **2 Lower environmental impact in recycling** | Recycling of steel scrap consumes less energy and has less environmental impact than production from natural resources. |
| **3 Existence of an economically practical recycling system** | Steel has established a global, economically practical recycling system, spanning both recovery and recycling. |

**Additional requirements required for close-loop recycling**

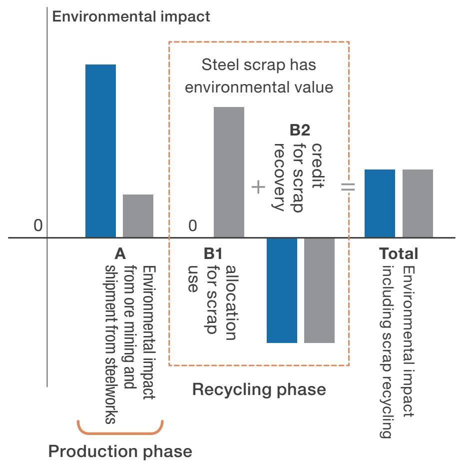
| | |
|---|---|
| **4 Less degradation in quality by recycling** | Most of impurities which cause degradation of quality in steel scrap can be removed in recycling process. |
| **5 Adaptable for making diverse steel products** | Steel scrap can be recycled to make a wide variety of steel products, because the performance of recycled steel can be controlled to match requirements mainly by micro structure control by a thermal process, not mainly by alloying. |

**Life cycle of steel products**




**LCA Methodology of worldsteel and the way of thinking** ISO20915, JISQ20915

Steel made in blast furnaces and steel made in electric arc furnaces have the same environmental impact




Environmental impact in the steelmaking process alone is higher for the blast furnace method (BF) than for the electric arc furnace method (EAF), due to $CO_2$ generation in iron ore reduction (A). However, when scrap recycling effect is included, environmental impact in use (B1) and recovery (B2) of scrap must also be incorporated. In total, environmental impacts of both methods are the same over the life cycle of steel (Total).

# History of our development and vision in the future

Nippon Steel has been growing as a global leading steelmaker for many decades, overcoming crises many times.
Our aim is to advance toward "the best steelmaker with world-leading capabilities" by incorporating a diversity of DNAs of people and companies and taking up the challenges of making major reforms, which can be described as the second foundation of the company, to achieve further global growth.
While providing products and solutions that contribute to world growth, we strive to enhance corporate value and also contribute to realization of the United Nations' Sustainable Development Goals (SDGs).

### ▶ World steel production long-term forecasts

World population growth (7.4 billion in 2015 to 9.8 billion in 2050), economic growth mainly in emerging countries, and initiatives for SDGs are expected to significantly boost world steel demand toward 2050. Use of scrap will increase, as generation of disposed scrap increases in proportion to an increase in steel stock. Steel demand growth is unlikely to be fully satisfied by steel made of scrap, and therefore filled by steel made in blast furnaces at the current level of production.

Source: JISF

### ▶ Owned vehicle outlook by powertrain (million units)

Given an anticipated significant increase in the number of vehicles in operation, demand for steel is expected to increase. Also, progress in electrification is likely to raise demand for high-performance steel products.

| | 2015 | 2020 | 2050 |
|---|---|---|---|
| EV* | 2 | 23 | 796 |
| Internal combustion engine (ICE) vehicles | 1,119 | 1,234 | 1,202 |
| Of which, hybrid vehicles (HVs) | 13 | 31 | 307 |
| Total vehicles | 1,121 | 1,257 | 1,998 |
| Of which, plug-in hybrid vehicles (PHVs) and ICE vehicles | 1,119 | 1,244 | 1,656 |

*incl. PHV

Source: IEA

## 1 Products and solutions that contribute to sustainable growth

■ "Three Ecos" and development of innovative technology

| Three Ecos | | Development of innovative technology |
|---|---|---|
| Eco Process<br>Eco Products™<br>Eco Solutions | + | "Zero-carbon steel"<br>Challenge to realize super-innovative technologies<br>(Japan Iron and Steel Federation's long-term vision) |

■ Construction of Circular Economy

■ Solutions for "National Resilience"

Natural disaster prevention and mitigation; water control solutions to protect people's life

## 2 A supply framework amenable to global growth

Based on our long-established network for serving customers around the world, we have worked for optimal business development by product type and by region, identifying the supply/demand trend of steel products for each region, and doing so ahead of competitors.

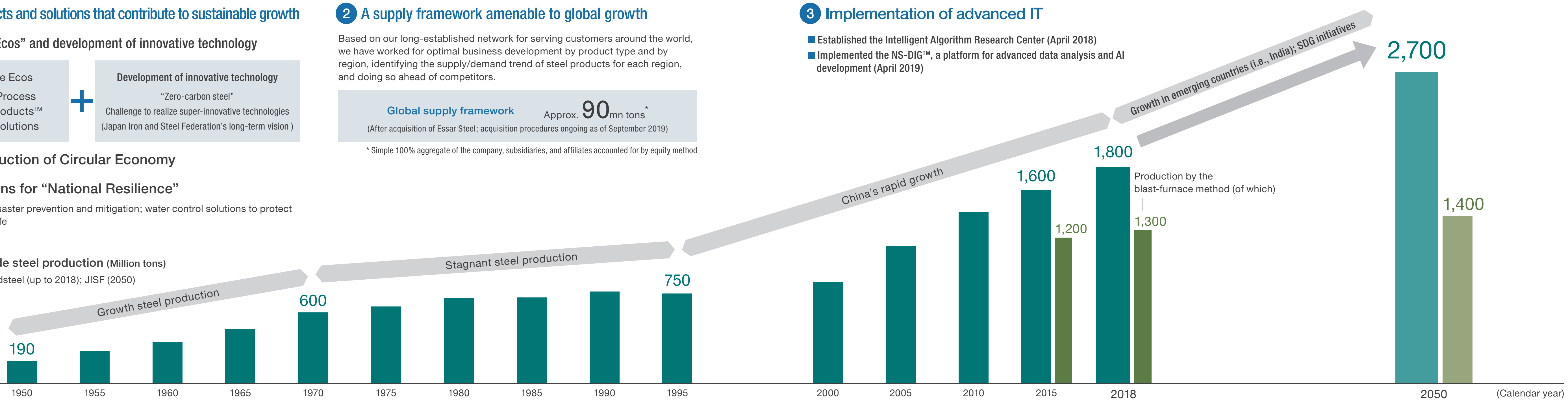
Global supply framework Approx. 90mn tons*
(After acquisition of Essar Steel; acquisition procedures ongoing as of September 2019)

* Simple 100% aggregate of the company, subsidiaries, and affiliates accounted for by equity method

## 3 Implementation of advanced IT

■ Established the Intelligent Algorithm Research Center (April 2018)
■ Implemented the NS-DIG™, a platform for advanced data analysis and AI development (April 2019)

World crude steel production (Million tons)
Source: worldsteel (up to 2018); JISF (2050)




## History of Nippon Steel

1973,1979 Oil shock | 1986 Plaza Accord (¥240 to ¥120/US$) | 1997 Kyoto Protocol | 2015 Paris Agreement

| Japan's high-growth period: Growth in integrated seaside steelworks | Promotion of energy saving, higher quality, higher grade steel products | Strong yen-caused recession; restructuring triggered by the bubble burst<br>Cost reduction measures; business diversification, then to streamlining | Domestic Steel industry consolidation; promotion of optimal production network and global business development |
|---|---|---|---|

Process reform: energy-saving, high-grade steel production led by Japan — Cf. technical assistance to USIMINAS, Posco and Baoshan Steel
Global environmental measures — Leading role in the JISF for $CO_2$ emission reduction — Implementation of advanced IT

- 1950 Yawata Iron & Steel and Fuji Iron & Steel were established
- 1952 Sumitomo Metals Industries was established
- 1970 Nippon Steel Corporation was formed (Yawata Iron & Steel and Fuji Iron & Steel merged)
- 2012 NIPPON STEEL & SUMITOMO METAL was formed (Nippon Steel and Sumitomo Metals merged)
- 2019 NIPPON STEEL (renamed)

Major steelworks' start of operation: 1958 Nagoya, 1965 Kimitsu, 1968 Kashima, 1971 Oita

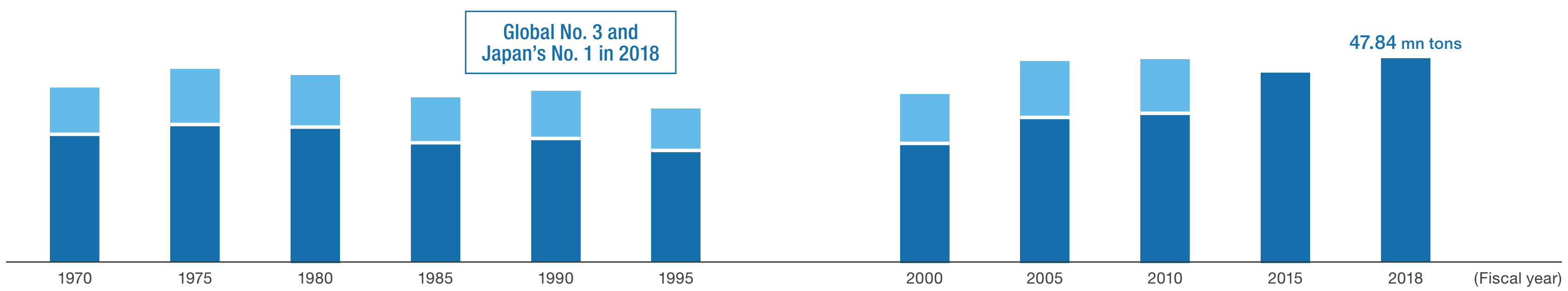
Global business development (main cases): 1958 USIMINAS (Brazil); 1990 I/ N Tek (USA); 1995 NS-SUS (Thailand); 2000 UNIGAL(Brazil); 2005 BNA (China); 2010 VSB (Brazil); 2014 AM/NS Calvert (USA); OVAKO to be a subsidiary (Sweden) 2018; 2019 Acquisition of Essar Steel (India)*

* Acquisition procedures ongoing as of September 2019

### What Nippon Steel has accomplished

- Among the first in Japan to build integrated seaside steelworks to realize efficient imports of raw materials, and production and shipment of products
- Being the frontrunner in the world in automation of steelmaking lines and technologies in energy saving and high-grade steel production
- Moved faster than competitors in overseas expansion, technological cooperation to other countries, and establishment of alliance and JVs with overseas major steelmakers
- Ensured the trust and credibility in society with our history, tradition, and a wealth of human resources who have high worksite capabilities
- Developed Steelmaking, Engineering & Construction, Chemicals & Materials, and System Solutions businesses, generating mutual synergies

■ Nippon Steel's crude steel production (after 2005, consolidated basis)
■ Former Sumitomo Metals




### Globally, continuously growing Nippon Steel

- Contributing to sustainable global growth on the strengths of advanced technologies, products and solutions, a wealth of human resources, manufacturing capabilities, a global supply network, and trust and credibility accumulated as a responsible leading company
- Committed to profit from global demand in steel, with our blast furnace method with world-leading specific energy consumption, and with scrap usage technologies of electric furnace steelmakers in our group
- Taking up a challenge in the area of super-innovative technologies toward the JISF's goal of realizing "zero-carbon" steel
- Rebuilding our "strength in manufacturing" in our mother mills in Japan, building and maintaining optimal production systems, enhancing "strength in sales and marketing, and grow in the world as the "best steelmaker with world-leading capabilities"

# Message from the President

I am Eiji Hashimoto, President of Nippon Steel Corporation since April 1, 2019.

Since October 2012, when the former Nippon Steel and the former Sumitomo Metal Industries merged to become Nippon Steel & Sumitomo Metal Corporation, we have promoted business development aggressively and implemented restructuring in Japan and abroad.

Recently, we have made Nippon Steel Nisshin our wholly-owned subsidiary. In the case of Sanyo Special Steel which also became our subsidiary, acquisition of Ovako in Sweden was included in the arrangement. Jointly with ArcelorMittal, we are now engaged in the process of acquiring Essar Steel, an integrated blast furnace steelmaker in India.

On April 1, 2019, we renamed ourselves as “Nippon Steel Corporation”, as moving ahead as a growing global steelmaker with origins in Japan, incorporating a diversity of DNAs of people and companies.

The Nippon Steel Group is making group-wide efforts to position ourselves as the best steelmaker with world-leading capabilities.


Representative Director and President
Eiji Hashimoto





# Current business environment and how we respond to it

## Shifting into an emerging severe environment

Looking back at fiscal 2018, the global economy continued to grow modestly and steel demand was firm in Japan and abroad. Nippon Steel's business results, however, left some unsolved issues.
While overseas and domestic Group Companies in the steelmaking segment and the non-steelmaking business segment, strengthened profitability, the non-consolidated steelmaking business effectively recorded a loss and has remained in a dire situation.
A turnaround in the non-consolidated steelmaking business therefore is our urgent and highest priority issue.
Sluggish production, in particular, is a grave problem. In addition to damage caused by typhoons and rain storms, blast furnace troubles in some steelworks were a major culprit, resulting in a significant decline in production.
Now in fiscal 2019, I recognize that we are facing a newly different environment from the recent past.
Up to now, the Japanese market had been robust but demand related to the 2020 Olympics Games in Tokyo is running its course while some of our customers' industries are beginning to experience a slowdown in exports and a decline in capital expenditures. A potential decline in demand after the hike in the consumption tax rate (from 8% to 10%) on October 1 is also a concern.
Looking overseas, the steel market appears unlikely to recover soon from its significant decline experienced in late 2018. The impact of the prolonged US-China disputes has been expanding and concerns over a decline in global economy and steel demand are spreading.
Meantime, China's government has promoted infrastructure investment to boost the economy and China's crude steel production has reached a record high, along with an increase in demand for bars and rod materials. These have boosted prices of iron ore and coal and "Another China Risk" has emerged in the form of a "strong raw material market vs. weak steel market" situation, bringing a new risk of margin compression to us. We are concerned over prolonging of this situation.
Further, the yen's exchange rates had been stable for some time but the potential appreciation of the yen is becoming worrisome.

## Four priority issues

While the environment is harsh, I, as the first president of the new Nippon Steel Corporation, am determined to strive my best with the aim of us becoming recognized as the world's No. 1 steelmaker in terms of market capitalization.
Many of our major steelworks are passing a 50-year milestone since the start of their operation. Our workforce is also experiencing a marked transition to the next generation.
In such an environment we are determined to achieve a major structural reform (called our "second foundation stage") and rebuild our profit base.
Let me discuss four priority issues we are tackling.

### 1 Take all possible measures related to safety, environment, disaster prevention, quality, and compliance

The first priority issue is to take all possible measures related to safety, environment, disaster prevention, quality, and compliance.
I believe that the trust afforded by society is the foundation of the existence of a company. As measures related to that, we have, so far, worked on the hard aspect, such as equipment and systems, as well as on the soft aspect, including rule setting and training. Going forward, we intend to accelerate mechanization, automation (reduction in manual work), and adoption of advanced IT.

### 2 Rebuild and reinforce our profit base in the core steelmaking business

The second priority issue is to rebuild and reinforce our profit base in the core steelmaking business. In other words, we must rebuild our "strength in manufacturing" and enhance our "strength in sales and marketing."

**Rebuilding our "strength in manufacturing"**

Concerning rebuilding our "strength in manufacturing," we are making group-wide efforts to eliminate production cuts caused by operational or equipment trouble and to carry out production as planned in line with demand.
To be specific, we seek to make steady improvement by visualizing the know-how of our veteran workers, standardizing Monozukuri (manufacturing), which is the base for achieving higher efficiency and advancement, enhancing the management ability of line managers in operation and maintenance, and providing concentrated support by our corporate-wide experts to a particular steelworks, process, or equipment in trouble.
By raising the level of the process or equipment which we are working to improve, we are making sure to recover the overall production capability.

**Enhancing our "strength in sales and marketing"**

In order to enhance our "strength in sales and marketing," we seek to build a coexisting relationship that shares the burden of cost increases across the supply chain. We also pursue realizing appropriate prices that reflect the value of our contribution to satisfy customers' needs, and prices that we need in order to continue production and rebuild manufacturing capabilities of both facilities and those who operate them.
We regard such rebuilding of ourselves as indispensable at our "second foundation stage," together with our new corporate name.

Building a coexisting relationship that shares the burden of cost increases across the supply chain

We are in the midst of significant increases in the cost of auxiliary and other materials, and of logistics, in addition to main raw materials, iron ore and coal.
Our customers and we are a part of a supply chain that provides value to society. While we, the steelmaker, are positioned in the upstream of the supply chain, we alone cannot absorb all of such cost increases.
We certainly make utmost efforts to absorb the cost increase but ask our customers in the downstream of the supply chain to take a fair portion of the burden, with the hope of building a coexisting relationship.

Realizing appropriate prices that reflect the value of our contributions to satisfy customers' needs

In addition to development and production of high-grade steel products that meet customers' requirements, Nippon Steel proposes solutions that satisfy the customers' diverse needs.
We have also been expanding our global steel product supply network in alignment with our customers' global expansion.
We aim at realizing appropriate prices that reflect the value of our products and our comprehensive contributions to customers.

Realizing prices that we need in order to continue production and rebuild manufacturing capabilities of both facilities and those who operate them at the current "second foundation stage"

Many of our steelworks are passing a 50-year milestone since the start of their operation. Our workforce is also undergoing drastic generation changes.
By continuing production in Japan, we believe that we can effectively serve our customers by using our strength in development and production at our steelworks and research centers in Japan.
This is why we aim at realizing prices that will allow us continue production.

**Shift to "profitability-oriented production"**

Meantime, the overseas steel market is unlikely to recover from a significant decline that developed in late 2018 and the impact of the prolonged US-China disputes has been expanding. We have therefore decided to make a shift from "full potential production" to "profitability-oriented production," in view of the deterioration of margins in the overseas spot markets and a demand decrease in some export industries in Japan.

### 3 Growth strategy aimed at raising corporate value

The third priority issue relates to a growth strategy aimed at raising corporate value

**Promoting early and full realization of synergies from integration and realignment**

We have made progress in business integration and realignment, such as by making Nippon Steel Nisshin our wholly owned subsidiary and realigning the special steel business (making Sanyo Special Steel our subsidiary, and acquisition of Ovako in Sweden).
Going forward, we intend to promote early and full realization of synergies from these actions and to enhance profitability.

**Promoting investment in demand-growing sectors and regions**

We are also committed to promoting investment in demand-growing sectors and regions.
First, we will invest in raising manufacturing capacity and quality of electrical steel sheets , an area of strength of Nippon Steel, as world demand for electricity and production of motor vehicles are expected to grow.
Second, we are in the process of acquiring Essar Steel, an integrated blast furnace steelmaker in India, jointly with ArcelorMittal. India is a promising market with the top-class demand growth potential and has already become the second largest steel producing country in the world, displacing Japan in that position. India's steel production is projected to rise from 106 million tons per year at present to around 300 million tons.
Through acquisition of Essar Steel, we anticipate to profit from growth of

the Indian market as an insider.
As such, we make investment in areas where our technology and product capacity can be used and in markets where we see assurance of demand growth potential.

### 4 Start planning structural measures to drastically enhance the profit base

The fourth priority issue is to start planning structural measures to drastically enhance the profit base.
In the Asian market, we are anticipating intensified competition with new leading-edge steel mills located along the coasts in China, in addition to POSCO in South Korea.
We need to be better prepared for this competition by raising our capacity utilization rates and by making concentrated investment in our competitive production lines.
We also plan to build a lean, optimal production framework. This requires us to make use of advanced IT to achieve higher productivity, and to raise cost competitiveness by taking drastic measures, which take into consideration future domestic demand trend and the potential labor shortage caused by shrinking population.
During this review process, we intend to make early decisions on what to do with product types and business having no prospect for improvement.
Concerning overseas business, the production capacity of our overseas downstream bases has expanded from 9 million tons five years ago to 21 million tons at present.
In the automotive sector which has been our major focus, we are already at the stage of completing a production network in growing markets, such as Thailand and Indonesia.
Beside raising overseas profit, we are to determine measures including withdrawal for businesses that cannot be moved into the black, those that have completed their roles, or those that are losing synergies, with the aim at redistributing and optimizing management resources.
In tackling these four priority issues, we also intend to focus on promoting operational reform, standardization, and workstyle reform.
We plan to profit from having NS Solutions, our group company of experts in the system solution business, and realize safe, competitive manufacturing work sites, equipped with AI, big data, and other advanced IT tools as well as system infrastructure.
We strive to ensure all of our employees stay healthy and energetic and work at their best. This is another indispensable element for us to raise productivity.
We intend to reform ourselves to be better at operational management and workstyles of our employees, both of which lead to higher value-added output.

## Long-term changes and our initiatives

Let me now focus on long-term changes and how we respond to them.

### Maximizing the potential of steel as a material

Iron is abundantly available with its reserves in the form of iron ores, a main raw material of steel, believed to be one-third of the earth's weight. In addition, steel has diverse strength, workability, and other valuable features. Steel is also a material with great potential due, in part, to its having a much higher theoretical strength than other materials. For example, the strength of high-tensile steel products commercially used today for automobiles is merely 10% of its theoretical strength. This means that we could potentially develop more light-weighted steel with much higher strength.
We at Nippon Steel are thus committed to maximizing the potential of steel as a material and providing competitive products and solutions.

### Long-term changes in needs and how we respond to them

The world steel production volume is projected to increase from about 1.8 billion tons in fiscal 2018 to around 2.7 billion by 2050, along with an expected growth in global population and economy.
Meanwhile, the society and industries are expected to have significant, long-term, structural changes. We therefore believe that the steel industry is at a significant turning point.
Going forward, in the midst of various risks and opportunities, we have to evolve ourselves to cope with them.

First, on the social, industrial structural changes.
The rapid advance in IT, automakers' growing needs for lighter vehicles, and emergence of electric vehicles and other vehicles with a new energy source, and autonomous driving, are likely to change the demand structure for steel. We anticipate advanced needs for performance of steel as a material.
Facing such changes, we intend to continue to create the value of steel and raise its material competitiveness as our basic approach, and then to exert our technology and comprehensive strength, such as by combining steel with other materials, and to develop and provide total solutions, that incorporate usage and processing technology as well as make the most of its functional characteristics.
We will thereby appropriately cope with risks of demand shifts to other materials and at the same time capture opportunities to respond to needs of society and diverse industries.

Second, on possible changes in steel demand/supply structure.
In Japan where the population is already on a downtrend, steel demand is projected to decline over the long term.
Meanwhile in the world, the trends of favoring domestic production and protectionism are likely to persist.
In Japan, we will improve the manufacturing capability of our production bases, pursue an optimal production framework, and make sure to provide products and solutions needed by customers, based on our long-accumulated technology and product capability, and the trust invested in us by our worldwide customers.
In overseas markets, we are ahead of competitors in taking action in areas where our technological strength can be utilized and in demand-growing regions. We will complete to position ourselves as an insider in each region, so that we can better cope with risks and opportunities that are associated with changes in steel demand/supply structure.

## Our measures against climate change

Among the United Nations' Sustainable Development Goals (SDGs), measures against climate change, such as reduction in greenhouse gas emissions and creation of a recycle-oriented society, are also a critical mission for the steel industry.
Most countries and regions have established recycling systems for steel, a material from which tramp elements (impurities) can be easily removed and which can be endlessly recycled without causing deterioration in quality. Based on the concept of Life Cycle Assessment that evaluates environmental impacts of steel products over their entire life cycle, steel made in electric arc furnaces and steel made in blast furnaces have the same low environmental impact. This is proven by both ISO certification and JIS certification.
For many years, Nippon Steel has been striving for further reduction in already-low environment impact of steel. One specific example is adoption of the "Three Ecos," which consists of Eco Process (challenging innovative technology development for fundamental $CO_2$ emission reduction, while reducing $CO_2$ emissions by raising energy efficiency during the manufacturing stage, which is already at the world's highest level), Eco Products™ (demonstrating energy-efficiency performance as final products made of our steel materials, such as by weight reduction), and Eco Solutions (disseminating our environmental technologies overseas and contributing to global environmental improvement). Use of by-product gas generated in steelmaking, reuse of water, and a 100% recycling of plastic containers and packaging are other measures to help create a circular economy.
As our recent initiatives, we have played a leading role in ongoing efforts at solving various global environment-related challenges, including formulation of the Japan Iron and Steel Federation's long-term vision for climate change mitigation "A challenge towards zero-carbon steel;" establishment of the Life Cycle Assessment (LCA)-based environmental impact calculation method of the International Organization for Standardization (ISO) and the Japan Industrial Standards (JIS); and a proposal to promote the "Creation of Sea Forests" and "Blue Carbon" (the carbon captured and sequestered by oceans and coastal ecosystems). Recently, we also signed the statement of support for the Task Force on Climate-related Financial Disclosures (TCFD).
We pledge to enhance energy efficiency, reduce $CO_2$ emissions, and improve energy efficiency over the entire supply chain including customers, further advancing our initiatives against climate change toward the realization of a sustainable society.
We are also committed to delivering the Nippon Steel Group's products and solutions for the Government's "Creating a Strong and Resilient Country" plan, which include infrastructure building and measures to prevent or mitigate escalated severe natural disasters. These efforts resonate with one of the Sustainable Development Goals, to "make cities and human settlements inclusive, safe, resilient and sustainable."

## In closing, our ESG initiatives

We declare in our Management Principles to continue to emphasize the importance of integrity and reliability in our actions, and to provide products and services that benefit society. This precisely echoes the concept of the Environment, Social, and Governance (ESG). I recognize that ESG initiatives are one of the priority issues and form the base that supports the very existence and growth of our company.
Among these initiatives we have identified our materiality.
We intend to steadily promote its execution and follow-up by checking the Key Performance Indicators (KPI) to assess outcome, and strive to contribute to sustainable social development, as well as maintenance and improvement of our corporate value.
I would like our stakeholders for your continued understanding and support of Nippon Steel Corporation.

# Financial Strategy

Implementing the 2020 Mid-Term Management Plan and responding to the immediate business environment

## Profit improvement Immediate improvement, longer-term growth, and measures to cope with future risks

### 2020 Mid-Term Management Plan Targets

Nippon Steel set ROS (Return-on-Sales) of 10% and ROE (Return-on-Equity) of 10% as its targets for fiscal 2020 in due consideration of the cost of capital, expected return for shareholders, desirable profit level for becoming the “best steelmaker with world-leading capabilities,” maintenance and improvement in credit rating, and other factors.

Compared to the recent peak of 9.6% in ROE in 2013 and 8.1% in ROS in 2014, ROE was below 8% in 2017 and 2018 and ROS was 5.0-5.5% in the same period (Exhibits 1, 2). The 2020 Mid-Term Management Plan calls for 10% in both ROS and ROE, to be achieved by taking the following measures: 1) recovery in crude steel production to 45 million tons/year; 2) margin improvement; 3) ¥150 billion annual cost reduction over three years; 4) profit improvement of group companies, including generation of synergy with Nippon Steel Nisshin, Sanyo Special Steel, and Ovako which recently joined the Nippon Steel Group. 1)-4) generates profit exceeds. 5) increase in depreciation by increased investment. The profit target contains targets in production and cost for each steelworks, targets in pricing and volume for each business unit. These targets will be kept in the forefront as our employees go about their work.

### Fiscal 2018 Business Review

We recorded consolidated business profit of ¥336.9 billion and ROS of 5.5% in fiscal 2018. These were significantly short of our mid-term plan targets. While the overseas/domestic group companies in the steelmaking and fabrication segment and the non-steel-fabrication segments generated strong profits, non-consolidated operating profit, which essentially shows profit from our core business of domestic manufacturing of steel products and their sales in Japan and overseas, generated only ¥25.1 billion in profit (Exhibit 3).

There are two main reasons for sluggish profit on a non-consolidated basis despite global favorable steel demand in fiscal 2018: 1) failure to satisfy robust demand, stemming from production decrease caused by equipment/operating problems or due to force majeure influences of rainstorms, typhoons, and natural disasters (Exhibit 4); and 2) failure to secure adequate margin for the added-value we provided, on the back of a sharp increase in the unit cost of alloy, commodities and other materials, and transportations in addition to main raw materials of iron ore and coal (Exhibit 5).

In order to overcome these problems, we are now rebuilding manufacturing capabilities for realizing stable production; and enhancing our sales and marketing in order to realize pricing appropriate to the value delivered to our customers.

### Fiscal 2019 Business Forecasts

**“Decoupling of Strong raw material prices and weak steel products prices market” created by “Another China Risk”**

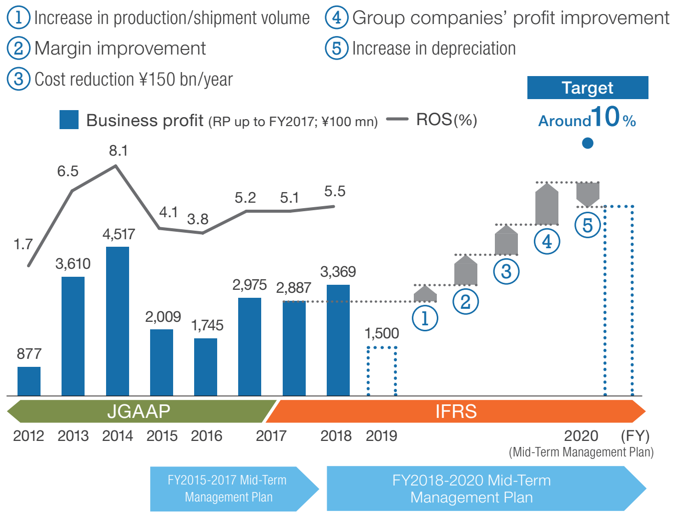
In fiscal 2019, the business landscape has significantly changed, bringing a new challenging situation of “decoupling of strong raw material prices and weak steel products prices.” The prolonged US-China standoff led to increasing concern over a slowdown in the global economy and the sluggish steel market, where weakness was mainly in steel sheets. Meantime, China’s government has promoted infrastructure investment to boost the economy and China’s crude steel production has reached a record high, mainly in long products, used in infrastructure building. This has boosted iron ore prices (Exhibit 6) and “Another China Risk” has emerged in the form of a “decoupling of strong raw material prices and weak steel products prices” situation, bringing a new risk of margin compression to us.

Given this environment, consolidated business profit in fiscal 2019 is expected to decline by ¥190 billion from fiscal 2018 to around ¥150 billion (Exhibit 7), assuming ¥155 billion in margin deterioration, as a negative impact of ¥190 billion in higher raw material costs would be offset only by ¥35 billion improvement in sales prices and product mix (Exhibit 7; forecasts as of August 1, 2019).

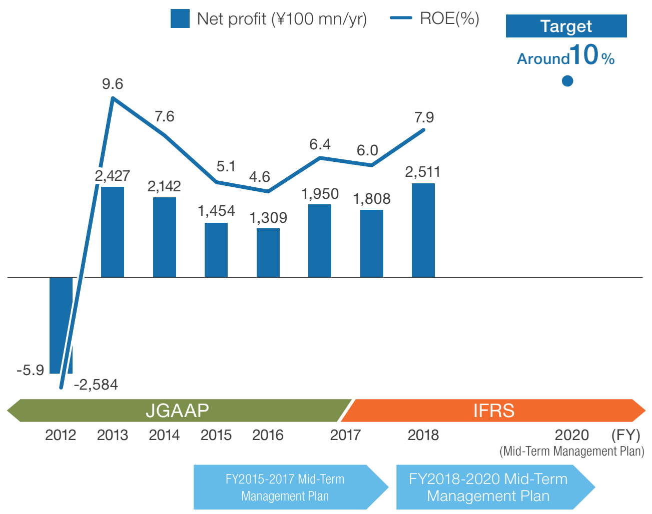
### Responding to the Changing Environment

In addition to working for a recovery in profit, Nippon Steel is promoting mid- to long-term growth strategy and is considering structural measures to strengthen profit base in preparation of future risks of intensified competition with cutting-edge new steel mills along Asian coastal area and an anticipated long-term decline in domestic demand stemming from a shrinking population. (See p.29)

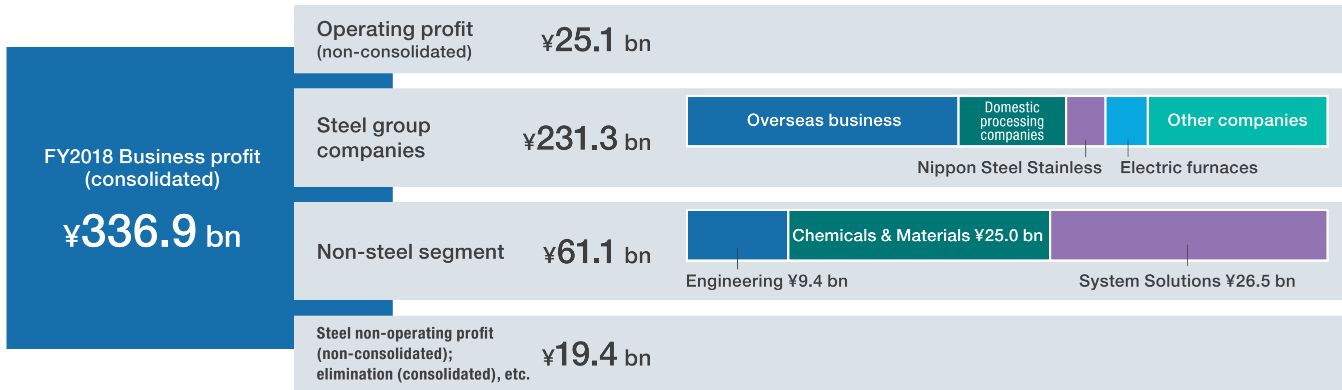
**1 Consolidated business profit and ROS*** * Up to FY2017: JGAAP, consol. Recurring profit



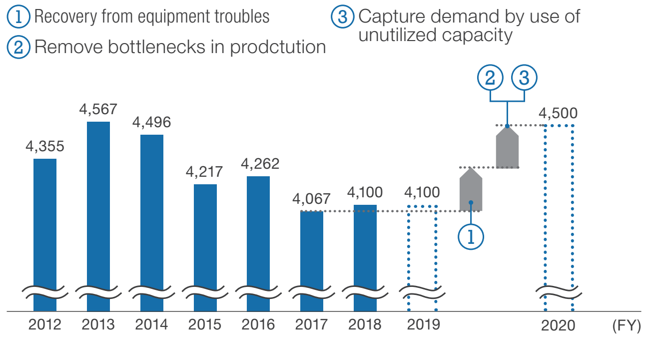

**2 Consolidated net profit* and ROE** * Profit attributable to owners of the parent



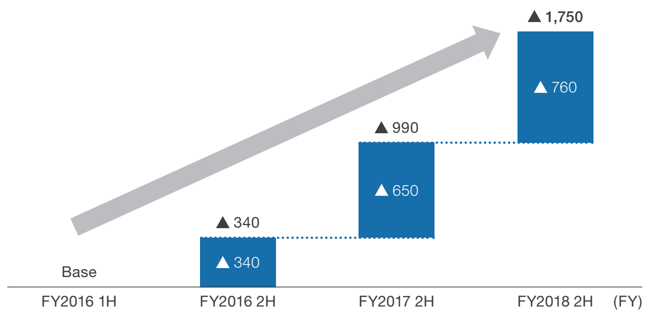

**3 FY2018 Business Profit Breakdown (consolidated)**



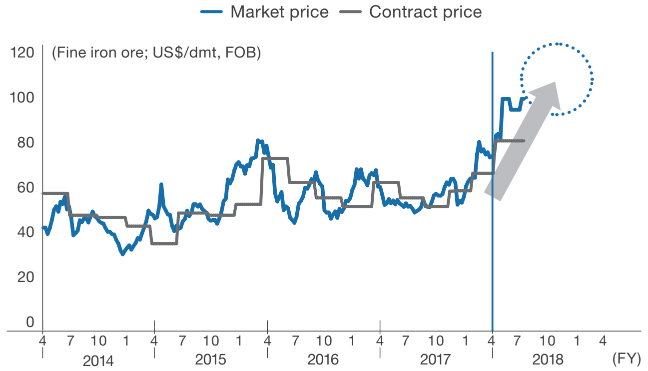

**4 Crude steel production** (non-consolidated) (10 thousand ton/yr)



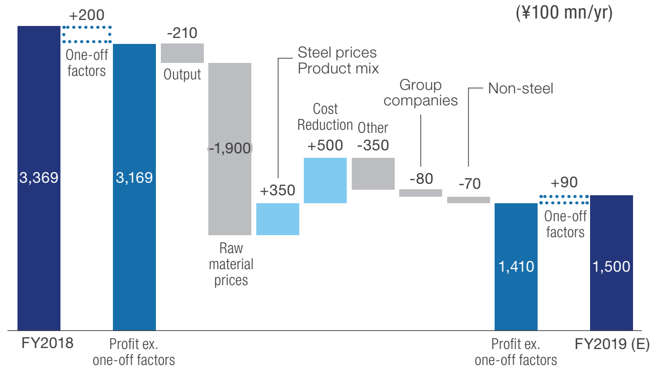

**5 Cost increase in alloys, commodities and other materials, transportations** (¥100 mn/yr)




**6 Iron ore prices**




**7 Business profit variance analysis** (FY2018 vs. FY2019 forecast) (¥100 mn/yr)



# Financial Strategy

## Cash flow and financial strength Cash management with discipline

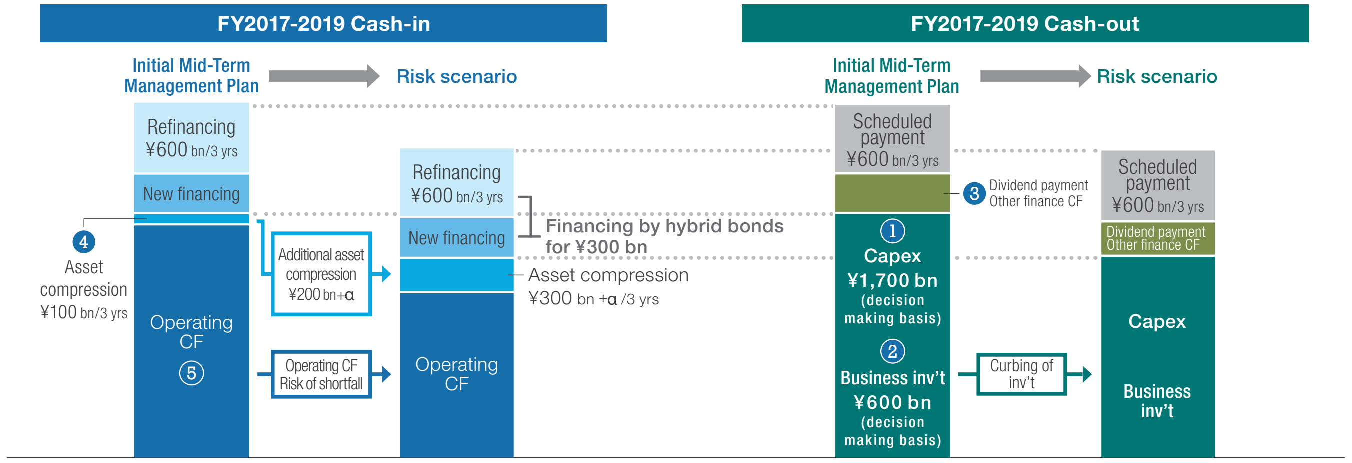
Nippon Steel plans to make high-level capital expenditures and business investment during the 2018 – 2020 Mid-Term Management Plan, using as the source of funds operating cash flow and cash generated from asset compression. Interest-bearing debt is projected to increase by the amount equivalent to payment of dividends.

While we aim to achieve the debt-to-equity (D/E) ratio of around 0.5, a level to allow us to maintain a long-term A rating by international credit rating agencies over the long term, our immediate target is to maintain the D/E ratio of around 0.7 by offsetting an increase in interest-bearing debt with an increase in shareholders' equity during the 2018 – 2020 Management Plan when investing cash flow will be at a high level.

Given that our operating results and operating cash flow in fiscal 2018 and 2019 are expected to be less than the targets in the Mid-Term Management Plan, we intend to make additional asset compression and restrain investment in order to maintain financial discipline by endeavoring for investing cash flow to be covered by operating cash flow and asset compression.

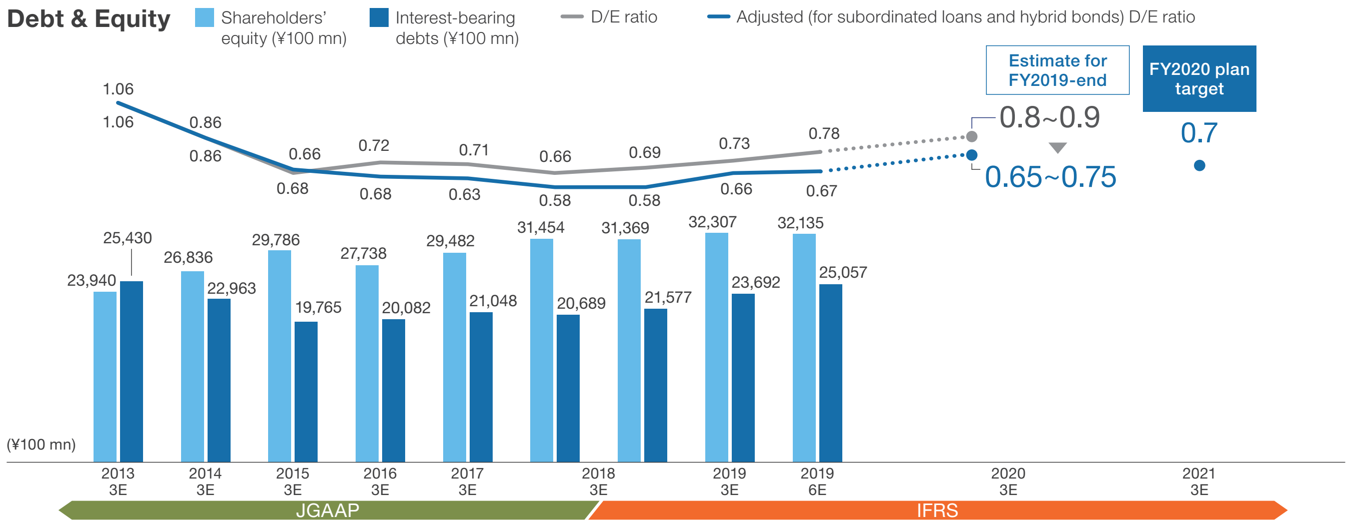
In addition, as planned refinancing and new financing in the Mid-Term Plan, ¥300 billion was raised by public issue of hybrid bonds, 50% of which are deemed as equity. We will thereby ensure financial soundness.

### Mid-Term Capital Spending, Business Investment, and Cash Flow





### Debt & Equity




## 1 Capital expenditures

Many of our steelworks were built during Japan's high-growth era and are passing a 50-year milestone. Since construction, the facilities have been appropriately maintained and refurbished and are in good condition but some facilities are in an extremely-long refurbishment cycle, as is the case for coke ovens and infrastructure equipment, which are approaching refurbishment time. Due to the concentration of refurbishment investment of these equipment and facilities, capital expenditures will be at a high level for the near term.

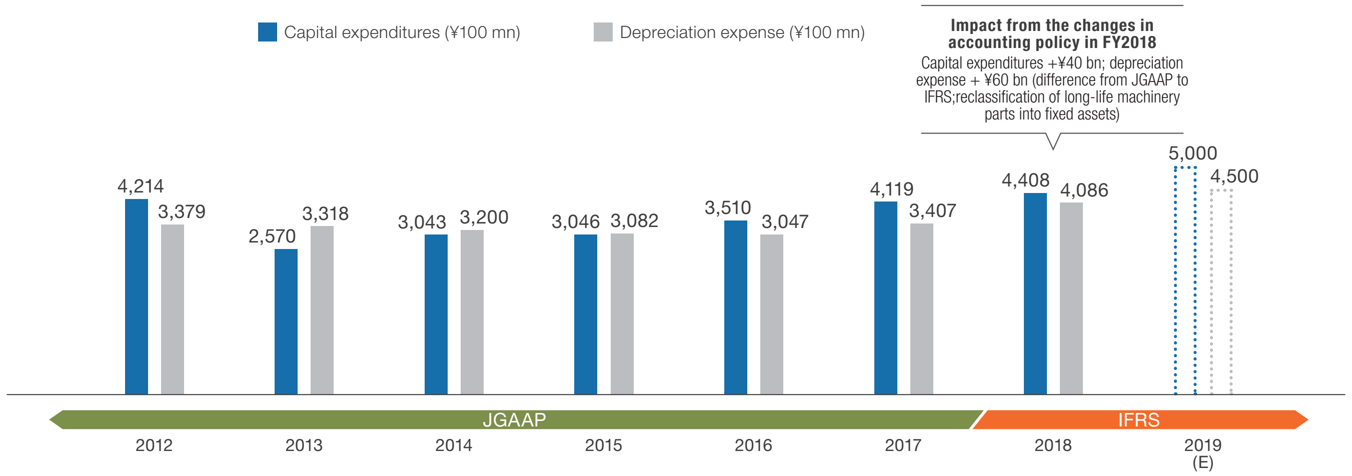
We will concurrently make investment to capture demand in growth area in the context of changes in social and industrial structure.

We plan to implement domestic capital expenditures of ¥1,700 billion over three years during the 2018 – 2020 Mid-Term Management Plan. As we use the declining-balance depreciation method, an increase in capital expenditures boosts depreciation expenses at the initial stage. At the same time, however, advanced equipment will help improve productivity and efficiency, and generate a variable-cost reduction effect.

For determining capital expenditures, we set a hurdle rate, designed at such a level that the internal rate of return (IRR) of overall capital expenditures exceeds the cost of capital.

Given that our operating results and operating cash flow in fiscal 2018 and 2019 are expected to be short of the targets in the Mid-Term Management Plan, we are implementing capital expenditures more efficiently based on the long-term refurbishment plan, and seeking to optimize the amount of investment during the Mid-Term Plan period.

### Capital expenditures and depreciation expense (¥100 mn/yr)




## 2 Business investment

Business investment, such as for M&A and establishment of new overseas manufacturing bases, is set at around ¥600 billion over the three-year term (fiscal 2018 – 2020). In fiscal 2018, we invested around ¥60 billion in restructuring the special steel business by acquiring Ovako AB in Sweden and making Sanyo Special Steel Co., Ltd. a subsidiary. At present, we are engaged in, together with ArcelorMittal, acquisition procedures of Essar Steel India Limited, the fourth largest steelmaker in India.

The acquisition of Essar Steel will be the largest amount of a business investment for Nippon Steel. India is anticipated to be the biggest growing steel market in the medium- to long-term but has a protectionist trend with domestic products representing 90% of steel demand. In order to capture demand growth, it is critical to become an insider in India. However, it is extremely difficult for a foreign steelmaker to build a greenfield steelworks from difficulty in land acquisition. In reality, acquisition of an existing steelmaker is the only way to enter India.

We believe the acquisition of Essar Steel will be an indispensable investment for Nippon Steel's mid- to long-term growth.

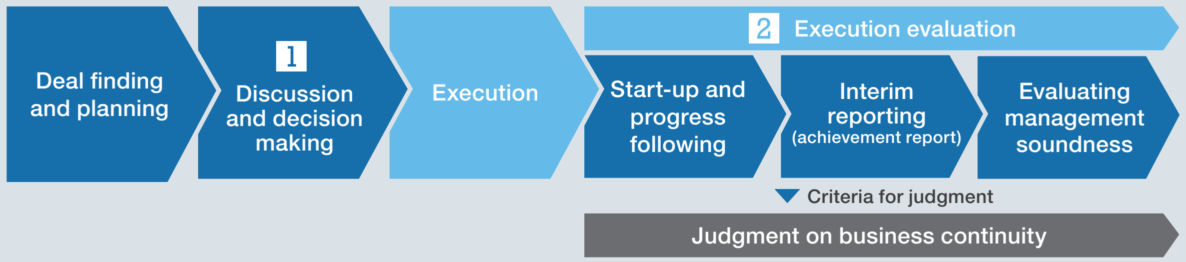
We also intend to look at capturing growth investment opportunities — by product, customer sector, and region in Japan and abroad; and acquisition of interests in raw materials.

In terms of increasing overseas businesses' profit and reallocation of management resources, we thoroughly examine past investments and decide what to do, including sale of asset and withdrawal, concerning businesses that cannot move into the black, businesses that have completed their roles, or businesses that are losing synergies. We will thus intend to improve our asset portfolio.

Nippon Steel seeks to make appropriate decision making on business investments, such as for founding and equity investing in companies in Japan and overseas, as well as for M&A deals, to find early and solve promptly issues during the stage of execution of those deals, and share and preserve such know-how, by having a PDCA cycle in the management system.

# Financial Strategy

## Business investment management system




### 1 Discussion and decision making

Proposed projects are considered in terms of significance to business strategy, market growth, competitive landscape, and individual risks (country, partner, foreign exchange, and other risks). In the case of M&A deals, based on due diligence, their risks are to be understood and appropriately hedged. After such a procedure and given consideration to risk scenarios, the certainty of generating return that matches investment is confirmed.

| | |
|---|---|
| Investment and Loan Committee | The Investment and Loan Committee discusses projects from a professional perspective of each corporate unit and division. The business investment projects are submitted to the Corporate Policy Committee after being discussed at the Investment and Loan Committee. Very important projects are then submitted to the Board of Directors. |

### 2 Execution evaluation

| | |
|---|---|
| Start-up and progress to follow | For about three years since start-up, KPIs for operation, production, shipment, financials, and other items are set up for each project, and the corporate division follows its performance relative to the plan once every three months, and reports to the Investment and Loan Committee and the Corporate Policy Committee. The status of particularly important projects is reported to the Board of Directors once a year. |
| Accomplishment report | About three years from the start-up, the entire processes from decision making to full-scale operation are reviewed and reported to the Investment and Loan Committee and the Corporate Policy Committee. |
| Evaluation of soundness | Every half year, all Group companies in which Nippon Steel has made direct or indirect investment are evaluated in terms of financial soundness, based on their financial data, and the results are reported to the Corporate Policy Committee. They are also reported to the Board of Directors once a year. |

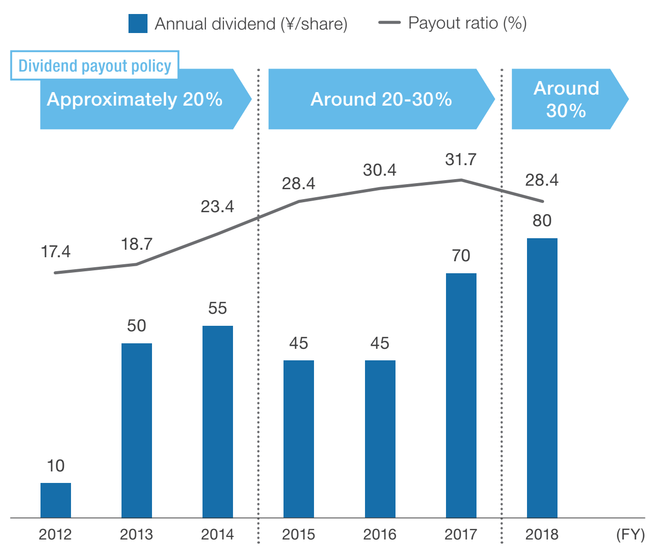
### Decision on exit or restructuring

Concerning group companies that are determined not contributing to raise the company's corporate value in terms of financial soundness based on quantitative standards (future cash flow, financial position) and qualitative standards (sustainability, compliance, etc.), the Investment and Loan Committee discusses whether to continue business and the status of particularly important project are to be approved by, or reported to, the Corporate Policy Committee to determine whether to exit (or be reorganized) or restructure.

## 3 Shareholder return

Nippon Steel's basic policy of shareholder return is to pay dividends based on consolidated operating results. We have raised the targeted consolidated payout ratio from "approximately 20%" initially in 2012 when Nippon Steel and Sumitomo Metals integrated to "around 20%-30%" in fiscal 2015, and raised further to "around 30%" in fiscal 2018 from the viewpoint of enhancing shareholder return.

### Dividend payment



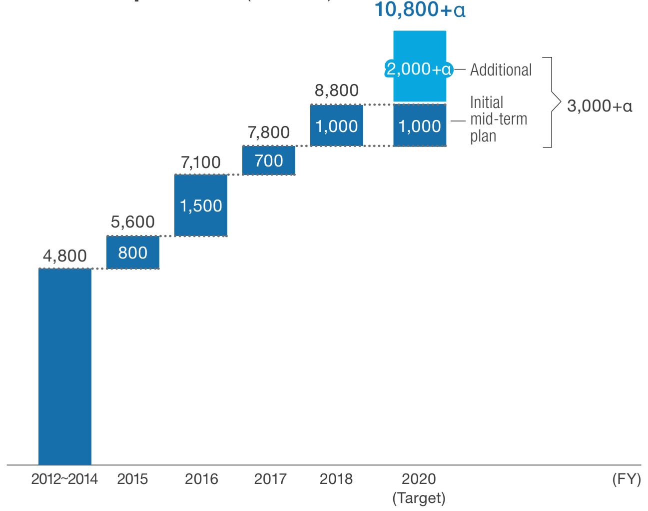

## 4 Asset compression

Following the integration of Nippon Steel and Sumitomo Metals in 2012, we have generated ¥780 billion on a cumulative basis in asset compression in 2012 – 2017. We planned to achieve ¥100 billion in asset compression during the three-year 2020 Mid-Term Management Plan, which we have already achieved in fiscal 2018, the first year. Given that our operating results and operating cash flow in fiscal 2018 and 2019 are expected to be less than the targets in the Mid-Term Management Plan, we have adopted an additional asset compression plan of ¥200 billion, and have already had good prospects for successful execution. We are also considering additional asset compression to achieve ¥300 billion and more during the Mid-Term Management Plan in fiscal 2018 – 2020, and ¥1,080 billion and more on a cumulative basis since 2012.

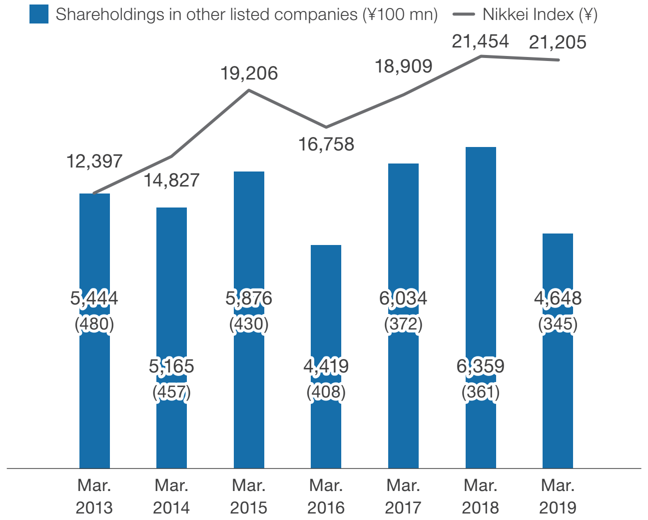
### Asset compression by disposing of strategic shareholdings

Strategic shareholdings are a major target in asset compression. From the viewpoint of sustainable growth and mid- to long-term enhancement of corporate value, we find it extremely important to maintain and develop relationships of trust or collaboration with a wide range of business partners. These relationships have been cultivated in our business activities. Accordingly, Nippon Steel shall continue to hold strategic shareholdings which are judged to contribute to maintaining and strengthening its business foundation such as the business relationships and alliance relationships between Nippon Steel and the investees, enhancing the profitability of both parties, and thereby improving the corporate value of Nippon Steel and the Group.
Every year we examine all shares held to determine whether benefits and risks of owning these shares match the capital cost. We have disposed of holdings we no longer considered indispensable in view of diverse changing situations, and have done so for the purpose of asset compression. We will continue to examine the rationale of holdings and dispose them if considered appropriate.

### Asset compression (¥100 mn)




### Shareholdings in other companies

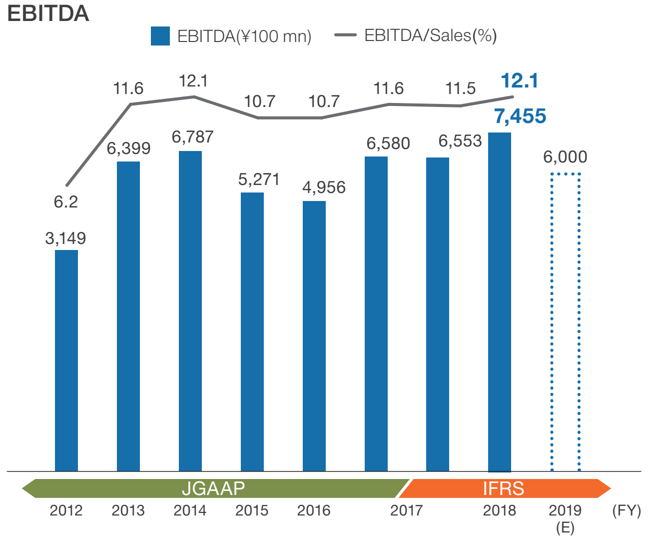



* Number of listed issues in parentheses

## 5 EBITDA

EBITDA is defined as business profit plus depreciation and amortization. In fiscal 2018, EBITDA was ¥745.5 billion and the EBITDA to Sales was 12.1%. While "Equity in profit of unconsolidated subsidiaries and affiliates" does not contribute to consolidated cash flow in financial statements, we have included it in our definition of EBITDA, as it is a part of a business model of our core business in steelmaking. One such example is a joint venture management of steel manufacturing and sales bases in various parts of the world, with a major local steelmaker. Most of the equity-method affiliates are joint ventures in which Nippon Steel is the largest shareholder or is in equal partnership, with only a few being listed companies. As we can reflect our views in usage of cash, we believe it is appropriate to include "Equity in profit of affiliates" in the amount of EBITDA.
Nippon Steel is also the only major steelmaker in the world that has adopted a declining-balance depreciation method. Depreciation burden tends to be high when the amount of capital expenditures exceeds the amount of depreciation, leading to a tendency for a relatively low level of accounting profit compared to the level of EBITDA.
We intend to acquire sufficient EBITDA as a source for high-level investments.

### EBITDA




19 Financial strategy
20 Financial strategy

# Value Creating Process

Using its financial/non-financial assets and competitive business model, which have been revised and improved over a substantial period, Nippon Steel provides products and solutions that address climate change issues and other needs of society. The company thereby contributes to achieving sustainable development goals (SDGs) benefiting society, raises its sustainable growth, distributes profits, and strives to secure its position as a best steelmaker with world-leading capabilities now and in the future.

## Input: Financial and Non-Financial Capital

### Human capital

Number of employees (consol.) 105,800

Steel business
- Requires advanced know-how
  - Mainly regular employees
  - Teamwork with subcontractors

### Intellectual capital

R&D staff (Non-consolidated) 800

R&D expenses 220 bn (2020 3-year plan)

R&D bases Futtsu, Amagasaki, etc.
- Steel Research Laboratories
- Advanced Technology Research Laboratories
- Process Research Laboratories
- R&D laboratories at steelworks
- Plant Engineering and Facility Management Center

Patents (Non-consolidated)

| | |
|---|---|
| Japan | 15,000 |
| Overseas | 17,000 |

### Manufacturing capital

Four business segments centering Steelmaking
- Steel business
- Engineering & Construction
- Chemicals & Materials
- System Solutions

Steelmaking facilities tangible fixed assets ¥13 tn (Acquisition base; cf. ¥3 tn in book value)

Crude steel production (consol.) 49.2 mn tons (Global No.3 in CY2018)

Global production capacity 90 mn tons (After acquisition of Essar Steel; procedures ongoing as of September 2019)

### Natural capital

Iron ore 58.61 mn tons
The most abundant resources in the earth (FY2018 imports)

Coking coal 25.19 mn tons (FY2018 imports)

Industrial water (Makeup water) 640 mn $m^3$ (FY2018 makeup volume)

### Social capital

- Coexistence with communities
- Relationship of trust and cooperation with customers
- Alliance with major steelmakers (ArcelorMittal, etc.)
- Social credibility (Keidanren, worldsteel, JISF, etc.)

### Financial capital

Total assets ¥8.0 tn

Equity attributable to owners of the parent ¥3.2 tn

Interest-bearing debt ¥2.3 tn

## Business Model: Nippon Steel's Competitive Advantages

The Steelmaking and Fabrication Business and three other business segments generate synergies that create extraordinary strength

**Steelmaking Segment**

Support the Steelmaking and Fabrication Business and generate synergies

- Steelmaking facilities Design and construction
- Steelmaking by-products Recycling
- Steelworks and head office System construction

Engineering & Construction Business / Chemicals & Materials Business / System Solutions Business

Spun off from the Steelmaking and Fabrication Business and grown to generate top-class profitability in their respective industries

**Engineering & Construction Business**

Provision of engineering solutions in steel plants, environmental and energy, marine, building construction and steel structure fields.

**Chemicals & Materials Business**

Provision of comprehensive material solutions, using chemicals, such as resin, and advanced materials, such as carbon fiber, centered around resources obtained in the steelmaking processes. Organic alliance with steel to meet multi-material needs of customers.

**System Solutions Business**

Provision of IT business solutions to a wide range of sectors by applying the extensive insight and advanced, practical IT capabilities acquired through steelmaking .

The Nippon Steel Group's "Three Eco" initiatives also leverage the comprehensive strength of the four business segments.

### Wealth of steel products and solutions, using the Nippon Steel Group's strength

#### Strength in the steelmaking business

**1 Abundant human resources**
- On-site work capabilities, group comprehensive strength, diverse human resources including master-level specialists

**2 Advanced technology**
1. Product development, solution proposal capability
2. Production and facility management; "top runner" method cultivated in the company's multi-mill system, for strengthening the level of technology
3. Large blast-furnace operating technology (low-cost, mass production)
4. World-leading integrated control technology→Mass production technology of high-grade products
5. High-level maintenance technology (thorough utilization of existing facilities)
6. R&D capability
7. Intellectual property and patents

Derwent Top 100 Global Innovator — Awarded for the 7th consecutive year (only one in the industry)

**3 No. 3 in the world in production output (CY2018)**

1. ArcelorMittal 96.4 mn tons
2. China Baowu Group 67.4 mn tons
3. Nippon Steel 49.2 mn tons (No. 1 in Japan)

**4 Global supply framework**
- Optimal overseas expansion by region and by product type, to capture growth and contribute to the local region
- Entry into demand-growing Asia

**5 Extensive products**
1. Wealth of products for diverse areas and applications
2. Diverse solutions, including those provided by Group companies

Related companies in steel business 454

**6 Three Ecos and innovative technology development to contribute to the environment**
- Eco Process — The way we manufacture is "Eco-friendly"
  Eco Products™ — What we produce is "Eco-friendly"
  Eco Solutions — Sharing our "Eco-solutions"
- Provision of technology and products that contribute to efficient use of resources and energy and reduction in environmental impact

**7 History and traditions**
- Credibility extended by users and society, based on Nippon Steel's history and traditions

**8 A joint development relationship with customers who have global top-level competitiveness, based on trust**

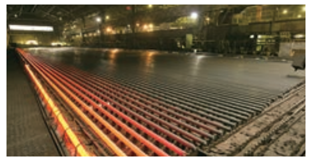
**9 Alliances and JVs with leading steelmakers**
- Overseas alliances — ArcelorMittal, POSCO, Vallourec, CSC
- JV partners — China Baowu Steel Group, USIMINAS, Krakatau Steel, etc.

## Output: Products & solutions

**Steel products** Wealth of products for diverse applications


Plate

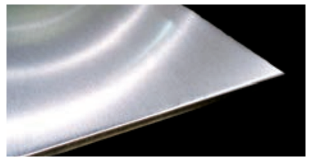

Flat products


Bar & wire rod


Construction products


Pipes & tubes


Railway, automotive & machinery parts


Titanium

Stainless steel (Nippon Steel Stainless Steel)

**Eco Products™**

Production and supply of eco-friendly Eco Products™ to contribute to preservation of energy and resources and reduction in environmental impact

**Products & technology solutions**

Provision of total solutions, using the Group's comprehensive strength in areas ranging from creating the value of steel to processing technologies.

**Eco Solutions**

Use of the Group's world-leading environmental, energy-solving technologies to help solve the environmental challenges of Japan and throughout the world.

**National Resilience and restoration of aged infrastructure**

Provision of efficient, economical provision of diverse products and methods against natural disasters and for restoration of aged infrastructure

**Products using by-products**

Use of steel slag with a high content of iron for marine forest restoration. Restored algae ground absorbs $CO_2$ (Blue Carbon), contributing as a climate change measure

Recycling rate (steelworks) Approx.99%

**Emissions** Waste, air, water, etc.

Zero emission and recycling for minimal emission

Recycling of water Approx.90%

## Outcome: Achievement

### Contribution to SDGs in society

1. Jobs for employees (incl. subcontractors) and growth in community
2. Safe, reliable living (steel for key auto parts, railway, bridges, buildings, etc.)
3. Energy preservation, climate action, recycle-oriented society
4. Disaster prevention and reduction, National Resilience
5. Infrastructure to build in emerging countries and to rebuild in developed countries
6. Products and technological solutions in growth areas
7. Education for employees and communities

SUSTAINABLE DEVELOPMENT GOALS

### Creation of sustainable corporate value and profit distribution

(2020 Plan targets underlined)

**1 Securing sustainable profit**

Business activities, including contribution to sustainable society, to secure stable profit generation

ROS Around 10%

**2 Profit distribution**
1. Wage payment to employees (incl. subcontractors)
2. Appropriate tax payment
3. Dividend to shareholders

Payout ratio Around 30%

**3 Investment for further growth**
1. Innovative technology development for $CO_2$ reduction
2. Development of products & solutions to capture social needs in advance
3. Adoption of AI and advanced IT tools
4. Innovative process development
5. Investment in growing areas/regions

New hires (non-consol.) Around 1,100 /year

Domestic Capex (consol.) ¥1,700 bn/3 years
Additional compression under consideration

Business investment (consol.) ¥600 bn/3 years

**4 Enhancement of corporate value**

Creation of corporate value appropriate for the "best steelmaker with world-leading capabilities"

ROE Around 10%

D/E ratio Around 0.7

Asset compression ¥100 bn/3 years + ¥200 bn or more in addition

**Aim at becoming the steelmaking industry's No. 1 in market cap**

# Steelmaking Process and Products

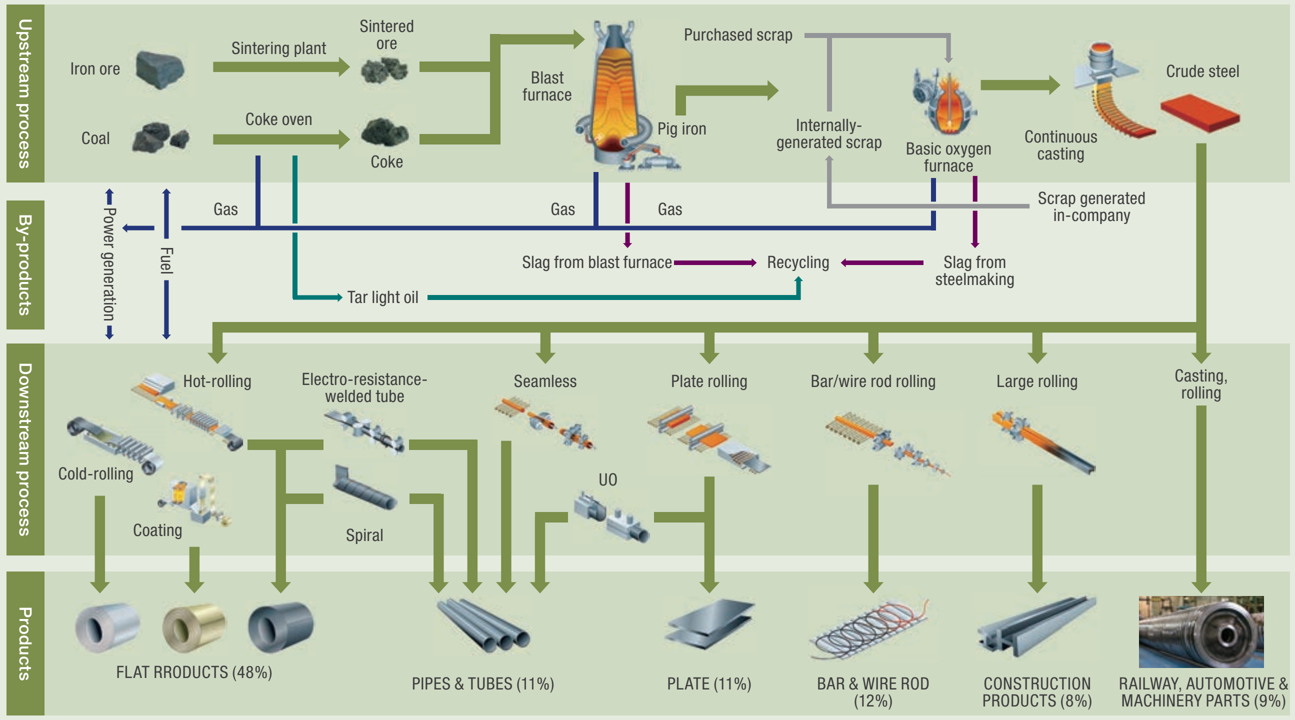
## Steelmaking Process (Input)

### Steelmaking

A seaside integrated steelworks, occupying an extremely large area as an industrial site, of say 10 square kilometers, ideally has efficient arrangements for raw material procurement, and steel production and shipment, as well as supporting divisions, such as a transportation division, an energy supply division, and a division to appropriately process recycled products.

In a steelworks, there would be many employees, of the company and its affiliates or subcontractors, who have a wealth of know-how put to use in work to stably produce diverse high-grade steel products meeting certain requirements for performance and quality.

The steelworks would be an extremely large presence in the community, physically and in terms of human resources and the local population. A harmonious relationship with the community is therefore an important issue for the company. In addition to taking every possible precaution so as not to inconvenience the community in terms of safety, environment and disaster prevention, it is highly desirable that the company be actively engaged in social contribution with initiatives to preserve and create the environment, assist education, and otherwise adhere to the aim of prospering together with community.




### Mutual synergies with each business segment in steel manufacturing

Building of major facilities (Engineering); recycling of by-products (Chemicals & Materials); and use of operating systems and advanced IT (System Solutions)

### Manufacturing process

The steelmaking process is divided into the upstream process, to melt and reduce iron ore at high temperature, and to solidify the metal, and the downstream process, to make it into products of shapes and properties that meet needs of customers.

The upstream process includes the ironmaking process to produce pig iron which is made mainly in a blast furnace; and the steelmaking process that uses pig iron, scrap, alloys, and other materials to manufacture steel products of diverse features. A large area of level land and a massive amount of initial investment are required for the upstream process, which needs massive upstream facilities for diverse processes including reception of raw materials, distributing a great level of supply of energy, and treatment of by-products. Moreover, a blast furnace once blown in will be kept operating ceaselessly for around 15-20 years, with a shutdown for only a few times of a few-day intervals a year. This also means a 24-hour-a-day operation of most other steelmaking facilities as well, which is realized by four teams of workers engaged in three shifts.

The downstream process is divided into processes for rolling, coating, refining and inspection, to name the most important ones, enabling manufacturing of products with features required by customers. Steel sheets, mainly used for automobiles and home appliances, represents roughly a half of the products, while pipes & tubes, bars & wire rods, steel plates, construction products, and other products represent about 10% each.

Numerous processes contribute to realize diversity in features, and the high grade of steel products: adjustment of the types and quantities of the constituents of steel, and elimination or exclusion of impurities and foreign material from the ironmaking process; control of nano-level crystal structure of steel being produced, done by heating and cooling during the rolling process; dimensional precision in rolling and piping, etc.

Gigantic movable equipment, high-speed rotating equipment, high-temperature molten materials, and flammable gas are among what are employed in making iron and steel, which therefore is a process of high risk in terms of safety and disaster prevention. It is therefore essential that companies in the steel industry assign the highest and most crucial priority to safety, the environment, and protection against disasters.

- Stable production and stable supply
- Optimal production system according to demand trend, etc.
- Development and manufacturing of high-grade steel products to satisfy needs of customers

## Wealth of products for diverse applications (Output)

Nippon Steel covers almost all types of steel products that are manufactured in the world today. Applications are mainly in the high-grade areas for automobile, shipbuilding, home appliance, containers, railway, and other manufacturers to the energy and resource sector and the civil engineering and construction sector.

Eco Products™ that contribute to preservation of resources and energy and reduction in environmental impact, and products that deliver solutions for National Resilience are provided, as part of efforts for sustainable growth, including measures against climate change.

### PLATE

High-performance steel plates for large industrial and social structures such as ships, bridges, and high-rise buildings; marine structures for oil and gas extraction; and high performance steel plates used for tanks and other energy-related products, to help enhance the safety of structures and develop society.

### FLAT PRODUCTS

Steel sheet for automobiles, electrical appliances, housing, beverage cans, transformers, and other goods, to support industries and people's lives. High quality, high-performance products and services from production and processing bases in Japan and overseas.

### BAR & WIRE ROD

High-quality high-performance bars and rods to a wide range of industries, i.e., the automotive, construction, and industrial machinery industries. Focus on high-end products used in important automotive components such as engines, drive trains, and suspensions in the automotive business.

### CONSTRUCTION PRODUCTS

H-beams, steel sheet piles, steel pipe piles, rails, and other steel materials for the civil engineering and construction sector in Japan and overseas, to contribute to the development of infrastructure.

### PIPES & TUBES

World-leading high-end seamless pipes for oil and gas development and other energy areas. Large-diameter tubes for pipelines and steel tubes for automobiles, and construction and industrial machinery are also areas of strength.

### RAILWAY, AUTOMOTIVE & MACHINERY PARTS

The only manufacturer of railway steel wheels and axles in Japan. Railway rolling stock components and forged crankshafts for automobiles, as main products. A global network of two manufacturing bases for railway wheels and axles, and four for crankshafts.

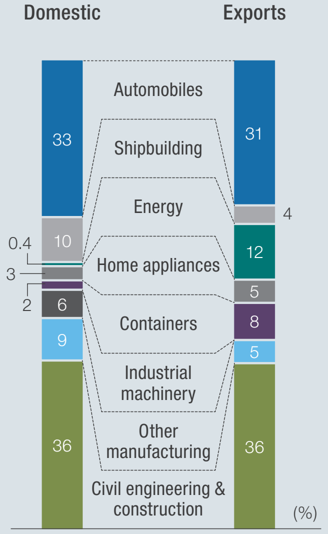
### TITANIUM

Titanium products in a broad range of applications, such as for plants, construction, aircraft, automobiles, and watches, by making use of titanium's properties of lightness, strength, high-corrosion-resistance, and aesthetic appeal as well as its integrated manufacturing capability and strong R&D capacity.

### STAINLESS STEEL (Nippon Steel Stainless Steel)

NSSC provides steel users with a wide range of high-quality stainless steel products that includes steel plates, sheets, bars, and wire rods by leveraging its most advanced technologies in the world. This subsidiary has developed the world's first Sn-added low-interstitial ferritic steel grades, named the "FW (forward) series," and a new type of duplex stainless steel.

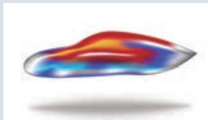
### Shipment breakdown by demand (FY2018)




### Product/solution examples

#### Eco Products™

Preservation of resources and energy and reduction in environmental impact



***NSafe®-AutoConcept*** **Steel product for 30% car body weight reduction**

Nippon Steel as the best partner to help materialize potentials of vehicles

***NSafe®-AutoConcept*** is a concept of future vehicle designed by Nippon Steel by using its advanced material and solution technologies and processing original products.

| | |
|---|---|
| Realizing 30% weight reduction by a vehicle made of steel (equal to aluminum) | ■ Solutions that create the value of steel, raise the ratio of high-tensile steel, enhance structural/process designs, etc.<br>▶ Achieved both less weight and collision safety |
| Solutions includes structural design conditions of components | ■ Select materials up to steel of 2.0GPa in tensile strength, on required performance<br>▶ Help reduce thickness in sheet and integrate components<br>■ Developed a structure concept using a battery made of steel for EVs, HVs, etc.<br>■ Use of advanced electro-magnetic sheet and analysis solutions in the development of high-efficiency, small, light, quiet motors |
| Using the group's comprehensive power | ■ Delivery of materials and services with know-how in all major materials: from gasoline-vehicle parts to batteries and motors for EVs |

#### Solutions for National Resilience

Contribute to resilient, safe, reliable, and sustainable infrastructure building

Risks to address ① **Natural disasters** Earthquake, tsunami, powerful storms and typhoons, and emergency construction ② **Aging infrastructure**

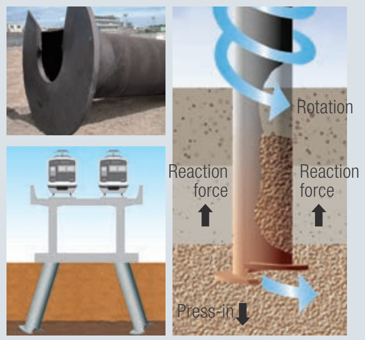
**Innovative solution**

**NS ECO-PILE™**

- A screwed steel pile with a helical blade welded to the edge for gyro-press method
- Enables an eco-friendly piling method that produces no waste soil, low noise, and low vibration

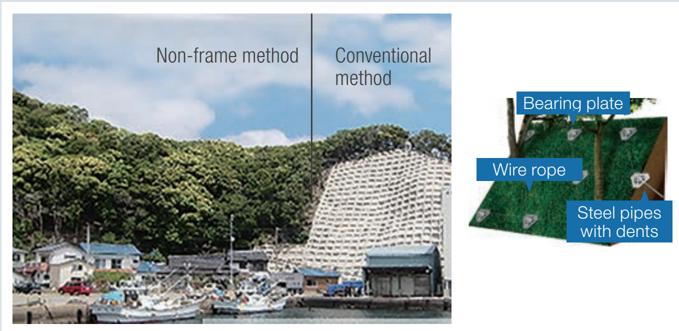
**Inclined pile construction**

- A method to pile the land at an angle
- In the soft foundation, ordinary direct piling results in a larger pile. Piling at an angle enables to reduce impact and the number of piles, and hence be more economical.




**Measures against landslide**

**Non-frame method** Preserve the natural environment and landscape and prevent disasters on the slope at the same time




- Minister of Agriculture, Forestry and Fisheries Award
- Minister of Land, Infrastructure, Transport and Tourism Award (Eighth Eco-Pro Award)
- Minister of Economy, Trade and Industry Award (Good Design Award)

# 2020 Mid-Term Management Plan

## - Forging Manufacturing Capability, Addressing Megatrends, and Creating the Value of Steel -

With the world economy expected to remain strong, global steel demand is projected to steadily increase over the long term, led by demand for construction and infrastructure development in emerging countries. In Japan, continued demand for urban infrastructure replacement is expected. Trends such as rapid innovation in IT (in such areas as AI, IoT, and big data), automakers' growing need for lighter and stronger vehicles, a shift to electric and other new energy vehicles, and the development of self-driving vehicles are anticipated to bring significant change to society and industry. Further, the adoption of the Sustainable Development Goals (SDGs) by the United Nations and entering into force of the Paris Agreement reinforce corporate responsibility to contribute to the achievement of a sustainable society.
Steel possesses significant advantages relative to competing materials not only in terms of cost but also of diverse properties and infinite potential, repeated recyclability into all kinds of applications, and low life-cycle environmental impact.

Having in mind the megatrends of changes in society and industry and the role of steel, Nippon Steel intends to work on the following major initiatives over the medium- to long-term:

- Delivering materials and solutions responsive to changes in society and industry
- Strengthening and expanding its global business
- Continuing to strengthen "manufacturing capabilities" of domestic mother mills
- Utilizing advanced IT in steelmaking processes
- Contributing to the achievement of a sustainable society (SDGs)

Through these initiatives, Nippon Steel will seek to advance towards "the best steel maker with world-leading capabilities" by further improving its capabilities in terms of "technology," "cost," and "being global," and "creating the value of steel". The major features of the 2020 Plan are described below.

| Longer-term changes in the environment | Risk | Opportunity | Nippon Steel's strategies |
|---|---|---|---|
| **Changing supply /demand structure of steel**<br>▶ Decline in Japan's population<br>▶ Rising protectionism<br>▶ Emerging countries' trend for more domestic production | **Decline in Japan's demand**<br>▶ Decline in Japan's steel demand<br>▶ Decline in shipment for exports | **Increase in demand, mainly in emerging countries**<br>▶ Increase in investment for greater energy efficiency and urban infrastructure<br>▶ Greater overseas JVs<br>▶ Increased importance of overseas mills | Further enhance manufacturing capabilities<br>Expand global business development |
| **Changes in society and industry**<br>▶ Electric vehicles; autonomous driving<br>▶ Use of advanced IT | **Shift to new materials**<br>▶ Decline in steel material demand for internal combustion engines<br>▶ Intensified competition with non-steel materials | **Increase in demand in technology domains and high-performance products, both are strengths of the Nippon Steel Group**<br>▶ Increase in need for high-performance products, such as ultra-high-tensile steel and high-grade electromagnetic steel<br>▶ Competitive advantage in advanced IT due to synergy with the Solution Business | Provide materials and solutions<br>Use advanced IT |
| **Targeting for a sustainable society**<br>▶ Reduction in greenhouse gas emissions<br>▶ Building of a recycle-oriented society<br>▶ National Resilience | **Increase in cost for environmental measures**<br>▶ Peaking out of production using blast furnaces | **Increase in demand related to economic growth and measures against climate change** (Environment, disaster prevention, infrastructure, automobiles, etc.)<br>▶ Increase in demand for eco-friendly products and solutions<br>▶ Increase in demand to address to the "Creating a Strong and Resilient Country" plan<br>▶ Increase in material demand for infrastructure, automobiles, etc. | Contribute to sustainable society |

### Changes in the environment
- Change in steel supply-demand structure
- Change in society & industries
- Sustainable society

### Capital injection
- CAPEX. In Japan: Approx. ¥1,700 bn over 3 years
- Business investment: Approx. ¥600 bn over 3 years
- R&D spending: Approx. ¥220 bn over 3 years
- Hiring (non-consol.): Approx. 1,100 /year
- Asset compression: Approx. ¥100 bn over 3 years (Sourced for growth investment)

### Five mid- to long-term strategic initiatives
- **Continuing to strengthen "manufacturing capabilities"**: Stable production; full utilization of integrated capacity / Establishing an optimal production framework
- **Strengthening and expanding our global business**: Exports of high-grade steel and expansion of overseas production bases / Overseas integrated steel production
- **Delivering materials and solutions**: Customers' value creation — Product development by anticipating evolving customer needs / Collaboration with the Chemicals & Materials Business (Multi-materials)
- **Utilizing advanced IT**: Advanced IT development / Collaboration with the Solutions segment
- **Contributing to the achievement of a sustainable society (SDGs)**: Reduction in greenhouse gas emission Innovative technology development / Three Ecos (eco PRODUCTS, eco PROCESS, eco SOLUTION)

Technology development | Collaboration within the group

| | 2020 Mid-Term Management Plan targets | [For reference] Fiscal 2018 results |
|---|---|---|
| ROS | Around 10% (Business profit on sales) | 5.5% (Business profit on sales) |
| ROE | Around 10% (Return on equity) | 7.9% (Net profit attributable to owners of the parent/shareholders' equity) |
| Crude steel production (non-consol.) | 45 mn tons/year | 41 mn tons/year |
| Cost reduction (non-consol.) | Over ¥150 bn /year for 3 years | ¥44 bn/year |
| D/E | About 0.7 | 0.73 |
| Payout ratio | About 30% | 28.4% |



Value creation story Business strategy

# Update on the 2020 Mid-Term Management Plan (Fiscal 2018-2020)

Plan / Done

## Strengthen Manufacturing Capabilities

| Action | Publication | ~FY2017 / FY2018 / FY2019 / FY2020 / FY2021~ |
|---|---|---|
| (Wakayama) New #2BF switch<br>Close Nippon Steel Structural Shapes' steelmaking facility | 03/18 | Mid 02/19 Switch from #5BF to new #2BF<br>End of FY19 Close (transfer its production to Wakayama Works) |
| Hokkai Iron & Coke Corp. Reline #2BF | 11/18 | 2H of FY20 Completion |
| (Yawata) Optimize upstream process<br>[Tobata] Start a new continuous casting facility<br>[Kokura] Close upstream process<br>[Tobata] Close its continuous casting facility | 03/16 | 05/19 Completion<br>End of FY20 Full-scale operation<br>End of FY20 Close<br>End of FY20 Close |
| (Nippon Steel Nisshin Kure)<br>Close #2BF<br>Reline and expand #1BF | 07/17 | Originally to close by FY19-end but extended<br>Close #2BF and reline #1BF<br>End of FY23 |
| (Kimitsu) Refurbish #5 coke oven | 04/16 | 02/19 Start operation |
| (Hokkai) Refurbish #5 coke oven | 06/17 | 1H of FY19 Start operation |
| (Nagoya) Refurbish #3 coke oven | 11/18 | 1H of FY21 Start operation |
| (Kimitsu [Tokyo]) Close Small-diameter Seamless Pipe & Tube Mill | 03/18 | 05/20 Close (transfer its production t0 Wakayama Works) |
| (Kashima) Close UO Pipe Mill | 05/19 | End of Oct. 2019 Close (transfer its production to Kimitsu) |
| Electrical steel sheets investment for capacity & quality improvement | 08/19 | 1H of FY19 CAPEX decision in Yawata (Further CAPEX plan is ongoing, details will be posted once it's decided.) |

*BF = Blast Furnace

## Global Business Development

| Action | Publication | ~FY2017 / FY2018 / FY2019 / FY2020 |
|---|---|---|
| Acquisition of Essar Steel | 03/18 | 03/18 Basic agreement<br>10/18 CoC declared AM as a successful applicant<br>03/19 AM's resolution plan was conditionally approved by NCLT ▶ Acquisition procedures ongoing as of 09/2019 |
| Reinforcement of the special steel business<br>■ OVAKO<br>■ Sanyo Special Steel | 03/18<br>08/18 | 06/18 Ovako became our 100% subsidiary<br>01/19 Approved by JFTC<br>02/19 Sanyo's extraordinary general shareholders meeting<br>03/19 Sanyo became our 51% subsidiary and Ovako became Sanyo's 100% subsidiary |

## Domestic Realignment

| Action | Publication | ~FY2017 / FY2018 / FY2019 / FY2020 |
|---|---|---|
| Making Nisshin a 100% subsidiary | | 03/17 Nisshin became a subsidiary (8% → 51%)<br>12/18 Nisshin delisted from the Tokyo Stock Exchange<br>01/19 Nisshin became a 100% subsidiary |
| Stainless sheets business | 05/18 | 05/18 Basic agreement<br>04/19 "Nippon Steel Stainless Steel" started |
| Stainless pipes & tubes business | 08/18 | 08/18 Basic agreement<br>04/19 "Nippon Steel Stainless Steel Pipe" started |
| Realignments of steelmaking facility engineering & maintenance companies (Business integration of Nippon Steel Texeng & Nippon Steel Nisshin Koki) | 06/19 | 06/19 Basic agreement<br>07/20 Integration |
| Realignment of trading companies for steel sheet for construction<br>■ Nihon Teppan<br>■ Nisshin Stainless Steel Trading<br>■ Tokai Color | 09/18 | 12/18 Nihon Teppan became Nippon Steel Trading's subsidiary<br>12/18 Nihon Teppan's stainless commercial rights transferred & consolidated to Nisshin Stainless Steel Trading<br>01/19 Tokai Color became Nippon Steel Coated Sheet's subsidiary |

## Delivering Materials and Solutions; Utilizing Advanced IT; Contributing to Achieving Sustainable Society

| Action | ~FY2017 / FY2018 / FY2019 / FY2020 |
|---|---|
| Automotive Sector<br>Strengthening of comprehensive solution offering | 04/18 Newly-created "Automotive Material Planning Dept."<br>04/18 Newly-created "Integrated Steel Solution Research Lab."<br>10/18 Established "Nippon Steel Chemical & Material"<br>01/19 Established "NSafe™-AutoConcept" "Our Mission, Designing the Future of Automobiles"<br>01/19 Exhibited in AUTOMOTIVE WORLD for the first time<br>05/19 Exhibited in Automotive Engineering Exposition for the first time |
| Utilization of advanced IT | 04/16 Newly-created "Advanced Application Technology Planning Dept."NSSOL newly-created "IoX Solution Business Promotion Dept."<br>04/17 Newly-created "Information Security Management Dept."<br>10/17 NSSOL newly-created "AI Research & Development Center"<br>04/18 Newly-created "Intelligent Algorithm Research Center"<br>09/18 Company-wide safety support project<br>04/19 Introduction of NS-DIG™ |
| SDGs<br>ESG | 09/18 Produced "Steel for all of us and the earth," a video on eco-thinking over the product life cycle<br>11/18 Issued the international standard (ISO 20915) regarding a life cycle inventory calculation methodology for steel products<br>11/18 Reached 3 million tons in cumulative plastic recycling<br>04/19 The 5th 24-hour in-house nursery opened in Hirohata Works (following those in Oita, Kimitsu, Yawata and Nagoya)<br>04/19 Trial implementation of teleworking Toward realizing healthy, efficient, creative work style<br>04/19 Set a policy to extend the retirement age to 65<br>05/19 Expressed support for recommendations of TCFD<br>06/19 Issue of international standard (ISO 20915) regarding Life cycle inventory calculation methodology for steel products<br>06/19 Selected for "FTSE4Good Index Series" & "FTSE Blossom Japan Index", indices for ESG Investment, for 2 years in a row |

# Changing Business Environment and Nippon Steel's Strategies for Response in Fiscal 2019

## How we see the business environment in fiscal 2019 -Strong raw material market vs. weak steel market-

**The prolonged US-China standoff has led to increasing concern over a slowdown of the global economy and a decline in steel demand**

- The global steel market is characterized by lack of strength in demand growth mainly for steel sheets, partly due to concern over China's economic slowdown, which led to a decline in production of consumer goods, under the influence of prolonged US-China trade tension. The market for steel sheets in Asia has been on a downtrend since June 2019.
- In Japan, there are signs of a slowdown in some export industries and indirect export demand is weak.

**"Another China Risk" will persist in the near term: Strong raw material market despite weak steel market, driven by a rise in iron ore demand boosted by China's measures to stimulate its economy**

- In China, amid uncertainties over the economic slowdown, the government has promoted Infrastructure investment and taken other measures to boost the economy.
  ▶China's crude steel production increased sharply, mainly in bars and rod materials.
- Responding to this increase in production, iron ore prices surged. Given a low level of iron ore inventory in China, iron ore prices are likely to stay at high levels.
- China represents roughly a half of the world steel demand and production, and 60% of pig iron production. This makes the steel industry unique in its structure, not seen in other industries, and has created an unprecedented situation of weakness in the steel market, due to the prolonged US-China disputes, and the strength in the raw material market, driven by China's measures to stimulate its economy. Emergence of "Another China Risk," which is different from conventional excess production and excess exports, is not what we had assumed when we developed the current mid-term management plan, but is likely to remain in the near term.



## Strategies for response in recognition of business environment

1. Work on improving the current profit base,
2. Promote longer-term growth strategy, and
3. Manage cash with a focus on financial discipline.

In preparing to unfolding of new risks,

4. Start planning structural measures to drastically enhance the profit base.

### 1 Initiatives to Secure & Strengthen Profit Base

**1 Improve long-term contractual steel product prices**

Persistently negotiate price increases and establish long-term win-win relationships with our customers.

▶ Build a coexisting relationship that shares the burden of cost increases across the supply chain.

▶ Realize "appropriate prices" reflecting our comprehensive contributions to satisfy customers' sophisticated and diversified needs. Promote reevaluation of what we provide (high quality products, delivery systems, solution proposals and global supply framework).

▶ We intend to achieve a major structural reform ("second foundation stage") and rebuild manufacturing capabilities of both facilities and those who operate and maintain them.

**2 Recover manufacturing capabilities**

Through continuous efforts such as initiatives for strengthening line management at operations and maintenance sites, for manufacturing standardization, and for support for particular steel works and lines with company-wide expert teams, manufacturing capabilities have recovered to a certain extent.

**3 Shift from "full potential production" to "profitability-oriented production"**

While continuously promoting recovery of manufacturing capabilities, we intend to shift to "profitability-oriented production" reflecting the current business environment, such as the deterioration of margins in the overseas spot markets and the demand decrease in some export industries in Japan.

### 2 Longer-term growth strategy

**1 Business integration synergies**

① Acquisition of Nisshin Steel and realignment of the stainless steel business
- March 2017: Made Nisshin our subsidiary. December 2018: Realignment of trading firms that specialize in steel products for the construction sector. January 2019: Made Nisshin our wholly owned subsidiary. April 2019: Stainless steel business realignment. July 2020 (plan): Realignment of steelmaking facility engineering & maintenance companies.
- Promoting early and full realization of synergies (¥30.0 bn)

② Realignment of special steel business
- June 2018: Made OVAKO our subsidiary. March 2019: Made Sanyo Special Steel our subsidiary, and made OVAKO a subsidiary of Sanyo.
- Promoting early and full realization of synergies (¥10.0 bn)

**2 Promoting investment on demand-growing sectors and regions**

① Investments in electrical steel sheets business, for capacity and quality improvement (originally intended in 2020 MTMP)
- Promoting investment in electrical steel sheets manufacturing facilities to address increasing demand for high energy efficiency for transformers and eco-cars. Have decided to invest in facilities in Yawata Works as the first step there.
- Further CAPEX planning is under way; details will be announced once plans are final.

② Joint Acquisition of Essar Steel with ArcelorMittal (originally intended in 2020 MTMP)
- Continuing acquisition procedures as of September 2019

### 3 Cash management with a focus on financial discipline

**1 Asset compression**
- Already accomplished ¥100 bn of asset compression two years ahead of original 2020 MTMP
- An approximate additional ¥200 bn is already planned, to be realized mainly by selling strategic shareholdings.
- Now examining further measures.

**2 More efficient capital expenditures**

Pursue efficient CAPEX based on long-term refurbishing plans ▶ Plan to optimize CAPEX relative to plan in original 2020 MTMP

cf. Original 2020 MTMP: ¥1,700 bn over three years (decision making basis)

**3 Lage-scale funding**
- Decided to raise up to ¥300 bn by public issue of hybrid bonds.
- Terms and conditions to be determined in or after September 2019.
  D/E ratio in FY2020 (forecast) = 0.8 - 0.9; adjusted (for 50% of hybrid bonds as equity) D/E ratio = 0.65 - 0.75

cf. D/E ratio target in original 2020 MTMP = approx. 0.7

### 4 Structural measures to drastically enhance profitability

Dealing with the recently emerged "Another China Risk" and preparing for competition with cutting-edge new steel mills along Asian coasts and long-term decline of domestic steel demand caused by population decline, we are also planning on mid- to long-term structural measures to strengthen our profitability.

**1 Build lean, optimal production framework**
- Promote concentrated investment in competitive production lines and improve their operation rates coupled with productivity improvement through implementation of advanced IT.
- Utilize the advantages of our production framework and overcome our drawbacks. Then evaluate each product and each area of business to sharply define direction.
- Plans will be announced one by one as they are determined. As the first step, reinforcement of the UO pipe business was announced in May 9, 2019. (By the end of October 2019 (plan), the UO pipe mill in the Kashima Works will be closed, and its production will be transferred to the Kimitsu Works).

**2 Reinforce overseas businesses**

In terms of increasing overseas businesses' profit and re-distribution of management resources, we thoroughly examine and determine measures, including withdrawal, for businesses that cannot be moved into the black, businesses that have completed their roles, or businesses that are losing synergies.




Value creation story　Business strategy

# Domestic Business Restructuring

Nippon Steel has spearheaded the Japan's steel industry restructuring.
After we made Nisshin Steel, Japan's 4th largest blast furnace operator, producing common steel sheet, specialty steel sheet, and stainless steel, a subsidiary in 2017, we made it a wholly owned subsidiary and reorganized the Nippon Steel Group's stainless steel business in 2019.

Moreover in 2019, we made Sanyo Special Steel, one of Japan's major specialty steelmakers, a subsidiary, and did so with Ovako, a Swedish special steelmaker. We then arranged Sanyo Special Steel to make Ovako its subsidiary. These actions were intended to generate maximum synergies.

1970 | 2012 | 2017 | 2018 | 2019

- Yawata Iron & Steel / Fuji Iron & Steel → Nippon Steel (1970)
- Nippon Steel / Sumitomo Metal Industries → Nippon Steel & Sumitomo Metal (2012) → Nippon Steel (2019)
- Nisshin Steel → Nisshin Steel (became a subsidiary) (2017) → Nippon Steel Nisshin (became a wholly owned subsidiary) (2019)
- Sanyo Special Steel (became an equity-owned affiliate in 2006) → Sanyo Special Steel (became a subsidiary) (2019)

## Nisshin Steel made a wholly-owned subsidiary, and the stainless steel business was restructured

### Background

**Nisshin Steel's structural reform**

In 2016 Nisshin Steel underwent structural reform, including an increase in concentration of management resources on competitive products and rationalization of iron resources by ceasing operation of the No. 2 blast furnace in its Kure Works and receive a continuous supply of steel slabs from Nippon Steel, as an alternative iron source.

**Stainless steel business in a harsh environment**

Supply side
- Significant excess capacity in China and a global excess supply condition to continue
- Emergence of an integrated maker from nickel ore to stainless products, and giant maker

Demand side
- Rising protectionism in Americas, Europe, and ASEAN
- Industrial structural change resulting in a decline in conventional demand and a creation of new demand

### Integration and reorganization

**Nisshin Steel became a subsidiary (March 2017) and a wholly-owned subsidiary (January 2019); the stainless steel business was reorganized (April 2019)**

Nippon Steel's strength: Advanced technology, product capability; Cost competitiveness, centered on iron and steel-making; Global capability

Nisshin Steel's strength: Customer/market responsiveness with thorough business development sales capability to satisfy customers' needs

→ **Maintain/enhance competitive business base**
Enhanced product, technology, service offerings in Japan and globally, to meet customers' needs

Reorganization of the stainless steel business

- Steel sheet business: Nisshin Steel (Stainless steel business), Nippon Steel & Sumikin Stainless Steel → Nippon Steel Stainless Steel
- Stainless steel pipes & tubes business: Nippon Steel & Sumikin Stainless Steel Pipe, Nisshin Stainless Steel Tubing → Nippon Steel Stainless Steel Pipe; Nisshin Stainless Steel Tubing, Nippon Steel & Sumikin Pipe → Nippon Steel Pipe

### Synergy

Synergy ¥30 bn

**¥20 bn effect of Nisshin becoming a subsidiary**
1 Mutual supply of semi-products ¥6 bn 2 Shared sales & marketing strategy, effective utilization of capacity ¥3 bn
3 Transfer of best technological practices ¥7 bn 4 Shared procurement strategy ¥4 bn
(Addition) Kure #1 blast furnace repair postponement by adopting Nippon Steel's technology from 2019-end to around 2023-end, meaning more room for investment
**By Nisshin becoming a 100% sub. and stainless steel business restructuring ¥10 bn**

## Stainless steel business restructuring (Sanyo Special Steel and Ovako to become subsidiaries)

### Background

**Anticipated demand growth and quality advancement in the bearing steel market**

Steel for bearings requires high reliability as bearings are important parts for automobiles, industrial machinery, electronic devices, robots, wind power generation, and other industries. Steady growth in demand and increasing need for higher quality are expected to continue.

**Sanyo Special Steel**
A leading maker in Japan in high-reliability specialty steel, including bearing steel, and possesses high-cleaning technology

**OVAKO**
A Swedish specialty steel maker possessing the world-leading high-cleanliness steel technology and Europe's top-tier production capacity in bearing steel. Sanyo Special Steel and Ovako are major suppliers to the world's leading bearing manufacturers, which are concentrated in Europe and Japan.

[World's leading bearing manufacturers]
#1 SKF (Sweden); #2 Schaeffler (Germany); #3 NSK (Japan); #4 NTN (Japan); #5 JTEKT (Japan)

**Nippon Steel**
Muroran Works and Yawata Works (Kokura Area) are engaged in the specialty steel business, with strength in steel for machinery structure.

### Integration and reorganization

**Ovako became a subsidiary (June 2018), Sanyo Special Steel became a subsidiary (March 2019), and made Ovako its subsidiary (March 2019), aiming for greater synergies**

NIPPON STEEL → 51%-owned subsidiary → SANYO SPECIAL STEEL → 100%-owned subsidiary → OVAKO

Stable management base | Unified business management

Integration of business base and capability in technology and product development

### Synergy

Synergy ¥10 bn

1 Pursuit of group-wide efficient production (optimal production system by region; sharing of operational know-how; mutual use of overseas production bases and distribution network)
2 Enhanced responsiveness to customers (mutual use of sales network, joint R&D to enhance proposals to customers)
3 Cost Reduction in procurement (more efficient raw material transportation; centralized purchasing, etc.)

## Changes in the number of blast furnaces Establishing an optimal production framework

Nippon Steel has sought to establish an optimal production framework in various ways: 1) making larger blast furnaces to raise productivity; 2) suspending operation of aged blast furnaces and undertaking integration and restructuring to concentrate production at competitive facilities within an integrated company; and 3) scrapping old facilities.

| Changes in the number of blast furnaces | March 1987 number of blast furnaces | Change from April 1987 to September 2012 | October 2012 (integration) number of blast furnaces | Change from November 2012 to March 2019 | March 2019 number of blast furnaces | Change from April 2019 |
|---|---|---|---|---|---|---|
| Former Nippon Steel | 12 | ↓3 1988.12 Yawata 2 BF to 1<br>1989.3 Kamaishi BF ceased operation<br>1990.3 Sakai BF ceased operation<br>1993.6 Hirohata BF ceased operation<br>1988.7 Kimitsu #3 BF started operation | 9 | ↓1 2016.3 Kimitsu #3 BF ceased operation | 8 Muroran 1, Kimitsu 2, Nagoya 2, Yawata 1, Oita 2 | |
| Former Sumitomo Metals | 6 | ↓1 1990.9 Wakayama 3 BF to 2 | 5 | | 5 Kashima 2, Wakayama 2, Yawata (Kokura) 1 | ↓1 FY2020-end; Yawata (Kokura) BF to cease operation (plan) |
| Nisshin Steel | 2 | | 2 | | 2 Kure 2 | ↓1 FY2023-end; Kure #2 BF to cease operation after the expansion and refurbishment of Kure #1 BF |
| Nippon Steel | 20 units | ↓4 | 16 units | ↓1 | 15 units | ↓2 |

# Nippon Steel's Global Business Strategy

## Framework of Nippon Steel's global business strategy

**Nippon Steel has not expanded globally by merging with steelmakers outside Japan. Rather, we expanded by building overseas manufacturing bases from scratch, by deploying our accumulated ability in technology, sales and marketing, and by making use of our business capabilities cultivated in Japan. And we did so ahead of our competitors.**

### The steel industry is a gigantic local industry

Anywhere in the world, steel demand increases in line with economic development and is initially satisfied by imports. With further economic progress, fostering of the nation's own steel industry becomes a national policy as steel is a basic material of all industries. Steel demand then is filled by domestic production. As a result of this process, in many countries, steelmakers tend to be developed and scattered by country, making global shares of top-tier makers less concentrated compared to other industries. The steel industry therefore can be described as a "gigantic local industry."

Currently, even in emerging countries that drive global demand growth, steel demand is satisfied by increasing production capacity of domestic makers (insiders).

### Becoming an insider

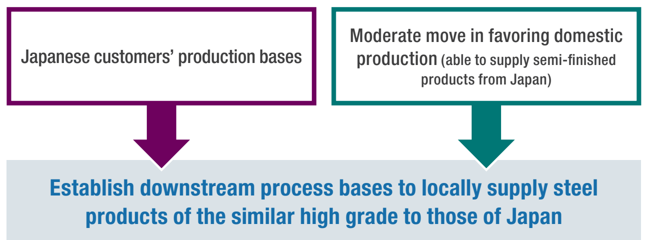
It is crucial to become an "insider" of a target country or region for Nippon Steel to contribute to the growth of those countries and regions, by responding to demand growth in growing countries and regions by using our capabilities mentioned above, and in so doing raise our corporate value by capturing their growth.

Using the base provided by our global network of customers, we have endeavored to become an insider in an optimal way by product type or region, by accurately assessing demand trends and the business environment of each region. Criteria in those assessments include the size and growth potential of the steel market, Japanese clients' entry to the local market, needs of local customers, difficulty to enter with exports (where there is favoring of domestic production, etc.), and difficulty to start local production (due to regulations, etc.)


## Regional business strategies

### ASEAN

In the ASEAN region which is geographically close to Japan and where many of our Japanese customers have production bases, we have built a framework to locally provide similar high-grade steel products to customers as we do in Japan. We have invested substantial capital to establish local bases for downstream production processes which directly link to quality assurance and reliable delivery to customers, while providing semi-finished products from our steel mills in Japan to those local production bases where they are processed to finished products.




### North America and China

In areas such as North America and China, we have made alliances with major local partners, such as ArcelorMittal and Baowu Steel, to develop local bases for downstream production processes by joint ventures. Those joint ventures supply high-grade steel products by Nippon Steel's technical assistance, using semi-products provided by the partner,.


Under the framework stated above, we have promoted optimal business development in the target areas where our technology and product capacity can be used and in markets with high anticipated growth in demand. This has resulted in expanding our overseas downstream production process capacity from 9 million tons 5 years ago to 21 million tons (12 million tons equivalent to our equity stake). In the automotive sector, we are already at the stage of completing a production network in growing markets, including Thailand, Indonesia, and India.



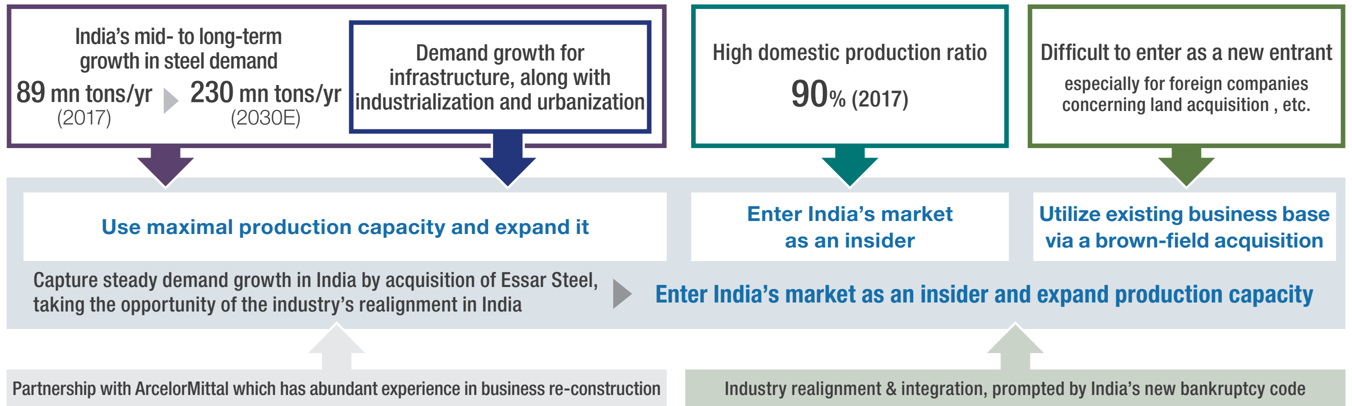
## Business Development in New Growth Region and Sector

**We are advancing overseas business development in areas where our technology and high-grade products can contribute and in markets where we see assurance of demand growth potential.**

### Acquisition of Essar Steel　Growth region　India

In India — a market with the biggest growing potential in the world and with a high domestic production ratio – Nippon Steel has been engaged in, jointly with ArcelorMittal, acquisition procedures for Essar Steel India Limited. Essar Steel is one of four major steelmakers in India and has an integrated steelworks – from a blast furnace operation to production of steel products – on the west coast of India as well as a wide-ranging domestic sales network and an iron mine . To resolve the problem of a high interest burden, Essar Steel underwent the corporate insolvency resolution process under the Indian Insolvency and Bankruptcy Code in 2018 but is to be acquired and prospects are for it to recover and become a competitive steelmaker under joint management by Nippon Steel and ArcelorMittal in equal partnership (under acquisition procedures as of September 2019).

After completion of acquisition procedures, we intend to contribute to development of India's steel industry and economy and to capture growth of the market in India as an insider.



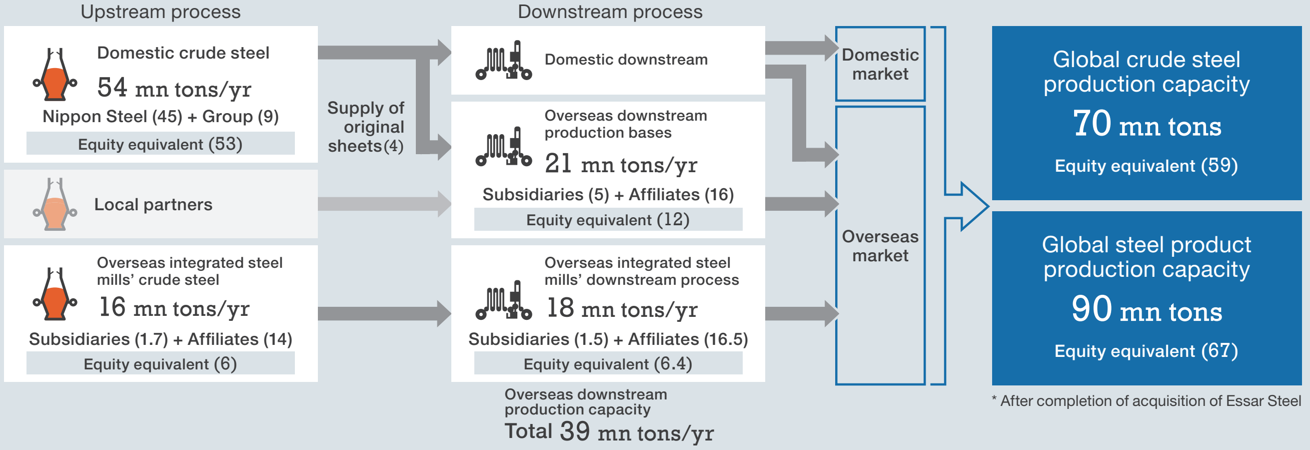

### Acquisition of Ovako　Growth sector　Specialty steel

In the specialty steel sector –one of the representative sectors where we have strength in technology and high-grade products – Nippon Steel acquired Ovako AB in Sweden in June 2018, made Sanyo Special Steel a subsidiary in March 2019, and arranged for Sanyo Special Steel to acquire all shares of Ovako. Together with the Nippon Steel's special steel bar & wire business conducted in the Muroran Works and the Yawata Works (Kokura Area), we seek to generate synergies of the three companies.

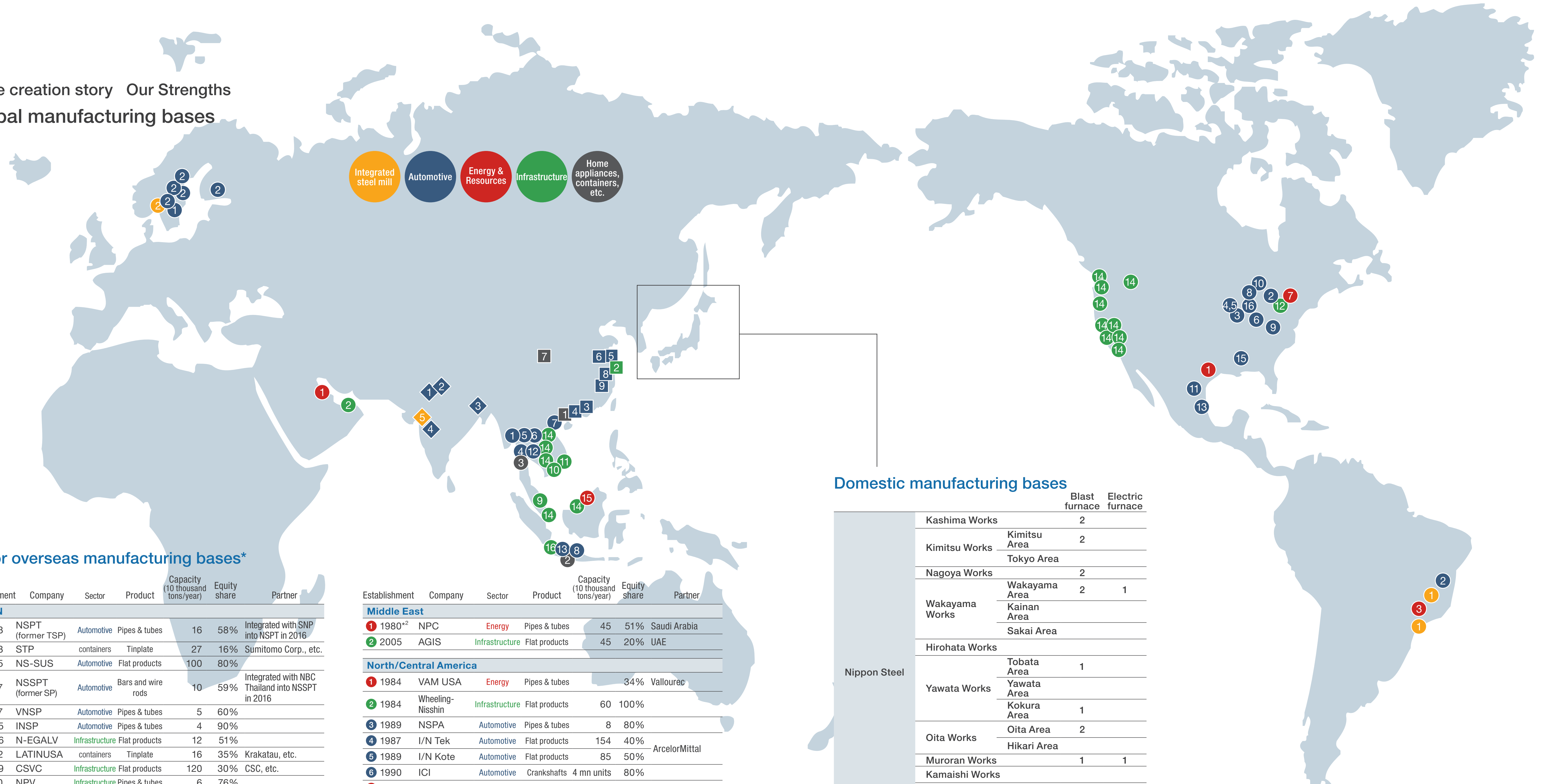
#### Global Production Capacity

After the acquisition of Essar Steel, the Nippon Steel Group's overseas production capacity is expected to reach 39 million tons. (The overall capacity is a simple aggregate of Nippon Steel and its subsidiaries and equity-method affiliates.) This is an aggregate of 21 million tons in production capacity of downstream bases and 18 million tons in downstream production capacity of integrated steel mills, such as USIMINAS (Brazil) and Essar Steel to be acquired (as of September 2019). The Group's global steel production capacity is expected to be about 90 million tons: an aggregate of domestic crude steel production capacity (54 million tons) and overseas downstream production capacity (39 million tons), subtracting semi-finished products (4 million tons) supplied from Japan to overseas downstream processes. (The capacity equivalent to Nippon Steel's equity stake in JVs is estimated at around 67 million tons.)

**Nippon Steel Group's composition of global production capacity** (million tons/year)



# Global manufacturing bases




## Major overseas manufacturing bases*

| Establishment | Company | Sector | Product | Capacity (10 thousand tons/year) | Equity share | Partner |
|---|---|---|---|---|---|---|
| **ASEAN** | | | | | | |
| 1 1963 | NSPT (former TSP) | Automotive | Pipes & tubes | 16 | 58% | Integrated with SNP into NSPT in 2016 |
| 2 1988 | STP | containers | Tinplate | 27 | 16% | Sumitomo Corp., etc. |
| 3 1995 | NS-SUS | Automotive | Flat products | 100 | 80% | |
| 4 1997 | NSSPT (former SP) | Automotive | Bars and wire rods | 10 | 59% | Integrated with NBC Thailand into NSSPT in 2016 |
| 5 1997 | VNSP | Automotive | Pipes & tubes | 5 | 60% | |
| 6 2005 | INSP | Automotive | Pipes & tubes | 4 | 90% | |
| 7 2006 | N-EGALV | Infrastructure | Flat products | 12 | 51% | |
| 8 1982 | LATINUSA | containers | Tinplate | 16 | 35% | Krakatau, etc. |
| 9 2009 | CSVC | Infrastructure | Flat products | 120 | 30% | CSC, etc. |
| 10 2010 | NPV | Infrastructure | Pipes & tubes | 6 | 76% | |
| 11 2012 | KNSS | Automotive | Flat products | 48 | 80% | Krakatau |
| 12 2013*1 | NSBS | Infrastructure | Flat products | 96 | 50% | NS BlueScope |
| 13 2015 | VAM® BRN | Energy | Pipes & tubes | | 60% | Vallourec, etc. |
| 14 2017 | KOS | Infrastructure | Construction products | 50 | 80% | Krakatau |
| **China** | | | | | | |
| 1 1994 | PATIN | containers | Tinplate | 20 | 25% | |
| 2 1996*1 | Ningbo Baoxin Stainless Steel | Infrastructure | Stainless steel sheets | 66 | 20% | Baowu Steel Group |
| 3 2003 | Huizhou Nippon Steel Forging | Automotive | Crankshafts | 2,100 thousand units | 60% | |
| 4 2003 | Nippon Steel Pipe Guangzhou | Automotive | Pipes & tubes | 2 | 66% | |
| 5 2004 | BNA | Automotive | Flat products | 262 | 50% | Baowu Steel Group |
| 6 2004 | Wuxi Nippon Steel Pipe | Automotive | Pipes & tubes | 2 | 71% | |
| 7 2011 | WINSteel | containers | Tinplate | 80 | 50% | Baowu Steel Group |
| 8 2006 | NSCh | Automotive | Bars and wire rods | 4 | 25% | Matsubishi Metal Industry, etc. |
| 9 2014 | ZNW | Automotive | Special Steel | 12 | 55% | |
| **India** | | | | | | |
| 1 2010*2 | SMAC | Automotive | Crankshafts | 2,200 thousand units | 40% | Amtek Auto |
| 2 2010 | NSPI | Automotive | Pipes & tubes | 2 | 99% | |
| 3 2012 | JCAPCPL | Automotive | Flat products | 60 | 49% | Tata Steel |
| 4 2011*1 | Mahindra Sanyo | Automotive | Specialty steel | 24 | 51% | Mahindra Ugine Steel |
| 5 After completion of acquisition | ESSAR STEEL | Integrated steel mill | Flat products, Plates, Pipes and tubes | 960 | | ArcelorMittal |

| Establishment | Company | Sector | Product | Capacity (10 thousand tons/year) | Equity share | Partner |
|---|---|---|---|---|---|---|
| **Middle East** | | | | | | |
| 1 1980*2 | NPC | Energy | Pipes & tubes | 45 | 51% | Saudi Arabia |
| 2 2005 | AGIS | Infrastructure | Flat products | 45 | 20% | UAE |
| **North/Central America** | | | | | | |
| 1 1984 | VAM USA | Energy | Pipes & tubes | | 34% | Vallourec |
| 2 1984 | Wheeling-Nisshin | Infrastructure | Flat products | 60 | 100% | |
| 3 1989 | NSPA | Automotive | Pipes & tubes | 8 | 80% | |
| 4 1987 | I/N Tek | Automotive | Flat products | 154 | 40% | ArcelorMittal |
| 5 1989 | I/N Kote | Automotive | Flat products | 85 | 50% | ArcelorMittal |
| 6 1990 | ICI | Automotive | Crankshafts | 4 mn units | 80% | |
| 7 1992 | PEXCO | Energy | Pipes & tubes | 1 | 30% | Penn Power |
| 8 1996 | IPF | Automotive | Bars and wire rods | 4 | 100% | |
| 9 2005*2 | NAT | Automotive | Pipes & tubes | 1 | 89% | |
| 10 2008 | NSI | Automotive | Crankshafts | | 60% | |
| 11 2010 | TENIGAL | Automotive | Flat products | 40 | 49% | Ternium |
| 12 2011*3 | Standard Steel | Infrastructure | Railway wheel | | 80% | |
| 13 2012 | MNSP | Automotive | Pipes & tubes | 2 | 74% | Metal One, etc. |
| 14 2013*1 | NSBS | Infrastructure | Flat products | 44 | 50% | NS BlueScope |
| 15 2014 | AM/NS Calvert | Automotive | Flat products | 430 | 50% | ArcelorMittal |
| 16 2016 | NSCI | Automotive | Bars and wire rods | 3 | 42% | Matsubishi Metal Industry, etc. |
| **South America** | | | | | | |
| 1 1958 | Usiminas | Integrated steel mill | Flat products and Plates | 690 | 31% | Ternium, etc. |
| 2 1999 | UNIGAL | Automotive | Flat products | 103 | 30% | Usiminas |
| 3 2010*2 | VSB | Energy | Pipes & tubes | 110 | 15% | Vallourec |
| **Europe** | | | | | | |
| 1 2009*3 | Suzuki Garphyttann | Automotive | Bars and wire rods | 5 | 100% | |
| 2 2018*3 | OVAKO | Integrated steel mill | Bars and wire rods | 110 | 100% | (a group company of Sanyo Special Steel) |

* Please see details of each base in the section "Major Overseas Steelmaking Operations," of "Basic Facts about Nippon Steel"

*1 capital participation of Nippon Steel
*2 start-up
*3 acquisition

## Domestic manufacturing bases

| | | | Blast furnace | Electric furnace |
|---|---|---|---|---|
| Nippon Steel | Kashima Works | | 2 | |
| | Kimitsu Works | Kimitsu Area | 2 | |
| | | Tokyo Area | | |
| | Nagoya Works | | 2 | |
| | Wakayama Works | Wakayama Area | 2 | 1 |
| | | Kainan Area | | |
| | | Sakai Area | | |
| | Hirohata Works | | | |
| | Yawata Works | Tobata Area | 1 | |
| | | Yawata Area | | |
| | | Kokura Area | 1 | |
| | Oita Works | Oita Area | 2 | |
| | | Hikari Area | | |
| | Muroran Works | | 1 | 1 |
| | Kamaishi Works | | | |
| | Amagasaki Works | | | |
| | Osaka Steel Works | | | 1 |
| | Naoetsu Works | | | |
| Nippon Steel Nisshin | | | 2 | |
| Nippon Steel Stainless Steel | | | | 3 |
| Osaka Steel | | | | 2 |
| Oji Steel | | | | 1 |
| Sanyo Special Steel | | | | 2 |

## Overseas steel product manufacturing capacity (10,000 tons/year)

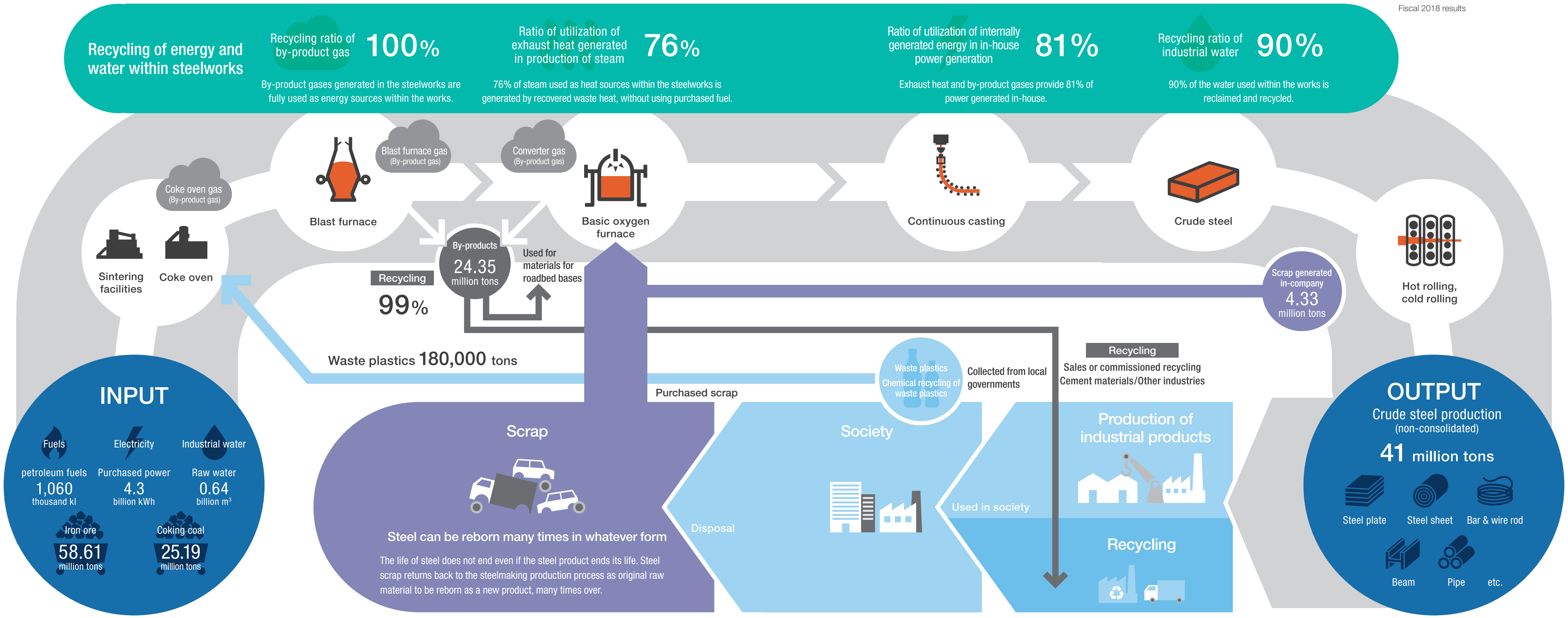
| | Automotive | | | | Energy & Resources | Infrastructure | Home appliances, containers, etc. | Downstream processing capacity | Integrated steel mill | Total |
|---|---|---|---|---|---|---|---|---|---|---|
| | Flat products | Bars & wire rods | Pipes & tubes | Crankshafts | | | | | | |
| **Overseas total** | **1,315** | **33** | **52** | **20** | **75** | **430** | **190** | **2,100** | **1,800*** | **3,900*** |
| **ASEAN** | 185 | 10 | 25 | | 0 | 280 | 90 | 590 | | 590 |
| **China** | 340 | 5 | 5 | 5 | | | 100 | 450 | | 450 |
| **India** | 60 | | 10 | 5 | | | | 80 | 960* | 1,040* |
| **Middle East/Africa** | | | | | 45 | 45 | | 90 | | 90 |
| **North/Central America** | 630 | 3 | 12 | 10 | | 105 | | 760 | | 760 |
| **South America** | 100 | | | | 30 | | | 130 | 710 | 840 |
| **Europe** | | 5 | | | | | | 5 | 110 | 115 |

* After completion of acquisition of Essar Steel

# Eco process

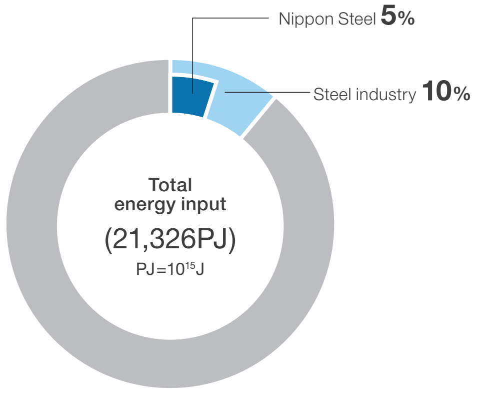
Nippon Steel aims at reducing the environmental impacts of its operations and manufacturing processes. We strive to efficiently utilize limited resources and energy at every stage of operations.

Nippon Steel's steelworks are working rigorously to save energy in all manufacturing processes with the aim of reducing $CO_2$ emissions. For example, we try to achieve efficient use of equipment, higher combustion efficiency, and electricity savings. Water for cooling or washing products and production facilities is recycled and reused, while by-products generated in manufacturing processes are actively recycled and reused. In addition, steel used in society returns to the steelmaking production process as steel scraps and can be reborn as a new product many times over because impurities can be easily removed. Our long-accumulated know-how and technologies have enabled us to use resources and energy thoroughly and efficiently.

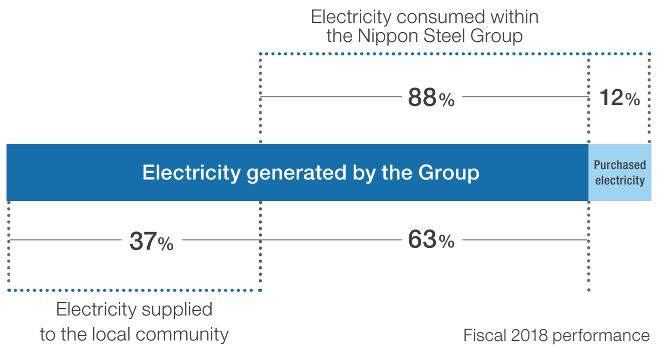



### Energy inputs

Nippon Steel's share in Japan's total energy input (FY2017)




Source: "General Energy Statistics" by the Agency for Natural Resources and Energy JISF (Japan Iron and Steel Federation)




Nippon Steel internally generates 88% of the electricity it uses.
Nippon Steel supplies 37% of internally-generated electricity to the local community through electric power companies.

### Blast furnaces are huge reactors, using coal

Iron ore and coal are the main raw materials fed into a blast furnace. Iron ore is melted in a huge furnace (height, about 100 meters) and steel is reduced and extracted, but what kind of role does coal play? The main ingredient of coal is carbon, but before it is fed into a blast furnace, it is thermally decomposed in the absence of oxygen (carbonized), effective ingredients such as hydrocarbon oil and gas are separately extracted, and it is turned into coke with high strength and high carbon purity. However, the iron included in iron ore is present as iron oxides. In the blast furnace, a chemical reaction called reduction, which removes oxygen from these iron oxides, occurs, and the carbon in the coke functions as a reducing agent. Coal is not burned as a fuel but rather is the ingredient used to cause a chemical reaction.
At present, as there is no reducing agent to replace coal in the industrial production of steel, the generation of $CO_2$ resulting from the reduction reaction caused by carbon cannot be avoided (iron oxide + carbon → steel + $CO_2$).
Nevertheless, as the Japanese steel industry, including Nippon Steel, has promoted energy-saving measures such as making effective use of the by-product gases and heat generated in the steelmaking process, it has realized the highest energy efficiency in the global steel industry and at the same time is controlling the $CO_2$ emissions. We may therefore conclude that making steel in Japan is ecologically wise.
Furthermore, for the COURSE50, we are engaged in R&D activities aimed at using hydrogen as a reducing agent partially replacing coal in industrial production (iron oxide + hydrogen → steel + water).

# Eco products (What we produce is "Eco-friendly")

## Nippon Steel's eco-friendly products help reduce environmental burden.

Our products have advanced or highly specialized functions and reliability, that are based on our technological capabilities, and are widely used in diverse areas of society. They contribute to promote (1) measures against climate change by energy saving and $CO_2$ emission reduction ; (2) creation of a circular economy by prolonging product life and improving recyclability; and (3) environmental risk management by preservation of the environment and control of chemical substances.

**Promoting measures against climate change**
(Saving of energy and a reduction in $CO_2$ emissions)

Nippon Steel is contributing to reduction in $CO_2$ emissions through improved fuel efficiency such as by customers' use of high-tensile-strength steel sheets, which are thinner and more lightweight.

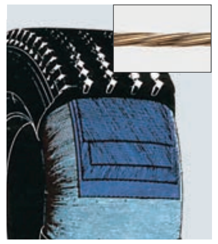
Improved construction efficiency for civil engineering
**Wire rods for high-strength suspension bridge cables**

Energy conservation from lighter, faster-speed railways
**Wheels for high-speed railways**

Improved construction efficiency for civil engineering
**Hat-type steel sheet piles**

Promotion of energy conversion
**Seamless pipes and tubes for hydrogen refueling stations**

Enhanced efficiency of motors for hybrid vehicles
**Highly-efficient non-oriented electrical steel sheet**



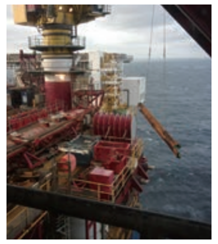
Weight reduction and better fuel efficiency for automobiles
**Steel cords for tires**

**Promoting environmental risk management**
(preservation of the environment and control of chemical substances)

Nippon Steel is contributing to reduction of environmental risks by realizing the same performance, which used to be achieved by adding lead and other substances of concern, without doing so, and by providing steel products that curb noise generation in the use of the products.

Enhanced maritime safety of ships
Steel plates for enhancing collision safety
**NSafe™-Hull**

Electrolytic chromate-free zinc-coated steel sheet for home appliances
**NS ZINKOTE™ Black**



Eco-friendly products for the energy sector OCTG connections
**CLEANWELL™DRY**

**Promoting the creation of circular economy**
(prolonged service life and improved recyclability)

Nippon Steel is contributing to prolonged product lives by providing corrosion-resistant, abrasion resistant steel products, that respond well to usage and the environment to be used. We are also contributing to promoting a circular economy by adding various functions to steel, which has extremely high recyclability.

Highly recyclability and weight reduction
**Ultra-thin tin-laminated steel foil**

Prolonged service life and enhanced durability and reliability for the construction industry
**Titanium roofing**

Enhanced corrosion resistance for home appliances and construction products
**High corrosion resistance coated steel sheet, SuperDyma™**





# Eco solution (Sharing our "Eco-solutions")

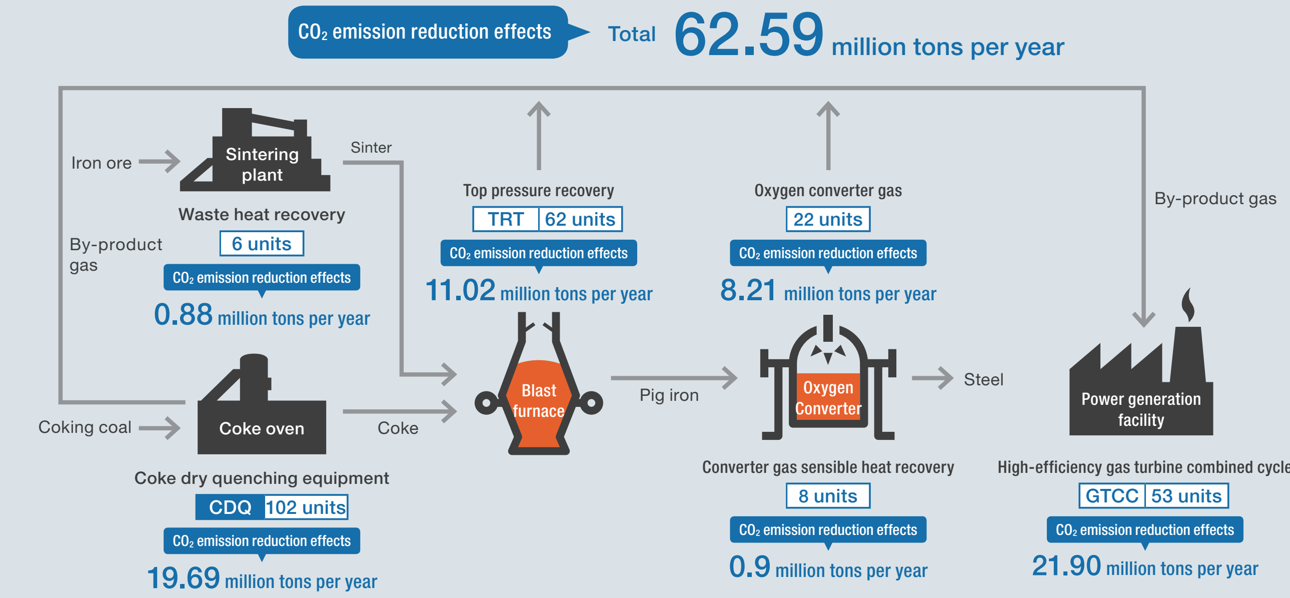
## The Nippon Steel Group's technologies help solve the environmental challenges of various countries throughout the world.

With the understanding that the transfer of Japan's advanced energy-saving technologies overseas can be one of the most effective ways to globally reduce $CO_2$ emissions, Nippon Steel is participating in global energy-saving and environmental initiatives in various ways including multinational and binational undertakings, such as cooperative activities with China and India.

### Overseas steel industry's $CO_2$ emission reduction effects by introducing Japan's energy-saving equipment

(Cumulative basis to fiscal 2017, JISF)

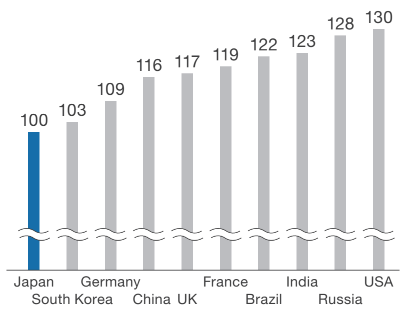
The $CO_2$ emission reduction effects achieved by Japanese companies' energy-saving technologies transferred overseas have amounted to over 62.59 million tons a year in total.




### Energy efficiency in steelmaking by country

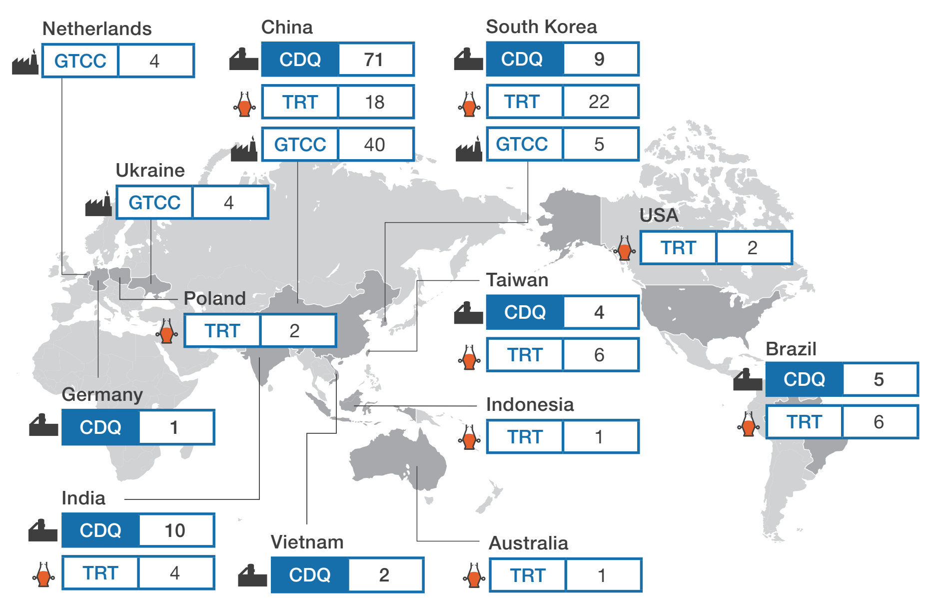
Energy intensity for converter steel in 2015
(Japan = 100)

Nippon Steel and other steelmakers in Japan had earnestly promoted continuous processing and waste heat recovery from the first oil crisis to around 1990. This has resulted in their achieving the world's high-level energy efficiency.




Source: International Comparisons of Energy Efficiency (Sectors of Electricity Generation, Iron and steel, Cement), RITE, 2015 (Numerical values were provided by the Japan Iron and Steel Federation (JISF))

### Expansion of world use of the Japanese steel industry's energy-saving technologies
(Numbers represent the number of units)




The Coke Dry Quenching (CDQ) power generation equipment uses the waste heat, which is recovered while the hot coke is quenched with inert gas.

* 102 units of CDQ equipment are all from the Nippon Steel Group (Nippon Steel Engineering).

# Solutions for National Resilience

## What is the National Resilience?

In recent years, extreme weather change caused by climate change and natural disasters such as heavy rains, high tides, powerful storms, earthquakes, heavy snows, and others, have occurred more frequently and more severely all over the world.
Increased risks associated with them are of grave concern. Concerning infrastructure that supports the everyday life of people, the greater aging of infrastructure in developed countries and the infrastructure building in emerging countries are becoming important issues.
The 17 Sustainable Development Goals (SDGs) adopted by the United Nations in 2015 include "Goal 9: Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation" and "Goal 11: Make cities and human settlements inclusive, safe, resilient and sustainable."
The Japanese Government's 8 Priority Areas and Policies among the SDGs Implementation Guiding Principles include the issue of "Sustainable and Resilient Land Use, Promoting Quality Ilnfrastructure." Along with specific measures presented – namely, 1) Creating Resilient Land and Promoting Disaster Risk Reduction, 2) Water Resource Development and Measures on Water Circulation, and 3) Promotion Quality Infrastructure Investment, were presented as specific measures.
The three-year emergency response plan for disaster prevention, disaster mitigation, and building national resilience has been promoted since fiscal 2018 in a scale of around ¥7 trillion in budget.
In order to prevent severe damage caused by large-scale natural disasters, continual efforts are required from the perspective of what in the past was built that was judged in normal times to be strong. Consideration must also be given to protection of the nation's resiliency, economy, and society, and enable swift action and good recovery after disasters. Moreover, reconstruction of resilient infrastructure in developed countries and building such infrastructure in emerging countries are indispensable for broad-based sustainable growth and safe, reliable living.

## Nippon Steel Group's solutions for National Resilience

*For more detail, please refer to product information on our website.

Nippon Steel and its group companies have provided product/process solutions using advanced quality materials that help prevent or reduce disasters, based on their technologies and know-how accumulated in development and manufacturing of steel products. We are committed to contributing to the creation of a safe, reliable, sustainable society now and in the future.

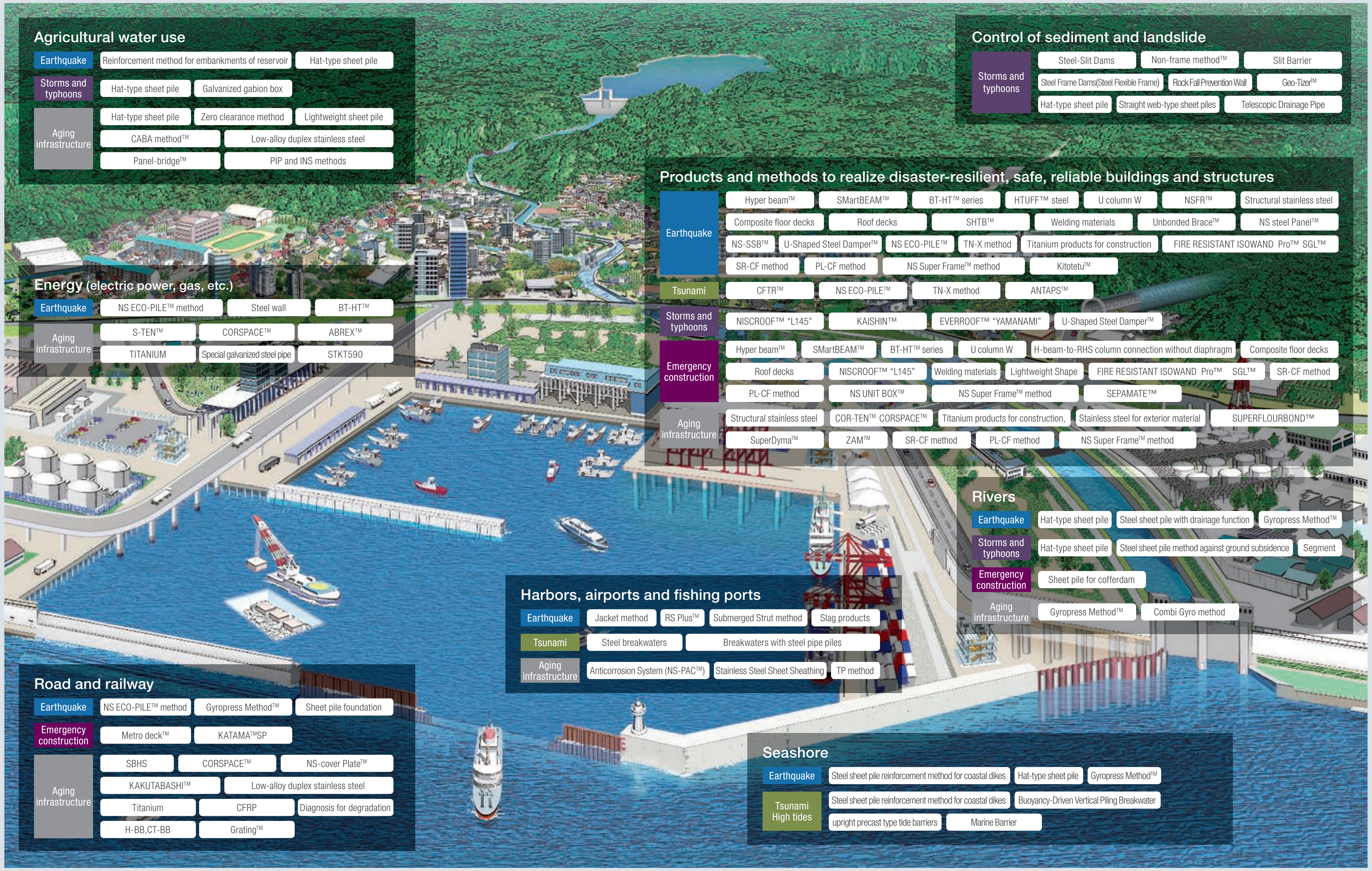
Risks in need of solutions

Natural disasters caused partly by climate change and others

Earthquake
Tsunami
Storms and typhoons
Emergency construction
Aging infrastructure (extended use)

Outcomes to be achieved

Disaster prevention; disaster mitigation
Labor-Saving, Manpower-Saving
Reduction in environmental impact




### Nippon Steel Group Companies provide products and solutions

Nippon Steel / Nippon Steel Engineering / Nippon Steel Chemical & Material

Nippon Steel Stainless Steel / Nippon Steel Metal Products / Nippon Steel Coated Sheet / Nippon Steel Bolten / Nippon Steel Welding & Engineering / Nippon Steel Anti-Corrosion / Nippon Steel Technology / Nippon Steel Blast Furnace Slag Cement / Geostr / Nippon Steel Pipeline & Engineering

Nippon Steel Nisshin / Nippon Steel Nisshin Pipe / Nippon Steel Nisshin A&C

# Aiming for further Advancement in technology

Iron is believed to be one-third of the Earth's weight. While its theoretical strength is said to be 10GPa, the strength of steel materials commercially used today for automobiles is merely 10% of iron's theoretical strength.
This means that we have the potential of developing steel with much higher strength than we have today.
What supports such a high level of manufacturing that combines huge scale and minute precision at Nippon Steel is its continuing process of realizing the potential of steel as a material, that is, the challenge of "creating the value of steel."

## R&D organization

Nippon Steel's approximately 800 R&D employees work in three core research centers—Futtsu in Chiba Prefecture, Amagasaki in Hyogo Prefecture, and Hasaki in Ibaraki Prefecture—as well as in the Plant Engineering and Facility Management Center (Head Office) and R&D laboratories at steelworks across Japan. They collaborate to ensure integrated R&D activities that encompass basic and fundamental research, application development and engineering.
In April 2018, a new R&D unit was established which is central to development of materials and products that respond to steel-user needs for flat product (among other products), and their corresponding advanced application technology development and solutions. We also established the Intelligent Algorithm Research Center which is engaged in enhancing our research on use of advanced IT. The Nippon Steel Group's top-class researchers in this field have been assigned to this new facility.
Our R&D capabilities feature six strengths:
(1) comprehensiveness and speed of development, facilitated by the integration of R&D and engineering; (2) an R&D network having locations near customers; (3) integrated solutions enhanced by Group companies' products and technologies; (4) the ability to address environmental and energy-related concerns with solutions based on steelmaking process technology; (5) collaboration between industry and academic institutions, overseas alliances, and joint research with customers; and (6) an extensive portfolio of fundamental and platform technologies.

**Three core research centers**


Research & Engineering Center (Futtsu)


Amagasaki R&D Center


Hasaki R&D Center

**Strengths in R&D**

- Comprehensiveness and speed of development, facilitated by the integration of R&D and engineering
- R&D network having locations near customer locations
- Integrated solutions enhanced by Group companies' R&D organization products and technologies
- Ability to address environmental and energy-related concerns with solutions based on steelmaking process technology
- Collaboration between industry and academic institutions, overseas alliances, and joint research with customers
- Extensive portfolio of fundamental and platform technologies

**R&D organization**

R&D Laboratories
R&D Planning Division
Research & Engineering Center (Futtsu) Amagasaki R&D Center / Hasaki R&D Center
R&D Laboratories at Steelworks
Steel Research Laboratories
Advanced Technology Research Laboratories
Process Research Laboratories
Cooperation
Plant Engineering and Facility Management Center (Head Office)

Approx. **800** researchers (Non-consol.)

# Intellectual Property

**One of Nippon Steel's Management Principles is to "pursue world-leading technologies and manufacturing capabilities." The basis of our intellectual property (IP) activity is to secure the most advanced newly created technologies and other ones as IP and then to utilize the IP to meet our medium- and long-term IP strategy.**

## Priorities

The Intellectual Property Division collaborates with the Business Divisions and the R&D Divisions to support the Company's global strategies. We have been focusing on enriching and accumulating IP as "an effective leverage to compete in the world, and with the world" both in terms of quality and quantity and have also been reinforcing the strategic utilization of our IP.

**Specific activities**

Enhanced IP protection

**1. Support the creation of new IP**

1. Build the IP portfolio and plan its strategy
2. Enrich the function of establishing rights for inventions, discoveries, and IP (specifically, enhance the function of Nippon Steel Research Institute Corporation)

**2. Enhance the protection and utilization of IP**

1. Apply for patents of high technical levels in Japan and overseas, and actively utilize overseas registered patents (Number of patents held: approx. 15,000 in Japan and 17,000 overseas as of May 2019; named a Derwent Top 100 Global Innovator 2018-19 for seventh consecutive year by Clarivate Analytics)
2. Increase overseas relocation of personnel in charge of IP and establish a strategic public relations (PR) organization
3. Establish brand strategies

## Engage in active sharing and utilization of IP, and in strategic use in alliances

We have established a code of conduct on safeguarding business secrets and strive to reflect it in our daily operations. Meanwhile, we engage in active sharing and utilization of technological information that ought to be shared in our company, without excessively worrying about information leakage and disrupting sharing.
In addition to strategic use of IP in global business expansion and alliances, we continue to strictly deal with counterfeit products as well as any illegal use of our corporate name, brands, IP, and other assets.

## Strategic establishment of brand families

At the occasion of our name change into Nippon Steel Corporation, we adopted a brandmark suitable to a global corporation, which was also adopted by our group companies as a master-brand to enhance our group identity.
Concerning the SteeLinC™, a brand of the Bar & Wire Rod Unit, we are committed to increasing the value of customers' products resulting from the combination of our processing methods. We are also taking strategic measures to establish brand products with strong messages and appealing power in our other businesses and product areas so that our customers can accurately recognize their features and values. These brands include titanium products TranTixxii™ designed for use in prominent works of architecture such as the roof of Sensoji Temple, the new stainless steel HRX19™ for use in high-pressure hydrogen environments, and the abrasion resistant steel plate ABREX™ in use for construction machinery.

| | |
|---|---|
| Corporate brand = Group branad | NIPPON STEEL |
| Business brands, domain brands | SteeLinC NEW STEEL AGE |
| Brands of product groups or product | HRX19 / TranTixxii / ABREX / SuperDyma |

| Number of patents (Unconsolidated basis) | Approx. 70 countries | Approx. 32,000 patents in aggregate |
|---|---|---|

# Implementation of Advanced IT for Steelmaking Processes

Utilizing IT is becoming an essential element that determines the competitiveness of a company.
Nippon Steel has collected and analyzed massive data from manufacturing frontlines and has worked on creating sophisticated databases to be used for cost reduction and quality improvement.
By utilizing AI, IoT, and big data, we pursue safety and competitiveness in manufacturing frontlines, stability in production, improvement in product quality, and sophistication in business operations.

## Organization to promote use of advanced IT

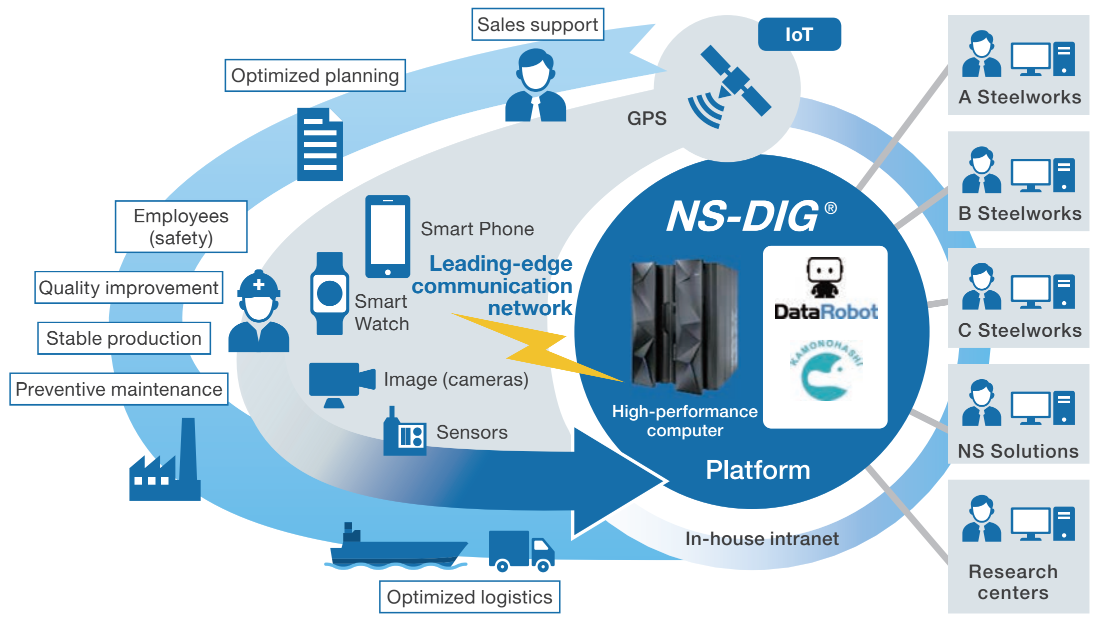
NS Solutions, the Group company engaged in the system solution business of the Nippon Steel Group, is strengthening its capability to provide solutions to customers in the areas of IoT and AI, through its IoX™ Solution Business Promotion Department (operating since in April 2016). In the same month, Nippon Steel established the AI R&D Center to study and promote use of advanced IT. Then in April 2018, the Intelligent Algorithm Research Center was established within the AI R&D Center to be in charge of research on big data analysis and AI. We are thus well positioned to tackle all aspects, from basic research to use of advanced IT.

## More intelligent solutions in steelworks

Nippon Steel has 12 steelworks in Japan. Each steelworks, having their specific products to manufacture and different customers to supply, has had its own tools for data analysis. Advancing from this, in April 2019, all steelworks began to use NS Solutions' NS-DIG, a platform for data analysis and AI development with embedded advanced IT, with an objective of more efficient, stable production of a wide range of products and just-in-time delivery.

### Application of advanced IT and the NS-DIG, a platform*1 for data analysis and AI development

**Within our in-house intranet we have constructed the NS-DIG, a cross-company platform that facilitates collaboration of the staff in steelworks, head office, and laboratories in data analysis and AI development. The NS-DIG is capable of high-performance computing, including advanced image analysis and deep learning, to analyze and use a large variety and volume of data whenever needed. As a tool for AI development, the NS-DIG is embedded with DataRobot™*2 and KAMONOHASHI™*3, to be seamlessly capable of tasks from data preparation and analysis to AI development and evaluation. Through more extensive, efficient AI development and utilization of the data by data scientists and staff in charge, the steelworks are better positioned to further improve their intelligent capabilities.**




*1 Platform: the environment to be a base for the operating system.
*2 DataRobot is automated machine learning for analysis and modeling. It facilitates analysis and modeling to those with little data science experience or coding knowledge. DataRobot is a registered trademark of DataRobot, Inc.
*3 KAMONOHASHI is an AI development platform for efficient deep learning. It supports high-precision AI development which is impossible with pre-existing general models. KAMONOHASHI is a registered trademark of NS Solutions.

Prior to the implementation of the NS-DIG, issues on steelmaking were resolved by sending the data collected at a steelworks to a research center that is capable of analysis, asking for the analysis, and communicating back and forth, before finally reflecting the solution at the manufacturing frontline. Now with the NS-DIG, a cross-company platform for data analysis, good insights and know-how can be shared, lead time in analysis can be reduced, the overall analytical ability can be enhanced, and more difficult issues on steelmaking can be solved.

## Advanced IT human resources development

Nippon Steel is promoting use of advanced IT in ongoing work style reform to ensure safer, higher productivity of its employees. We have also organized ourselves so as to facilitate collaboration of the staff at our steelworks, head office and laboratories and to enable back-ups by data scientists working in AI development. With the aim of improving IT literacy of our people, we have held a corporate-wide congress to introduce usage examples of advanced IT, and organized a consortium to discuss technology development by developers since fiscal 2014. We also began holding an in-house contest on machine learning, that makes use of the NS-DIG environment, in fiscal 2018. As the first step to enhance employees' IT literacy, the IT literacy learning program for new hires also began in fiscal 2019. These are examples of our initiatives to develop employees' capability to use advanced IT and AI.

## Advanced IT usage examples

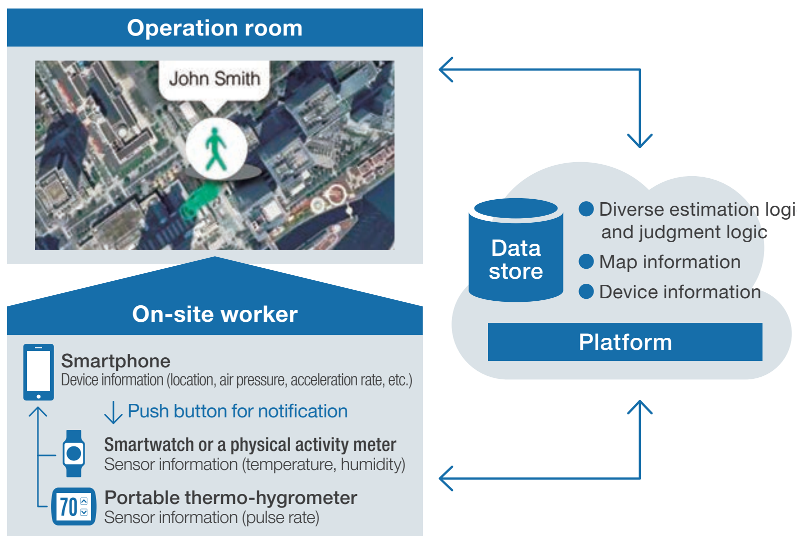
### Example 1 IT solution on production management

Steelmaking has a long lead time from raw materials to finished products. The sales plan and production plan are roughly set up with prior information from trading companies. After actual orders are booked, the production plan is revised and ordered products on hand and semi-finished products are compiled in groups according to type.
In the material industry, the more upstream production process, the more volume in one lot to be handled. Even for an order for a few tons of finished goods, a few hundreds of tons of semi-finished products have to be manufactured. A production plan is therefore being built up from downstream processes, which are closer to a finished product, to upstream processes.
Within each group of types of products, the sequence with which orders are processed is determined by veteran planners based on their knowledge and experience. They look at changes in supply and demand and ever-changing operating status, and decide whether to prioritize delivery or productivity. It was extremely difficult to transfer the entire tacitly-accumulated know-hows of veteran planners into an IT system. The use of NS-DIG, however, enables us to extract the logics of veteran planners through big data analysis and transfer them to codified knowledge. By sharing data analysis know-how, the technology can be smoothly transferred to the next generation of workers and anyone can prepare optimal production plan.

### Example 2 IT solution on safety

The safety monitoring system involves observation of positions and moves of on-site workers and the operating environment in steelworks. The workers wear a wristwatch-type activity meter or carry portable devices such as a smartphone. Based on diverse data received from these devices, malfunction can be promptly detected, leading to prevention of problems or accidents.
In addition, by using the camera function of a smartphone or a camera attached to a helmet, a veteran worker away from the worksite can monitor images sent from young on-site workers and give them appropriate instructions.
The adoption of the IoX contributes to ensure advanced safety and reliability and accelerate a transformation to smarter on-site operations.

**Outline of the safety monitoring system**




*IoX: NS Solutions' trademark, meaning a system to integrate the Internet of Things (IoT), connecting machines and components, and the Internet of Humans (IoH), connecting people with support from IT, in an advanced way and with digitalized actions in workplaces.



Value creation story Our Strengths

# Business Summary by Segment

Based on the long accumulation of technology through steelmaking, the Nippon Steel Group operates businesses in four areas: steelmaking and fabrication, engineering and construction, chemicals and materials, and system solutions, with the core business being steelmaking.

## Chemicals and Materials Business

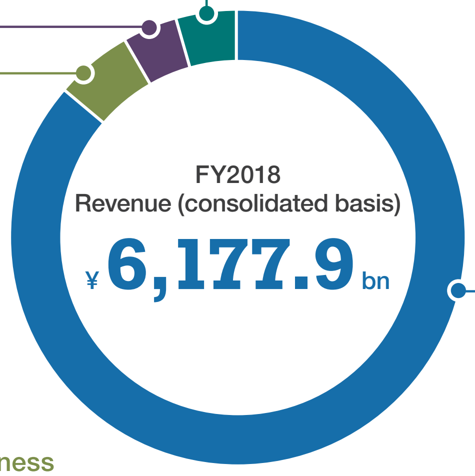
**¥247.0 bn** Nippon Steel Chemical & Material Co., Ltd.

This segment strives to develop demand for functional products for electronics materials, such as display materials, epoxy resins, circuit board materials and organic EL materials, in addition to needle coke, diverse aromatic products, and other diverse carbon-related original products. Based on materials expertise gained from steelmaking, this segment provides original materials and components that are indispensable to leading-edge technology fields, with primary focus on the three areas— semiconductor and electronics, industrial basics, and environmental and energy area.

## System solutions business

**¥267.5 bn** NS Solutions Corporation

In keeping with the advent of widespread use of digital innovations in IT for business, NS Solutions provides IT business solutions, including uses of the cloud, IoT, and AI, to a wide range of sectors by applying its extensive insight and advanced practical IT capabilities acquired in the steel manufacturing business.




## Steelmaking and steel fabrication business

**¥5,454.5 bn**

Nippon Steel Corporation

Enhancing technological superiority, Nippon Steel provides a variety of high-grade steel products (i.e., steel plates; flat products; bars & wire rods; construction products; pipes & tubes; railway, automotive & machinery parts; and titanium stainless steel) to many customers in Japan and overseas.

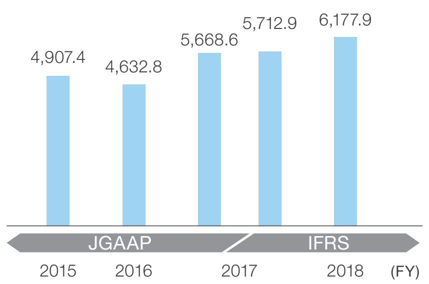
## Engineering and construction business

**¥356.7 bn** Nippon Steel Engineering Co., Ltd.

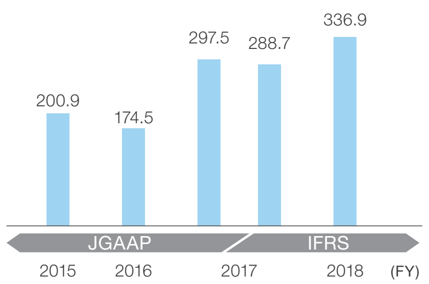
(Elimination of intersegment transactions, etc. ¥147.8 bn)

Based on long-accumulated steelmaking and other technologies, Nippon Steel Engineering undertakes many projects worldwide in six fields: steelmaking plants; environment; energy; offshore steel structures; building construction and steel structures; and pipelines.

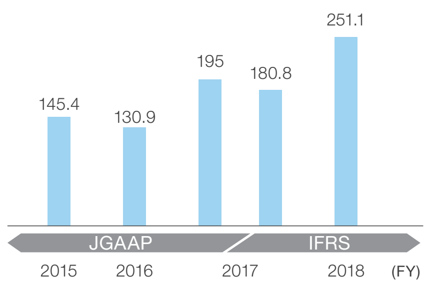
**Net sales/Revenue** (billions of yen)




**Ordinary profit/Business profit** (billions of yen)



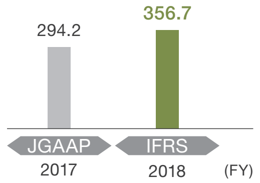

**Net income/Profit attributable to owners of the parent** (billions of yen)



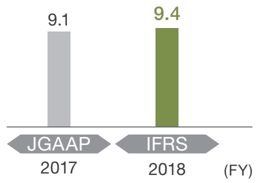

## Engineering and Construction

In fiscal 2018, due to a steady stream of orders received in the domestic energy field and the continued solid business environment in the domestic construction and environment-related sectors, the company achieved a high-level of orders similar to that in fiscal 2017. Strict control of project execution led to steady progress toward project completions. As a result, the Engineering and Construction segment recorded revenue of ¥356.7 billion and business profit of ¥9.4 billion.

**Net sales/Revenue** (billions of yen)



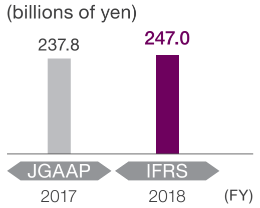

**Ordinary profit/Business profit** (billions of yen)



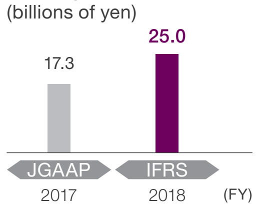

## Chemicals and Materials

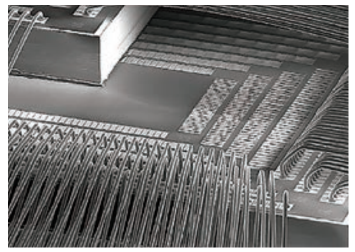
Nippon Steel Chemical & Material continued to perform well in both the domestic and overseas markets with its needle coke, the mainstay of its coal tar chemicals business, due to ongoing demand for graphite electrode materials. In the chemicals business, styrene monomer prices fell briefly due to a price decrease and a weaker supply and demand balance for crude oil, but prices are now on a recovery trend. In the functional materials business, some signs of weakness were seen in sales of materials for smartphones and semiconductors, but steady sales were achieved in resists for LCDs, organic EL materials and metal foils. The composite materials business achieved its record-high sales due to a growth in sales of carbon fiber composite materials for the civil engineering and construction fields, primarily in the areas of repairs and reinforcements. The Chemicals and Materials segment posted revenue of ¥247.0 billion and business profit of ¥25.0 billion.

**Net sales/Revenue** (billions of yen)




**Ordinary profit/Business profit** (billions of yen)

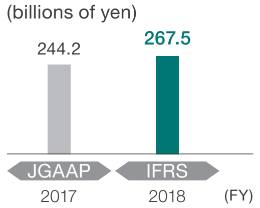


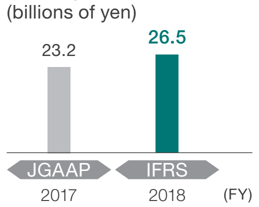
## System Solutions

During fiscal year 2018, against the backdrop of robust system investments stemming mainly from customers' advanced operational needs, NS Solutions' business environment continued to be favorable. In addition to developing safe, protective solutions at factories and other work sites that make use of IoT technology and developing platforms to analyze data based on AI technology, the company proceeded proactively in making changings to the company's systems following the corporate name change to Nippon Steel Corporation and the reorganization of the group. The System Solutions segment recorded revenue of ¥267.5 billion and business profit of ¥26.5 billion.

**Net sales/Revenue** (billions of yen)




**Ordinary profit/Business profit** (billions of yen)




# Materiality of ESG Issues

Nippon Steel recognizes that ESG initiatives are one of the priority issues and form the base that supports the very existence and growth of the company.
Among these initiatives we have identified our materiality in due consideration of requests from stakeholders, the corporate philosophy and values, as well as growth strategy.

We will express our ESG materiality in and out of the company, steadily promote its execution and follow-up by checking the Key Performance Indicators (KPI) to assess outcome, and strive to contribute to sustainable social development, as well as maintenance and improvement of our corporate value.

## Nippon Steel's Materiality

### 1 Materiality with due consideration of the corporate philosophy and priorities in manufacturing

Our Corporate Philosophy (Our Values) states: "The Nippon Steel Group will pursue world-leading technologies and manufacturing capabilities, and contribute to society by providing excellent products and services."
Concerning "provision of excellent products and services," our critical mission as a responsible manufacturing company is to reliably produce and deliver quality products that satisfy customers. Needless to say, the prerequisites to enable this mission include "safety, environment, and disaster prevention" as well as thorough compliance to rules and regulations.
The "world-leading technologies and manufacturing capabilities" are realized by our human capital. Securing and fostering of outstanding personnel is an important challenge to be overcome in order to strengthen overall manufacturing capabilities. We firmly believe that respect for human rights and diversity & inclusion, as well as promotion of physical and mental wellness strength are the basics for our employees to work vigorously.
With regard to the relationship with society, we must maintain good relationship with the community where our steelworks or other facilities are located.
This is indispensable for us to continue operating business in the future. We are pledged to operate in an environmentally-friendly manner and maintain good communication with local communities, as a corporate citizen.

### 2 Materiality with due consideration of the company's value creating process and potential changes in business environment

A base of our value creation process is to use a diverse range of financial/non-financial assets and competitive advantages, and to provide products and solutions to customers. In order to reproduce such processes, stable production and continual profit generation are indispensable.
We have also been engaged in building of a recycle-oriented society through reduction of $CO_2$ emissions by the three "Eco" initiatives and innovative technology development, and recycling of industrial waste (such as recycling of plastics).
As our recent initiatives, we have played a leading role in solving various global environment-related challenges, including formulation of the Japan Iron and Steel Federation's long-term vision for climate change mitigation "A challenge towards zero-carbon steel"; calculation of environment impact based on the Life Cycle Assessment (LCA) to be adopted by the International Organization for Standardization (ISO) and the Japan Industrial Standards (JIS); and a proposal to promote the "Creation of Sea Forests" and "Blue Carbon" (the carbon captured and sequestered by oceans and coastal ecosystems). We are confident that such initiatives for raising long-term corporate value will contribute to sustainable social development.

### 3 Corporate value enhancement and profit distribution

We are committed to continuing operations as a sustainably growing company by generating profit and raising corporate value from business activities, including ESG initiatives. We will also contribute to society by providing excellent products and services, and distributing profit to employees, government, shareholders, and other stakeholders.

### 4 Thorough compliance

As a responsible leading company, we thoroughly adhere to laws and regulations, which is fundamental to all of our activities.
It should be achieved by our independent efforts, based on our corporate philosophy, value, code of conduct and alike.

#### Nippon Steel Corporation Group Code of Conduct

1. Act with a strong sense of ethical values and in compliance with laws and regulations.
2. Develop and provide socially beneficial, good-quality and safe products and services, thereby earning the satisfaction and trust of our customers.
3. Engage in fair and free competition and proper business practices, and maintain a sound and proper relationship with political bodies and government agencies.
4. Actively engage with the public, disclosing corporate information in a fair and proactive manner, while carefully protecting and managing personal data and other types of information.
5. Create a healthy, safe and comfortable work environment, and respect the character and diversity of our employees.
6. Actively contribute, as a member of society, to global environmental preservation and to local communities and society.
7. Reject any relations with antisocial forces and organizations, and take a firm stance against all improper demands.
8. Comply with laws and regulations of relevant countries and regions, and respect international norms, cultures and customs in conducting our business operations.
9. Abide by this Code of Conduct and set up an effective mechanism to implement it. If a violation of this Code occurs, act promptly to determine the cause and prevent similar violations in the future, and make appropriate public disclosure.

## Process to identify materiality

1. Consider requests from stakeholders on environmental, social issues and listing candidate issues
2. Generalize the issues in due consideration of the company's corporate philosophy and values
3. Verify the issues from the viewpoint of the company's value creation process and strategy
4. Discuss and approve issues in the Board of Directors meeting

## ESG Materiality

| Materiality | KPI (Key Performance Indicator) |
|---|---|
| **1 Safety, environment, disaster prevention** | |
| 1 Industrial safety and Health | Accident frequency rate, and number of fatal accidents |
| 2 Environment | |
| ① Measures to prevent global warming | Reduction in $CO_2$ emissions in the JISF Action Plan for a Low-Carbon Society |
| Reduction in $CO_2$ emission through the implementation of the "three Ecos" and development of innovative technology | |
| Implement "Eco Process" | Efficient energy use; implementation of advanced energy-saving technologies |
| Enhance "Eco Products™" | Supply of high-performance steel products to contribute to reduction through use of their end products |
| Contribute with "Eco Solutions" | Transfer and spread of the world-leading energy-saving technology to help emission reduction globally |
| ② Contributing to construction of a recycle-oriented society | |
| Realization of zero emissions within the company | Reduction in final disposal amounts |
| Recycling of waste generated in society | Contribution to building a recycle system of plastic containers and packaging |
| ③ Environmental risk management | |
| Air environment preservation | Emissions of NOx and SOx |
| | Sufficiently less chemical substance discharge than voluntary target to be maintained |
| Water recycling | Stable, high-level reuse and recycling ratio of industrial water |
| 3 Disaster prevention | |
| ① Reducing disaster risks to zero, and group-wide sharing of effective measures | Elimination of serious disaster-related accidents |
| **2 Quality** | |
| 1 Quality control and guarantee | Enhanced credibility in testing and inspection |
| 2 R&D and intellectual property management | Strategic R&D; protection and use of intellectual property |
| 3 Solutions that result in customer satisfaction | Number of awards from users, government, and institutions |
| **3 Production** | |
| 1 Stable production and supply | Initiatives for more stable production and supply (hardware and software) |
| **4 Securing and fostering of personnel** | |
| 1 Respect for human rights, Diversity & Inclusion | Promotion of women as managers |
| 2 Utilization and fostering of personnel | Promotion of measures to develop human resources who serve the enhancement of worksite capabilities and technological advancement |
| 3 Health enhancement | Enhancement of health promotion measures for wellness of employees, and encouragement of employees' own efforts for wellness improvement |
| **5 Harmony with local communities and society** | |
| 1 Environmental preservation/creation activities in communities | Green space development to contribute to the local environment |
| 2 Activities mainly in the support of education, sports, and arts | Ongoing promotion of hosting plant visits |
| | Sustained execution of corporate philanthropy in the support of music via Nippon Steel Arts Foundation |
| **6 Corporate value enhancement and profit distribution** | |
| 1 Generation of profit and corporate value enhancement | ROS,ROE |
| 2 Profit distribution | |
| ① Payment of salary to employees of the company and related/subcontracting companies | Amount of bonus payment; revised amount of salary, Wage revision |
| ② Appropriate tax payment | Tax payment (consol.) |
| ③ Dividend payment to shareholders | Dividend payment |
| **Thorough implementation of compliance** | |
| Adhering to laws and regulations as a base of all activities | |

* Please see Nippon Steel's Sustainability Report for the implementation status and update on the KPIs.

# Corporate Governance

For the Group's sound and sustainable growth, and improvement of its corporate value in the mid- to long-term, in response to the delegation of responsibilities by and trust from all stakeholders, including shareholders and business partners, Nippon Steel has established a corporate governance structure appropriate for the Group's business. Nippon Steel conducts all matters related to every principle of the Corporate Governance Code.

## The basic structure of Nippon Steel's corporate governance is as follows.

(1) Reasons for adopting a Company Structure with an Audit & Supervisory Board

Nippon Steel, with its core business being steelmaking, has adopted a company structure with an Audit & Supervisory Board, because Nippon Steel believes that the following structure is effective in ensuring management efficiency and soundness: the Board of Directors, consisting of Executive Directors with intimate knowledge of Nippon Steel's businesses and Outside Directors with vast experience and deep insights, makes decisions on basic management policies and the execution of important business matters; and the Audit & Supervisory Board Members, with considerable legal authority, independently supervise the performance of responsibilities by Directors.

(2) Corporate Governance System

Currently, the Board of Directors of Nippon Steel is comprised of ten (10) Executive Directors who are familiar with the businesses of Nippon Steel and three (3) Outside Directors who are independent, and is chaired by the Representative Director and President.

The Audit & Supervisory Board of Nippon Steel is comprised of three (3) full-time Audit & Supervisory Board Members who were employees of Nippon Steel with intimate knowledge of Nippon Steel's businesses, and four (4) Outside Audit & Supervisory Board Members with deep insights, and is chaired by the Senior Audit & Supervisory Board Member.

Since all Audit & Supervisory Board Members attend meetings of Board of Directors, Non-executive Members of the Board account for one half (10 out of 20) and Outside Directors and Outside Audit & Supervisory Board Members account for over one third (7 out of 20) of all attendees at the meetings of Nippon Steel's Board of Directors.

Of the above, the Outside Directors contribute to the Board of Directors' decision-making from diverse perspectives and its enhancement of the function of supervising management by, among others, expressing their respective independent opinions, at the Board of Directors and other opportunities, and exercising their voting rights, based on their vast experience in, and deep insights into, such areas as corporate management, international affairs, economies, employment and labor.

To ensure the soundness of management, full-time Audit & Supervisory Board Members who were employees of Nippon Steel, with intimate knowledge of Nippon Steel's businesses, and Outside Audit & Supervisory Board Members, with deep insights, attend meetings of the Board of Directors and express their opinions from an independent standpoint. Further, in collaboration with Nippon Steel's Accounting Auditor, Internal Control and Audit Division, and other divisions, they audit, among others, the status of performance of responsibility by the Directors and the status of Nippon Steel's assets on a day-to-day basis.

At Nippon Steel, as just described, all attendees at the meetings of the Board of Directors appropriately fulfill their roles and responsibilities to promptly make decisions corresponding to changes in the management environment and to ensure multifaceted and sufficient deliberations and objective decision-making.

At Nippon Steel, in order for all Outside Directors and Outside Audit & Supervisory Board Members to obtain the necessary information and sufficiently fulfill their roles, the Chairman, the President, other senior management, and Senior Audit & Supervisory Board Members regularly hold meetings with those Outside Directors and Outside Audit & Supervisory Board Members to share the management challenges, and exchange opinions.

(3) Appropriate Information Disclosure

To enhance management transparency and advance a correct understanding by stakeholders on the management situation of the Group, Nippon Steel not only seeks to disclose information in accordance with applicable laws and regulations and the rules of financial instruments exchanges, but also seeks to disclose financial and non financial information at an appropriate timing, in an easily understandable manner, and accurately.

(4) Establishment and Operation of the Internal Control System

To comply with applicable laws and regulations, and ensure the integrity of financial reports and the effectiveness and efficiency of business and affairs, Nippon Steel establishes and appropriately operates an internal control system, and strives to continually improve it. To create a sound and open organization, Nippon Steel establishes the internal control environment by emphasizing dialogue in and outside the workplace, regularly conducting attitude surveys with all employees, and establishing a whistleblower system to receive consultation and reports not only from employees of Nippon Steel and the Group companies, but also from temporary workers and employees of contractors and suppliers, and their families.

(5) Regular Examination and Review of Corporate Governance

Nippon Steel regularly examines and reviews, at the Board of Directors, the corporate governance structure, its operating situation, and other relevant facts and circumstances, including the analysis and evaluation of the effectiveness of the Board of Directors as a whole so that Nippon Steel will be able to make improvements autonomously, considering the opinions of Outside Directors and Outside Audit & Supervisory Board Members.

### Evolution of corporate governance

**Percentages in all participants of the Board of Directors' meetings**

| | FY2018 | FY2019 |
|---|---|---|
| Non-executive officers | 48% | 1/2 |
| Outside Directors/Audit & Supervisory Board Members | 1/3 | Over 1/3 |

October 2015
Establishment of the Nomination and Compensation Advisory Committee
(comprised of the Chairman, the President, and 3 outside Directors /Audit & Supervisory Board Members)

### Corporate governance system As of June 25, 2019

| | Directors | Audit & Supervisory Board Members | Attendees at the meetings of Board of Directors |
|---|---|---|---|
| Internal | 10 | 3 | 13 |
| Outside | 3 | 4 | 7 |
| Total | 13 | 7 | 20 |

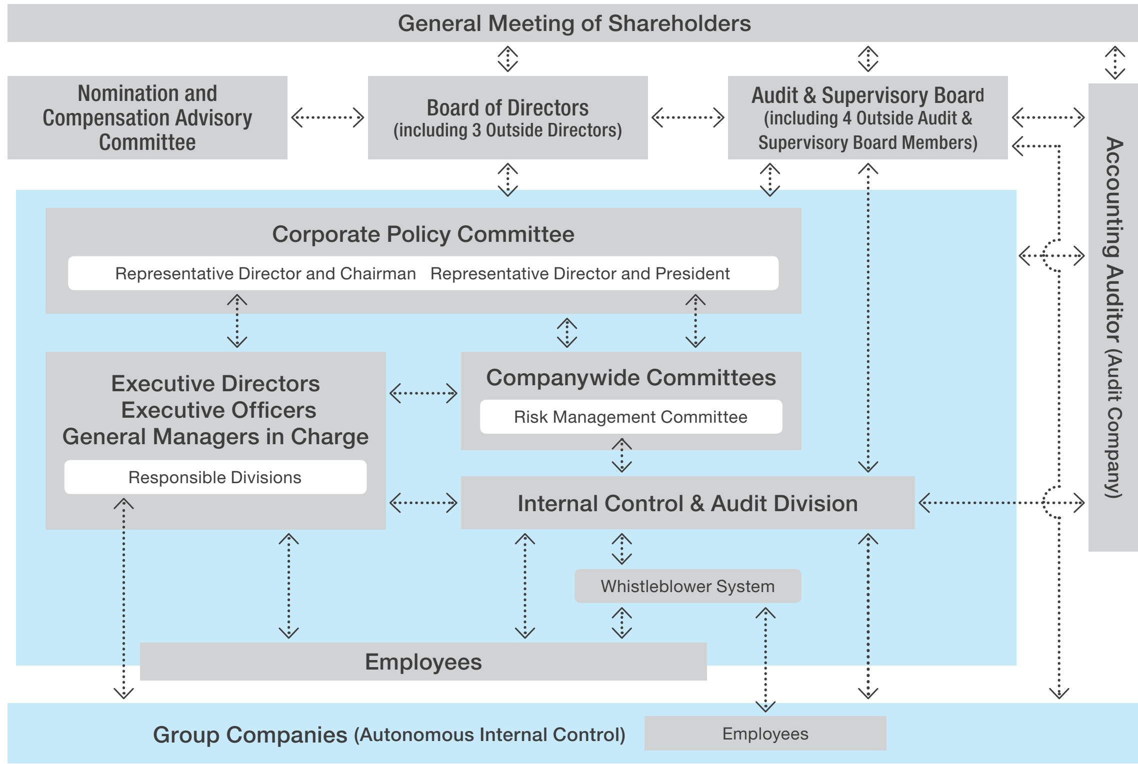
| | |
|---|---|
| Number of Outside Directors/Audit & Supervisory Board Members | 7 (3 Outside Directors and 4 Outside Audit & Supervisory Board Members) |

: Non-executive Members





### Relationship Diagram regarding Nippon Steel's Organization and Internal Control




*1 The execution of important matters concerning the management of Nippon Steel and Nippon Steel Group is determined at the Board of Directors (held once or twice per month) after deliberations in the Corporate Policy Committee (held once a week, in principle) comprised of the Chairman, President, Executive Vice Presidents, and other members, pursuant to Nippon Steel's rules.

*2 As corporate organizations engaging in deliberations before the Corporate Policy Committee and the Board of Directors, there are 23 company-wide committees in total, including the Ordinary Budget Committee, the Plant and Equipment Investment Budget Committee, the Investment and Financing Committee, the Fund Management Committee, the Technology Development Committee, the Environment Management Committee, and the Risk Management Committee, depending on each purpose.

*3 Nippon Steel has established an operational organization for its internal control systems. This organization consists of the Internal Control & Audit Division (14 full-time and 21 concurrently with their other posts), which is responsible for the internal control plan and internal audits, and functional divisions responsible for managing risk in each field (about 700 staff members). Nippon Steel has also designated a person in charge of risk management (about 150 for Nippon Steel) and a person responsible for risk management (about 550 in group companies) who are engaged in planning and promoting autonomous internal-control activities in each division and Group company.

*4 As far as the Group companies are concerned, each company establishes and develops an internal control system based on its autonomous internal control, and the responsible divisions of Nippon Steel provide assistance in their improvement, where necessary. Furthermore, the General Manager for the Internal Control & Audit Division of Nippon Steel identifies and evaluates the situation of internal control of Nippon Steel Group as a whole, and gives guidance and advice to each responsible division and each Group company.

## View on the Balance between Knowledge, Experience, and Skills of the Board of Directors as a Whole, and on Diversity

To enable a prompt decision making and to establish an effective corporate governance structure corresponding to changes in the management environment, the Board of Directors will be an appropriate size for the Group's business lineup and management challenges, and be comprised of members, considering the balance among experience, insights, and expertise of the Board of Directors as a whole and its members' diversity.

## Supervision

(1) Supervision by the Board of Directors

The Board of Directors is comprised of ten (10) Executive Directors who are familiar with the business of Nippon Steel and three Outside Directors who are independent. The Board appropriately and promptly decides on the execution of important business, and supervises the performance of the responsibilities of Directors, Executive Officers, and other officers.

Of the above, the Outside Directors contribute to the Board of Directors' decision-making from diverse perspectives and its enhancement of the function of supervising management by, among others, expressing their respective opinions independently, at the Board of Directors and other opportunities, and exercising their voting rights, based on their vast experience in, and deep insights into, such areas as corporate management, international affairs, economies, employment and labor. In addition, Outside Directors strive to share information and understanding about Nippon Steel's management issues with the Chairman, President and Outside Audit & Supervisory Board Members through liaison meetings and other means, as well as opportunities for exchanging opinions exclusively among Outside Directors and Outside Audit & Supervisory Board Members.

To secure capable Outside Directors and allow them to adequately carry out their expected roles, Nippon Steel has concluded an agreement with each of the Outside Directors that limits his or her liability under Article 423, paragraph 1 of the Companies Act to the greater of twenty (20) million yen or the Minimum Liability Amount, as defined in Article 425, paragraph 1 of the Companies Act, so long as he or she acts in good faith and without gross negligence in performing his and her responsibilities.

(2) Supervision by Audit & Supervisory Board Members

Nippon Steel's Audit & Supervisory Board Members are comprised of three (3) full-time Audit & Supervisory Board Members who were employees of Nippon Steel, with intimate knowledge of Nippon Steel's businesses, and four (4) Outside Audit & Supervisory Board Members, with deep insights. The Audit & Supervisory Board Members act with the obligation of contributing to the establishment of a high quality corporate governance system that enables the Group's sound and sustainable growth, by supervising the performance of responsibilities by Directors, and other matters, as an independent organ fulfilling its roles and responsibilities that are recently expected, in response to the delegation of responsibilities by the shareholders, and social trust.

Specifically, the Audit & Supervisory Board Members cooperate with each other and proceed with daily supervisory activities in a planned way, with a focus on the development and operation of the internal control system and the progress of various measures for management plans, in accordance with, among others, the audit and supervisory standards, and the policies and plans of audit and supervision as set forth by the Audit & Supervisory Board. In addition, the Audit & Supervisory Board Members attend important meetings, such as meetings of the Board of Directors, and conduct onsite audits of steelworks and other facilities. Further, the Audit & Supervisory Board Members ask Directors and employees, among others, to explain the performance of their responsibilities, and other related matters, and actively express opinions.

For the Group companies, the Audit & Supervisory Board Members of Nippon Steel exchange opinions and information with the Directors of such Group companies, and as necessary, receive business reports from them and ask them for explanations. Further, the Audit & Supervisory Board Members of Nippon Steel seek to improve the quality of the supervisory activities as the whole Group, by establishing close cooperation with the Group companies' audit & supervisory board members, through liaison conferences and other opportunities. In addition, five members are assigned as staff dedicated to assisting the Audit & Supervisory Board Members of Nippon Steel.

The Outside Audit & Supervisory Board Members contribute to Nippon Steel's sound and fair management, by, among other tasks, expressing their respective opinions independently at the Board of Directors, the Audit & Supervisory Board, and other opportunities, and performing supervisory activities, including auditing the business and affairs and the status of assets, based on their vast experience in, and deep insights into, such areas as laws, public administration, public finances, corporate accounting and economies. In addition, Outside Audit & Supervisory Board Members strive to share information and understanding about Nippon Steel's management issues with the Chairman, President and Outside Directors through liaison meetings and other means, as well as opportunities for exchanging opinions exclusively among Outside Directors and Outside Audit & Supervisory Board Members.

To contribute to further improvement in supervisory conditions that allows the Audit & Supervisory Board Members to independently perform more enriching supervisory activities, Nippon Steel has concluded an agreement with each of the Outside Audit & Supervisory Board Members that limits his liability under Article 423, paragraph 1 of the Companies Act to the greater of twenty (20) million yen, or the Minimum Liability Amount as defined in Article 425, paragraph 1 of the Companies Act, so long as he acts in good faith and without gross negligence in performing his responsibilities.

(3) Accounting Audits

Nippon Steel has appointed KPMG AZSA LLC as its accounting auditor. The names of the certified public accountants who execute the accounting audit activities at Nippon Steel under the Companies Act and the Financial Instruments and Exchange Act, and the composition of the assistants for such audit activities, are as follows.

**KPMG AZSA LLC**

| | |
|---|---|
| Names of the Certified Public Accountants who execute the Activities (Designated Limited Liability Partner) | Mr. Koichi Kobori, certified public accountant<br>Mr. Hirotaka Tanaka, certified public accountant<br>Mr. Takashi Hasumi, certified public accountant |
| Composition of the Assistants Involved in Accounting Audit Activities | The composition of the assistants involved in accounting audit activities is decided under KPMG AZSA's appointment standards. Specifically, certified public accountants are the principal members, and assistants, such as system specialists, are also included. |

In addition, KPMG AZSA and its executive partners in charge of Nippon Steel's audits have no special interests with Nippon Steel.

### Policies on and Procedures in the Nomination of Director Candidates and Audit & Supervisory Board Member Candidates and the Appointment and Dismissal of Senior Management

(1) Policies on the Nomination of Director Candidates and Audit & Supervisory Board Member Candidates and the Appointment of Senior Management

For the nomination of Director candidates and Audit & Supervisory Board Member candidates, and the appointment of senior management, Nippon Steel's policy is to consider not only each individual's experience, insight, and expertise, but also the size of each of the Board of Directors and the Audit & Supervisory Board as a whole, and the balance of candidates comprising these respective boards (including the number of Outside Directors and Outside Audit & Supervisory Board Members) so that Nippon Steel will establish an optimum board composition in which each individual is able to appropriately fulfill its role and responsibilities and properly respond to the management challenges of the Group's business.

Nippon Steel believes the appointment of the President and other senior management to be one of the most important roles/functions of the Board of Directors. To ensure that optimum human resources who are capable of realizing the sustainable growth of the entire Group and the mid- to long-term improvement of its corporate value are appointed to the office of President and other senior management in a timely manner, Nippon Steel provides various opportunities for Directors and Executive Officers who are to become successor candidates to improve their credentials by strategically assigning and rotating them to various positions, and by other means as well.

(2) Procedures in the Nomination of Director Candidates and Audit & Supervisory Board Member Candidates and the Appointment of Senior Management

The nomination of Director candidates and Audit & Supervisory Board Member candidates, and the appointment of senior management, are resolved at the Board of Directors after discussion at the "Nomination and Compensation Advisory Committee," comprised of the Chairman, the President, and three members designated by the President from among the Outside Directors and Outside Audit & Supervisory Board Members.

The Nomination and Compensation Advisory Committee conducts discussions and deliberations from various perspectives, in accordance with the policies stated in (1) above, taking into account, among others, the sizes of the entire Board of Directors and the Audit & Supervisory Board the balance among the candidates who will comprise the members.

The nomination of Audit & Supervisory Board Member candidates will be submitted to the Board of Directors for deliberation, after the approval at the Audit & Supervisory Board.

(3) Procedures in the Dismissal of the President and Other Senior Management

In the event that any disqualification for Directors as stipulated by laws and regulations occurs to the President or other senior management, Nippon Steel shall dismiss him or her from the President or other managerial positions by the resolution of the Board of Directors. In addition, in the event that the President or other senior management has engaged in any acts suspected of committing fraud or breach of trust, or in the occurrence of an incident to the President or other senior management that has caused significant hindrance to the continuation of duties, etc., Nippon Steel may dismiss him or her from the President or other managerial positions by the resolution of the Board of Directors, while also taking into account discussions and deliberations at the Nomination and Compensation Advisory Committee as necessary.

## Board Policies and Procedures in Determining the Compensation of Directors

(1) Policies on Determining the Compensation

Nippon Steel has determined the "Policies regarding the Decision on the Amount of Remuneration for Directors" at the Board of Directors, and discloses these in the "Business Report."

Directors' compensation consists only of monthly compensation in cash, and is all based upon performance of Nippon Steel, in order to provide incentives for the Group's sustainable growth and improvement of its corporate value.

Specifically, Nippon Steel sets the base amount of compensation for each Director's rank taking into consideration each Director's required skills and responsibilities, and this base amount varies within a specific range based on Nippon Steel's consolidated results, and the amount of each Director's compensation is determined within the limits approved by the General Meeting of Shareholders. Such limit was approved at 180 million yen per month (the maximum number of Directors prescribed in the Articles of Incorporation is 20) by the 88th General Meeting of Shareholders held on June 26, 2012.

Nippon Steel abolished its retirement benefits for Directors in 2006. Furthermore, the policies relating to bonuses were deleted from the "Policies regarding the Decision on the Amount of Remuneration for Directors" in 2013.

Regarding Audit & Supervisory Board Members' compensation, Nippon Steel determines the monthly compensation for each Audit & Supervisory Board Member, within the limits approved by the General Meeting of Shareholders, by considering the Audit & Supervisory Board Member's responsibilities, depending on its rank and whether the Audit & Supervisory Board Member is full- or part-time. Such limit was approved at 22 million yen per month (the maximum number of Audit & Supervisory Board Members prescribed in the Articles of Incorporation is seven) by the 82nd General Meeting of Shareholders held on June 28, 2006.

(2) Procedures for Determining the Compensation

The policies on determining compensation mentioned in (1) above and the specific amount of each Director's compensation is resolved at the Board of Directors after discussion at the "Nomination and Compensation Advisory Committee," comprised of the Chairman, the President, and three members designated by the President from among the Outside Directors and Outside Audit & Supervisory Board Members.

The Nomination and Compensation Advisory Committee conducts discussions and deliberations on a wide-range of topics including the system of Directors' compensation and the appropriateness of the compensation levels by position, taking into account the survey results of directors' compensation levels of other companies obtained from third-party research organizations.

Each Audit & Supervisory Board Member's compensation is determined by discussions of the Audit & Supervisory Board Members.

**Remuneration of Directors and Audit & Supervisory Board Members in FY2018**

| Category | Number of recipients | Aggregate amount of remuneration (Millions of yen) |
|---|---|---|
| Directors | 19 | 935 |
| Of which, Outside Directors | 3 | 39 |
| Audit & Supervisory Board Members | 7 | 210 |
| Of which, Outside Audit & Supervisory Board Members | 4 | 57 |
| Total | 26 | 1,145 |

The above number of recipients includes 5 Directors Member who resigned at the conclusion of the 94th General Meeting of Shareholders held on June 26, 2018.

## Analysis and Evaluation of the Effectiveness of the Board of Directors as a Whole

At Nippon Steel, the office of the Board of Directors (General Administration Division) conducts quantitative analysis through comparison of the number of the agenda items submitted for deliberation or reported to the Board of Directors and the number of hours of deliberation, as well as the attendance rate and the number of opinions expressed by each Director and Audit & Supervisory Board Member with these of prior years; and the Board of Directors, taking into account each Director's and Audit & Supervisory Board Member's self-assessments and opinions on the operation of the Board of Directors obtained through individual interviews with them, annually analyzes and evaluates the effectiveness of the entire Board of Directors and utilizes such analysis and evaluation to improve the future operation and administration of the Board of Directors.

The Board of Directors, at its meeting held in May 2019, analyzed and evaluated the effectiveness of the Board of Directors for fiscal year 2018, confirming that the Board of Directors functions effectively because, among other reasons, all of the matters submitted for deliberation or reported to the Board of Directors pursuant to the Companies Act or Nippon Steel's rules were resolved or confirmed, after discussion among Directors and Audit & Supervisory Board Members, from the point of view of improvement of Nippon Steel's corporate value in the mid- to long-term or other various perspectives, with relevant information being provided in advance. In addition, from the standpoint of further enhancing the effectiveness of the Board of Directors, Nippon Steel has decided to spend further time on the deliberations of current major issues and other topics and the status reports on the implementation of important management issues, as well as the Mid-Term Management Plan, based on the opinions voiced by each Director and Audit & Supervisory Board Member in the effectiveness evaluation for fiscal year 2018.

## Training Policy for Directors and Audit & Supervisory Board Members

Nippon Steel, via relevant officers, explains its corporate philosophy and the Group business lineups, among others, to each Outside Director and Outside Audit & Supervisory Board Member individually once they assume their positions. In addition, after the assumption, Nippon Steel proactively provides opportunities for them to visit steelworks, research laboratories, and to have dialogue with the Chairman, the President, and the Vice Presidents. Nippon Steel also explains anew to Executive Directors and Audit & Supervisory Board Members, both of whom were employees of Nippon Steel, their responsibilities under important applicable laws and regulations such as the Companies Act, and Nippon Steel's rules, upon the assumption of their positions. Moreover, Nippon Steel provides opportunities for Directors and Audit & Supervisory Board Members to attend exchanges of opinions with outside experts and executives of other companies, as well as lectures and seminars.

## Outside Officers

(1) Independence Standards of Independent Directors and Audit & Supervisory Board Members

Nippon Steel decides the independence of Outside Directors and Outside Audit & Supervisory Board Members in accordance with the independence standards set by financial instruments exchanges in Japan (e.g. Tokyo Stock Exchange), considering each individual's personal relationship, capital relationship, transaction relationship, and other interests with Nippon Steel.

(2) lSupporting System for Outside Directors and/or Audit & Supervisory Board Members

Nippon Steel supports the performance of responsibilities by Outside Directors and Outside Audit & Supervisory Board Members by assigning a sufficient number of staff members in the General Administration Division and the Audit & Supervisory Board Members' Office, and timely and appropriately providing company information such as offering prior explanations about the matters to be submitted for deliberation or reported to meetings of the Board of Directors and other important meetings. The Audit & Supervisory Board Members' Office has dedicated staff members that support Audit & Supervisory Board Members, in order to ensure their independence from the Directors. Under the direction of all Audit & Supervisory Board Members, including Outside Audit & Supervisory Board Members, such staff members support supervisory activities and otherwise engage in work relating to supervision.

### Status of attendance at the meetings of the Board of Directors

| Title | Name | Status of attendance at the meetings of the Board of Directors (17 meetings of the Board of Directors held in Fiscal 2018) |
|---|---|---|
| Inside Director | Kosei Shindo | 100% |
| | Eiji Hashimoto | 100% |
| | Shinji Tanimoto | 94% |
| | Shinichi Nakamura | 100% |
| | Akihiko Inoue | 100%[*1] |
| | Katsuhiro Miyamoto | 100%[*1] |
| | Akio Migita | -[*2] |
| | Shin Nishiura | 100%[*1] |
| | Atsushi Iijima | 100%[*1] |
| | Yutaka Andoh | 100%[*1] |
| Outside Director | Mutsutake Otsuka | 100% |
| | Ichiro Fujisaki | 100% |
| | Noriko Iki | 100%[*1] |
| Inside Audit & Supervisory Board Member | Masato Matsuno | -[*2] |
| | Atsuhiko Yoshie | 100% |
| | Masato Tsuribe | 100% |
| Outside Audit & Supervisory Board Member | Hiroshi Obayashi | 100% |
| | Jiro Makino | 100% |
| | Seiichiro Azuma | 100% |
| | Hiroshi Yoshikawa | -[*2] |

*1 Status of attendance at the 14 meetings of the Board of Directors held since his/her appointment.
*2 Appointed on June 25, 2019.

## Matters Related to the Internal Control System

(1) Basic Views on Internal Control System and the Progress of System Development
Basic policy on internal control system
The resolutions made to ensure appropriateness of its business are as follows.

Nippon Steel is aiming at continuous improvement of its corporate value and winning the trust of society under the "Corporate Philosophy of the Nippon Steel Group." In addition, Nippon Steel will establish and appropriately manage an internal control system as follows to comply with applicable laws and regulations, and ensure integrity of financial reporting, and effectiveness and efficiency of business, and will continue to improve such system in view of further enhancement of corporate governance.

a. System to Ensure that Performance of Responsibilities by the Directors of Nippon Steel Complies with Applicable Laws and Regulations and the Articles of Incorporation.

The Board of Directors will make decisions or receive reports on important matters of management in accordance with the Rules of the Board of Directors and other relevant internal rules.
In accordance with the resolution at the Board of Directors, each of the Executive Directors will, in his/her assigned area, perform his/her responsibilities and supervise the performance of responsibilities of employees, and report such supervisory status to the Board of Directors.

b. System for the Preservation and Management of Information in relation to the Performance of Responsibilities by the Directors of Nippon Steel

Nippon Steel will appropriately preserve various information in relation to the performance of responsibilities, including minutes of Meetings of the Board of Directors, by, among others, specifying managers in charge of information preservation and management, and classifying each information by security level, in accordance with the internal rules for information management.
Nippon Steel will seek to make timely and accurate disclosure of important corporate information, such as its management plan and financial information, in addition to such disclosure as required by applicable laws and regulations.

c. Rules and Other Systems with respect to Loss-related Risk Management of Nippon Steel

The General Manager of each division will identify and evaluate risks associated with business in his/her division, and carry out his/her duties in accordance with the authority and responsibilities set out in internal rules for organization and operation. With respect to risks related to areas such as safety and health, environment and disaster prevention, information management, intellectual properties, quality control, and integrity of financial reporting, the division in charge of each specific area (each functional division) will establish rules and other systems from a company-wide perspective, inform other divisions of such rules and systems, identify and evaluate the status of risk management at other divisions through monitoring and other methods, and provide guidance and advice to such divisions.
Upon the occurrence of an accident, disaster, compliance issue, or other event which causes a material effect on the management, the Executive Directors will immediately convene "Emergency Control Headquarters" and other meetings, and take necessary actions in order to minimize the damage, impact, and other effects.

d. System to Ensure Efficiency in the Performance of Responsibilities by Directors of Nippon Steel

The Board of Directors will make decisions on the execution of management plans and business strategies, as well as important business executions such as capital expenditure, and investments and provision of loans, after such matters are deliberated by companywide Committees for relevant areas such as ordinary budget, plant and equipment investment budget, investment and financing, and technology development, and the Corporate Policy Committee.
The business execution under the resolution at the Board of Directors and other corporate organizations is performed promptly by the Executive Directors, Executive Officers, and General Managers.

e. System to Ensure that Performance of Responsibilities by Employees of Nippon Steel Complies with Applicable Laws and Regulations and the Articles of Incorporation

Nippon Steel will build and maintain an internal control system based on autonomous internal controls.
Each General Manager will develop an autonomous internal control system in his/her Division, and strive to ensure thorough compliance with applicable laws and regulations and internal rules, and prevent any violation of applicable laws and regulations in business and affairs. Nippon Steel will also develop and enhance an employee-education system that includes regular seminars, and the creation and distribution of manuals for the purpose of ensuring compliance with applicable laws and regulations and internal rules. When each General Manager becomes aware of any potentially illegal acts or facts, he or she will immediately report such matters to the General Manager for the Internal Control & the Audit Division.
The General Manager of the Internal Control & Audit Division will confirm the status of developing and operating company-wide internal control systems, and identify and evaluate each Division's situation of compliance with applicable laws and regulations and internal rules, and take necessary measures such as preventing violations of applicable laws and regulations and internal rules. Moreover, the General Manager will report on such matters to the Risk Management Committee, and further report on important items among such matters to the Corporate Policy Committee and the Board of Directors. The General Manager will also establish and operate a whistleblower system that provides consultations and takes reports regarding risks in the operation of business.
Employees are obligated to comply with applicable laws and regulations and internal rules and to appropriately perform their responsibilities. Employees who violate applicable laws and regulations and internal rules will be subject to disciplinary action under the Rules of Employment.

f. System to Ensure Appropriateness of Operation in the Corporate Group Consisting of Nippon Steel and its Subsidiaries

Under the "Corporate Philosophy of the Nippon Steel Group," Nippon Steel and each Group company will share business strategy and conduct their business in a unified manner, taking into account each company's business characteristics, and will familiarize their respective employees with their respective business operation policies and other related matters. With respect to control of the Group companies, Nippon Steel will set forth basic rules in the Rules for Control of group companies, and ensure their appropriate application.
Each Group company will build and maintain its internal control system based on autonomous internal controls, and seek to improve measures relating to internal control through, among other measures, information sharing with Nippon Steel.
Each responsible division of Nippon Steel will confirm the status of internal controls at each Group company, and provide assistance in its improvements, where necessary.
The General Manager of the Internal Control & Audit Division will coordinate with each functional division, and identify and evaluate the situation of internal control of the Group companies as a whole, and provide guidance and advice to each responsible division and each Group company.
The specific systems under the views above are as follows.
i) System for Reporting to Nippon Steel in relation to the Performance of Responsibilities by the Group Companies' Directors
The responsible divisions of Nippon Steel will request that each Group company report on important management matters in relation to Nippon Steel's consolidated management or each Group company's management, including business plans, significant business policies, and financial results, and give advice and other guidance.
ii) Rules and Other Systems with respect to Group Companies' Loss-related Risk Management
The responsible divisions of Nippon Steel will request that each Group company report on the situation of risk management in each Group company, and give advice and other guidance.
iii)System to Ensure Efficiency in the Performance of Responsibilities by the Group Companies' Directors
The responsible divisions of Nippon Steel will evaluate the business performance of each Group company, and give support for the management.
iv)System to Ensure that the Performance of Responsibilities by Group Companies' Directors and Employees Complies with Applicable Laws and Regulations and the Articles of Incorporation
The responsible divisions of Nippon Steel will request that Group companies report on their respective situation on compliance with applicable laws and regulations, and the development and operation of internal control systems, and give necessary support, advice, and other guidance. Additionally, such divisions will request that each Group company report on any actions and facts in such Group company that may violate applicable laws and regulations, and promptly report to the General Manager of the Internal Control & Audit Division.

g. Matters concerning Supervision by Audit & Supervisory Board Members

The Directors, Executive Officers, General Managers, and other employees of Nippon Steel will timely and appropriately report important matters, such as the situation of the performance of responsibilities and facts that cause a material effect on the management, to the Audit & Supervisory Board Members or the Audit & Supervisory Board, directly or through the related divisions such as the Internal Control & Audit Division. They will also report important management matters such as the situation of operation of the internal control system to the Board of Directors, the Corporate Policy Committees and the Risk Management Committees, and other corporate committees, and thereby share such information with Audit & Supervisory Board Members.
The directors, audit & supervisory board members, and employees of each Group company will timely and appropriately report important matters in such Group company, such as the situation of the performance of responsibilities, and facts that cause a material effect on the management, to the Audit & Supervisory Board Members or the Audit & Supervisory Board of Nippon Steel, directly or through the related Divisions such as the Internal Control & Audit Division.
Nippon Steel will not unfavorably treat a person who has reported as stated above, for reasons of such report, in accordance with the Rules for the Whistleblower System.
The General Manager of the Internal Control & Audit Division will act as a liaison and cooperate with the Audit & Supervisory Board Members by, among others, exchanging opinions on the situation of operations of internal control systems, both regularly and as needed. The General Manager will also report on the situation of operating the Whistleblower Systems to the Audit & Supervisory Board Members.
Nippon Steel will establish the Audit & Supervisory Board Members' Office, and assign dedicated staff members, in order to support the performance of responsibilities by Audit & Supervisory Board Members. To ensure independence from the Directors, dedicated staff members necessary for supervisory work will be assigned and will engage in such work under the direction of Audit & Supervisory Board Members. The General Manager of the Human Resources Division will discuss personnel matters relating to such staff members, including transfers and evaluations, with the Audit & Supervisory Board Members.
Nippon Steel will budget costs that it deems necessary for Audit & Supervisory Board Members to perform their responsibilities. In addition, Nippon Steel will reimburse costs incurred by Audit & Supervisory Board Members after Audit & Supervisory Board Members pay costs in an urgent or temporary situation.

(2) Outline of status of operation

a. Operational organization

Nippon Steel has established an operational organization for its internal control systems. This organization consists of the Internal Control & Audit Division (14 full-time and 21 concurrently with their other posts), which is responsible for the internal control plan and internal audits, and functional divisions responsible for managing risk in each field (about 700 staff members). Nippon Steel has also designated a person in charge of risk management (about 150 for Nippon Steel) and a person responsible for risk management (about 550 in Group companies) who are engaged in planning and promoting autonomous internal-control activities in each division and Group company.

This organization operates the internal control system as follows.

b. Specific status of operation

i) Internal control plan

In March of each year, Nippon Steel develops an annual plan on internal control for Nippon Steel Group as a whole based on changes in the related laws and the business circumstances. This plan includes a basic policy, separate plans for each function, including safety, environment, plant safety, and quality, an internal audit plan, and an education plan. Each division and Group company creates its own plan for the fiscal year based on such annual plan developed by Nippon Steel.

ii) Autonomous internal control activities

In accordance with the annual plan, each division and Group company autonomously performs internal control activities based on the characteristics of each business and its inherent risks. Specifically, such activities include establishment, education and voluntary inspections of operational rules, manuals and other documentation; third-party monitoring; and improvements to operations based on the results thereof.

Such divisions and Group companies immediately report any accidents, disasters, facts that may violate applicable laws and regulations, etc. to the Internal Control & Audit Division, and coordinate with the relevant divisions to take corrective measures, such as measures to prevent recurrence. The Internal Control & Audit Division compiles case studies of such incidents and shares them within the Nippon Steel Group. Each division and Group company then performs inspections for similar risks.

iii) Internal audits, etc.

Internal audits confirm the status of internal controls via internal-control checklists and other documents. Additionally, the Internal Control & Audit Division and each functional division monitor each division and group company.

As measures to complement Nippon Steel's internal controls, Nippon Steel also operates a hotline for internal reporting and consultation hotlines within the company and at external professional organizations, which are open to employees of Nippon Steel and group companies and their families, as well as employees of Nippon Steel's suppliers and others. In fiscal year 2018, there were 287 cases of internal reporting and consultations. In addition, Nippon Steel and its major group companies conduct employee awareness surveys regarding internal controls.

iv) Assessment and improvement

The Internal Control & Audit Division reports the status of operation of the internal control system at the quarterly meeting of the Risk Management Committee. It is also reported at meetings of the Corporate Policy Committee and Board of Directors. Such status is also shared with each division and Group company at the meeting of the persons in charge of risk management and the meeting of the persons responsive for risk management.

The Internal Control & Audit Division also assesses the effectiveness of its internal control system as of the end of each fiscal year, and compiles a report of its assessment based on the status of internal-control activities, internal audits, etc. This assessment is then reported to the Risk Management Committee, Corporate Policy Committee, and Board of Directors.

Based on the results of these assessments, Nippon Steel establishes measures to improve the effectiveness of its internal control system, and incorporates them into the next fiscal year's internal control plan.

v) Education and awareness raising

Nippon Steel educates employees and officers of Nippon Steel and those of its group companies through sessions on internal controls prepared by Nippon Steel. The sessions include position-specific training, and are given to everyone from new hires to executive management. Nippon Steel also works actively to raise awareness of its approach to internal controls, establishment of better workplace culture, and other topics through a dialog between the Internal Control & Audit Division, and each division of Nippon Steel, and its Group companies.

vi) Coordination with Audit and Supervisory Board Members and Accounting Auditor

The Internal Control & Audit Division reports the status of internal controls to the Audit and Supervisory Board each quarter. It also reports and discusses the status of internal controls with the Risk Management Committee with the attendance of Audit and Supervisory Board Members. The Internal Control & Audit Division is also committed to sharing information and coordinating, including holding monthly liaison meetings with the Audit & Supervisory Board Members' Office. It reports and discusses such matters as the results of assessments of internal controls relating to the status of operation of the Risk Management Committee and reporting of financial statements to the Accounting Auditor periodically.





## The Basic Policy on the Composition of Persons to Control the Decision-Making over the Financial and Business Policies of the Company

Under the corporate philosophy that the Nippon Steel Group will pursue world-leading technologies and manufacturing capabilities, and contribute to society by providing excellent products and services, the Nippon Steel Group aims to improve its corporate value, and further the common interests of its shareholders, by enhancing its competitiveness and profitability through the planning and execution of management strategies. Nippon Steel believes that in the event a third party proposes the acquisition of substantial shareholdings in Nippon Steel (a "Takeover Proposal"), the ultimate decision as to whether or not to accept the Takeover Proposal should be made by the then shareholders of Nippon Steel. On the other hand, Nippon Steel believes that such Takeover Proposals could include those with the potential to cause clear damage to the corporate value of Nippon Steel or the common interests of the shareholders of Nippon Steel or those with the potential to practically coerce shareholders into selling their shares of Nippon Steel. Consequently, Nippon Steel will pay close attention to the status of trading of shares of Nippon Steel and changes of its shareholders in order to prepare for such disadvantages to the shareholders of Nippon Steel in the event a Takeover Proposal is made by a third party, and, for the occasions where a Takeover Proposal is actually made, will make efforts to enable its shareholders to make an appropriate informed judgment based on sufficient information and with a reasonable time period to consider such proposal. If a Takeover Proposal is reasonably judged to damage the corporate value of Nippon Steel, which could result in harm to the common interests of shareholders of Nippon Steel, Nippon Steel will aim to protect its corporate value and the common interests of its shareholders by taking prompt and appropriate measures to the extent permitted under the then applicable laws and regulations.

## Strategic Shareholdings

(1) Policy on Strategic Shareholdings

Nippon Steel, from the standpoint of sustainable growth and improvement of its corporate value in the mid- to long-term, believes that it is extremely important to maintain and develop the relationships of trust and alliance with its extensive range of business partners and alliance partners both in Japan and overseas, which have been cultivated through its business activities over the years. Accordingly, Nippon Steel shall continue to hold strategic shareholdings which are judged to contribute to maintaining and strengthening its business foundation such as the business relationships and alliance relationships between Nippon Steel and the investees, enhancing the profitability of both parties, and thereby improving the corporate value of Nippon Steel and the Group.

(2) Examination of the Appropriateness of the Strategic Shareholdings

Nippon Steel confirms the appropriateness of its strategic shareholdings by specifically examining all shareholdings to determine, among others, whether the purpose of each shareholding is appropriate and whether the benefit and risk associated with each shareholding is commensurate with the cost of capital. Of these shareholdings, each shareholding with the market value exceeding a certain threshold is examined each year at the Board of Directors. The total market value of the shareholdings examined at the Board of Directors accounts for approximately 90% of the total market value of the strategic shareholdings held by Nippon Steel on a consolidated basis (as of March 31, 2019).

The number of stocks held as strategic shareholdings by Nippon Steel on a non-consolidated basis was 495, as of October 1, 2012, when Nippon Steel & Sumitomo Metal Corporation was found, while 345 stocks were held as of March 31, 2019 (total value on the balance sheet was 464.8 billion yen).

(3) Basic Policy on Exercise of Voting Rights Concerning Strategic Shareholdings

Regarding the voting rights concerning each strategic shareholding, Nippon Steel exercises its voting rights upon comprehensively evaluating whether the agenda of the General Meeting of Shareholders of the investee company contributes to the improvement of the respective corporate values of Nippon Steel and the investee company. Specifically, Nippon Steel formulates criteria for the exercise of voting rights which set forth guidelines for judgment according to the type of agenda items such as the appropriation of surplus, the election of Directors and Audit & Supervisory Board Members, etc., and exercises its voting rights based on these criteria together with the results of the examination of the appropriateness of the shareholdings in (2) above.



The base that supports sustainable growth - ESG Initiatives (Governance)

# Executive team

(As of June 25, 2019)

Representative Director and Chairman

**Kosei SHINDO**

Representative Director and President

**Eiji HASHIMOTO**

Representative Director and Executive Vice President

**Shinji TANIMOTO**

Intellectual Property; Safety; Plant Safety; Technical Administration & Planning (including Standardization); Quality Management; Plant Engineering and Facility Management; Ironmaking Technology; Steelmaking Technology; Energy Technology; Slag & Cement

Cooperating with Executive Vice President A. Migita on Environment

Representative Director and Executive Vice President

**Shinichi NAKAMURA**

Marketing Administration & Planning; Transportation & Logistics; Project Development; Machinery & Materials Procurement; Steel Products Units; Domestic Office and Branches

Cooperating with Executive Vice President K. Miyamoto on Overseas Offices (including locally incorporated companies)

Representative Director and Executive Vice President

**Akihiko INOUE**

Head of Research and Development

Representative Director and Executive Vice President

**Katsuhiro MIYAMOTO**

Head of Global Business Development

Accounting & Finance; Raw Materials; Overseas Offices (including locally incorporated companies)

Representative Director and Executive Vice President

**Akio MIGITA**

Corporate Planning; Group Companies Planning; General Administration; Legal; Internal Control & Audit; Business Process Innovation; Human Resources; Environment; Business Transformation & Standardization

Managing Director, Member of the Board

**Shin NISHIURA**

Head of Unit, Pipe & Tube Unit; Project Leader, VSB Project, Global Business Development Sector

Managing Director, Member of the Board

**Atsushi IIJIMA**

Head of Unit, Flat Products Unit; Project Leader, Shanghai-Baoshan Cold-rolled & Coated Sheet Products Project, Global Business Development Sector; Project Leader, India Continuous Annealing & Processing Line Project, Global Business Development Sector

Marketing Administration & Planning; Transportation & Logistics

Cooperating with Managing Executive Officer A. Matsumura and Head of Division, General Administration Division on Business Transformation & Standardization

Managing Director, Member of the Board

**Yutaka ANDOH**

Intellectual Property; Safety; Plant Safety; Technical Administration & Planning (including Standardization); Quality Management; Plant Engineering and Facility Management; Ironmaking Technology; Steelmaking Technology; Energy Technology; Slag & Cement

Rendering Assistance to Executive Vice President S. Nakamura on Steel Products Units

Cooperating with Managing Director A. Iijima on Transportation & Logistics Technology

Director, Member of the Board

**Mutsutake OTSUKA** *1

Executive Advisor to the Board of East Japan Railway Company

**Reasons for Appointment as an Outside Director**

Nippon Steel believes that Mr. Otsuka is well-qualified for the position by his deep insights and vast experience as a company executive.

Director, Member of the Board

**Ichiro FUJISAKI** *1

President of the America-Japan Society, Inc.

**Reasons for Appointment as an Outside Director**

Nippon Steel believes that Mr. Fujisaki is well-qualified for the position by his deep insights into international affairs, economies, cultures and other matters that he accumulated at the Ministry of Foreign Affairs of Japan, and his vast experience serving as the Ambassador Extraordinary and Plenipotentiary and other key positions.

Director, Member of the Board

**Noriko IKI** *1

President of Japan Institute for Women's Empowerment & Diversity Management

**Reasons for Appointment as an Outside Director**

Nippon Steel believes that Ms. Iki is well-qualified for the position by her deep insights into employment, labor, and promotion of active role engagement for diverse human resources that she accumulated at Ministry of Health, Labour and Welfare ("MHLW") and her vast experience, etc. serving as Director-General of the Tokyo Labour Bureau of MHLW, the Ambassador Extraordinary and Plenipotentiary and other key positions.

Senior Audit & Supervisory Board Member

**Masato MATSUNO**

Senior Audit & Supervisory Board Member

**Atsuhiko YOSHIE**

Audit & Supervisory Board Member

**Masato TSURIBE**

Audit & Supervisory Board Member

**Hiroshi OBAYASHI** *2

Attorney, Obayashi Law Office

**Reasons for Appointment as an Outside Audit & Supervisory Board Member**

Nippon Steel believes that Mr. Obayashi is well-qualified for the position by his deep insights as a legal professional and vast experience that he accumulated as Prosecutor-General and other key positions.

Audit & Supervisory Board Member

**Jiro MAKINO** *2

Vice Chairman, The General Insurance Association of Japan

**Reasons for Appointment as an Outside Audit & Supervisory Board Member**

Nippon Steel believes that Mr. Makino is well-qualified for the position by his deep insights into national finances in general that he accumulated at the Ministry of Finance, and vast experience serving as a National Tax Agency Commissioner, and other key positions.

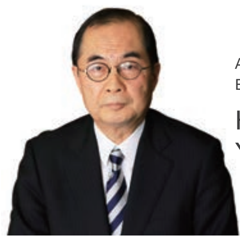
Audit & Supervisory Board Member

**Seiichiro AZUMA** *2

Certified Public Accountant, Seiichiro Azuma Certified Public Accountant Office

**Reasons for Appointment as an Outside Audit & Supervisory Board Member**

Nippon Steel believes that Mr. Azuma is well-qualified for the position by his deep insights and vast experience as a certified public accountant who is familiar with corporate accounting.



Audit & Supervisory Board Member

**Hiroshi YOSHIKAWA** *2

President of Rissho University and Professor Emeritus of The University of Tokyo

**Reasons for Appointment as an Outside Audit & Supervisory Board Member**

Nippon Steel believes that Mr. Yoshikawa is well-qualified for the position by his deep insight he accumulated as a university professor and his ample experience as President of Rissho University and Dean of the Graduate School of Economics of The University of Tokyo.

*1 Messrs. Otsuka and Fujisaki and Ms. Iki meet the requirements of an outside director as set forth in Article 2, Item 15 of the Companies Act.

*2 Messrs. Obayashi, Makino, Azuma and Yoshikawa meet the requirements of an outside company auditor as set forth in Article 2, Item 16 of the Companies Act.

# Environmental Initiatives

## Nippon Steel's Environmental Management

**Having adopted group-wide comprehensive "Ecological Management" as a corporate mission, Nippon Steel drafted its Basic Environmental Policy and aims at keeping management oriented to reduction in environmental impact.**

### Basic Environmental Policy

In undertaking Ecological Management, Nippon Steel makes a reality its commitment to creation of environmental-preservation oriented society. Toward this end, we conduct business activities with due consideration given to environmental preservation in local communities, including in those activities the maintenance and improvement of good living environments and the promotion of reduction and recycling of waste. We are also addressing challenges on a global scale including response to issues of global warming as well as the maintenance and improvement of biodiversity .

1. Reducing environmental impacts at every stage of operations (Eco Process)
2. Supplying environment-friendly products (Eco Products™)
3. Proposing environmental preservation solutions from a global perspective (Eco Solution)
4. Development of innovative technologies
5. Development of a rich environment
6. Promotion of environmental relations activities





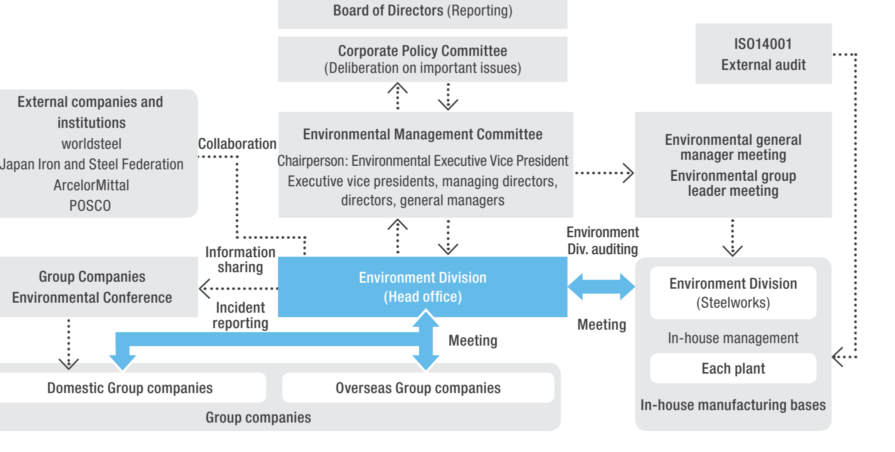
## Three ecos and innovative technology development contribute to achieving SDGs

Nippon Steel is promoting environmental management centered on four pillars of the "three ecos" and the company's innovative technology development, as stipulated in the Basic Environmental Policy. We developed the 2020 Mid-Term Environmental Management Plan for the three years from fiscal 2018 and have been working on responses to diverse environmental challenges in five main areas. We believe promotion of these initiatives also contributes to achieving Sustainable Development Goals. Going forward, from the perspective of SDGs, we will keep identifying and working on issues when we can make positive contributions through our business.

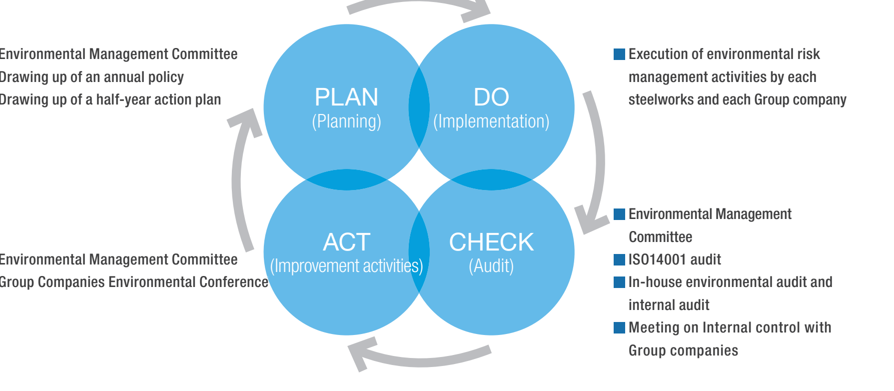

## Promotion of Environmental Management

Nippon Steel routinely follows the management cycle of PDCA, primarily through the work of the Environmental Management Committee, which meets twice a year, to promote improvement of management. Positioning environmental risks as management issues, we have deployed a procedure wherein environmental risks, related to climate change, air, water, and waste among others, are given attention by the Environmental Management Committee that subsequently reports to the Board of Directors and the Corporate Policy Committee. As a part of the enhancement of the governance, environmental general manager meetings and environmental group leader meetings, with participation by all steelworks, are regularly held. In particular, Nippon Steel works to reduce risks related to fall airborne solid particles, wastewater, and waste, by undertaking activities based on an experts conference held for each of these areas. In addition, the Environmental Management Committee conducts specific risk management activities concerning climate change, as it involves significant risks in the longer term.

### Environmental Management System




### Environmental management cycle



# Coping with Climate Change

Nippon Steel recognizes climate change as a priority problem that may threaten survival of the human race. Adverse change of the climate may cause serious damage to the global environment. Our business environment and earnings may also be affected. In order to make our operation sustainable, we promote energy conservation and $CO_2$ emissions reduction throughout the entire supply chain: manufacturing, transportation, and final use of products. We also undertake initiatives to improve energy efficiency in order to alleviate impact from climate change. From a medium- to long-term perspective to reduce $CO_2$ emissions, we actively work on innovative technology development and transfer of established technology to overseas steel makers.

## Nippon Steel's current energy-conservation initiatives

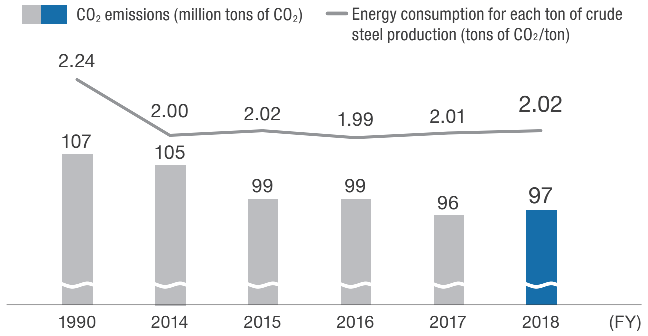
Nippon Steel has been working on energy conservation from diverse starting points: improving efficient use of energy generated in steelmaking process (i.e., power generation from recovered by-product gas and waste heat); making operational improvements in each process; renovation of aged coke ovens and other equipment; introduction of high-efficiency power generation facilities and oxygen plants; conversion to regenerative burners in reheating furnace; and use of waste plastics and waste tires. As a result of these continual efforts, the Nippon Steel Group (Nippon Steel, Nippon Steel Nisshin, and affiliated electric furnace companies, etc.*1) consumed 1,127 PJ of energy and emitted 97 million tons (preliminary)*2 of $CO_2$ in fiscal 2018, which represented reduction of about 10% each compared to fiscal 1990.

As a core member of the Japan Iron and Steel Federation (JISF), we are actively involved in industry activities and international cooperation activities, sometimes in collaboration with the Japanese government. By using our "three ecos" initiatives, we are promoting reduction of $CO_2$ emission.

Business-as-usual (BAU) $CO_2$ emissions from crude steel production was reduced by 2.29 million tons in FY2017 in the JISF's Commitment to a Low-Carbon Society.

$CO_2$ emission intensity exclusively for the manufacturing process is said to be 2 tons for the blast furnace route and 0.5 tons for the electric arc furnace route but the intensity in the entire Life Cycle Assessment (LCA), incorporating the impact of recycling, is 0.7 tons for both routes. This shows the equivalent environmental impact. This has been officially standardized in the ISO 20915 and the JIS Q 20915.

**Nippon Steel Group's energy-derived $CO_2$ emissions (preliminary)*2**




*1 Affiliated electric furnace companies, etc.: Osaka Steel Co., Ltd., Sanyo Special Steel Co., Ltd., Nippon Steel Stainless Steel Corporation, Oji Steel Co., Ltd., Nippon Coke & Engineering Co., Ltd., five Cooperative Thermal Power Companies; and two Sanso Centers, etc. (Due to change in companies in 2018, data for prior years were retroactively revised.)

*2 Preliminary: A provisional value based on the assumption that the $CO_2$ level in a unit of purchased electricity in FY2018 is the same as in FY2017.

**Japan Iron and Steel Federation's Commitment to a Low-Carbon Society ("Three Ecos and innovative technology development")**

| | Eco Process | Eco Products | Eco Solution |
|---|---|---|---|
| $CO_2$ emission reduction plans | Aim at improving energy efficiency | Contribute to emission reduction when steel materials are used in final products | Contribute to worldwide energy reduction by technology transfer and diffusion |
| Phase I FY2020 | 3 million tons + α*3, *4 | 34 million tons | 70 million tons |
| Phase II FY2030 | 9 million tons*3 | 42 million tons | 80 million tons |
| "$CO_2$ Ultimate Reduction System for Cool Earth 50" (COURSE50) | | | |

*3 The reduction target in $CO_2$ emission is based on a certain crude steel production assumption.

*4 Prioritize 3 million tons of reduction arising from energy conservation and other voluntary actions by steelmakers. For waste plastics and other recycled materials, the emission reduction includes only a decrease resulting from the increase in the volume of these materials collected vs. the FY2005 level.

## Contributing with eco-friendly products

Nippon Steel has expertise in high-function steel products that help customers save energy when using final products made of materials supplied by Nippon Steel. Eco Products™ are numerous and include high-tensile steel and electromagnetic steel sheets. Making these high-function products emits a little more $CO_2$ but use of these materials contributes to significantly higher emission reduction when used in final products.

## Contribution in the global value chain

Japanese steel industry's energy-saving technologies are spreading globally, contributing to worldwide $CO_2$ emission reduction. In particular, Nippon Steel Engineering in our Group has transferred technology of its Coke Dry Quenching (CDQ) facilities, which had the result of reducing $CO_2$ emission in FY2017 by 19.69 million tons.

## Promotion of innovative technology development

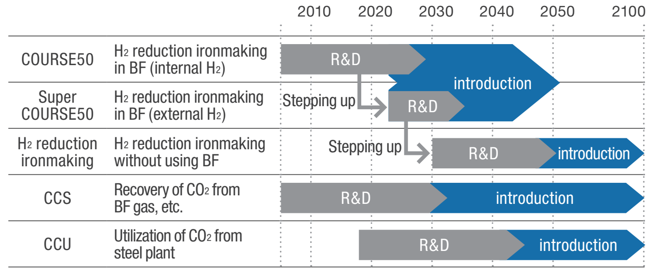
Nippon Steel's R&D divisions are engaged in development of innovative technologies as a top-down project in collaboration with universities, public research institutes, and other organizations for the better future of the Earth. In addition to technologies to reduce $CO_2$ emissions, the projects include development of technologies to convert recycled $CO_2$ to raw materials of plastics or fuels, and of technologies to store and utilize $CO_2$, such as a project to extend sea forest development by use of slag, and further development of Blue Carbon technology that is effective in capturing $CO_2$.



## Initiatives to achieve the long-term vision for climate change mitigation

As a core member of the Japan Iron and Steel Federation, Nippon Steel played a pivotal role in the development of the Long-Term Vision for Climate Change Mitigation (A challenge towards zero-carbon steel). We have upgraded the COURSE50 project into a SuperCOURSE50 project to take up the challenge of developing hydrogen reduction ironmaking which enables zero $CO_2$ emission in iron and steelmaking.

**Development of technologies specific to iron & steel sector**




Prepared by Nippon Steel based on the JISF's Long-Term Vision for Climate Change Mitigation

## Adaptation to climate change

In addition to taking mitigation actions against climate change, Nippon Steel is making initiatives to prepare and adapt to potential impacts of such change. We have many products that are used for a long time as construction material for public infrastructure. For example, one such product, for embankments, helps protect communities from flooding or high tidal waves generated by torrential rain or a typhoon. In our various steelworks in Japan and overseas, water storage tanks have been installed and an administration office is built on a piloti structure, which allows to create an open space with no walls on the lowest floor and makes the building less vulnerable to tsunami. This is a part of efforts of Nippon Steel to be well prepared for emergencies such as flooding and high waves.

## Work to achieve $CO_2$ emission reduction by raising efficiency in logistics

Out of Nippon Steel's cargo volume transported over a distance of 500 km and more, 94.7% are transported by eco-friendly train and ship (not by truck carriers). We also try to improve transportation efficiency by using larger vessels (changing from 700 ton to 1,500 ton vessels) in domestic coastal transport and taking other measures; and improve fuel economy by introducing energy-saving tires, lightweight vehicles, etc. As a new measure, we began adopting hybrid-type cargo vessels, equipped with lithium-ion batteries.

## Other initiatives
### (use of by-products and waste in $CO_2$ reduction)

#### Waste plastics

Using coke ovens at Nippon Steel's seven steelworks, about 200,000 tons of used plastic containers and packaging collected from general households nationwide are recycled 100%, in compliance with the Act for Promotion of Use of Recycled Resources. This contributes to reduction of about 600,000 tons of $CO_2$ a year.

#### Blast furnace cement

Use of blast furnace slag in production of cement enables us to reduce use of limestone and fuel, contributing to reduction of 320kg in $CO_2$ emission per one ton of cement (over 40% reduction compared to ordinary cement production).

#### Blue Carbon

A basic research project was launched on the impact of the carbon capture and storage by using steel slag in Nippon Steel's initiatives to create sea forests. Our unique marine simulator (sea laboratory) is used for this.

## Support for TCFD recommendations and Nippon Steel's strategies

- In May 2019 Nippon Steel signed the statement of support for the Task Force on Climate-related Financial Disclosures, as we believe that climate change is one of important challenges that the world faces today for achieving long-term goals of the Paris Agreement. In order to expand information disclosed as recommended by the TCFD, we made analysis of two scenarios (so-called 2°C scenario and 4°C scenario) for a long-term span into 2050 and after. Specifically, we identified our potential risks and opportunities to be driven by climate change, considered their significance, and put together their impacts and our initiatives on them. Please see pages 23-25 of our Sustainability Report for details on the TCFD scenario analysis.
- The scenario analysis made it clear that global steel demand will continue to grow in line with the global economy's growth, and the required production volume for pig iron is projected to grow toward 2050. Further, it shows that needs are expected to increase for products and services that address weight reduction or enhanced strength of steel for automobiles, growth in electric vehicles, and creation of a resilient, stronger society.
- We have so far led the efforts to promote the "three ecos," namely, Eco Process, Eco Products™ and Eco Solution, and innovative technology development, including the COURSE50 project. Going forward, we will also tackle ultra-innovative technology (CCU, hydrogen reduction ironmaking, etc.), pursuing zero-carbon steel and carbon recycling.
- By responding to social demand for reduction of $CO_2$ emission and to challenges of our customers through these initiatives, we make group-wide efforts to capture growth opportunities and cope with risks, including a risk of carbon pricing in the future. We are determined to keep advancing towards recognition as "the best steel maker with world-leading capabilities" by further improving our capabilities in terms of "technology," "cost," and "being global" and by creating the value of steel.
- In accordance with the TCFD's recommendation, we intend to disclose information on the impact of climate change on our business activities.

* TCFD was established by the Financial Stability Board in 2015 upon requests from the G20. Driven by the private sector, the task force calls for climate-related financial risk disclosures from the viewpoint of stability in the financial system.

# Contributing to Creation of a Circular Economy

Steel is a flexible, repeatedly-recyclable material that can sustain resource circulation: it is a perfect example of a circular economy.
Nippon Steel strives for the greatest efficiency possible, including minimization or elimination of waste, in use of our energy and limited resources, in every process of steelmaking.
Consequently, we work to recycle internally-generated by-products so that we can realize zero emission. We are also actively engaged in recycling of waste generated in society or by other industries.

## Nippon Steel's current energy-conservation initiatives

Steel, a material, used in great quantities in many kinds of products around us, is actually an eco-friendly material not only in its production but also in disposal of its products since almost all used steel is recycled endlessly into all kinds of products as it is easy to remove impurities from steel products.

## Use of resources and energy efficiently

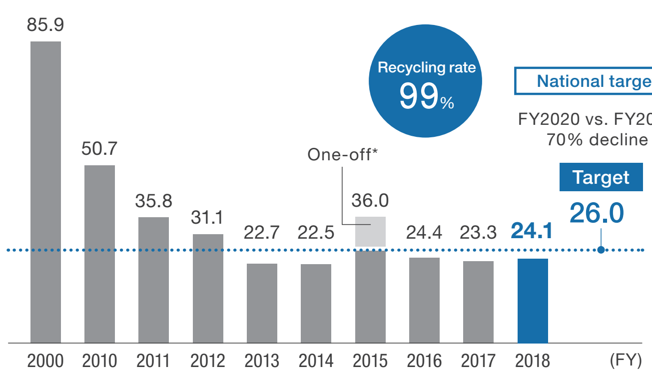
Nippon Steel's steelworks use 100% of by-product gas generated in the steelmaking process, as fuel for heating of steel or as energy for an onsite power plant. Concerning water resources, 90% of water used in cooling and cleaning of products and manufacturing facilities are reprocessed and repeatedly used.

## Promotion of in-house zero emissions

### By-products generated and the amount finally disposed

In the iron and steel-making process, over 600 kg of by-products, such as steel slag , dust, sludge, and used refractory bricks are generated for each ton of crude steel produced. In fiscal 2018, Nippon Steel produced 41 million tons of crude steel and generated 24.35 million tons of by-products. The majority of these by-products were recycled inside and outside the company. As a result of these efforts, our final disposal of industrial waste was reduced to approximately 240,000 tons, that is below the 260,000 ton government target. We reached a very high recycling rate of 99%. We intend to continue reduction of final disposals.

Nippon Steel's final disposal amounts(10,000 tons [wet]/year)




* Including waste generated by a large-scale construction project in FY2015

## Effective use of steel slag

Almost all steel slag produced is utilized. Approximately 70% of blast furnace slag is used for "blast furnace cement," which is registered as an Eco Mark product, while steelmaking slag is used for materials for road bases, civil engineering work, fertilizer, soil improvement, marine environment-improving material etc.

### Products that effectively use steel slag

| | | |
|---|---|---|
| Material for cement | Blast furnace slag | Use of blast furnace slag to make cement enables elimination of the cement pyro-process, which contributes to a 40% reduction of $CO_2$ emissions during manufacturing. It also exhibits superior long-term strength and is registered as an Eco Mark product. Due to the effects of reduction in natural crushed stone and reduction of energy consumption in the cement making process, slag products are a "designated procurement item" under the Green Purchasing Law, and received certification for being recycled by local governments. |
| Road pavement material | KATAMA™ SP | Taking advantage of characteristics of steel slag to react with water and harden, KATAMA™ SP is used for forest roads and farm roads, as well as for weed preventive pavement at mega-solar panel installations and other locations. |
| Material for soil improvement | Geo-Tizer | Geo-Tizer™ made of steelmaking slag can be mixed with soft soil (mud) to modify the soil to make it usable as such. Unlike conventional soil-improvement materials (i.e., cement and lime), less dust is produced, significantly restraining $CO_2$ emissions. |
| | Calcia modified soil | Calcia modified soil, a mixture of steelmaking slag and dredged soil, has the beneficial effects of improving the strength and inhibiting the elution of phosphorus and the generation of hydrogen sulfide in dredged soil. It has also been used to improve the marine environment, through restoration or amelioration of seaweed beds, wetlands, and tideland. |
| Material for marine enviro-improvement | Beverly™ iron supply units | Beverly™ iron supply units, which are composed of steelmaking slag and humus made from waste wood, provides iron needed for seaweeds to flourish, promoting regeneration of an area of the sea bed that had lost much of its living organisms |





## Recycling of dust and sludge

To recycle the dust*1 and sludge*2 generated in the iron and steelmaking processes, for them to be used as raw materials, Nippon Steel operates a dust reduction kiln (RC: Resource circulating oven) at Kashima Works and a rotary hearth reduction furnace (RHF) at Kimitsu Works, Hirohata Works, and Hikari Works. This enables us to recycle all internally-generated dust. In March 2009, we obtained special approval for RHF under the Waste Disposal Act to carry out recycling of externally-generated dust as well.

*1 Dust: Fine dust collected with a dust collector
*2 Sludge: Semi-solid slurry recovered from industrial wastewater or sewage treatment

By-products and recycling [FY2018]

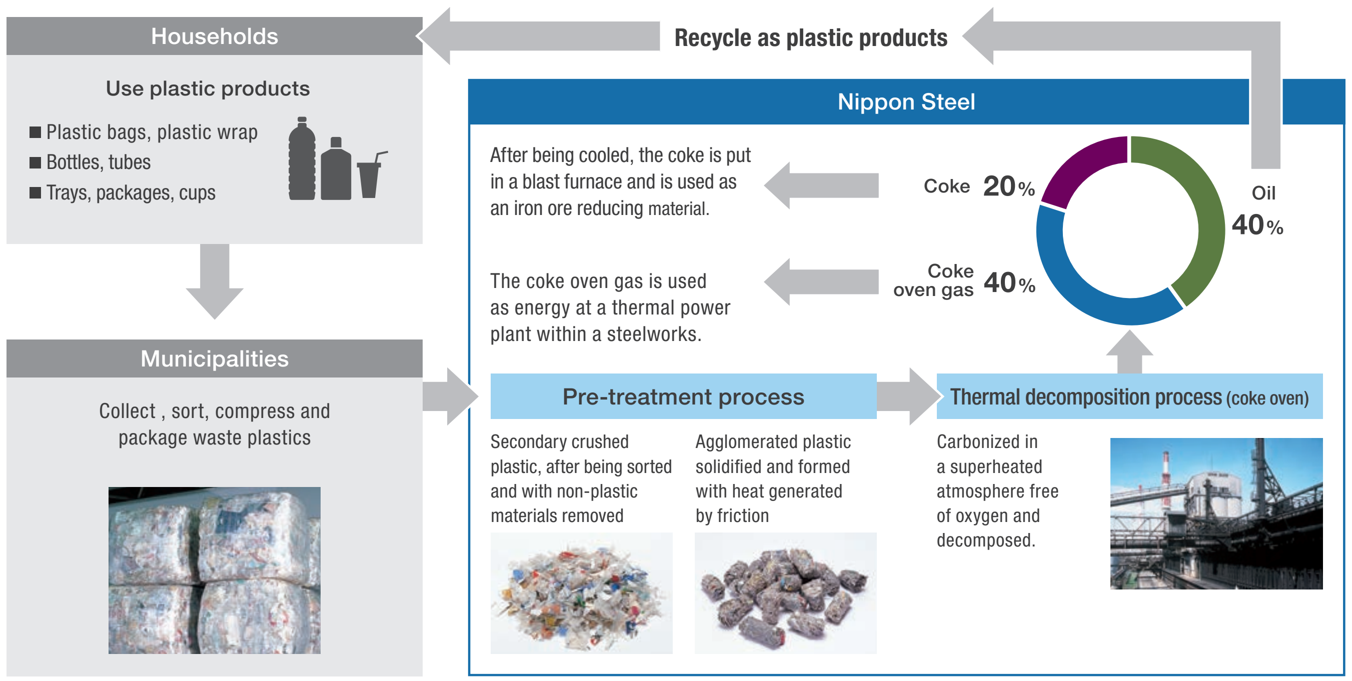
| By-product | Amount generated (wet weight –10 thousand tons) | Recycling application | Recycling rate |
|---|---|---|---|
| Blast furnace slag | 1,216 | Blast furnace cement, fine aggregate, road base, etc. | 100% |
| Steelmaking slag | 540 | Road base, civil engineering materials, fertilizer, etc. | 99% |
| Dust | 317 | Raw materials for use in-house and also zinc refining | 100% |
| Sludge | 48 | Raw materials for in-house use | 88% |
| Coal ash | 50 | Cement raw materials, construction materials | 100% |
| Waste furnace materials | 35 | Reuse, road base, etc. | 81% |
| Others | 230 | In-house use, others | 99% |
| **Total** | **2,435** | | **99%** |

## Recycling of waste generated by society

### Recycling of waste plastics

Nippon Steel recycled 100% of plastic containers and packaging used and collected from households, using a coke oven and a chemical recycling method. Specifically, after thermal decomposition (in the coke oven), 40% is collected as hydrocarbon oil and recycled into plastic products; another 40% is collected as coke oven gas and used as energy at a power plant within a steelworks; and the remaining 20% is coke and used in the ironmaking process.
We have established a system to receive waste plastics from local governments nationwide and are handling about 200,000 tons per year, equivalent to roughly 30% of waste plastics collected all over Japan. Our method of using coke oven has an extremely high recycling efficiency and a great treatment capacity, contributing to a circular economy in many regions.
The cumulative amount processed in fiscal 2000–2018 was approximately 3.07 million tons, equivalent to 9.80 million tons in terms of reduction in $CO_2$ emissions. Recently, we have begun to recycle chemical fibers and food trays mainly into plastic products, under the same recycling method.
Moreover, our plastic recycling plant in each steelworks is open for visits by the public. The Kimitsu Works, being located close to the Tokyo Metropolitan Area, welcomed about 9,300 visitors in fiscal 2018, contributing to environmental education in the community.

Recycling flow of waste plastics Thermal decomposition enables 100% effective reuse of plastics



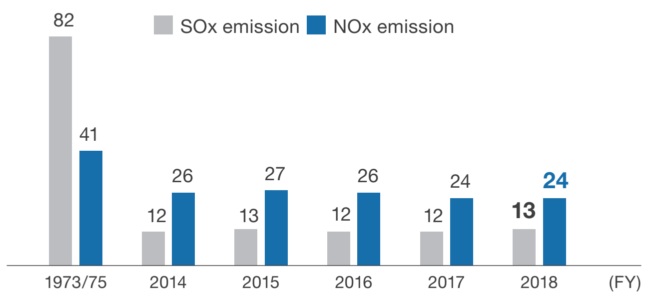
## Promotion of environmental risk management

Nippon Steel is promoting management of environmental risk with the aim of continually enhancing preservation of the environment in various regions, with due consideration of environmental risks, which differ by each steelworks and factory, and with due consideration to compliance with Japan's Air Pollution Control Act and other regulations.

### Atmospheric risk management

In order to reduce emissions of sulfur oxides (SOx) and nitrogen oxides (NOx), Nippon Steel is taking measures such as using low-sulfur fuel, adopting low NOx generating burners and installing effective equipment, including equipment that eliminates SOx and NOx emissions. To curb emissions of soot and dust, we install dust collectors, windbreaknet , and sprinklers and prevent scattering of particles , based on air pollution risk analysis through scientific simulation. We also conduct constant monitoring and regular patrols to ensure that no abnormal emissions are released outside.

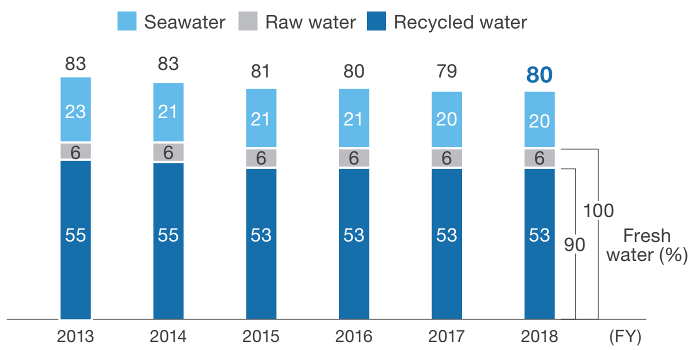
Emission of SOx and NOx ($10^6$Nm³/year)




### Water risk management

Nippon Steel uses approximately 6 billion m³ of freshwater a year at all of our steelworks and factories combined. Approximately 90% of this is recycled or reused. We try to reduce wastewater discharge. To achieve this, we make daily efforts to maintain and improve the performance of wastewater treatment equipment, and the inspection and control of wastewater quality. In consideration of the importance of preventing water pollution, we have installed devices such as automatic detectors, waste water shut-off gate , and made emergency water storage pits. Moreover, our steelworks have taken measures, such as to install a large storage tank so that colored water would not directly be released into the sea even in case of a torrential local rain.

Water consumption (0.1 billion m³; excluding power generation facilities)




### Soil risk management

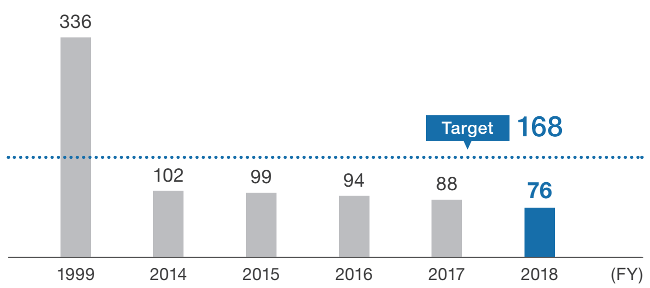
We are taking appropriate measures in compliance with the Soil Contamination Countermeasures Act, guidelines issued by the Ministry of the Environment, local government ordinances, and so on. We report to the local government when performing landform modification work such as excavation which is required to be reported. We conduct pollution surveys when needed.

Starting in fiscal 2018, the Revised Soil Contamination Countermeasures Act that is being enforced in stages will be expanded. We will continue to comply with relevant ordinances.

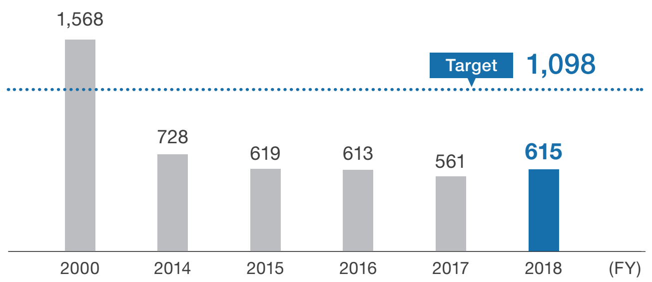
### Management of discharged chemical substances

We appropriately manage and try to improve the production, handling, and discharge or disposal of chemical substances in accordance with the laws concerning the management of chemical substances and the voluntary control manual developed by the Japan Iron and Steel Federation (JISF) and Nippon Steel. We developed a voluntary reduction plan of hazardous air pollutants specified in the environmental standard, such as benzene, tetrachloroethylene, and dichloromethane, dioxin, and volatile organic compounds (VOC). As a result of our undertaking, we have already reached the targets and have maintained the target levels. We also took the lead to promote use of alternatives to steelmaking materials and equipment that contain hazardous materials such polychlorinated biphenyl (PCB) and mercury.

Emission of benzene (ton/year)




Emission of VOC (ton/year)






## Initiatives on Conservation of Biodiversity

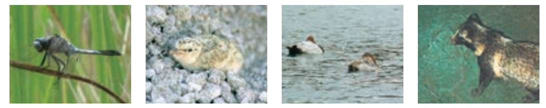
### "Creation of Hometown Forests" and "Creation of Sea Forests"

As a member of Nippon Keidanren (Japan Business Federation), Nippon Steel participated in preparing the "Declaration of Biodiversity by Nippon Keidanren," published in March 2009, and has taken initiatives according to its declaration and action policy. Among them, interesting programs thus far are "Creation of Hometown Forests" and "Creation of Sea Forests," the world-leading pioneer projects.


Some animal inhabitants of the Hometown Forests

| | |
|---|---|
| Muroran | Ezo deer, Ezo red fox, Ezo squirrel, Eagle, buzzard, magpie |
| Kamaishi | Moon bear, Japanese serow, deer, hare, black-tailed gull |
| Naoetsu | Japanese dace, carp |
| Kashima | Pheasant, shrike, duck |
| Kimitsu | Bulbul, pheasant, little tern, swallow, egret |
| Tokyo Area | Raccoon, spot-billed duck |
| Nagoya | Raccoon, Pheasant, bulbul, shrike, swallow, great tit |
| Osaka | Weasel, starling, bulbul |
| Wakayama | Raccoon, marten, bulbul, tiger keelback |
| Sakai Area | Duck |
| Amagasaki | Heron, bulbul, lizard, killifish, white-tailed skimmer |
| Hirohata | Buzzard, shrike, Oriental turtle dove, bulbul, starling, Bunting |
| Yawata | Weasel, pheasant, gray heron, Japanese cormorant |
| Kokura Area | Gull, Japanese wagtail, Graphium sarpedon |
| Oita | Whooper swan, kingfisher, killifish, mayfly, firefly |
| Hikari Area | 51 species of birds including black-tailed gull and herring gull |

Gray heron / Buzzard / Japanese dace / Bulbul



White-tailed skimmer / Little tern / Duck / Raccoon

#### Creation of Hometown Forests

**Reproducing "the grove of a village shrine" and nurture biodiversity**

We have carried out the "Creation of Hometown Forests" projects at our steelworks and factories in Japan under the guidance of Dr. Akira Miyawaki (professor emeritus of Yokohama National University), with the aim of facilitating harmonious coexistence between nature and humans. This project comprises research on the natural vegetation inherent to a certain area in a nearby grove associated with a historical shrine (Chinju-no-mori), careful selection of suitable trees, and planting them in designated places by local residents and our employees. This was the first project by a private company in Japan to create a forest that harmonizes with the local scene and is based on an ecological approach. This is one way we try to raise the awareness of our employees regarding the environment. At present, our forests in aggregate have grown to total around 830 ha (about the size of 180 Tokyo Domes). Wild birds and animals visit the forests we make and maintain at our steel works sites across Japan. Wild birds and animals inherent to the land return to the forests. Thus, the "Creation of Hometown Forests" helps conserve biodiversity, and $CO_2$ sink.

#### Creation of Sea Forests

**Implemented in 38 sites in Japan to improve sea desertification**

Sea desertification, a problem of the sea bed losing ability to support life due, in the case of Japan, to a decline in kelp, brown seaweed, and other varieties of seaweed, is happening along about 5,000 km of the coast in various parts of Japan. To offset a part of the decline in the supply of iron from nature, which is said to be one of the causes for sea desertification, Nippon Steel has developed and uses the Beverly™ Unit to promote regeneration of seaweed beds. The Beverly™ Unit provides iron ions, which are required for growing seaweeds, in the form of humic acid iron. Humic acid iron is the combination of iron ions and humic acid in the soil of a land forest. By using steel slag and humic substance originated from waste wood, we artificially generate the humic acid iron and provide it to help develop a seaweed bed. Safety of the Beverly™ Unit has been certified by the Safety Check and Certification System of steel slag products, stipulated by the National Federation of Fisheries Cooperative Associations.

# Engagement with Society

Nippon Steel treasures its partnership with all its stakeholders and aims to improve its corporate value by enhancing its relationships with them through more engagement and communication.
We hope to help all stakeholders understand the importance of "monozukuri (product manufacturing)" and our various initiatives on environmental issues and through that understanding to be considered as a company trusted all the time. To achieve those objectives, we seek to offer sufficient opportunities for constructive communication, ensure timely disclosure of information, and continue to make social contribution activities that are closely tied to local communities. We also strive to create workplaces in which employees can work with pride and enthusiasm, and fulfill our corporate social responsibilities as a member of society.

## Disaster prevention initiatives

In November 2014, we established the Plant Safety Division, with the objective of promoting essential disaster prevention improvement measures in manufacturing sites for solving challenges related to disaster prevention risks.
The following three areas remain to be the focus in promoting the activities:

1. **Corporate-wide implementation of measures against risks exposed by disaster to prevent recurrence**
2. **Identification of disaster occurrence risks based on risk assessment plant by plant and by each of their process technology divisions ; and implementation of measures in software and hardware to reduce risks and control residual risks**
3. **Voluntary monitoring (auditing) concerning appropriate implementation of points 1 and 2, by persons in charge of disaster prevention in each works; understanding of the control status through sessions with managers at the head office; and implementation of corrections if needed**

### Specific disaster prevention initiatives

| | |
|---|---|
| ① **Prevention of disaster recurrence (mitigating risks exposed by disaster)** | • Enhance drills for initial response (drills at all plants in all steelworks; enhanced drill programs)<br>• Improve fire-fighting capacity of the in-house fire defense function, in cooperation with experts (joint fire drilling with public fire fighters; training for leaders, etc.)<br>• Prevent forgetting past incidents and accidents (panel presentations in training facilities; session to learn about past incidents during training) |
| ② **Disaster prevention risk assessment (identification of new potential disaster risk)** | • Identify and assess risks in manufacturing sites; manage residual risks; promote drafting of permanent measures<br>• Identify accident risks related to operating processes and facility design and promote the drafting of permanent measures by outside experts and the process technology division in the head office |
| ③ **Measures to mitigate existing risks (measures for disaster prevention equipment)** | • Prevent disaster recurrence; investment in measures for compliance and risk assessment (about ¥20 bn/year) |
| ④ **Auditing concerning disaster prevention** | • Autonomous monitoring by disaster prevention organization at each steelworks for regular check-ups and corrective action on the status of disaster prevention activities at the manufacturing workfront<br>• Regular check-up and corrective action on the implementation status of disaster prevention management of each steelworks based on the hearings in the head office |
| ⑤ **Measures against earthquakes and tsunami** | • Promote measures in order of 1) human damage prevention, 2) area damage prevention, and 3) production measures<br>• Develop policy to address conditions when a Nankai Trough earthquake emergency warning or alert is announced and act under the policy |
| ⑥ **Third-party monitoring toward enhancing safety competency in steelworks** | • Assessment of steelworks by an NPO, the Japan Safety Competence Center |
| ⑦ **Group companies disaster prevention management** | • Meetings to enhance coordination for disaster prevention management; visits to a plant where a disaster/accident happened |

**Target** Zero serious disaster-related accidents



## Together with customers and suppliers

We endeavor to closely communicate with our customers in automobiles, electric, shipbuilding, construction, civil engineering, and other sectors as well as suppliers of raw materials and equipment, ensuring that environmental and social concerns are addressed at all levels of our supply chain.

### Quality management

Quality management is one of the most important aspects in obtaining the trust and satisfaction of customers in the provision of products and services. All of our relevant employees are responsible for thorough quality management.

In coordination with product units and individual steelworks, the Company's Quality Assurance Department promotes measures to cope with Groupwide quality control and assurance issues.

#### Concrete measures to enhance the quality management system

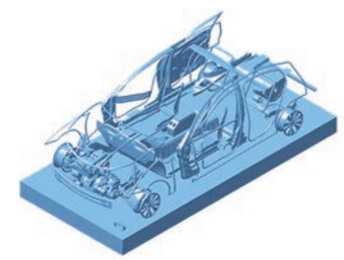
Nippon Steel's quality management system is based on autonomous, autonomous quality management activities of each product type business division of a Group company, including overseas ones and each steelworks. The status of each is checked through auditing of the Quality Management Division in the Head Office.
The key points of this inspection include compliance with the guidelines* of the Japan Iron and Steel Federation; compliance with standards and specifications; and confirmation of continual improvement activities for quality internal control. The auditing plan is written once a year for each steelworks and once every three years for each office of group companies, in order to reduce quality risks. We also receive external reviews, such as ISO9001 and JIS certifications to raise the credibility of the quality management system. Information on quality-related examples is promptly shared across the group and at appropriate times measures are launched to resolve issues through standardization, systemization, automatization, and other action, to raise the credibility of identification as well as testing and inspection of actual products.
In addition, diverse opportunities to acquire basic knowledge on quality compliance and quality management are provided internally and for group companies, and an e-learning program is offered to those in charge of quality compliance and quality management every year, to assist them to expand knowledge. For overseas group companies, the e-learning program is developed and delivered in each local language. We thus strive to raise quality awareness of all group employees.
Using leverage of our quality management organization, we will continue our daily efforts to improve customer satisfaction and further raise our branding power of trust.

* Guideline Toward the Enhancement of Quality Management System(JISF, revised August 2016)

### Enhancing customer satisfaction

Nippon Steel provides diverse solution proposals that can result in customer satisfaction.
For example, seeing automakers' increasing needs for lighter car bodies and collision safety, electric and other energy vehicles, and spread of autonomous driving, we studied the automotive industry's drastic changes as our starting point for business evolution, taking the initiative to discover and derive ideas for automotive manufacturers to consider. We then assumed parameters of the performance required for next-generation vehicles and each of their components, combined the elements needed for a component structure that maximizes performance of materials with the processing technologies that enable them, and ultimately established the "NSafe™-AutoConcept", a new steel structure concept for next-generation vehicles.
With the "NSafe™-AutoConcept," we propose how to enhance added value of the entire vehicle — from fuel/electric efficiency performance to collision safety, operation, sound vibration/silent performance — centered around solutions for lighter vehicles by raising the performance of each material. Through provision of materials and solutions that cope with social and industrial changes, we will continue efforts to enhance our technological capabilities in order to play a role as the best partner to the automotive industry and to help design future vehicles.

**NSafe™-AutoConcept, a next-generation automotive structural concept**



*NSafe®-AutoConcept*

| Stronger | More flexible | Lighter | More friendly |
|---|---|---|---|
| **Safety** | **Comfort** | **Lightweight** | **Eco-friendliness** |

Using advanced grades of material and solution technologies, Nippon Steel developed NSafe™-AutoConcept, by processing originally-designed components for a future vehicle

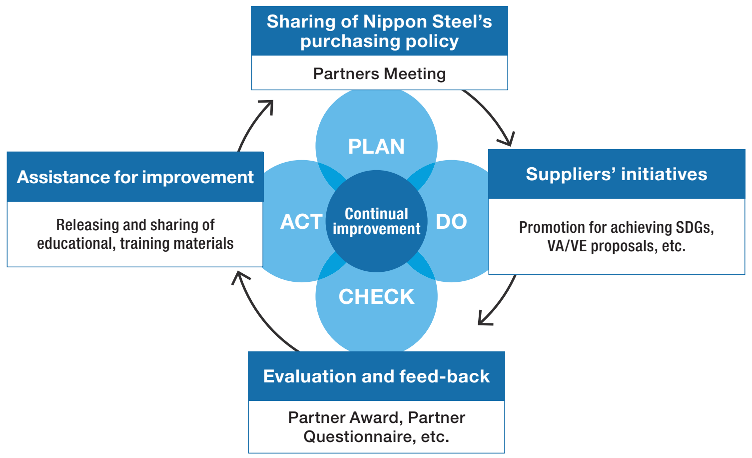

Foundation for Sustainable Growth: ESG Initiatives (Social)

## Collaboration with Suppliers

Economic development of emerging countries is a major element of change in the global purchasing environment, requiring Nippon Steel to make strategic purchasing for enhancing manufacturing capabilities.
At the same time, it is becoming increasingly important for not merely our company but also our entire supply chain to fulfill social responsibilities toward realizing a sustainable society.
We purchase around one million product items of equipment and materials from gigantic facilities such as blast furnace to electric and mechanical products as well as safety, emergency, and office supplies from about 3,000 suppliers other than major suppliers of iron ore and coal. Based on our basic policy, our aim is to realize a top-flight purchasing strategy, with a focus on dialogues with suppliers.
Aiming at enhancing dialogue with suppliers, we have organized a Material/Equipment Procurement Partners Meeting, to be held once every three years with an objective to share our purchasing policy, which was set in fiscal 2018, the first year of the new mid-term management plan, in light of our new management strategy. In fiscal 2018, about 1,300 suppliers joined our first Partners Meeting, where we agreed to share our purchasing policy that emphasizes thorough compliance; product safety, ensuring of quality, cost, and delivery (QCD), advancement of technology development capability; consideration of human rights, labor environment, safety and health; environment conservation; and thorough information management, with the aim to deepen the partnership for enhanced manufacturing competitiveness and to promote purchasing that contributes to a more sustainable society.
Under the policy, we strive to enhance risk management of the entire supplier chain by undertaking more initiatives, such as ESG initiatives (including the enhancement of governance structure), survey on minerals from conflict-affected and high-risk areas, and business continuity planning (BCP). In addition, we began to compile a Partner Questionnaire to survey suppliers once a year. The Partner Award System has also been implemented to express our gratitude to suppliers who have greatly contributed to our advancement in manufacturing competitiveness.

### Basic policy

1. Compliance with laws
2. Equal opportunities
3. Building of a partnership
4. Fair disclosure of information and quick transaction processing
5. Consideration to resource protection and environmental preservation
6. Preservation of confidentiality




### Supply chain management that reduces environmental burden

Based on the Life Cycle Assessment concept, Nippon Steel is taking initiatives in reducing environmental burden at various points along the supply chain. In keeping with rising demand for tighter management of chemical substances, we have created management standards for 16 toxic chemical substances, including cadmium, jointly with customers and suppliers. We then established a system to manage substances of concern contained in purchasing materials and products, including packaging materials. In addition, as stipulated in the Charter of Corporate Behavior by Keidanren, we have set up internal rules, including an appropriate purchasing policy, which puts us on record as fully considering resource protection and environmental preservation. Moreover, we have participated in the Green Purchasing Network (GPN) since 1996, when the network was founded, in order to promote green purchasing activities. Jointly with businesses, governments, academia, local governments, and NGOs, we have taken the initiative in developing a framework to prioritize the purchasing of products and services that represent less environmental load.

**Toxic material management concerning quality assurance**
For further information, please visit our website, "Sustainability - Partnerships with Customers and Suppliers."



## Together with Shareholders and Investors

**We find it important to establish a relationship of trust with shareholders and investors through constructive dialogue and timely, appropriate, fair disclosure of information.**

### Basic Principle on Dialogue

With a view to achieving sustainable growth and improvement of Nippon Steel's corporate value in the mid- to long-term, we take various measures to enhance constructive dialogue with the shareholders. The dialogue with the shareholders and investors is generally supervised by the Director responsible for General Administration and the Director responsible for Accounting and Finance, and the General Administration Division and the Accounting & Finance Division work in conjunction with the other divisions of Nippon Steel to enhance the measures.


Shareholders' visits to the steelworks

### Initiatives for Dialogue Enhancement

For shareholders, in addition to striving to actively provide information to the shareholders and sincerely responding to their questions and comments in the General Meeting of Shareholders, we seek to promote understanding of management's situation, and enhance dialogue, through regularly holding management business briefings and plant tours in various locations, and issuing information booklets. As for service to institutional investors, we present our management strategies, business lineups, business performance, and other related matters, by means of briefings on financial results in each quarter, briefings on the mid-term management plan, steelworks/research laboratory tours, and other opportunities. We also seek to enhance dialogue by means of, among others, small investor meetings, various conferences, and visit to overseas institutional investors.


Business overview briefings (presentation by one of directors on Nippon Steel's management strategy)

### Feedback to the Board of Directors and Executive Officers

The opinions and other comments received from the shareholders and investors through the above-listed initiatives are reported and fed back to the Board of Directors and others responsible for the dialogue with the shareholders and investors on a regular basis.

### Measures to Manage Insider Information

Insider information (undisclosed material facts) is appropriately managed in accordance with Nippon Steel's "Rules on Insider Information Management and Insider Trading Regulations."

**IR activities [Fiscal 2018 results in brackets]**

| Event | Summary of event |
|---|---|
| For institutional investors and analysts | ■ Quarterly results briefings, presented by the director in charge of IR [4 times]<br>■ Briefings or telephone conferences on important matters concerning business strategy [1 time]<br>■ One-on-one meetings at Nippon Steel's office [Approx. 300 investors in total]<br>■ Visits to major overseas institutional investors and face-to-face meetings at investment conferences [Approx. 100 investors in total]<br>■ Visits to steelworks and research centers [4 times] |
| For shareholders | ■ Results briefings [9 times] * ■ Plant tours [26 times] * |
| IR library on the Web<br>https://www.nipponsteel.com/en/ir/ | Financial Results / IR Briefing / Security Reports (quarterly; only in Japanese)<br>Integrated Reports / Fact Books /Mid-Term Management Plan Press Release and IR Briefing / Reports for Shareholders |

* Only for shareholders with a certain amount of shares owned / By lottery



Foundation for Sustainable Growth: ESG Initiatives (Social)

# Together with Employees

**Based on the belief that the development of excellent personnel is a prerequisite for the production of excellent products, Nippon Steel is rolling out robust programs to strengthen the overall capabilities of the Company's human assets.**

## Respect for Human Rights and Promoting Diversity & Inclusion

### Respect for human rights

In compliance with the Universal Declaration of Human Rights and other international norms on human rights, the Nippon Steel Group is in the business of creating and delivering valuable and attractive products and ideas, by respecting our employees' diverse views and individualities and utilizing them for the good of all. Based on the United Nations Guiding Principles on Business and Human Rights, the Nippon Steel Group Conduct Code has been set. By adhering to its nine principles, Nippon Steel conducts business ethically, while paying full heed to human rights issues arising with the increasing globalization of the economy. Nippon Steel gives due attention to the rights of workers, and staunchly opposes the use of forced or child labor. These are prerequisites of our corporate activities. We have also prohibited as unjust the discriminatory treatment of workers based on nationality, race, belief, creed, gender, age, sexual orientation, and disability. In addition, we give careful consideration to the traditions and culture, business practice, and labor practice of each country or region as we accelerate overseas business development.

### Dealing with human rights risks and labor risks

Nippon Steel holds a corporate-wide human rights anti-discrimination promotion forum every year, adopted the policy of dealing with human rights issues, and conducts workshops and other awareness-raising activities for employees. We also participate in enlightenment organizations and activities hosted by public entities and others in each community. We do this as concerted efforts for human rights enlightenment with the communities.

In case of abuse of human rights, including harassment, or a labor-related problem that became known through a whistleblow contact to our Compliance Consulting Room, for example, we are prepared to handle the issue appropriately upon investigation of the facts. In case of executing a new business, we take appropriate actions in order to prevent occurrence of human rights or labor issues.

### Communication on human rights with stakeholders within and outside the company

Nippon Steel considers it important to communicate with stakeholders within and outside the company to deal with human rights risks. We have set up a Compliance Consulting Room to receive notifications or inquiries concerning harassment and other abuse of human rights from the Group's employees and family members, and from business partners. Notification and consultation from other stakeholders are accepted in the inquiry form on Nippon Steel's website. Each of these whistleblowing and consultation matters are given appropriate attention, including our providing guidance or training to the related parties, consistent with advice from lawyers and other professionals when needed.

### Prevention of forced or child labor

Adhering to international norms concerning forced or child labor, Nippon Steel has the policy of prevention and eradication of both types of labor. We conduct regular monitoring surveys of our group companies to prevent such violations in our business activities.

### Respect the rights to organize and to bargain

Adhering to laws and the group-company labor agreements, and respecting the rights to organize and to bargain, Nippon Steel strives to establish sound labor relations by sincere talks with organized labor. We hold regular meetings to discuss diverse issues including management issues (i.e., safety and health, production), labor conditions (i.e., wages and bonuses), and balance in work-life. Through exchange of opinions with union representatives, we seek close labor-management communication.

**Labor union membership and ratio** (as of March 31, 2019) **25,376** (Membership ratio: 100%)

### Compliance concerning salaries

In compliance with laws and regulation concerning salary and wages payment, Nippon Steel has set up pay at a higher level than minimum wage stipulated by the country, region, and type of work where we do business. With regard to bonuses, we regularly survey related matters, including the status of each country, region, and type of work, and hold meetings with labor representatives, to appropriately reward employees with due consideration given to business conditions and financial performance.

### Promotion of balanced work-life

Nippon Steel complies with labor laws and regulations of each country where it operates, and strives to create a work environment that allows each and every employee to do best. We promote balanced work-life by encouraging employees to fully use their paid holidays and to control the number of hours worked, and to keep the time worked at a suitable level. This is done with cooperation by labor unions. As a part of initiatives on Work Style Innovation, we are expanding the working system from the viewpoint to fully utilize the optimized work time and to allow all employees to use their full capacity. In FY2019 we began a telework program. We also provide both diverse welfare programs to support employees' personal life and numerous measures for individual departments depending on their business conditions, such as to setting a no-overwork day.

Nippon Steel also has diverse welfare programs to support employees' personal life: provision of housing, including dormitories and company housing, and a cafeteria plan (work-life support program).



**Achievement related to balance in work-life** — The ratio of paid holidays taken (FY2018) **77.5%**

### Diversity & Inclusion

In an aging society that has a declining birthrate, Nippon Steel has promoted diverse measures aimed at establishing such a work environment, whether at clerical, manufacturing, or maintenance work sites, that empowers diverse people, including elderly persons and women.

In addition to implementing a childcare leave system which is more generous than legally required, a rehiring program for employees who previously left the company for child or elderly care and other reasons, and a leave program to assist overseas relocation of the spouse, we opened 24-hour childcare centers for use by shift work employees in steelworks. We are thus enhancing programs to support employees' work-life balance.

At present, the ratio of women in overall hiring is about 20%. We are committed to steadily implementing various measures toward our target to double the number of women in managerial positions from the level in 2014 by 2020 and triple it by 2025.

Concerning promoting the empowerment of elderly, we have decided to look into detailed planning to raise the retirement age from 60 to 65. This change reflects the decline in the working population and the raising of pension eligibility age, and would be made also from the perspective of maintaining and enhancing our work environment.

Recognizing employment of the disabled as an important social challenge, we are implementing an action plan for their employment, using special-purpose companies, and by providing a friendly working environment.

### Achievement related to diversity & inclusion

**Achievement related to childcare support system** (FY2018)

| | |
|---|---|
| Number of users of the childcare leave system | 206 |
| Ratio of returnees after childcare leave | 91.4% |
| Number of users of the short-work hour system for childcare | 89 |
| Internal childcare centers | 5 centers |
| Users of internal childcare centers | 80 |

**The ratio of women in overall hiring** (Average ratio from FY2017 to FY2019)

| Office staff and engineers | Operators and maintenance personnel | Overall |
|---|---|---|
| 34% | 17% | 23% |

**Number of women in managerial positions** (as of April 2019) **97**

**Target** Target to double the number of women in managerial positions by 2020 and triple it by 2025, compared to that of 2014

**Number of those re-employed** (FY2018) **3,041**

**Disabled-person employment rate** (as of June 2019) **2.21%**

**Respect for human rights and promotion of diversity & inclusion**

For further information, please visit our website, "Sustainability - Partnerships with Employees."

## Utilization and development of human resources

### Personnel development policy

Nippon Steel's basic approach to personnel development is on-the-job (OJT) training – supervisors transfer to their subordinates knowledge and operational skills as well as how to do the job and think about it. This is done through everyday dialogues. The Personnel Development Basic Policy has been developed in order to express the policy and apply it to all employees. It is summarized below.

1. Personnel development is nothing but one aspect of business.
2. OJT training is a basic of personnel development and is complemented with off-the-job training.
3. A supervisor shares clear objectives and outcomes of personnel development with his/her subordinates.
4. Every employee ceaselessly strives to develop skills and knowledge.

The core of the Basic Policy is based on supervisor-subordinate dialogues for personnel development.

For employees in office positions, diverse types of off-the-job training sessions are conducted for acquisition of specific skills or themes which are not covered in OJT, and to acquire required training geared to specific career levels.

With regard to employees in manufacturing and maintenance who have acquired a clear understanding of the skill to be acquired through supervisor-subordinate dialogue, a specific development plan is drafted and carried out. The status of development and skill transfer is evaluated by using a skill map – a list of skills for each individual, and confirmed or modified as needed. Off-the-job training includes training by career level and length of service, and designated training by role of work.

**Number of training/learning hours** (FY2018) **1.5 million hours/year** (56 hours/year per employee)

**Objective** Promote measures to develop human resources who serve the enhancement of workplace strength and technological advancement

### Development of personnel who support overseas expansion

Nippon Steel is actively expanding business to overseas growth markets and many Nippon Steel employees are working on these projects, together with employees of our joint ventures and local employees. At these bases, we also contribute to local communities by locally hiring employees and creating job opportunities. In order to develop employees who promote our overseas business expansion we put efforts into international education, such as training of young executives, intercultural learning programs and study abroad, aimed for acquiring knowledge and skills needed for business management and for nurturing a global mindset.



Foundation for Sustainable Growth: ESG Initiatives (Social)

### Personnel treatment system

Nippon Steel's administering of personnel policies aim at encouraging our employees to grow and develop their overall capabilities, from the time they join the company until they retire. We also find it important to ensure consistent, fair treatment of all employees regarding their capability and achievement, by methods including through dialogue between supervisors and subordinates.

### Securing of personnel

Nippon Steel carries out fair and impartial hiring activities, based on the Keidanren (Japan Business Federation) Charter for Good Corporate Behavior. Our activities for securing the number and kinds of new hires includes an internship program and welcoming young students entering the job market to plant visits.

**Status of employees (unconsolidated basis)**

| | | |
|---|---|---|
| Number of employees (number of women in parenthesis) | 26,570 (2,483) | (March 31, 2019) |
| Number of employees (number of women in parenthesis) | 1,386 (281) | (FY2019) |
| Average years of service | 15.1 | (March 31, 2019) |
| Rate of voluntary termination | 1.5% | (FY2018) |

**Utilization and development of human resources**

For further information, please visit our website, "Sustainability - Partnerships with Employees."

## Promotion of the wellness of employees

**To help ensure we are an energetic company where all employees work at their best and stay healthy from joining the company until retiring it, we promote health promotion measures with a focus on disease prevention.**
**Specifically, the company is committed to providing a full health checkup menu and enhanced aftercare to benefit the mental and physical wellness of employees, while employees are expected to also be committed to implementing measures for their own health maintenance. We believe that these measures will be sources of willingness to work, contributing to balancing work with health by staying healthy and, in case of illness, by continuing to work while being treated, when conditions permit.**

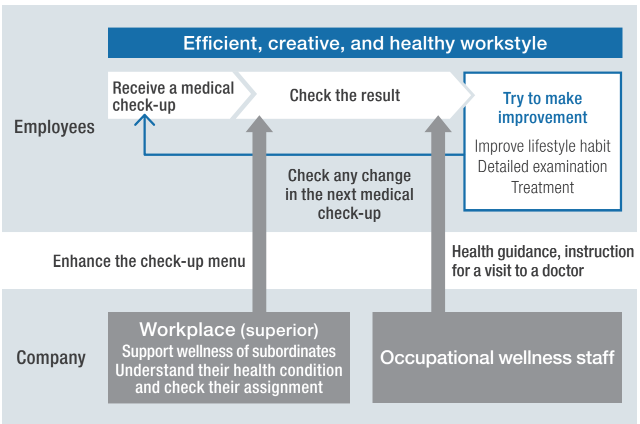
### Physical wellness

Using the corporate-wide medical checkup system which focuses on serious disease risks, Nippon Steel thoroughly manages health guidance on the basis of managing risks, and decides the frequency of medical checkup as part of that health maintenance effort. In addition, as a measure against lifestyle-related diseases, a recurring event to promote specific health guidance and lifestyle modification named the Health Challenge Campaign is conducted in cooperation with the health insurance association. As measures against cancer, cancer screening tests are broadly included in checkup items, depending on age and gender. In 2018, screening for breast cancer and uterine cervix cancer were included for female employees of all group companies.

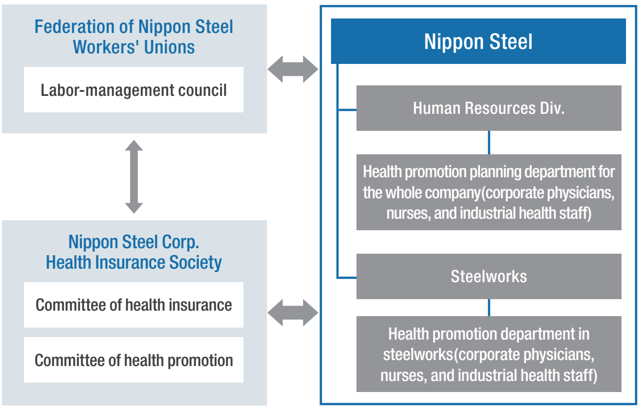
### Mental wellness

Aiming for each employee to enjoy a robust life on and off the job, we provide a consulting service for prevention and early detection in the area of mental health, and have incorporated the issue of mental health in in-house seminars. We also offer education on how to be aware of one's own stress and to deal with it, how managers should care for their subordinates and manage their team, and how to use or coordinate with the corporate physician, nurses, and other staff.
Using an annual stress check result to approach teams and individuals to give guidance for improvement, workplaces coordinate with the personnel department and the health department in contributing to a vigorous work environment, and implement necessary measures according to the issues of a team or an individual.

**Commitment to wellness by both the company and employees**




**Organization chart for health promotion**




### Support to employees who work overseas

In order to enable employees who work overseas to work without undue worries, a seminar for the employees and their family is held before the overseas assignment, and information on mandatory vaccination, the local medical system, and specialized medical assistance programs is provided. Under the policy of providing continuous health management support during overseas assignments, interviews with occupational health staff are conducted via a video-conference system and other means, in addition to regular medical checkups. Moreover, one of the company's physicians periodically visits overseas offices, researches local medical institutions and the daily-life environment, and meets with employees to offer advice.

## Safety and health initiatives

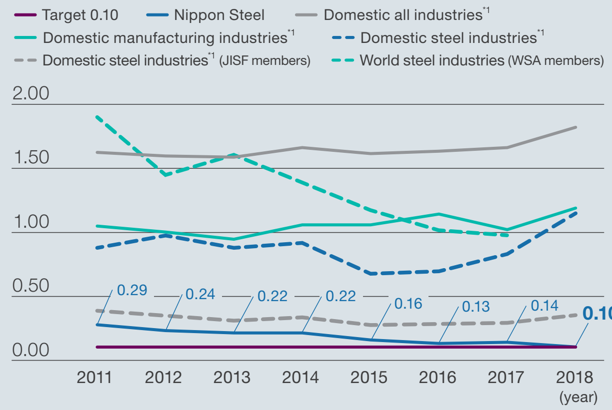
**In keeping with the corporate philosophy that "safety and health are the most valuable factors that take precedence over all other things and they are the basis that supports business development," we have firmly kept our manufacturing priorities in all of our activities. We have been improving our Occupational Safety and Health Management System (OSHMS) and strive at making safe and secure workplaces.**
**The Basic Policy on Safety and Health is applied to Nippon Steel as well as to related or subcontracting companies.**
**Under the OSHMS, we make policy, define targets, and develop a plan for the safety and health policy, implement a PDCA cycle, and drive continuous improvement. We are now considering obtaining the ISO (JIS) 45001 Health and Safety certification (published in March 2018) for all our workplaces. At present, about 40% of our offices and works have obtained OSHMS certification by a third party.**

### Reducing disaster risks to zero, and group-wide sharing of effective measures

We make a risk assessment when planning a new project and regularly conduct safety and risk assessment for existing projects, to prevent accidents and reduce risks. We also seek for greater safety of equipment even when such equipment is essentially safe , and take countermeasures against human error. We also actively promote use of IT in safety measures, such as checking worker location data via GPS, safety surveillance cameras, and helmet-mounted cameras. We compile and make known effective examples of accident-preventive measures and measures based on analysis of actual accidents.
As a result of continuous execution of these measures, safety improved in 2018. There were 10 accidents for Nippon Steel's employees* and 10 for employees of subcontracting companies (including one fatal accident for Nippon Steel and two in subcontracting companies). The accident frequency rate was 0.10 (compared to Japan's steel industry average of 1.16) and the accident severity rate was 0.11 (vs. 0.21). We will continue to strive for a safe work environment with the safety wellness targets for 2019 that are zero fatalities/severe accidents and less than 0.10 as the accident frequency rate.

* Nippon Steel's employees include seconded employees as well as temporary and part-time workers, and those dispatched to Nippon Steel.

**Accident frequency rate**




*1 Source: JISF "Safety Management Overview, 2018"

* Accident frequency rate = (Number of accidents and recordable incidents, accompanied by lost work time) / (Total number of hours worked by all employees) ×1,000,000

| | |
|---|---|
| Target | Accident frequency rate 0.10 or less<br>Zero fatalities accidents |

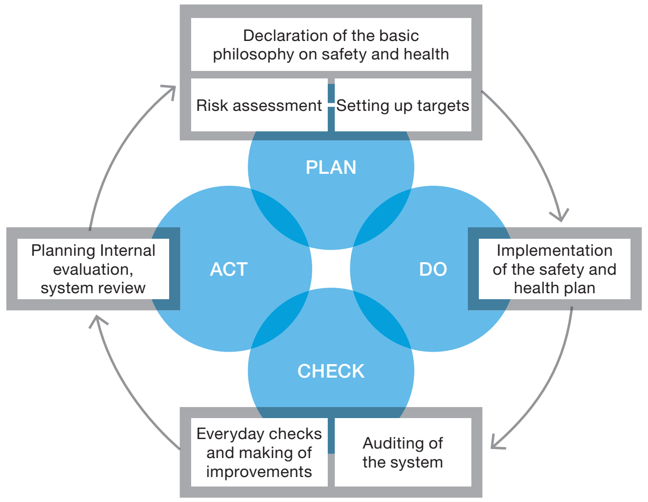
### Safety training

We make efforts to improve training for accident prevention. The safety training programs are attended by all newly-appointed managers of manufacturing worksites (108 managers in FY2017 and 91 in FY2018). Our Taikan Program (an experience-based safety education program) allows employees to experience worksite risk through simulation, so as to better prepare them in anticipating and managing risk.

**Safety**

For further information, please visit our website, "Sustainability - Efforts Toward Safety and Health Management."

**Occupational Safety and Health Management System (OSHMS)**



# Together with local communities

**Having many manufacturing bases all over Japan, Nippon Steel has a long history of being engaged in business activities rooted in local communities and supported by local residents.**
**In accordance with our attitude of maintaining harmony with local communities and society, we have implemented distinctive social contribution programs, mainly through promotion of environmental preservation, and through education, music, sports, and international exchange.**

## Environment preservation activities, jointly with local communities

### Participating in "Creation of a Hometown Forest" in local communities

Nippon Steel's Amagasaki Works has participated in the Amagasaki 21st Century Forests Project, together with local municipalities, companies, and NPOs, under Hyogo Prefecture's greenery promotion project, since fiscal 2006. By fiscal 2017, the reforestation area reached 14,552m$^2$, exceeding the size of the grounds of the Yankee Stadium. The Amagasaki Works endorsed the concept of a newly-added "large-scale urban greenery promotion business" in Hyogo's project and planned to make a green space of over 1,000m$^2$, at the time of celebrating its 100th anniversary in September 2019. Due to these initiatives, Nippon Steel received the Encouragement Award of Japan Greenery Research and Development Center at its 37th National Convention for the Promotion of Factory Greening.

### Collaboration with an NPO, "Mori wa Umi no Koibito"

The Tohoku Branch of Nippon Steel is a regular corporate member of the NPO, Mori wa Umi no Koibito (The forest is longing for the sea, the sea is longing for the forest), represented by Mr. Shigeatsu Hatakeyama, a fisherman raising oysters and scallops in Kesennuma City, Miyagi Prefecture, who received the Forest Hero award from the United Nations. Since 2012 we participated in the NPO's tree planting activity at Murone Mountain in Iwate Prefecture, which began in 1989, based on the theory that the chain of forests, villages, and the sea nurtures the blessings of the sea. In fiscal 2019, 64 of Nippon Steel's employees and family members joined the 31st tree-planting activity.

### Cleanup activities in communities

All of our steelworks and factories are involved in cleanup activities of their surrounding areas and community. As a member of society, many employees participate in volunteer activities and cleanup activities, jointly with residents in the community.

## Providing Education on Manufacturing and the Environment

### Demonstrating the joy of product-manufacturing through "Tatara Ironmaking"

With the aim of showing children the joy of product-manufacturing, Nippon Steel has been holding demonstrations on "tatara ironmaking" – Japan's indigenous ironmaking technique – at our steelworks and nearby schools in Japan every year.

### Support of community-based education

Nippon Steel has been engaged in unique community-based environmental education support programs and educational activities on "monodzukuri (product-manufacturing)." For example, we organized a scientific stand as a part of a local festival at Kimitsu Works, where our younger employees introduced the fascinating properties of iron and the mechanism of electricity generation to primary and secondary school children. Our employees at Oita Works also gave a "travelling scientific lecture" at local primary and secondary schools. Nippon Steel's Head Office staff took part in an Energy and Environmental Workshop held by a junior high school in Kanagawa Prefecture, showing an example of use of waste plastics at Nippon Steel to demonstrate the steelmaking industry's environmental initiatives. In addition, we donate to the Tohoku University's project which aims at teaching children in the stricken areas of the East Japan Earthquake and Tsunami of 2011 the basics about why disasters happen and what appropriate actions to take when one occurs.

### Hosting of plant visits

In order to understand the steel industry, there is no better way than a visit to a steelworks — seeing steelmaking facilities and how people work there, and talking with them if possible. About 135,000 people visited our steelworks in fiscal 2018.

### Internship programs and the endowment of a university course

For many years, Nippon Steel has been offering internship opportunities to students to help them learn our business and gain some work experience. We also endow a university course, which also contributes to one of our business strategies, "enhancement of our technological superiority."



### Training programs for educators at private companies

Every summer we support the "Training Programs for Educators at Private Companies" sponsored by the Japan Institute for Social and Economic Affairs and JISF, so that teachers can better understand how the steel industry is contributing to society and can better appreciate the fascination of product-manufacturing. In 2018, we hosted 126 teachers for the tours of our facilities and our human development activities.

## Activities in the support of art, music, and sports as social contribution

### Activities in the support of music

Nippon Steel is active in activities of our corporate philanthropy in the support of music, particularly through the work of the Nippon Steel Arts Foundation. The Foundation manages Kioi Hall in Tokyo, organizing performances of its resident chamber orchestra "Kioi Hall Chamber Orchestra Tokyo" and promoting Japanese traditional music by using Kioi Hall's special small hall. We also formed the annual Nippon Steel Music Awards, in 1990, to encourage young classical music performers and to those who have made contributions to the development of classical music.

Kioi Hall Chamber Orchestra Tokyo © Tomoko Hidaki

### Activities in the support of sports as a social contribution

Nippon Steel manages or supports sports teams in the local communities of its steelworks. These include a judo club, which has produced Olympic medalists; baseball teams, which have sent many of its players to the professional leagues; a football team, a rugby team, and a volleyball team. All of these teams also contribute to their local community through such various activities as sports classes for children, coaching of junior teams, and making our athletic facilities available to local residents for games and training. Together with local residents who support our teams, we strive to provide renewed vigor to our local communities, and at the same time to support their healthy lifestyle.

# Together with government and public institutions:
## Involvement in public policies and legal compliance

| | |
|---|---|
| Suggestions on public policies via Japan Business Federation (Keidanren) and the Japan Iron and Steel Federation (JISF) | ■ Express opinions on deregulations and institutional reforms for maintenance and enhancement of a vibrant economy in Japan<br>■ Promote measures toward Japan's achievement of the Paris Agreement goals for 2030 via the JISF, in which Nippon Steel plays a leading role<br>■ Advocate needs for inexpensive, stable supply of hydrogen, which is expected to play a critical role in $CO_2$ reduction efforts |
| Participation in government councils, study groups, etc. | ■ Participate in the deliberation process of public policy, such as infrastructure development, environment & energy, and economic regulations. (Appointed as a member of the Steering Committee of the Task Force on Climate-related Financial Disclosures (TCFD) Consortium, hosted by the METI) |
| Adherence to relevant laws and regulations, and building of an appropriate relationship with government and public institutions | ■ Comply with laws and regulations, based on the Nippon Steel Group's Corporate Philosophy and Code of Conduct Code .<br>■ Adopt and adhere to corporate rules and guidelines on prevention of corruption of public officials in Japan and abroad, compliance with anti-monopoly law, environmental regulations, protection of personal information, etc. |
| Appropriate tax payment | ■ Comply with relevant laws and regulations, and pay tax appropriately<br>■ Eliminate alleged action to evade taxes and bear an appropriate tax burden<br>■ Maintain transparent, constructive communication with tax authorities |


Foundation for Sustainable Growth: ESG Initiatives (Social)

# 11-Year Financial Performance (Unaudited; only for reference purposes)

JGAAP

| | FY | 2008 | 2009 | 2010 | 2011 | 2012*6 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Operating Results (Fiscal year)** <Millions of yen> | | | | | | | | | | | |
| Net sales | Nippon Steel*1 | 4,769,821 | 3,487,714 | 4,109,774 | 4,090,936 | 4,389,922 | 5,516,180 | 5,610,030 | 4,907,429 | 4,632,890 | 5,668,663 |
| | Sumitomo Metals | 1,844,422 | 1,285,845 | 1,402,454 | 1,473,367 | 693,601 | — | — | — | — | — |
| Operating profit (loss) | Nippon Steel | 342,930 | 32,005 | 165,605 | 79,364 | 20,110 | 298,390 | 349,510 | 167,731 | 114,202 | 182,382 |
| | Sumitomo Metals | 226,052 | (928) | 56,301 | 76,801 | 15,759 | — | — | — | — | — |
| Ordinary profit (loss) | Nippon Steel | 336,140 | 11,833 | 226,335 | 143,006 | 76,931 | 361,097 | 451,747 | 200,929 | 174,531 | 297,541 |
| | Sumitomo Metals | 225,736 | (36,634) | 34,049 | 60,803 | 10,815 | — | — | — | — | — |
| Profit (loss) before income taxes | Nippon Steel | 281,079 | 11,242 | 185,377 | 120,053 | (136,970) | 399,147 | 376,188 | 230,778 | 181,692 | 289,860 |
| | Sumitomo Metals | 194,459 | (39,758) | (27,991) | (51,251) | (134,831) | — | — | — | — | — |
| Profit (loss) attributable to owners of parent | Nippon Steel | 155,077 | (11,529) | 93,199 | 58,471 | (124,567) | 242,753 | 214,293 | 145,419 | 130,946 | 195,061 |
| | Sumitomo Metals | 97,327 | (49,772) | (7,144) | (53,799) | (133,849) | — | — | — | — | — |
| Capital expenditure | Nippon Steel | 305,738 | 329,356 | 287,236 | 281,748 | 355,873 | 257,019 | 304,389 | 304,643 | 351,038 | 411,930 |
| | Sumitomo Metals*2 | 159,118 | 136,643 | 109,934 | 115,797 | N.A. | — | — | — | — | — |
| Depreciation and amortization*3 | Nippon Steel | 273,744 | 284,092 | 291,587 | 280,940 | 288,770 | 331,801 | 320,046 | 308,276 | 304,751 | 340,719 |
| | Sumitomo Metals | 109,854 | 120,853 | 126,267 | 122,937 | 49,757 | — | — | — | — | — |
| Research and development costs | Nippon Steel | 45,797 | 46,824 | 46,663 | 48,175 | 60,071 | 64,437 | 62,966 | 68,493 | 69,110 | 73,083 |
| | Sumitomo Metals | 22,120 | 22,845 | 22,783 | 22,842 | N.A. | — | — | — | — | — |
| **Financial Position (End of fiscal year)** <Millions of yen> | | | | | | | | | | | |
| Total assets | Nippon Steel | 4,870,680 | 5,002,378 | 5,000,860 | 4,924,711 | 7,089,498 | 7,082,288 | 7,157,929 | 6,425,043 | 7,261,923 | 7,592,413 |
| | Sumitomo Metals | 2,452,535 | 2,403,670 | 2,440,761 | 2,386,158 | — | — | — | — | — | — |
| Shareholders' equity*4 | Nippon Steel | 1,668,682 | 1,844,382 | 1,860,799 | 1,828,902 | 2,394,069 | 2,683,659 | 2,978,696 | 2,773,822 | 2,948,232 | 3,145,450 |
| | Sumitomo Metals | 857,697 | 829,219 | 766,777 | 709,315 | — | — | — | — | — | — |
| Total net assets*4 | Nippon Steel | 2,174,809 | 2,335,676 | 2,380,925 | 2,347,343 | 2,938,283 | 3,237,995 | 3,547,059 | 3,009,075 | 3,291,015 | 3,515,501 |
| | Sumitomo Metals | 904,371 | 879,209 | 818,080 | 761,484 | — | — | — | — | — | — |
| Interest-bearing debt | Nippon Steel | 1,454,214 | 1,383,794 | 1,337,851 | 1,334,512 | 2,543,061 | 2,296,326 | 1,976,591 | 2,008,263 | 2,104,842 | 2,068,996 |
| | Sumitomo Metals*5 | 990,010 | 1,138,353 | 1,173,382 | 1,172,120 | — | — | — | — | — | — |
| **Cash Flows (Fiscal year)** <Millions of yen> | | | | | | | | | | | |
| Cash flows from operating activities | Nippon Steel | 127,540 | 437,668 | 369,500 | 237,414 | 313,317 | 574,767 | 710,998 | 562,956 | 484,288 | 458,846 |
| | Sumitomo Metals | 190,582 | 67,002 | 202,340 | 88,065 | N.A. | — | — | — | — | — |
| Cash flows from investing activities | Nippon Steel | (306,603) | (412,827) | (325,781) | (226,096) | (327,336) | (196,856) | (263,667) | (242,204) | (343,738) | (353,419) |
| | Sumitomo Metals | (214,977) | (172,933) | (144,009) | (120,110) | N.A. | — | — | — | — | — |
| Cash flows from financing activities | Nippon Steel | 170,209 | (79,985) | (47,244) | (31,785) | 33,332 | (367,115) | (451,843) | (337,555) | (135,054) | (89,190) |
| | Sumitomo Metals | 52,623 | 87,843 | (1,325) | (32,714) | N.A. | — | — | — | — | — |
| **Amounts per Share of Common Stock*6** <yen> | | | | | | | | | | | |
| Profit (loss) attributable to owners of parent per share | Nippon Steel | 24.60 | (1.83) | 14.81 | 9.29 | (16.23) | 26.67 | 23.48 | 158.71*8 | 147.96 | 221.00 |
| | Sumitomo Metals | 20.98 | (10.74) | (1.54) | (11.61) | — | — | — | — | — | — |
| Cash dividends per share | Nippon Steel | 6.0 | 1.5 | 3.0 | 2.5 | 1.0 | 5.0 | 5.5 | 45.0*9 | 45 | 70 |
| | Sumitomo Metals | 10.0 | 5.0 | 3.5 | 2.0 | — | — | — | — | — | — |

IFRS

| FY | 2017 | 2018 |
|---|---|---|
| Operating Results (Fiscal year) <Millions of yen> | | |
| Revenue | 5,712,965 | **6,177,947** |
| — | — | — |
| Business profit | 288,700 | **336,941** |
| Profit before income tax | 271,760 | **248,769** |
| Profit for the year attributable to owners of parent | 180,832 | **251,169** |
| Capital expenditure | 423,428 | **440,830** |
| Depreciation and amortization | 366,565 | **408,616** |
| Research and development costs | 74,071 | **72,043** |
| Financial Position (End of fiscal year) <Millions of yen> | | |
| Total assets | 7,756,134 | **8,049,528** |
| Total equity attributable to owners of parent | 3,136,991 | **3,230,788** |
| Total equity | 3,524,896 | **3,607,367** |
| Interest-bearing debt | 2,157,755 | **2,369,231** |
| Cash Flows (Fiscal year) <Millions of yen> | | |
| Cash flows from operating activities | 485,539 | **452,341** |
| Cash flows from investing activities | (363,170) | **(381,805)** |
| Cash flows from financing activities | (104,969) | **(42,900)** |
| Amounts per Share of Common Stock <yen> | | |
| Basic earnings per share | 204.87 | **281.77** |
| Cash dividends per share | 70 | **80** |

*1 . Up to September 2012 for Nippon Steel; October 2012 to March 2019 for Nippon Steel & Sumitomo Metal (NSSMC) ; from April 2019 for Nippon Steel
*2. Only for "Tangible fixed assets," construction base
*3. The amounts stated for "Sumitomo Metals" for fiscal 2011 and before are only for "Tangible fixed assets." The amounts stated for "Nippon Steel" and the amounts for "Sumitomo Metals" for the first half of fiscal 2012 (April 1 to September 30) include "Intangible fixed assets" excluding "Goodwill."
*4. "Shareholders' equity" stated here is the sum of "Shareholders' equity" as stated in the balance sheet and "Accumulated other comprehensive income." The difference between "Shareholders' equity" and "Total net assets" is "Non-controlling interests in consolidated subsidiaries."
*5. The amounts of "Outstanding borrowings" (the sum of "Borrowings," "Corporate bonds," and "Commercial paper") are stated.
*6. The amounts stated for "Nippon Steel" for fiscal 2012 are the sum of Nippon Steel's amounts for the first half (April 1 to September 30) of fiscal 2012 and NSSMC's amounts for the second half (October 1 to March 31) of fiscal 2012.
The amounts stated for "Sumitomo Metals" for fiscal 2012 are Sumitomo Metals' amounts for the first half (April 1 to September 30) of fiscal 2012.
*7. On October 1, 2015, NSSMC performed a 1-for-10 share consolidation.
*8. Profit attributable to owners of parent per share for fiscal 2015 is calculated assuming the 1-for-10 share consolidation was performed at the beginning of the year.
*9. The interim dividend for fiscal 2015 would be converted into ¥30 based on this share consolidation, and after adding the fiscal 2015 year-end dividend of ¥15 the annual dividend for fiscal 2015 works out to be ¥45 per share.

# 11-Year Financial Performance (Unaudited; only for reference purposes)

**JGAAP**

| | FY | 2008 | 2009 | 2010 | 2011 | 2012*8 | 2013 | 2014 | 2015 | 2016 | 2017 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **Financial Indices** | | | | | | | | | | | |
| Return on sales ((Ordinary profit / Net sales)x 100) | Nippon Steel*1 | 7.0% | 0.3% | 5.5% | 3.5% | 1.8% | 6.5% | 8.1% | 4.1% | 3.8% | 5.2% |
| | Sumitomo Metals | 12.2% | (2.8%) | 2.4% | 4.1% | — | — | — | — | — | — |
| Return on equity ((Profit attributable to owners of parent / Shareholders' equity [average for the period]) x 100) | Nippon Steel | 8.7% | (0.7%) | 5.0% | 3.2% | (5.9%) | 9.6% | 7.6% | 5.1% | 4.6% | 6.4% |
| | Sumitomo Metals | 11.1% | (5.9%) | (0.9%) | (7.3%) | — | — | — | — | — | — |
| Shareholders' equity ratio ((Shareholders'equity / Total assets) x 100) | Nippon Steel | 34.3% | 36.9% | 37.2% | 37.1% | 33.8% | 37.9% | 41.6% | 43.2% | 40.6% | 41.4% |
| | Sumitomo Metals | 35.0% | 34.5% | 31.4% | 29.7% | — | — | — | — | — | — |
| Number of shares issued as of end of period*2 <In thousands> | Nippon Steel | 6,806,980 | 6,806,980 | 6,806,980 | 6,806,980 | 9,503,214 | 9,503,214 | 9,503,214 | 950,321 | 950,321 | 950,321 |
| | Sumitomo Metals | 4,805,974 | 4,805,974 | 4,805,974 | 4,805,974 | — | — | — | — | — | — |
| Share price at end of period*2 <Yen> | Nippon Steel | 263.0 | 367.0 | 266.0 | 227.0 | 235.0 | 282.0 | 302.5 | 2,162.0 | 2,565.0 | 2,336.5 |
| | Sumitomo Metals | 197.0 | 283.0 | 186.0 | 167.0 | — | — | — | — | — | — |
| **Net Sales by Industry Segment*3 <Millions of yen>** | | | | | | | | | | | |
| Steelmaking and steel fabrication | | 4,038,685 | 2,823,193 | 3,473,495 | 3,476,855 | 3,790,450 | 4,877,909 | 4,939,239 | 4,283,923 | 4,052,261 | 5,017,245 |
| Engineering and construction | | 386,643 | 331,905 | 254,941 | 248,934 | 303,002 | 314,174 | 348,699 | 315,727 | 267,545 | 294,268 |
| Urban development | | 70,152 | 80,073 | 86,556 | 80,419 | — | — | — | — | — | — |
| Chemicals | | 212,172 | 179,412 | 193,896 | 197,669 | 195,719 | 230,130 | 212,777 | 181,823 | 174,227 | 200,767 |
| New materials | | 59,907 | 58,799 | 60,888 | 54,245 | 42,211 | 37,241 | 36,449 | 36,280 | 34,519 | 37,050 |
| System solutions | | 161,541 | 152,234 | 159,708 | 161,582 | 171,980 | 179,856 | 206,032 | 218,941 | 232,512 | 244,200 |
| Elimination of inter-segment transactions | | (159,281) | (137,904) | (119,711) | (128,769) | (113,442) | (123,132) | (133,168) | (129,267) | (128,175) | (124,868) |
| **Segment Profit (Loss)*3 <Millions of yen>** | | | | | | | | | | | |
| Steelmaking and steel fabrication | | 307,047 | (20,589) | 181,968 | 98,846 | 41,522 | 321,287 | 401,987 | 160,088 | 138,017 | 245,708 |
| Engineering and construction | | 24,674 | 31,655 | 14,883 | 12,775 | 18,189 | 17,702 | 18,758 | 12,163 | 6,838 | 9,110 |
| Urban development | | 3,929 | 2,937 | 9,273 | 9,371 | — | — | — | — | — | — |
| Chemicals | | 894 | 10,431 | 13,244 | 13,598 | 9,778 | 10,057 | 6,898 | 1,093 | 4,518 | 15,480 |
| New materials | | (2,397) | 444 | 2,111 | 607 | 984 | 1,391 | 2,482 | 3,073 | 1,786 | 1,919 |
| System solutions | | 11,479 | 10,732 | 11,332 | 11,215 | 11,673 | 12,760 | 16,565 | 19,493 | 22,113 | 23,292 |
| Elimination of inter-segment transactions | | (2,696) | (3,607) | (6,478) | (3,408) | (5,217) | (2,101) | 5,053 | 5,017 | 1,256 | 2,030 |
| **Non-Financial Performance** | | | | | | | | | | | |
| Crude steel production <Ten thousands of tons> | Nippon Steel (Consolidated) | 3,124 | 2,992 | 3,492 | 3,244 | 4,603 | 4,816 | 4,732 | 4,453 | 4,517 | 4,682 |
| | Nippon Steel (Non-consolidated)*4 | 2,861 | 2,750 | 3,246 | 3,020 | 4,355 | 4,567 | 4,496 | 4,217 | 4,262 | 4,067 |
| | Sumitomo Metals*5 (Non-consolidated) | 1,287 | 1,165 | 1,290 | 1,272 | — | — | — | — | — | — |
| Steel products shipments (Non-consolidated) <Ten thousands of tons> | Nippon Steel | 2,820 | 2,709 | 3,135 | 2,909 | 4,097 | 4,202 | 4,188 | 3,962 | 3,978 | 3,779 |
| | Sumitomo Metals*6 | 1,144 | 1,089 | 1,172 | 1,124 | — | — | — | — | — | — |
| Average steel selling price (Non-consolidated) <Thousands of yen per ton> | Nippon Steel | 104.7 | 75.4 | 81.7 | 86.2 | 80.1 | 86.0 | 87.2 | 77.1 | 72.6 | 84.7 |
| | Sumitomo Metals | 124.3 | 88.0 | 94.2 | 103.5 | — | — | — | — | — | — |
| Export ratio (Value basis, non-consolidated)*7 <%> | Nippon Steel | 33% | 38% | 40% | 39% | 44% | 46% | 47% | 45% | 42% | 41% |
| | Sumitomo Metals | 45% | 43% | 42% | 41% | — | — | — | — | — | — |
| Number of employees (Consolidated) | Nippon Steel | 50,077 | 52,205 | 59,183 | 60,508 | 83,187 | 84,361 | 84,447 | 84,837 | 92,309 | 93,557 |
| | Sumitomo Metals | 24,245 | 23,674 | 22,597 | 23,007 | — | — | — | — | — | — |

**IFRS**

| | 2017 | 2018 |
|---|---|---|
| **Financial Indices** | | |
| Return on sales | 5.1% | **5.5%** |
| Return on equity | 6.0% | **7.9%** |
| Ratio of total equity attributable to owners of parent | 40.4% | **40.1%** |
| Number of shares issued as of end of period | 950,321 | **950,321** |
| Share price at end of period | 2,336.5 | **1,954.0** |
| **Segment revenue <Millions of yen>** | | |
| Steelmaking and steel fabrication | 5,017,245 | **5,454,536** |
| Engineering and construction | 294,268 | **356,707** |
| — | — | **—** |
| Chemicals | 237,817 | **247,067** |
| — | — | **—** |
| System solutions | 244,200 | **267,503** |
| Elimination of inter-segment transactions | (80,565) | **(147,867)** |
| **Segment profit <Millions of yen>** | | |
| Steelmaking and steel fabrication | 245,708 | **274,672** |
| Engineering and construction | 9,110 | **9,474** |
| — | — | **—** |
| Chemicals | 17,399 | **25,095** |
| — | — | **—** |
| System solutions | 23,292 | **26,576** |
| Elimination of inter-segment transactions | (6,809) | **1,122** |
| **Non-Financial Performance** | | |
| Crude steel production(Consolidated) | 4,702 | **4,784** |
| Crude steel production (Non-consolidated) | 4,067 | **4,100** |
| Steel products shipments (Non-consolidated) <Ten thousands of tons> | 3,779 | **3,797** |
| Average steel selling price (Non-consolidated) <Thousands of yen per ton> | 84.7 | **89.9** |
| Export ratio (Value basis, non-consolidated)*7 <%> | 41% | **40%** |
| Number of employees (Consolidated) | 97,996 | **105,796** |

*1. Up to September 2012 for Nippon Steel; October 2012 to March 2019 for Nippon Steel & Sumitomo Metal (NSSMC) ; from April 2019 for Nippon Steel
*2. On October 1, 2015, NSSMC performed a 1-for-10 share consolidation.
*3. Figures for fiscal 2012 and earlier are for Nippon Steel. Figures in parentheses indicate either negative figures or elimination. "Segment profit (loss)" stated for fiscal 2009 and earlier is "Segment operating profit (loss)." Following the business integration of Nippon Steel City Produce, Inc. and Kowa Real Estate Co., Ltd. on October 1, 2012, the business segment classification has been changed to include the results for "Urban development" in "Elimination of inter-segment transactions" for "Net sales by segment" and "Profit (loss) by segment" from fiscal 2012.
*4. "Crude steel production" of Nippon Steel from October 2012 to March 2018 includes that of Nippon Steel & Sumikin Koutetsu Wakayama Corporation.
*5. "Crude steel production" of Sumitomo Metals includes those of Sumitomo Metals (Kokura), Ltd. (merged with Sumitomo Metals on January 1, 2012) and of Sumikin Iron & Steel Corporation .
*6. "Steel products shipments," "Average steel selling price," and "Export ratio" of Sumitomo Metals include those of Sumitomo Metals (Kokura), Ltd. (merged with Sumitomo Metals on January 1, 2012), Sumitomo Metals (Naoetsu), Ltd. (merged with Sumitomo Metals on January 1, 2012), and Sumikin Iron & Steel Corporation.
*7. "Export ratio" of Nippon Steel indicates the ratios of exports to total steel sales. "Export ratio" of Sumitomo Metals indicates the ratios of exports to total net sales.
*8. The amounts of "Sales," "Ordinary profit," and "Net income" used to calculate "Return on sales (ROS)" and "Return on equity (ROE)" are the sum of Nippon Steel's amounts for the first half (April 1 to September 30) of fiscal 2012 and NSSMC's amounts for the second half (October 1 to March 31) of fiscal 2012. "Crude steel production" and "Steel products shipments" for fiscal 2012 are the sum of Nippon Steel's amount for the first half, Sumitomo Metals' amount for the first half, and NSSMC's amount for the second half. At the first half of fiscal 2012, NSSMC's "Average steel selling price" and "Export ratio" are the weighted average of Nippon Steel and Sumitomo Metals

# Consolidated Statements of Financial Position

Nippon Steel Corporation and Consolidated Subsidiaries
As of March 31, 2019 and 2018

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| **ASSETS** | | |
| **Current assets** | | |
| Cash and cash equivalents (Notes 9 and 33) | **163,176** | 142,869 |
| Trade and other receivables (Notes 10, 33 and 34) | **968,333** | 832,040 |
| Inventories (Note 11) | **1,567,116** | 1,399,821 |
| Other financial assets (Note 33) | **16,915** | 19,178 |
| Other current assets | **143,669** | 139,066 |
| **Total current assets** | **2,859,211** | 2,532,977 |
| **Non-current assets** | | |
| Property, plant and equipment (Notes 12, 13, 19 and 30) | **3,246,669** | 3,123,857 |
| Goodwill (Notes 8, 14 and 30) | **52,803** | 42,263 |
| Intangible assets (Note 14) | **106,131** | 97,131 |
| Investments accounted for using the equity method (Notes 15 and 30) | **793,146** | 799,239 |
| Other financial assets (Note 33) | **812,668** | 1,007,627 |
| Defined benefit assets (Note 20) | **82,247** | 109,010 |
| Deferred tax assets (Note 16) | **88,357** | 34,944 |
| Other non-current assets | **8,292** | 9,082 |
| **Total non-current assets** | **5,190,316** | 5,223,157 |
| **Total assets** | **8,049,528** | 7,756,134 |

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| **LIABILITIES AND EQUITY** | | |
| **Liabilities** | | |
| **Current liabilities** | | |
| Trade and other payables (Notes 17 and 33) | **1,611,403** | 1,580,597 |
| Bonds, borrowings and lease liabilities (Notes 12, 18, 19 and 33) | **515,355** | 505,384 |
| Other financial liabilities (Note 33) | **1,017** | 674 |
| Income taxes payable | **38,719** | 45,350 |
| Other current liabilities | **34,042** | 28,189 |
| **Total current liabilities** | **2,200,538** | 2,160,194 |
| **Non-current liabilities** | | |
| Bonds, borrowings and lease liabilities (Notes 12, 18, 19 and 33) | **1,853,876** | 1,652,371 |
| Other financial liabilities (Note 33) | **6,501** | 6,572 |
| Defined benefit liabilities (Note 20) | **186,755** | 173,619 |
| Deferred tax liabilities (Note 16) | **28,253** | 95,351 |
| Other non-current liabilities (Note 33) | **166,235** | 143,127 |
| **Total non-current liabilities** | **2,241,622** | 2,071,043 |
| **Total liabilities** | **4,442,160** | 4,231,238 |
| **Equity** | | |
| Common stock (Note 21) | **419,524** | 419,524 |
| Capital surplus (Note 21) | **393,917** | 386,867 |
| Retained earnings (Note 21) | **2,300,175** | 2,141,658 |
| Treasury stock (Note 21) | **(58,831)** | (132,162) |
| Other components of equity | **176,000** | 321,101 |
| **Total equity attributable to owners of the parent** | **3,230,788** | 3,136,991 |
| **Non-controlling interests** | **376,579** | 387,905 |
| **Total equity** | **3,607,367** | 3,524,896 |
| **Total liabilities and equity** | **8,049,528** | 7,756,134 |

The accompanying notes are an integral part of these statements.

# Consolidated Statements of Profit or Loss

Nippon Steel Corporation and Consolidated Subsidiaries
Years ended March 31, 2019 and 2018

| | | (Millions of Yen) |
|---|---|---|
| | 2019 | 2018 |
| Revenue (Notes 23 and 34) | **6,177,947** | 5,712,965 |
| Cost of sales (Note 25) | **(5,391,493)** | (4,948,883) |
| Gross profit | **786,453** | 764,082 |
| Selling, general and administrative expenses (Notes 24, 25, and 34) | **(568,409)** | (533,787) |
| Share of profit in investments accounted for using the equity method (Note 15) | **86,411** | 65,657 |
| Other operating income (Note 26) | **102,606** | 91,521 |
| Other operating expenses (Note 26) | **(70,120)** | (98,773) |
| Business profit | **336,941** | 288,700 |
| Losses on natural disaster (Note 27) | **(22,349)** | — |
| Losses from reorganization (Note 28) | **(49,480)** | — |
| Operating profit | **265,111** | 288,700 |
| Finance income (Note 29) | **6,104** | 7,644 |
| Finance costs (Note 29) | **(22,445)** | (24,584) |
| Profit before income taxes | **248, 769** | 271,760 |
| Income tax expense (Note 16) | **8,809** | (59,549) |
| Profit for the year | **257,579** | 212,210 |
| | | |
| Profit for the year attributable to: | | |
| Owners of the parent | **251,169** | 180,832 |
| Non-controlling interests | **6,409** | 31,377 |
| | | (Yen) |
| Earnings per share | | |
| Basic earnings per share (Note 32) | **281.77** | 204.87 |

The accompanying notes are an integral part of these statements.



# Consolidated Statements of Comprehensive Income or Loss

Nippon Steel Corporation and Consolidated Subsidiaries
Years ended March 31, 2019 and 2018

| | | (Millions of Yen) |
|---|---|---|
| | 2019 | 2018 |
| Profit for the year | **257,579** | 212,210 |
| Other comprehensive income (Note 31) | | |
| Items that cannot be reclassified to profit or loss | | |
| Changes in fair value of financial assets measured at fair value through other comprehensive income | **(104,557)** | 65,222 |
| Remeasurements of defined benefit plans | **(3,531)** | 19,422 |
| Share of other comprehensive income of investments accounted for using the equity method (Note 15) | **(2,953)** | 5,125 |
| Subtotal | **(111,042)** | 89,770 |
| Items that might be reclassified to profit or loss | | |
| Changes in fair value of cash flow hedges | **1,522** | 1,788 |
| Foreign exchange differences on translation of foreign operations | **(41,256)** | 10,592 |
| Share of other comprehensive income of investments accounted for using the equity method (Note 15) | **(21,687)** | (2,602) |
| Subtotal | **(61,421)** | 9,778 |
| Total other comprehensive income, net of tax | **(172,464)** | 99,548 |
| Total comprehensive income for the year | **85,114** | 311,759 |
| | | |
| Comprehensive income for the year attributable to: | | |
| Owners of the parent | **84,126** | 272,150 |
| Non-controlling interests | **988** | 39,609 |

The accompanying notes are an integral part of these statements.

# Consolidated Statements of Changes in Equity

Nippon Steel Corporation and Consolidated Subsidiaries
Years ended March 31, 2019 and 2018

(Millions of Yen)

| | Equity attributable to owners of the parent | | | | | |
|---|---|---|---|---|---|---|
| | | | | | Other components of equity | |
| | Common Stock | Capital surplus | Retained earnings | Treasury stock | Changes in fair value of financial assets measured at fair value through other comprehensive income | Remeasurements of defined benefit plans |
| Balance as of March 31, 2017 | 419,524 | 386,869 | 2,000,336 | (132,063) | 277,939 | — |
| Changes of the year | | | | | | |
| Comprehensive income | | | | | | |
| Profit for the year | | | 180,832 | | | |
| Other comprehensive income (Note 31) | | | | | 63,963 | 19,581 |
| Total comprehensive income | — | — | 180,832 | — | 63,963 | 19,581 |
| Transactions with owners and others | | | | | | |
| Cash dividends (Note 22) | | | (66,293) | | | |
| Purchases of treasury stock (Note 21) | | | | (102) | | |
| Disposals of treasury stock (Note 21) | | 1 | | 3 | | |
| Changes in ownership interests in subsidiaries | | (3) | | | | |
| Transfer from other components of equity to retained earnings | | | 26,783 | | (7,201) | (19,581) |
| Business combinations and others | | | | 0 | | |
| Subtotal | — | (1) | (39,510) | (98) | (7,201) | (19,581) |
| Balance as of March 31, 2018 | 419,524 | 386,867 | 2,141,658 | (132,162) | 334,701 | — |
| Changes of the year | | | | | | |
| Comprehensive income | | | | | | |
| Profit for the year | | | **251,169** | | | |
| Other comprehensive income (Note 31) | | | | | **(104,254)** | **(4,369)** |
| Total comprehensive income | **—** | **—** | **251,169** | **—** | **(104,254)** | **(4,369)** |
| Transactions with owners and others | | | | | | |
| Cash dividends (Note 22) | | | **(70,710)** | | | |
| Purchases of treasury stock (Note 21) | | | | **(82)** | | |
| Disposals of treasury stock (Note 21) | | **(1,427)** | | **73,656** | | |
| Changes in ownership interests in subsidiaries | | **8,477** | | | | |
| Transfer from other components of equity to retained earnings | | | **(21,942)** | | **17,573** | **4,369** |
| Business combinations and others | | | | **(242)** | | |
| Subtotal | **—** | **7,050** | **(92,652)** | **73,331** | **17,573** | **4,369** |
| Balance as of March 31, 2019 | **419,524** | **393,917** | **2,300,175** | **(58,831)** | **248,020** | **—** |

The accompanying notes are an integral part of these statements.

# Consolidated Statements of Cash Flows

Nippon Steel Corporation and Consolidated Subsidiaries
Years ended March 31, 2019 and 2018

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| **Cash flows from operating activities** | | |
| Profit before income taxes | **248,769** | 271,760 |
| Depreciation and amortization | **408,616** | 366,565 |
| Finance income | **(6,104)** | (7,644) |
| Finance costs | **22,445** | 24,584 |
| Share of profit in investments accounted for using the equity method | **(86,411)** | (65,657) |
| Gains on sale of property, plant and equipment and intangible assets | **(5,801)** | (9,312) |
| Losses from reorganization | **49,480** | — |
| (Increase) decrease in trade and other receivables | **(114,662)** | 931 |
| Decrease in inventories | **(129,483)** | (165,166) |
| Increase in trade and other payables | **81,058** | 92,326 |
| Other, net | **21,640** | 18,674 |
| Subtotal | **489,547** | 527,062 |
| Interest received | **5,796** | 5,644 |
| Dividends received | **57,088** | 45,775 |
| Interest paid | **(19,278)** | (26,506) |
| Income taxes paid | **(80,811)** | (66,435) |
| **Net cash flows provided by operating activities** | **452,341** | 485,539 |
| **Cash flows from investing activities** | | |
| Purchases of property, plant and equipment and intangible assets | **(438,758)** | (411,926) |
| Proceeds from sales of property, plant and equipment and intangible assets | **12,841** | 13,908 |
| Purchases of investment securities | **(8,362)** | (3,169) |
| Proceeds from sales of investment securities | **87,693** | 39,936 |
| Purchases of investments in associates | **(2,787)** | (4,940) |
| Proceeds from sales of investments in associates | **5,348** | 9,522 |
| Purchases of shares of subsidiaries resulting in change in scope of consolidation (Note 8) | **(35,658)** | 289 |
| Proceeds from sales of shares of subsidiaries resulting in change in scope of consolidation | **3,575** | 473 |
| Loans to associates and others | **(11,870)** | (6,688) |
| Collection of loans from associates and others | **3,948** | 2,878 |
| Other, net | **2,223** | (3,455) |
| **Net cash flows used in investing activities** | **(381,805)** | (363,170) |
| **Cash flows from financing activities** | | |
| Increase in short-term borrowings, net (Note 18) | **67,401** | 50,026 |
| Proceeds from long-term borrowings (Note 18) | **285,857** | 247,507 |
| Repayments of long-term borrowings (Note 18) | **(192,799)** | (257,212) |
| Proceeds from issuance of bonds (Note 18) | **60,000** | 40,000 |
| Redemption of bonds (Note 18) | **(85,700)** | (140,000) |
| Purchases of treasury stock | **(55)** | (96) |
| Cash dividends paid (Note 22) | **(70,710)** | (66,293) |
| Dividends paid to non-controlling interests | **(7,604)** | (7,406) |
| Payments for changes in ownership interests in subsidiaries that do not result in change in scope of consolidation | **(4,874)** | (740) |
| Other, net | **(94,415)** | 29,245 |
| **Net cash flows used in financing activities** | **(42,900)** | (104,969) |
| **Effect of exchange rate changes on cash and cash equivalents** | **(7,328)** | 1,540 |
| **Net increase in cash and cash equivalents** | **20,306** | 18,940 |
| **Cash and cash equivalents at beginning of the year (Note 9)** | **142,869** | 123,929 |
| **Cash and cash equivalents at end of the year (Note 9)** | **163,176** | 142,869 |

The accompanying notes are an integral part of these statements.

# Notes to Consolidated Financial Statements

Nippon Steel Corporation and Consolidated Subsidiaries
For the years ended March 31, 2019 and 2018

## 1. REPORTING ENTITY

Nippon Steel Corporation (hereinafter referred to as the "Company" or "NSC") is a corporation domiciled in Japan. The consolidated financial statements are composed of the Company and its consolidated subsidiaries. The principal businesses of the Company and its subsidiaries (collectively hereinafter referred to as the "Group") consist of Steelmaking and Steel Fabrication business, Engineering and Construction business, Chemicals & Materials business, and System Solutions business. The details are described in Note 7 "Segment Information".
On April 1, 2019, Nippon Steel & Sumitomo Metal Corporation changed its corporate name to Nippon Steel Corporation.

## 2. BASIS OF PREPARATION

**(1) Compliance with International Financial Reporting Standards**

The Company's consolidated financial statements have been prepared in accordance with International Financial Reporting Standards ("IFRS"), as issued by the International Accounting Standards Board ("IASB"). The term IFRS also includes International Accounting Standards ("IAS") and the related interpretations of the interpretations committees ("SIC" and" IFRIC").
The Company has set the date of transition to the IFRS as April 1, 2016 in the Registration Statement on Form F-4 (the "Form F-4") that the Company filed with the U.S. Securities and Exchange Commission (the "SEC") on November 2, 2018. The Company has started to prepare its consolidated financial statements by adopting the IFRS since the consolidated fiscal year ending March 31, 2018.
The provisions regarding the first-time adoption, provided in IFRS 1, were adopted to the consolidated financial statements for the consolidated fiscal year ending March 31, 2018 in Form F-4, and the reconciliations from the Japanese GAAP to the IFRS have been prepared for the date of the transition to the IFRS, the consolidated fiscal year ending March 31, 2017, and the consolidated fiscal year ending March 31, 2018.
For this reason, the preparation of the consolidated financial statements for this fiscal year prepared in accordance with the IFRS do not fall under a first-time adoption. Therefore, the Company did not prepare the reconciliations from the Japanese GAAP to the IFRS for this fiscal year, which are required by IFRS 1 to be prepared upon the first-time adoption of the IFRS.
A copy of the registration statement on Form F-4 can be reviewed and obtained on EDGAR, the SEC's Electric Data Gathering, Analysis, and Retrieval system.
(https://www.sec.gov/Archives/edgar/data/1140471/000119312518316702/0001193125-18-316702-index.htm)

**(2) Basis of measurement**

The consolidated financial statements have been prepared on the historical cost basis except for certain assets and liabilities as separately stated in Note 3 "Significant Accounting Policies".

**(3) Functional currency and presentation currency**

The consolidated financial statements are presented in Japanese yen, which is the functional currency of the Company. All amounts have been truncated to the nearest millions of Japanese yen, unless otherwise indicated.

**(4) Authorization of the consolidated financial statements**

The consolidated financial statements were authorized for issuance by Eiji Hashimoto, Representative Director and President of the Company on June25, 2019.



## 3. SIGNIFICANT ACCOUNTING POLICIES

**(1) Basis of consolidation**

**(a) Subsidiaries**

Subsidiaries are entities controlled by the Group. The Group controls an entity when it is exposed, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity.
The financial statements of subsidiaries are included in the consolidated financial statements from the date when control is obtained until the date when control is lost. If the Group loses control of a subsidiary, any gain or loss resulting from the loss of control is recognized in profit or loss. Changes in the Group's interest in a subsidiary not resulting in a loss of control are accounted for as equity transactions, and the difference between the adjustment to the non-controlling interests and the fair value of the consideration paid or received is recognized directly in equity and attributed to the owners of the Company.
When the accounting policies of the subsidiaries are different from those of the Group, the financial statements of subsidiaries are adjusted to ensure that the accounting policies are consistent with those of the Group.
All intragroup balances, transaction amounts and unrealized gains and losses arising from intragroup transactions are eliminated in full in preparing the consolidated financial statements. Intragroup losses are eliminated in full except to the extent that the underlying asset is impaired.

**(b) Investments in associates**

An associate is an entity over which the Group has significant influence, which is the power to participate in the financial and operating policy decisions of the investee but there are no control. In principle, it is presumed that the Group has significant influence over an investee when the Group holds 20% or more but no more than 50% of the voting rights of the investee. An investee is determined as an associate when the Group has significant influence over it in one or more ways, not only the ratio of the voting rights, but also through participation in the policy-making progress and other right.
An investment in an associate is accounted for under the equity method from the date when the Group has significant influence over it until the date when the significant influence is lost. Under the equity method, the investment is initially recognized at cost, and any excess of the Group's share of the acquisition-date fair value of the investee's identifiable net assets over the cost of the investment is recognized as goodwill that is included in the carrying amount of the investment. Thereafter, the investment is adjusted for the change in the Group's share of the investee's profit or loss and other comprehensive income. When the Group's share of losses exceeds its interest in the associate, the Group's interest is reduced to zero and recognition of further losses over the carrying amount of the investment is discontinued except to the extent that the Group assumes obligations or makes payments on behalf of the investee.
When the Group ceases to have significant influence over an associate and discontinues the use of the equity method, gain or loss arising from discontinuance of the use of the equity method is recognized in profit or loss.
Goodwill arising from the acquisition of an associate forms a part of the carrying amount of investments in the associate and is not separately recognized. Therefore, the goodwill of investment in an associate is not subject to impairment test separately. However, whenever there is any possibility that an investment in an associate may be impaired, the entire carrying amount of the investment is tested for impairment as a single asset. Regarding impairment of goodwill, refer to (10) "Impairment of non-financial assets".

**(c) Joint arrangements**

The Group determines the type of a joint arrangement in which it is involved by considering its rights and obligations arising from the arrangement. When the parties that have joint control of an arrangement have rights to the assets, and obligations for the liabilities, relating to the arrangement, the arrangement is classified as a joint operation. When the parties that collectively control the arrangement have rights to the net assets of the arrangement and decisions about the relevant activities require the unanimous consent of those parties, that arrangement is classified as a joint venture.
The Group recognizes assets, liabilities, revenue and expenses arisen from joint operations only in relation to its interest in joint operations. The group accounts for joint ventures by the equity method.

**(d) Scope of consolidation and Application of equity method**

Number of consolidated subsidiaries: 420 companies
At the end of fascal year 2018, the scope of consolidation expanded by 46 companies, including 45 newly acquired companies and 1 newly established company. 19 companies, mainly 8 liquidations and 6 merged companies, were eliminated from the scope of consolidation during the fiscal year ended March 31, 2019.

Number of equity-method affiliates (consisting of associates and joint ventures accounted for by the equity method as well as joint operations): 119 companies
During the consolidated fiscal year 4 companies were added and 8 companies were removed from the scope of equity-method affiliates.

**(2) Business combinations**

Business combinations are accounted for using the acquisition method when control is obtained. The identifiable assets acquired and the liabilities assumed of the acquiree are

recognized at fair value as of the acquisition date.
When the total of consideration transferred in business combinations and amount of non-controlling interests in the acquiree exceeds the net of identifiable assets acquired and liabilities assumed on the acquisition date, the excess amount is recognized as goodwill. Conversely, when the total of consideration transferred and amount of non-controlling interests is lower than the net of identifiable assets acquired and liabilities assumed, the difference is recognized as profit.
The consideration transferred for the acquisition is measured as the total of fair value of the assets transferred, the liabilities incurred to former owners of the acquiree and the equity interests issued by the acquirer. In addition, the fair value of equity interest in the acquiree that the Group held before the date of obtaining control is included in the consideration transferred for a business combination achieved in stages.
Acquisition costs attributable to a business combination are recognized as expenses as incurred.
Non-controlling interests are initially measured at fair value or at non-controlling interests' proportionate share of the acquiree's identifiable net assets on an acquisition-by-acquisition basis.
The components of profit or loss and other comprehensive income are attributed to owners of the parent and non-controlling interests based on the proportionate shares held.



**(3) Foreign currency translation**

**(a) Functional currency and presentation currency**

The financial statements of each Group entity are presented in its functional currency that is the currency of the primary economic environment in which the entity operates. The consolidated financial statements are presented in Japanese yen, which is the functional currency of the Company.

**(b) Foreign currency transactions**

Foreign currency transactions are translated into the functional currency using the spot exchange rate at the transaction date or using the foreign exchange rate that approximates such rate.
Foreign currency monetary items at the end of each reporting period are translated into the functional currency using the exchange rate at the end of each reporting period. Non-monetary items measured at historical cost in foreign currencies are translated into the functional currency using the exchange rates at the transaction date. Non-monetary items measured at fair value that are denominated in foreign currencies are translated into the functional currency using the exchange rates at the date when the fair value is measured. Exchange differences arising from the translation or settlement are recognized in profit or loss, except for those recognized in other comprehensive income.

**(c) Foreign operations**

The financial performance and financial position of all of foreign operations which use a functional currency other than the presentation currency are translated into the presentation currency of the Company using the following exchange rates:

(i) Assets and liabilities are translated using the exchange rates at the reporting date
(ii) Income and expenses are translated at average exchange rates
(iii) All resulting exchange differences arising from translation of foreign operations are recognized in other comprehensive income.

When a foreign operation is disposed of, the cumulative amount of the exchange differences recognized in other comprehensive income is reclassified to profit or loss.

**(4) Financial instruments**

**(a) Non-derivative financial assets**

(i) Recognition and measurement

The Group recognizes financial assets when it becomes a party to the contractual provisions of the assets. Financial assets purchased or sold in a regular way are recognized on the trade date. Financial assets other than derivative financial instruments are classified at initial recognition as those measured at amortized cost or at fair value through other comprehensive income.
Financial assets measured at amortized cost and fair value through other comprehensive income are initially recognized at their fair value plus transaction costs that are directly attributable to the acquisition of the assets.

Financial assets measured at amortized cost

Financial assets are classified as financial assets measured at amortized cost only if the assets are held within the Group's business model with an objective of collecting contractual cash flows, and if the contractual terms of the financial assets give rise on specified dates to cash flows that are solely payments of principal and interest on the principal amount outstanding.
However, the trade receivables that do not contain a significant financing component are recognized initially at their transaction price.

Financial assets measured at fair value through other comprehensive income

For certain equity instruments held primarily for the purpose of maintaining or strengthening business relationship with investees, the Group designates these instruments as financial assets measured at fair value through other comprehensive income at initial recognition.
Subsequent changes in fair value are recognized in other comprehensive income. When these financial assets are derecognized or significant deterioration of fair value occurs, a gain or loss accumulated in other comprehensive income is reclassified to retained earnings. Dividends from the financial assets measured at fair value through other comprehensive income are recognized in profit or loss when the Group's right to receive dividends is established.

(ii) Derecognition

Financial assets are derecognized when the contractual rights to the cash flows from the financial assets expire, or when the Group transfers the financial assets and substantially all the risks and rewards of ownership of the assets to another party.

(iii) Impairment of financial assets measured at amortized cost

The Group assesses expected credit loss at the end of each reporting period for the impairment of financial assets measured at amortized cost.
The loss allowance is measured at an amount equal to the lifetime expected credit losses for trade receivables and financial assets with a significant increase in credit risk since initial recognition.
The Group determines whether credit risk has significantly increased based on changes in the risk of a default occurring on the financial assets. When determining whether there are changes in the risk of a default occurring on the financial assets, the Group considers the following;

- Significant deterioration in the financial conditions of an issuer or a borrower;
- A breach of contract, such as default or past-due payment of interest or principal; or
- It has become probable that a borrower will enter into bankruptcy or other financial reorganization.

**(b) Non-derivative financial liabilities**

(i) Recognition and measurement

Financial liabilities other than derivatives are classified as financial liabilities measured at amortized cost.

(ii) Derecognition

The Group derecognizes financial liabilities when the obligation specified in the contract is discharged, cancelled or expires.

**(c) Offsetting of financial instruments**

Financial assets and financial liabilities are offset and the net amount is presented in the consolidated statement of financial position only when the Group currently has a legally enforceable right to offset the recognized amounts and intends either to settle on a net basis or to realize the assets and settle the liabilities simultaneously.

**(d) Derivatives and hedge accounting**

The Group utilizes derivatives, including foreign exchange forward contracts, interest rate swaps and currency swaps, to hedge foreign currency risk and interest rate risk. These derivatives are initially recognized at fair value when the contract is entered into, and are subsequently measured at fair value. Changes in fair value of derivatives are recognized in profit or loss. However, the effective portion of cash flow hedges is recognized in other comprehensive income.
The Group formally documents relationships between hedging instruments and hedged items, as well as its risk management objective and strategies for undertaking various hedge transactions in an internal rule titled "Administrative Provisions on Transactions of Derivative Instruments". The rule stipulates that derivative transactions are conducted only for the purpose of mitigating risks arising from the Group's principal business activities (including forecast transactions) and the trading of derivatives for speculative purposes is prohibited.
The Group evaluates whether the derivatives designated as a hedging instrument offsets changes in fair value or the cash flows of the hedged items to a great extent when designating a hedging relationship and on an ongoing basis. A hedging relationship that qualifies for hedge accounting is classified and accounted for as follows:

(i) Fair value hedges

Changes in fair value of derivative as a hedging instrument are recognized in profit or loss. Changes in fair value of a hedged item adjust the carrying amount of the hedged item and are recognized in profit or loss.

(ii) Cash flow hedges

The effective portion of changes in fair value of derivative as a hedging instrument is recognized in other comprehensive income. Any ineffective portion of changes in fair value of derivative as the hedging instrument is recognized in profit or loss.
The amount accumulated in other comprehensive income is reclassified to profit or loss when the hedged transactions affect profit or loss. When a hedged item results in the recognition of a non-financial asset or a non-financial liability, the amount recognized as other components of equity is reclassified as an adjustment of initial carrying amount of the non-financial asset or non-financial liability.



**(5) Cash and cash equivalents**

Cash and cash equivalents comprises of cash on hand, bank deposits available for withdrawal on demand, and short-term investments with the maturity of three months or less from the acquisition date, that are readily convertible to cash and subject to an insignificant risk of changes in value.

**(6) Inventories**

Inventories are measured at the lower of cost or net realizable value. The cost of inventories is measured based on the weighted average method, and comprises of all costs of purchasing and processing as well as other costs incurred in bringing the inventories to their present location and condition.
Net realizable value represents the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale.

**(7) Property, plant and equipment**

**(a) Recognition and measurement**

Property, plant and equipment is initially measured at cost and presented at cost less accumulated depreciation and impairment losses. Acquisition cost includes costs directly attributable to the acquisition of the asset and costs of dismantling, removing and restoration of the asset.

**(b) Depreciation**

Depreciation of property, plant and equipment is mainly computed by the declining-balance method over the estimated useful lives of each component based on the depreciable amount, except for land and other non-depreciable assets, and buildings and structures which are depreciated by the straight-line method. The depreciable amount is the cost of the asset less the respective estimated residual values.

The estimated useful lives of major property, plant and equipment are as follows:

- Buildings: Principally 31 years
- Machinery: Principally 14 years

The depreciation methods, estimated useful lives and residual values are reviewed at the end of each reporting period, and modified as necessary.

**(8) Goodwill and intangible assets**

Intangible assets are measured at cost. Intangible assets with finite useful lives are presented at cost less accumulated amortization and impairment losses. Goodwill and intangible assets with indefinite useful lives are presented at cost less accumulated impairment losses.

**(a) Goodwill**

When the total of consideration transferred in business combinations and amount of non-controlling interests in the acquiree exceeds the net of identifiable assets acquired and liabilities assumed on the acquisition date, the excess amount is recognized as goodwill.

Goodwill is not amortized and is allocated to cash-generating units or groups of cash-generating units.

Regarding accounting policy for impairment of goodwill, refer to (10) "Impairment of non-financial assets".

**(b) Intangible assets**

Intangible assets acquired separately are measured at cost at the date of initial recognition. The costs of intangible assets acquired in business combinations are measured at fair value at the acquisition date. Intangible assets with finite useful lives are presented at cost less accumulated amortization and impairment losses. Expenditures related to internally generated intangible assets are recognized as expenses when incurred, unless development expenses meet the criteria for capitalization.

**(c) Amortization**

Amortization of intangible assets with finite useful lives is recognized as an expense by the straight-line method over their estimated useful lives from the date when the assets are available for their intended use. The amortization methods and useful lives are reviewed at the end of each reporting period, and modified as necessary.

The estimated useful lives of major intangible assets with finite useful lives are as follows:

- Software: Principally 5 years
- Mining rights: Principally 25 years

Intangible assets with indefinite useful lives and intangible assets not yet available for use are not amortized.

**(9) Leases**

The Group determines whether an arrangement is, or contains, a lease based on the substance of the arrangement as of the commencement date of the lease. For the substance of the arrangement, it makes an assessment of whether the fulfillment of the arrangement is dependent on the use of a specific asset or group of assets, and whether a right to use of the asset is transferred under the arrangement.

A lease is classified as a finance lease, if all the risks and rewards of ownership of an asset are substantially transferred to the Group. Otherwise, a lease is classified as an operating lease.

**(a) Finance lease**

Lease assets and lease liabilities are initially recognized at the lower of fair value at the commencement of the lease or present value of the minimum lease payments. If it is reasonably certain that ownership will be transferred to a lessee by the end of the lease term, the leased asset is depreciated principally by the declining-balance method over the estimated useful life of the asset. Otherwise, the asset is depreciated over the shorter of the estimated useful life or the lease term.

**(b) Operating lease**

Lease payments under an operating lease are recognized in profit or loss on a straight-line basis over the relevant lease term.

**(10) Impairment of non-financial assets**

For the non-financial assets other than inventories and deferred tax assets, the Group assesses whether there is any indication of impairment on each asset or the cash-generating unit to which the asset belongs at the end of each reporting period. If any indication of impairment exists, the recoverable amount of the asset or the cash-generating unit to which the asset belongs is estimated and impairment tests is performed. Goodwill, intangible assets with indefinite useful lives and intangible assets not yet available for use are tested for impairment at least annually and whenever an indication of impairment exits.

The recoverable amount of an asset or a cash-generating unit is the higher of its fair value less costs to sell and its value in use. When the recoverable amount of the individual asset cannot be estimated, the Group estimates the recoverable amount of the cash-generating unit or the group of cash-generating units to which the asset belongs. The value in use is calculated by discounting the estimated future cash flows to the present value, and a pre-tax discount rate that reflects the time value of money and the risks specific to the asset is used as a discount rate.

The cash-generating unit or the group of cash-generating units to which goodwill is allocated is the lowest level monitored for internal management purposes, and is not larger than an operating segment.

As corporate assets do not independently generate cash inflows, when there is an indication that a corporate asset may be impaired, an impairment test is performed based on the recoverable amount of the cash-generating unit or the group of cash-generating units to which such corporate asset belongs.

If the recoverable amount of the asset or the cash-generating unit is less than the carrying amount, the carrying amount of the asset is reduced to its recoverable amount and an impairment loss is recognized. The impairment loss recognized with respect to the cash-generating unit is allocated first to reduce the carrying amount of any goodwill allocated to the cash-generating unit, and then to reduce other assets of the unit on a pro-rata basis based on the carrying amount of each asset in the unit.

An impairment loss is reversed if there are indications that an impairment loss recognized in prior periods for an asset other than goodwill may no longer exist or may have decreased and the recoverable amount of the asset is greater than its carrying amount. The amount to be reversed would not exceed its carrying amount that would have been determined had no impairment loss been recognized for the asset in prior years. An impairment loss recognized in goodwill is not reversed.

**(11) Employee benefits**

Employee benefits include short-term employee benefits, retirement benefits, and other long-term employee benefits.

**(a) Short-term employee benefits**

Short-term employee benefit obligations are measured on an undiscounted basis and are recognized as expenses when the related service is provided.

A liability is recognized for the amount expected to be paid under short-term cash incentive plans if the Group has a present legal or constructive obligation to pay in exchange for services provided by the employees in the prior period, and such obligation can be reliably estimated.

**(b) Retirement benefits**

Retirement benefit plans comprise of defined benefit corporate pension plans, defined contribution plans, and lump-sum retirement payment plans. These retirement benefit plans are accounted for as follows:

(i) Defined benefit corporate pension plans and lump-sum retirement payment plans

The net defined benefit liabilities or assets of defined benefit plans are recognized as the present value of defined benefit obligations less the fair value of any plan assets.

The present value of defined benefit obligations is calculated annually by qualified actuaries using the projected unit credit method. The discount rates are based on the market yields of high quality corporate bonds at the end of each reporting period that have terms consistent with the discount period, which is established as the estimated term of the retirement benefit obligations through to the estimated dates for payments of future benefits.

Remeasurements of defined benefit plans are recognized immediately in other comprehensive income when incurred, while past service costs are recognized in profit or loss.

(ii) Defined contribution plans

Contributions to defined contribution retirement plans are recognized as expenses in the period when the employees render the related services.

**(12) Equity**

**(a) Ordinary shares**

Ordinary shares are classified as equity. Costs directly attributable to the issuance of ordinary shares (net of tax effects) are recognized as a deduction from equity.

**(b) Treasury stock**

When the Company acquires treasury stocks, the consideration paid, including any directly attributable costs (net of tax effects), is deducted from equity. In case of disposal of treasury stocks, the difference between the consideration received and the carrying amount of treasury stocks is recognized in equity.

**(13) Revenue**

The Group has adopted IFRS 15 "Revenue from Contracts with Customers" from the fiscal year ended March 31, 2019. Under IFRS 15, revenue is recognized based on the following five-steps.

Step 1: Identify the contract with a customer
Step 2: Identify the performance obligations in the contract
Step 3: Determine the transaction price
Step 4: Allocate the transaction price to the performance obligations in the contract
Step 5: Recognize revenue when or as the Group satisfies a performance obligation

Revenue generated from Steelmaking and Steel Fabrication segment and Chemicals and Materials segment consists primarily of revenue generated from sale of goods while revenue generated from Engineering and Construction segment and System Solutions segment primarily consists of services rendered under
construction contracts.

**(a) Sale of goods**

The Group recognizes revenue from sale of goods when the customer obtains control of the goods and therefore a performance obligation is satisfied at a point in time whereby the Group no longer retains physical possession of goods upon shipment, the Group has the right to be paid from the customer, and when the legal title is transferred to the customer.

With respect to revenue from rendering of service whose performance obligation is satisfied at a point in time, the Group recognizes revenue when the rendering of service is completed. Revenue is measured at the amount of consideration received or receivable less discounts and rebates. The consideration of the transaction is primarily collected within one year after the satisfaction of the performance obligation and it does not contain a significant financing component.

**(b) Construction contracts and built-to-order software**
The Group recognizes revenue from construction contracts and built-to-order software on the basis of progress towards satisfaction of performance obligation as the Group transfers control over time. The progress is measured on the basis of percentage of actual costs incurred to date to estimated total costs as it is considered that costs incurred properly reflect the progress of the services. (input methods)
With respect to revenue from rendering of services whose performance obligation is satisfied over time, the Group recognizes revenue evenly throughout the duration of the service.

The Group has adopted IFRS 15 "Revenue from Contracts with Customers" from the fiscal year ended March 31, 2019.
In applying IFRS 15, the Group elected to apply the cumulative effect transition method where the cumulative effect of applying the Standard is recognized at the date of initial application. The adoption of the standard had no significant effect on each amount recognized in the consolidated financial statements.

**(14) Income taxes**
Income taxes comprise of current taxes and deferred taxes, and are recognized in profit or loss, except for the items which are recognized directly in equity or other comprehensive income.

Current taxes are measured at the amounts expected to be paid or recovered from the taxation authorities using the tax rates that have been enacted or substantively enacted at the end of the reporting period.

Deferred tax assets and deferred tax liabilities are recognized based on future tax consequences attributable to temporary differences between the carrying amounts of assets or liabilities for accounting purposes and the tax bases of the assets or liabilities, carryforward of unused tax losses and tax credits. Deferred tax assets are recognized to the extent that it is probable that taxable profit will be available against which the deductible temporary differences, unused tax losses and unused tax credits can be utilized.

Deferred tax assets are reviewed at the end of each reporting period and recognized only to the extent that it is probable that the tax benefits can be realized.
However, deferred tax assets are not recognized if the initial recognition of an asset or liability in a transaction that is not a business combination affects neither accounting profit nor taxable profit at the time of the transaction.

Deferred tax assets arising from deductible temporary differences associated with investments in subsidiaries, associates and interests in joint arrangements are recognized only to the extent of the following circumstances:
- The temporary difference will reverse in the foreseeable future; and
- Taxable profit will be available against which the temporary difference can be utilized.

Deferred tax liabilities are recognized for all taxable temporary differences, except for the following circumstances:
- On the initial recognition of goodwill;
- On the initial recognition of an asset or liability in a transaction that is not a business combination affects neither accounting profit nor taxable profit at the time of the transaction;
- Taxable temporary differences associated with investments in subsidiaries to the extent that the parent company is able to control the timing of the reversal of the temporary difference and it is probable that the temporary difference will not reverse in the foreseeable future.

Deferred tax assets and deferred tax liabilities are offset when there is a legally enforceable right to offset current tax assets against current tax liabilities and in either of the following circumstances:
- Income taxes are levied by the same taxation authority on the same taxable entity; or
- Different taxable entities intend either to settle current tax assets and current tax liabilities on a net basis, or to realize the current tax assets and settle the current tax liabilities simultaneously.

**(15) Earnings per share**
Basic earnings per share is calculated by dividing the profit for the reporting period attributable to owners of the Company by the weighted average number of common stock outstanding during the period in which the number of treasury stock is excluded.



## 4. SIGNIFICANT ACCOUNTING ESTIMATES AND JUDGMENTS

The preparation of consolidated financial statements in accordance with IFRS requires management to make judgments, estimates and assumptions that affect the adoption of accounting policies and the reported amounts of assets, liabilities, income and expenses. However, actual results could differ from these estimates.
The estimates and their underlying assumptions are reviewed on an ongoing basis. The effects of changes in accounting estimates are recognized in the period in which the estimates are revised.

Information about judgments that have been made in the process of applying the Group's accounting policies and that have the most significant effects on the amounts recognized in the consolidated financial statements is included in the following notes:
- Note 3 (1) "Basis of consolidation" and Note 15 "Interests in Subsidiaries, Associates and Others"
- Note 3 (4) "Financial instruments" and Note 33 "Financial Instruments"

Information about uncertainty of key estimates and assumptions that may have significant risks of causing material adjustments to the carrying amounts of assets and liabilities in the subsequent reporting year is included in the following notes:
- Note 3 (10) "Impairment of non-financial assets" and Note 30 "Impairment of Non-Financial Assets"
- Note 3 (11) "Employee benefits" and Note 20 "Employee Benefits"
- Note 3 (13) "Revenue" and Note 23 "Revenue"
- Note 3 (14) "Income taxes" and Note 16 "Income Taxes"
- Note 36 "Loan Guarantees"

## 5. NEW ACCOUNTING STANDARDS AND INTERPRETATIONS NOT YET APPLIED

New standards, interpretations, and amendments to standards and interpretations that have not yet been adopted in the preparation of the consolidated financial statements as of March 31, 2019, are as follows.

IASB issued IFRS 16 "Leases" in January 2016. IFRS 16 replaces existing lease guidance including IAS 17 "Leases", IFRIC 4 "Determining whether an Arrangement contains a Lease", SIC-15 "Operating Leases - Incentives" and SIC-27 "Evaluating the Substance of Transactions Involving the Legal Form of a Lease".

IFRS 16 changes the definition of a lease and provides a single on-balance lease accounting model for lessees. A lessee recognizes a right-of-use asset representing its right to use the underlying asset and a lease liability representing its obligation to make lease payments. The Group will recognize new assets and liabilities for operating leases as a lessee. In addition, expenses related to leases will change from straight-line operating lease expenses to depreciation charge for right-of-use assets and interest expense on lease liabilities.

IFRS 16 is effective for annual periods beginning on or after January 1, 2019. Accordingly, the Group applies this standard initially on April 1, 2019. This standard can be applied retrospectively to each prior reporting period presented (retrospective approach) or retrospectively with the cumulative effect of initially applying this standard recognized at the date of initial application (modified retrospective approach). The Group applies the modified retrospective approach.

The Group also applies the practical expedient to grandfather the definition of a lease on transition and applies this standard to all the lease contracts entered into prior to April 1, 2019 as identified under IAS 17 "Leases" and IFRIC 4 "Determining whether an Arrangement contains a Lease". The impact of applying this standard to total assets and total liabilities in the consolidated financial statements is 31,944 million yen.

## 6. RECLASSIFICATIONS

Certain prior amounts have been reclassified to conform to the presentation as of and for the year ended March 31, 2019.

# 7. SEGMENT INFORMATION

**(1) Description of reportable segments**

The Company engages in the Steelmaking and Steel Fabrication business and acts as the holding company of the Group. The Group has four operating segments determined mainly based on product and service, which are Steelmaking and Steel Fabrication, Engineering and Construction, Chemicals and Materials, and System Solutions. Each operating segment shares the management strategy of the Group, while conducting its business activities independently from and in parallel with other companies of the Group. The following summary describes the operations of each reportable segment:

| Reportable segments | Principal businesses |
|---|---|
| Steelmaking and Steel Fabrication | Manufacturing and sales of steel products |
| Engineering and Construction | Manufacturing and sales of industrial machinery, equipment and steel structures, construction projects under contract, waste processing and recycling, and supplying electricity, gas, and heat |
| Chemicals and Materials | Manufacturing and sales of coal-based chemical products, petrochemicals, electronic materials, materials and components for semiconductors and electronic parts, carbon fiber and composite products, and products that utilize technologies for metal processing |
| System Solutions | Computer systems engineering and consulting services; IT-enabled outsourcing and other services |

**(2) Basis of measurement of segment revenue, profit or loss, assets, liabilities, and other items**

Inter-segment revenue is based on transaction prices between third parties. Segment profit for the year ended March 31, 2019 is measured using business profit. Segment profit for the year ended March 31, 2018 is measured using ordinary profit under Japanese GAAP, which is adjusted to business profit on the consolidated statement of profit or loss.

**(3) Information about segment revenue, segment profit, segment assets and liabilities and other items**

(Year ended March 31, 2019) (Millions of Yen)

| | Reportable segment | | | | | | |
|---|---|---|---|---|---|---|---|
| | Steelmaking and Steel Fabrication | Engineering and Construction | Chemicals and Materials | System Solutions | Subtotal | Adjustments (Note 1) (Note 2) | Consolidated |
| Revenue | | | | | | | |
| Revenue from external customers | **5,408,633** | **321,346** | **243,014** | **204,952** | **6,177,947** | **—** | **6,177,947** |
| Inter-segment revenue or transfers | **45,902** | **35,360** | **4,052** | **62,550** | **147,867** | **(147,867)** | **—** |
| Total | **5,454,536** | **356,707** | **247,067** | **267,503** | **6,325,814** | **(147,867)** | **6,177,947** |
| Segment profit | **274,672** | **9,474** | **25,095** | **26,576** | **335,818** | **1,122** | **336,941** |
| Other items | | | | | | | |
| Depreciation and amortization | **398,702** | **2,605** | **6,644** | **4,872** | **412,825** | **(4,208)** | **408,616** |
| Share of profit in investments accounted for using the equity method | **76,337** | **801** | **1,339** | **(5)** | **78,473** | **7,938** | **86,411** |
| Segment assets | **7,404,841** | **289,083** | **194,622** | **231,994** | **8,120,542** | **(71,013)** | **8,049,528** |
| Other items | | | | | | | |
| Investments accounted for using the equity method | **672,853** | **6,313** | **23,629** | **309** | **703,105** | **90,041** | **793,146** |
| Capital expenditure | **431,775** | **3,021** | **8,855** | **2,542** | **446,194** | **(5,363)** | **440,830** |
| Segment liabilities (Interest-bearing debt) | **2,365,587** | **5,937** | **7,075** | **2,631** | **2,381,231** | **(12,000)** | **2,369,231** |

Notes:

1. The Group changed its segments from the year ended March 31, 2019. The Group integrated Chemicals segment and New Materials segment to form Chemicals and Materials segment upon the establishment of Nippon Steel Chemical & Material Co., Ltd. by a merger of Nippon Steel & Sumikin Chemical Co., Ltd. and Nippon Steel & Sumikin Materials Co., Ltd. in October 2018. The segment information for the year ended March 31, 2018 has been reclassified to reflect the change of segments.
2. The adjustments of segment profit of 1,122 million yen include investment return of 8,237 million yen from the equity method associate Nippon Steel Kowa Real Estate Co., Ltd., and elimination of inter-segment revenue or transfers of (7,114) million yen.
3. The adjustments of segment liabilities include the elimination of the Steelmaking and Steel Fabrication segment's borrowings from the System Solutions segment.

(Year ended March 31, 2018) (Millions of Yen)

| | Reportable segment | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | Steelmaking and Steel Fabrication | Engineering and Construction | Chemicals and Materials | System Solutions | Subtotal | Adjustments (Note 1) (Note 2) | Total | IFRS Adjustments | Consolidated |
| Revenue | | | | | | | | | |
| Revenue from external customers | 4,983,335 | 260,908 | 234,108 | 190,310 | 5,668,663 | — | 5,668,663 | 44,302 | 5,712,965 |
| Inter-segment revenue or transfers | 33,910 | 33,360 | 3,709 | 53,889 | 124,868 | (124,868) | — | — | — |
| Total | 5,017,245 | 294,268 | 237,817 | 244,200 | 5,793,531 | (124,868) | 5,668,663 | 44,302 | 5,712,965 |
| Segment profit | 245,708 | 9,110 | 17,399 | 23,292 | 295,510 | 2,030 | 297,541 | (8,840) | 288,700 |
| Other items | | | | | | | | | |
| Finance income | 4,983 | 180 | 38 | 146 | 5,348 | (202) | 5,146 | 2,498 | 7,644 |
| Finance costs | 20,080 | 44 | 172 | 11 | 20,309 | (202) | 20,106 | 4,477 | 24,584 |
| Depreciation and amortization | 330,393 | 2,489 | 7,329 | 4,646 | 344,859 | (4,140) | 340,719 | 25,845 | 366,565 |
| Share of profit in investments accounted for using the equity method | 116,408 | 378 | 148 | (10) | 116,925 | 5,750 | 122,675 | (57,018) | 65,657 |
| Segment assets | 7,003,681 | 247,696 | 184,988 | 223,601 | 7,659,967 | (67,554) | 7,592,413 | 163,721 | 7,756,134 |
| Other items | | | | | | | | | |
| Investments accounted for using the equity method | 950,887 | 4,393 | 24,843 | 17 | 980,142 | 83,614 | 1,063,757 | (264,517) | 799,239 |
| Capital expenditure | 390,623 | 6,301 | 8,497 | 7,638 | 413,061 | (1,130) | 411,930 | 11,497 | 423,428 |
| Segment liabilities (Interest-bearing debt) | 2,057,997 | 8,313 | 11,519 | 3,693 | 2,081,524 | (12,527) | 2,068,996 | 88,759 | 2,157,755 |

Notes:

1. The adjustments of segment profit of 2,030 million yen include investment return of 5,929 million yen from the equity method associate Nippon Steel Kowa Real Estate Co., Ltd., and elimination of inter-segment revenue or transfers of (3,899) million yen.
2. The adjustments of segment liabilities include the elimination of the Steelmaking and Steel Fabrication segment's borrowings from the System Solutions segment.

**(4) Information about geographical areas**

**(a) Revenue**

(Year ended March 31, 2019) (Millions of Yen)

| Japan | Overseas | | Total |
|---|---|---|---|
| | Asia | Other | |
| **4,053,188** | **2,124,758** | **1,310,890** | **813,868** | **6,177,947** |

(Year ended March 31, 2018) (Millions of Yen)

| Japan | Overseas | | | Total |
|---|---|---|---|---|
| | | Asia | Other | |
| 3,729,176 | 1,983,789 | 1,274,380 | 709,409 | 5,712,965 |

Revenue information is based on the geographical location of customers and classified by region.

**(b) Non-current assets**

(As of March 31, 2019) (Millions of Yen)

| Japan | Overseas | Total |
|---|---|---|
| **2,978,818** | **435,078** | **3,413,896** |

(As of March 31, 2018) (Millions of Yen)

| Japan | Overseas | Total |
|---|---|---|
| 2,854,097 | 418,238 | 3,272,335 |

Non-current assets are based on the location of the asset and do not include financial assets, deferred tax assets and assets for retirement benefits.

**(5) Revenue from major customers** (Millions of Yen)

| | Related segment | Year ended March 31, 2019 | Year ended March 31, 2018 |
|---|---|---|---|
| Nippon Steel & Sumikin Bussan Corporation | Steelmaking and Steel Fabrication | **1,170,241** | 849,244 |
| Sumitomo Corporation | Steelmaking and Steel Fabrication | **762,888** | 772,942 |
| Metal One Corporation | Steelmaking and Steel Fabrication | **631,639** | 592,146 |

# 8. BUSINESS COMBINATIONS

Business combinations during the years ended March 31, 2018 and 2019 are as follows:

**(1) Business combinations consummated during the year ended March 31, 2019**

**(A) Acquisition of Ovako AB**

(a) Overview

On June 1, 2018, the Company acquired all outstanding shares of Ovako AB ("Ovako"), which is headquartered in Sweden and is primarily engaged in the manufacturing and sale of special steel products and secondarily processed products mainly in Europe, for cash consideration of 51,767 million yen.

With this acquisition, the Company seeks to strengthen the position of the Group as "The Best Steelmaker with World-Leading Capabilities", thereby aiming to achieve sustainable growth and enhance the Group's corporate value in the mid-to long-term. With the addition of Ovako, the Group will bring together Ovako's high-cleanliness steel for bearing steel and other related products to the Company's product portfolio to strengthen and expand its global special steel business.

(b) Consideration transferred

(Millions of Yen)

| | |
|---|---|
| Cash | 51,767 |
| Total consideration transferred | 51,767 |

Notes: The Group incurred acquisition-related costs of 1,215 million yen as selling, general and administrative expenses in the consolidated statements of profit and loss.

(c) Fair value of the assets acquired and liabilities assumed and goodwill

(Millions of Yen)

| | |
|---|---|
| Current assets | 63,555 |
| Non-current assets | 53,302 |
| Total assets | 116,858 |
| Current liabilities | 70,691 |
| Non-current liabilities | 17,032 |
| Total liabilities | 87,724 |
| Total identifiable net assets acquired | 29,133 |
| Total equity attributable to owners of the parent | 29,133 |
| Total consideration transferred | 51,767 |
| Goodwill | 22,634 |

The goodwill is attributable mainly to an excess earning power expected to be achieved from the synergies between the Group and the Ovako. The goodwill is not tax-deductible.

Notes:

During the third quarter of the year ended March 31, 2019, the Company disclosed the provisional fair value of acquired assets and assumed liabilities because the Company had not completed the recognition and fair value measurement of identifiable assets and liabilities. During the fourth quarter of the year ended March 31, 2019, the Company completed the allocation of acquisition cost and identified intangible assets and related deferred tax liabilities. As a result, non-current assets and non-current liabilities mainly increased by 15,988 million yen and 3,517 million yen respectively.

Upon completion of allocation of acquisition costs, the goodwill decreased by 14,885 million yen compared to provisional amount.

(d) Net cash used in the transaction

(Millions of Yen)

| | |
|---|---|
| Cash consideration transferred | 51,767 |
| Cash and cash equivalents held by the acquiree at the acquisition date | (5,961) |
| Net cash used in the transaction | 45,805 |

(e) Revenue and profit or loss of the Ovako after the acquisition date

Information about revenue and profit or loss generated subsequent to the acquisition date through March 31, 2019 is not disclosed as it is immaterial to the consolidated financial statements.

**(f) Revenue and profit or loss of the Group if the business** combination had been completed at the beginning of the year

Information about revenue and profit or loss of the Groups if business combination had been completed at the beginning of the year is not disclosed as it is immaterial to the consolidated financial statements.



**(B) Acquisition of Sanyo Special Steel Co., Ltd.**

(a) Overview

On March 28, 2019, the Company acquired 36.2% equity interest of Sanyo Special Steel Co., Ltd. ("Sanyo"), which is primarily engaged in the manufacturing and sale of special steel products, powders and formed and fabricated materials, for underwriting of capital increase through third-party allotment. As a result of the acquisition, the equity interests held by the Company increased from 15.3% to 51.5% and Sanyo became a subsidiary of the Company.

The acquisition of Sanyo and Ovako allows the Company to strengthen its medium-to long-term competitiveness of the special steel businesses by bringing together our business foundations, technical and product development capabilities and cost competitiveness of the three companies to respond to globalization of the customers in the automobile and other fields as well as customer needs for high-quality special steel products.

(b) Consideration transferred

(Millions of Yen)

| | |
|---|---|
| Cash | 67,235 |
| Fair value of equity interests held before the acquisition date | 13,737 |
| Total consideration transferred | 80,972 |

The Company recorded a loss of 4,592 million yen as other operating expenses in the consolidated statements of profit or loss as a result from fair value measurement conducted at the acquisition date of the equity Interests of Sanyo held prior to the acquisition date.

The Group recorded acquisition-related costs of 276 million yen as selling, general and administrative expenses in the consolidated statements of profit and loss.

(c) Fair value of the assets acquired and liabilities assumed, non-controlling interests and bargain purchase gain

The Company has not completed the recognition of identifiable assets and liabilities and the fair value measurement of acquired assets and assumed liabilities at the acquisition date, the computation of non-controlling interests and bargain purchase gain, and the allocation of acquisition costs. Thus, the Company recorded provisional amounts based on reasonable information available at the time.

(Millions of Yen)

| | |
|---|---|
| Current assets | 210,344 |
| Non-current assets | 75,075 |
| Total assets | 285,419 |
| Current liabilities | 61,789 |
| Non-current liabilities | 38,804 |
| Total liabilities | 100,593 |
| Total identifiable net assets acquired | 184,826 |
| Non-controlling interests | 90,274 |
| Total equity attributable to owners of the parent | 94,551 |
| Total consideration transferred | 80,972 |
| Bargain purchase gain | 13,578 |

Notes:

1.Non-controlling interests are measured at the proportionate share of the fair value of the Sanyo's identifiable total equity.

2.Total equity attributable to owners of the parent of 94,551 million yen which is determined by subtracting the noncontrolling interests from the fair value of acquired assets and assumed liabilities based on reasonable information available at the time (such as financial and assets conditions based on due diligence performed by a third-party and valuation of shares performed by a financial advisor) exceeds the consideration transferred for the acquisition of Sanyo of 80,972 million yen.

The Group recorded a bargain purchase gain of 13,578 million yen arising from the difference between those two as Other operating income in the consolidated statements of profit or loss for the year ended March 31, 2019.

(d) Net cash used in the transaction

(Millions of Yen)

| | |
|---|---|
| Cash consideration transferred | 67,235 |
| Cash and cash equivalents held by the Sanyo at the acquisition date | (79,196) |
| Net cash provided in the transaction | (11,961) |

Notes:Cash and cash equivalents held by Sanyo at the acquisition date include the proceeds from equity financing in the amount of 67,235 million yen.

(e) Revenue and profit or loss of the Sanyo after the acquisition date

Information about revenue and profit or loss generated subsequent to the acquisition date through March 31, 2019 is not disclosed as it is immaterial to the consolidated financial statements.

**(f) Revenue and profit or loss of the Group if the business combination had been completed at the beginning of the year**

| (Unaudited) | (Millions of Yen) |
|---|---|
| Revenue | 6,363,765 |
| Profit before income taxes | 259,145 |

**(2) Business combinations consummated during the year ended March 31, 2018**

No business combinations occurred in the year ended March 31, 2018.

## 9. CASH AND CASH EQUIVALENTS

The components of cash and cash equivalents are as follows:

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Cash | **159,636** | 138,702 |
| Cash equivalents | **3,540** | 4,166 |
| Total | **163,176** | 142,869 |

## 10. TRADE AND OTHER RECEIVABLES

The components of trade and other receivables are as follows:

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Notes and accounts receivable | **842,573** | 730,805 |
| Other | **128,166** | 103,336 |
| Allowance for doubtful receivables | **(2,407)** | (2,101) |
| Total | **968,333** | 832,040 |

Contract assets are included in “Notes and accounts receivables”.

## 11. INVENTORIES

The components of inventories are as follows:

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Merchandise and finished goods | **831,597** | 701,173 |
| Work in progress | **87,814** | 72,425 |
| Raw materials and supplies | **647,704** | 626,222 |
| Total | **1,567,116** | 1,399,821 |



## 12. ASSETS PLEDGED AS COLLATERAL

As per general contractual provisions for long-term and short-term borrowings, banks may require collateral and guarantees for present and future obligations, and retain the rights to offset the liabilities with bank deposits when repayment is overdue or when default occurs.

Assets pledged as collateral and secured debts are as follows:

(Millions of Yen)

| Assets pledged as collateral | 2019 | 2018 |
|---|---|---|
| Land | **11,432** | 10,855 |
| Buildings and structures | **4,853** | 3,784 |
| Machinery and vehicles | **5,471** | 6,826 |
| Other | **13,475** | 4,907 |
| Total | **35,233** | 26,373 |

(Millions of Yen)

| Secured debts | 2019 | 2018 |
|---|---|---|
| Short-term borrowings | **3,635** | 970 |
| Long-term borrowings (current portion is included) | **6,242** | 5,383 |
| Other | **467** | 447 |
| Total | **10,345** | 6,801 |

In addition to the pledged assets listed above, shares of associates are pledged as collateral (1,301 million yen, and 1,261 million yen as of March 31, 2019 and 2018, respectively).

## 13. PROPERTY, PLANT AND EQUIPMENT

Details of changes in the carrying amounts and acquisition costs, accumulated depreciation and accumulated impairment losses of property, plant and equipment are as follows:

(Millions of Yen)

| Carrying amount | Land | Buildings and structures | Machinery and vehicles | Tools, furniture and fixtures | Leased assets | Construction in progress | Total |
|---|---|---|---|---|---|---|---|
| As of March 31, 2017 | 654,349 | 815,580 | 1,266,968 | 48,413 | 46,783 | 260,106 | 3,092,202 |
| Acquisitions and reclassified from construction in progress | 1,831 | 71,336 | 277,566 | 24,810 | 10,401 | 16,255 | 402,200 |
| Disposals and sales | (2,858) | (4,081) | (2,637) | (621) | (246) | (803) | (11,249) |
| Depreciation | — | (58,469) | (257,642) | (19,000) | (9,486) | — | (344,599) |
| Impairment losses | (536) | (5,955) | (8,344) | (564) | — | — | (15,401) |
| Effects of changes in foreign exchange rates | (421) | 868 | 10,997 | 189 | (627) | (10,300) | 705 |
| As of March 31, 2018 | 652,364 | 819,277 | 1,286,908 | 53,226 | 46,823 | 265,258 | 3,123,857 |
| Acquisitions and reclassified from construction in progress | 5,967 | 78,086 | 363,975 | 85,546 | 7,812 | (72,830) | 468,557 |
| Acquisitions through business combinations | 9,653 | 20,579 | 56,261 | 1,082 | — | 6,755 | 94,331 |
| Disposals and sales | (5,258) | (3,660) | (6,037) | (4,570) | (131) | (129) | (19,788) |
| Depreciation | — | (58,817) | (272,371) | (46,659) | (9,498) | — | (387,347) |
| Effects of changes in foreign exchange rates | (1,224) | (190) | (25,447) | 719 | (38) | (6,758) | (32,941) |
| As of March 31, 2019 | **661,502** | **855,274** | **1,403,287** | **89,343** | **44,967** | **192,294** | **3,246,669** |

Depreciation of property, plant and equipment is mainly included in “Cost of sales” and “Selling, general and administrative expenses” in the consolidated statements of profit or loss.

(Millions of Yen)

| Acquisition costs | Land | Buildings and structures | Machinery and vehicles | Tools, furniture and fixtures | Leased assets | Construction in progress | Total |
|---|---|---|---|---|---|---|---|
| As of March 31, 2017 | 705,539 | 2,555,698 | 7,998,199 | 317,753 | 277,165 | 308,196 | 12,162,552 |
| As of March 31, 2018 | 701,984 | 2,607,700 | 8,215,605 | 327,419 | 276,851 | 313,262 | 12,442,823 |
| As of March 31, 2019 | **710,235** | **2,730,502** | **8,733,560** | **407,619** | **280,382** | **196,767** | **13,059,068** |

(Millions of Yen)

| Accumulated depreciation and accumulated impairment losses | Land | Buildings and structures | Machinery and vehicles | Tools, furniture and fixtures | Leased assets | Construction in progress | Total |
|---|---|---|---|---|---|---|---|
| As of March 31, 2017 | 51,189 | 1,740,118 | 6,731,230 | 269,340 | 230,382 | 48,089 | 9,070,350 |
| As of March 31, 2018 | 49,620 | 1,788,422 | 6,928,697 | 274,193 | 230,027 | 48,003 | 9,318,966 |
| As of March 31, 2019 | **48,733** | **1,875,228** | **7,330,272** | **318,276** | **235,414** | **4,473** | **9,812,398** |

The carrying amounts by type of leased assets are as follows:

(Millions of Yen)

| | Buildings and structures | Machinery and vehicles | Tools, furniture and fixtures | Total |
|---|---|---|---|---|
| As of March 31, 2017 | 11,895 | 31,994 | 2,893 | 46,783 |
| As of March 31, 2018 | 10,748 | 32,005 | 4,069 | 46,823 |
| As of March 31, 2019 | **10,024** | **31,701** | **3,241** | **44,967** |

## 14. GOODWILL AND INTANGIBLE ASSETS

Details of changes in the carrying amounts and acquisition costs, accumulated amortization and accumulated impairment losses of goodwill and intangible assets are as follows:

(Millions of Yen)

| Carrying amount | Goodwill | Software | Mining rights | Other | Total |
|---|---|---|---|---|---|
| As of March 31, 2017 | 44,563 | 47,165 | 44,630 | 5,878 | 142,237 |
| Acquisitions | — | 18,698 | — | 2,528 | 21,227 |
| Amortization | — | (18,443) | (2,306) | (1,215) | (21,965) |
| Impairment losses | (2,472) | (139) | — | (61) | (2,673) |
| Effects of changes in foreign exchange rates | 173 | (1,066) | 1,898 | (434) | 569 |
| As of March 31, 2018 | 42,263 | 46,214 | 44,221 | 6,695 | 139,395 |
| Acquisitions | — | 19,470 | — | 807 | 20,278 |
| Acquisitions through business combinations | 22,634 | 1,891 | — | 16,333 | 40,859 |
| Amortization | — | (17,868) | (2,198) | (1,202) | (21,268) |
| Impairment losses | (10,963) | — | — | — | (10,963) |
| Effect of changes in foreign exchange rates | (1,131) | (3,079) | (4,884) | (272) | (9,367) |
| As of March 31, 2019 | **52,803** | **46,629** | **37,139** | **22,362** | **158,934** |

Amortization of intangible assets is included in “Cost of sales” and “Selling, general and administrative expenses” in the consolidated statements of profit or loss.

(Millions of Yen)

| Acquisition costs | Goodwill | Software | Mining rights | Other | Total |
|---|---|---|---|---|---|
| As of March 31, 2017 | 44,563 | 87,236 | 63,304 | 12,131 | 207,236 |
| As of March 31, 2018 | 44,736 | 97,253 | 66,107 | 17,203 | 225,301 |
| As of March 31, 2019 | **66,238** | **115,358** | **58,617** | **30,875** | **271,090** |

(Millions of Yen)

| Accumulated amortization and accumulated impairment losses | Goodwill | Software | Mining rights | Other | Total |
|---|---|---|---|---|---|
| As of March 31, 2017 | — | 40,071 | 18,674 | 6,252 | 64,999 |
| As of March 31, 2018 | 2,472 | 51,039 | 21,885 | 10,507 | 85,905 |
| As of March 31, 2019 | **13,435** | **68,729** | **21,478** | **8,512** | **112,155** |

## 15. INTERESTS IN SUBSIDIARIES, ASSOCIATES AND OTHERS

**(1) Major subsidiaries**

Major subsidiaries of the Company as of March 31, 2019 are as follows:

| Operating segment | Name | Address | % of voting rights interests |
|---|---|---|---|
| Steelmaking and Steel Fabrication | Sanyo Special Steel Co., Ltd. | Himeji-shi, Hyogo | 51.5% |
| | Nisshin Co., Ltd. | Chiyoda-ku, Tokyo | 100.0% |
| | Nippon Steel & Sumikin Coated Sheet Corporation | Chuo-ku, Tokyo | 100.0% |
| | Osaka Steel Co., Ltd. | Osaka-shi, Osaka | 66.3% |
| | Nippon Steel & Sumikin Metal Products Co., Ltd. | Koto-ku, Tokyo | 100.0% |
| | Nippon Steel & Sumikin Pipe Co., Ltd. | Chiyoda-ku, Tokyo | 100.0% |
| | Kurosaki Harima Corporation | Kitakyushu-shi, Fukuoka | *47.0% |
| | Nippon Steel & Sumikin Texeng Co., Ltd. | Chiyoda-ku, Tokyo | 100.0% |
| | Nippon Steel & Sumikin Stainless Steel Corporation | Chiyoda-ku, Tokyo | 100.0% |
| | Nippon Steel & Sumikin Logistics Co., Ltd. | Chuo-ku, Tokyo | 100.0% |
| | Nippon Steel & Sumikin SG Wire Co., Ltd. | Chiyoda-ku, Tokyo | 100.0% |
| | Geostr Corporation | Bunkyo-ku, Tokyo | *42.3% |
| | Nippon Steel & Sumikin Welding Co., Ltd. | Koto-ku, Tokyo | 100.0% |
| | Nippon Steel & Sumikin Drum Co., Ltd. | Koto-ku, Tokyo | 100.0% |
| | Nippon Steel & Sumikin Blast Furnace Slag Cement Co., Ltd. | Kitakyushu-shi, Fukuoka | 100.0% |
| | Nippon Steel & Sumikin Cement Co., Ltd. | Muroran-shi, Hokkaido | 85.0% |
| | Nippon Steel & Sumikin Finance Co., Ltd. | Chiyoda-ku, Tokyo | 100.0% |
| | Nippon Steel & Sumikin Stainless Steel Pipe Co., Ltd. | Koga-shi, Ibaraki | 100.0% |
| | Nippon Steel & Sumikin Steel Wire Co., Ltd. | Seki-shi, Gifu | 51.0% |
| | Nippon Steel & Sumikin Eco-Tech Corporation | Chuo-ku, Tokyo | 85.1% |
| | Nippon Steel & Sumikin Bolten Corporation | Osaka-shi, Osaka | 85.0% |
| | Nippon Steel & SumikinShapes Corporation | Wakayama-shi, Wakayama | 100.0% |
| | Nippon Steel & Sumikin Tubos do Brasil Ltda. | State of Rio de Janeiro, Brazil | 100.0% |
| | NS-Siam United Steel Co., Ltd. | Rayong Province, Thailand | 80.2% |
| | National Pipe Company Limited | Eastern Province, Saudi Arabia | 51.0% |
| | Standard Steel, LLC | Pennsylvania State, United States of America | 100.0% |
| | Nippon Steel & Sumitomo Metal U.S.A., Inc. | New York State, United States of America | 100.0% |
| | PT Pelat Timah Nusantara Tbk. | Jakarta City, Indonesia | *35.0% |
| | Nippon Steel & Sumitomo Metal (Thailand) Co., Ltd. | Bangkok Metropolis, Thailand | 100.0% |
| | Nippon Steel & Sumitomo Metal Australia Pty. Limited | New South Wales State, Australia | 100.0% |
| | Nippon Steel & Sumikin Steel Processing (Thailand) Co., Ltd. | Rayong Province, Thailand | 66.5% |
| | Ovako AB | Stockholm, Sweden | 100.0% |
| Engineering and Construction | Nippon Steel & Sumikin Engineering Co., Ltd. | Shinagawa-ku, Tokyo | 100.0% |
| Chemicals & Materials | Nippon Steel Chemical & Material Co., Ltd. | Chiyoda-ku, Tokyo | 100.0% |
| System Solutions | NS Solutions Corporation | Chuo-ku, Tokyo | 63.4% |

*Although the Group holds less than 50% of the voting rights of Geostr Corporation, PT Pelat Timah Nusantara Tbk. and Kurosaki Harima Corporation, it includes the entities in consolidated subsidiaries because it substantially controls the entities.

### (2) Investments in associates

Carrying amount of investments in associates is as follows:

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Carrying amount of investments in associates | **636,216** | 654,214 |

Share of net profit or loss and other comprehensive income of associates is as follows:

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Net profit or loss | **49,436** | 38,199 |
| Other comprehensive income | **(18,610)** | (270) |
| Total | **30,826** | 37,929 |

### (3) Investments in joint ventures

Carrying amount of investments in joint ventures is as follows:

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Carrying amount of investments in joint ventures | **156,930** | 145,025 |

Share of net profit or loss and other comprehensive income of joint ventures is as follows:

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Net profit or loss | **36,975** | 27,458 |
| Other comprehensive income | **(6,030)** | 2,793 |
| Total | **30,944** | 30,251 |

There are no investments in associates or joint ventures accounted for under the equity method that are individually significant to the Group for the years ended March 31, 2018 and 2019.

## 16. INCOME TAXES

### (1) Deferred tax assets and deferred tax liabilities

**(a) The components of deferred tax assets and deferred tax liabilities are as follows:**

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Deferred tax assets | | |
| Accrued bonus | **28,189** | 26,453 |
| Defined benefit liabilities | **66,924** | 48,011 |
| Impairment losses on non-financial assets | **17,888** | 11,637 |
| Property, plant and equipment | **21,552** | 19,482 |
| Unused tax losses | **39,280** | 29,330 |
| Elimination of unrealized gains on property, plant and equipment and others | **31,553** | 29,681 |
| Other | **63,845** | 53,175 |
| Total deferred tax assets | **269,234** | 217,772 |
| Deferred tax liabilities | | |
| Equity securities | **(108,609)** | (151,451) |
| Defined benefit assets | **(25,167)** | (33,357) |
| Undistributed earnings | **(31,570)** | (30,904) |
| Special tax purpose reserves | **(43,782)** | (62,466) |
| Total deferred tax liabilities | **(209,130)** | (278,179) |
| Net deferred tax assets (liabilities) | **60,104** | (60,407) |

**(b) The changes in net deferred tax assets and liabilities are as follows:**

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Balance at beginning of the year | **(60,407)** | (38,993) |
| Recognized in profit or loss | **88,108** | 19,575 |
| Recognized in other comprehensive income | **37,761** | (41,003) |
| Effect of changes in consolidation scope | **(5,268)** | 14 |
| Balance at end of the year | **60,104** | (60,407) |

**(c) Deductible temporary differences and unused tax losses for which no deferred tax assets are recognized are as follows:**

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Carryforward of unused tax losses | **51,390** | 87,225 |
| Deductible temporary differences | **111,242** | 131,854 |
| Total | **162,633** | 219,080 |

**(d) The components by expiry date of unused tax losses for which no deferred tax assets are recognized are as follows:**

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Within 1 year | **3,009** | 30,935 |
| Over 2 years but less than 3 years | **5,209** | 7,774 |
| Over 3 years but less than 4 years | **10,640** | 11,426 |
| Over 4 years but less than 5 years | **1,247** | 17,003 |
| Over 5 years | **31,283** | 20,085 |
| Total | **51,390** | 87,225 |

### (2) Income tax expense

**(a) Details of income tax expense are as follows:**

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Current taxes | **79,209** | 79,124 |
| Deferred taxes | **(88,018)** | (19,575) |
| Total | **(8,809)** | 59,549 |

The Tax Cut and Jobs Act was enacted on December 22, 2017 and the federal corporate income tax rate applicable to the Company's subsidiaries in the US was reduced from 35% to 21%.As a result of the reduction, deferred tax for the year ended March 31, 2018 decreased by 6,253 million yen.

**(b) Differences between the statutory income tax rate and the Group's average effective tax rate consist of the following:**

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Statutory tax rate | **30.6%** | 30.9% |
| Share of profit in investments accounted for using the equity method | **(7.3)** | (4.8) |
| Effects of expense not deductible for tax purposes | **0.9** | 0.9 |
| Effects of income not taxable for tax purposes | **(0.6)** | (0.6) |
| Effects of differences in statutory tax rates applied to companies in Japan and foreign companies | **(1.8)** | (2.3) |
| Effects of changes in unrecognized deferred tax assets | **(24.0)** | (4.0) |
| Other | **(1.4)** | 1.9 |
| Average effective tax rate | **(3.5)** | 21.9 |

## 17. TRADE AND OTHER PAYABLES

The components of trade and other payables are as follows:

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Notes and trade accounts payable | **821,009** | 782,605 |
| Other payables | **524,167** | 474,903 |
| Other | **266,226** | 323,087 |
| Total | **1,611,403** | 1,580,597 |

## 18. BONDS, BORROWINGS AND LEASE LIABILITIES

**(1) Bonds, borrowings and lease liabilities**

Details of bonds, borrowings and lease liabilities are as follows:

(Millions of Yen)

| | 2019 | Average interest rate (%) | 2018 | Average interest rate (%) | Maturity date |
|---|---|---|---|---|---|
| Short-term borrowings | **215,393** | **1.2** | 137,323 | 1.0 | — |
| Current portion of long-term borrowings repayable within one year | **111,177** | **1.0** | 184,809 | 1.0 | — |
| Current portion of bonds repayable within one year | **60,000** | **1.4** | 85,700 | 1.5 | — |
| Current portion of lease liabilities repayable within one year | **8,783** | **0.8** | 8,550 | 0.8 | — |
| Commercial papers | **120,000** | **(0.0)** | 89,000 | (0.0) | — |
| Long-term borrowings | **1,595,905** | **0.8** | 1,401,156 | 0.8 | July 19, 2075 |
| Bonds | **220,000** | **0.7** | 209,996 | 1.0 | September 19, 2031 |
| Lease liabilities | **37,970** | **0.8** | 41,218 | 0.8 | March 31, 2076 |
| Total | **2,369,231** | | 2,157,755 | | |

"Average interest rate" represents the weighted average interest rate to the aggregate balance at the end of the reporting period.

**(2) Details of bonds**

(Millions of Yen)

| Type | Issue date | 2019 | 2018 | Maturity date |
|---|---|---|---|---|
| **Bonds issued by NSC** | | | | |
| Japanese Yen Corporate Bonds Maturity 2019 | February 15, 1999 | **—** | 696 | February 15, 2019 |
| The 58th Issue of Unsecured Corporate Bonds | September 2, 2008 | **—** | 30,000 | June 20, 2018 |
| The 59th Issue of Unsecured Corporate Bonds | September 2, 2008 | **10,000** | 10,000 | June 20, 2028 |
| The 61st Issue of Unsecured Corporate Bonds | December 2, 2008 | **—** | 15,000 | September 20, 2018 |
| The 63rd Issue of Unsecured Corporate Bonds | June 9, 2009 | **20,000** | 20,000 | June 20, 2019 |
| The 64th Issue of Unsecured Corporate Bonds | April 20, 2010 | **20,000** | 20,000 | March 19, 2020 |
| The 65th Issue of Unsecured Corporate Bonds | August 31, 2010 | **15,000** | 15,000 | June 19, 2020 |
| The 67th Issue of Unsecured Corporate Bonds | May 24, 2011 | **30,000** | 30,000 | March 19, 2021 |
| The 65th No.2 Issue of Unsecured Corporate Bonds | May 31, 2011 | **—** | 10,000 | May 31, 2018 |
| The 68th Issue of Unsecured Corporate Bonds | October 20, 2011 | **15,000** | 15,000 | September 17, 2021 |
| The 68th No.2 Issue of Unsecured Corporate Bonds | October 20, 2011 | **—** | 10,000 | October 19, 2018 |
| The 70th Issue of Unsecured Corporate Bonds | April 20, 2012 | **10,000** | 10,000 | April 19, 2019 |
| The 69th No.2 Issue of Unsecured Corporate Bonds | July 20, 2012 | **10,000** | 10,000 | June 20, 2019 |
| The 70th No.2 Issue of Unsecured Corporate Bonds | July 20, 2012 | **20,000** | 20,000 | June 20, 2022 |
| The 1st Issue of Unsecured Corporate Bonds | September 26, 2016 | **10,000** | 10,000 | September 18, 2026 |
| The 2nd Issue of Unsecured Corporate Bonds | September 26, 2016 | **10,000** | 10,000 | September 19, 2031 |
| The 3rd Issue of Unsecured Corporate Bonds | May 25, 2017 | **10,000** | 10,000 | May 20, 2024 |
| The 4th Issue of Unsecured Corporate Bonds | May 25, 2017 | **10,000** | 10,000 | May 20, 2027 |
| The 5th Issue of Unsecured Corporate Bonds | December 8, 2017 | **10,000** | 10,000 | December 20, 2024 |
| The 6th Issue of Unsecured Corporate Bonds | December 8, 2017 | **10,000** | 10,000 | December 20, 2027 |
| The 7th Issue of Unsecured Corporate Bonds | June 12, 2018 | **20,000** | — | June 20, 2023 |
| The 8th Issue of Unsecured Corporate Bonds | June 12, 2018 | **20,000** | — | June 20, 2025 |
| The 9th Issue of Unsecured Corporate Bonds | June 12, 2018 | **20,000** | — | June 20, 2028 |
| **Bonds issued by Nisshin Steel** | | | | |
| The 19th Issue of Unsecured Corporate Bonds | June 2, 2008 | **—** | 10,000 | June 1, 2018 |
| The 23rd Issue of Unsecured Corporate Bonds | March 10, 2014 | **—** | 10,000 | March 8, 2019 |
| **Bonds issued by Sanyo Special Steel** | | | | |
| The 2nd Issue of Unsecured Corporate Bonds | December 7, 2017 | **10,000** | — | December 6, 2024 |
| Total | | **280,000** | 295,696 | |

**(3) Reconciliation of changes in liabilities in cash flows from financing activities**

The table below presents a reconciliation of main changes in liabilities arising from financing activities.

(Millions of Yen)

| | Short-term borrowings | Commercial papers | Long-term borrowings | Bonds | Lease liabilities | Total |
|---|---|---|---|---|---|---|
| As of March 31, 2017 | 142,769 | 31,854 | 1,595,610 | 396,005 | 48,688 | 2,214,928 |
| Cash flows from financing activities | (7,114) | 57,140 | 2,672 | (100,000) | (12,377) | (59,677) |
| Effects of changes in consolidation scope | 1,331 | — | 1,435 | — | (7) | 2,759 |
| Effects of changes in foreign exchange rates and other | 337 | 4 | (13,752) | (309) | 13,464 | (254) |
| As of March 31, 2018 | 137,323 | 89,000 | 1,585,966 | 295,696 | 49,768 | 2,157,755 |
| Cash flows from financing activities | 44,401 | 23,000 | 102,850 | (25,700) | (9,792) | 134,760 |
| Effects of changes in consolidation scope | 35,073 | 8,000 | 20,872 | 10,000 | (65) | 73,880 |
| Effects of changes in foreign exchange rates and other | (1,405) | — | (2,606) | 3 | 6,843 | 2,834 |
| As of March 31, 2019 | **215,393** | **120,000** | **1,707,083** | **280,000** | **46,754** | **2,369,231** |

## 19. LEASES

The Group leases assets such as machinery as a lessee and land and buildings as a lessor.

**(1) Finance leases**

As a lessee

Future minimum lease payments under finance lease contracts are as follows:

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Within 1year | **8,783** | 8,550 |
| Over 1 but less than 5 years | **21,034** | 22,582 |
| Over 5 years | **16,936** | 18,635 |
| Total | **46,754** | 49,768 |

There is no significant difference between the total future minimum lease payments and the present value of total future minimum lease payments as of March 31, 2018 and 2019.

**(2) Operating leases**

As a lessee

The future minimum lease payments under non-cancellable operating lease contracts are as follows:

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Within 1 year | **11,371** | 9,965 |
| Over 1 but less than 5 years | **29,434** | 31,624 |
| Over 5 years | **4,994** | 6,638 |
| Total | **45,800** | 48,228 |

Operating lease expenses under non-cancellable operating lease contracts recognized during the years ended March 31, 2019 and 2018 amounted to 10,356 million yen and 9,597 million yen, respectively.

As a lessor

The future lease payments expected to be received under non-cancellable operating lease contracts are as follows:

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Within 1 year | **2,314** | 1,906 |
| Over 1 but less than 5 years | **8,326** | 6,549 |
| Over 5 years | **21,712** | 7,654 |
| Total | **32,353** | 16,110 |

## 20. EMPLOYEE BENEFITS

### (1) Overview of retirement benefit plans

The retirement benefit plans that the Group offers to its employees include lump-sum retirement payment plans, defined benefit plans, and defined contribution plans.

Under the lump-sum retirement payment plans, the Group makes lump-sum payments to eligible employees upon their retirement. The amount of benefits under these plans is determined mainly based on the employee's base salary and years of service at retirement.

The Group also has defined benefit plans that are corporate pension plans in compliance with the Defined-Benefit Corporate Pension Act of Japan and provides benefit payments to eligible employees over a certain period of time after retirement. The amount of benefits under these plans is determined mainly based on the employee's base salary and years of service at retirement.

The management of plan assets for defined benefit plans aims to maximize the value of the plan assets within an acceptable level of risk in order to ensure stable future pension benefit payments to the plan participants and qualified beneficiaries. Specifically, the plan establishes a medium and long-term investment portfolio taking into consideration of the characteristics of the plan assets and pension obligations. This investment portfolio is reviewed periodically and adjusted for changes in the market environment and funding position since initial assumptions has been set out.

Under the defined contribution plans, the responsibility of the Company and its subsidiaries is limited to contributions based on the amount determined in the retirement benefits policies of each participating company.

### (2) Reconciliation of the present value of the defined benefit obligations

The changes in the present value of the defined benefit obligations for the Group are as follows:

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Balance at beginning of the year | **619,280** | 650,749 |
| Current service cost | **34,137** | 34,168 |
| Interest cost | **2,610** | 2,591 |
| Actuarial gains and losses | **6,183** | 296 |
| Past service cost | **(54)** | (5,700) |
| Benefits paid | **(48,542)** | (55,624) |
| Other | **17,137** | (7,199) |
| Balance at end of the year | **630,754** | 619,280 |

The weighted average duration of the defined benefit obligations for the years ended March 31, 2019 and 2018 is 11.9 years and 11.5 years, respectively.

### (3) Reconciliation of the fair value of the plan assets

The changes in the fair value of the plan assets for the Group are as follows:

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Balance at beginning of the year | **554,671** | 545,072 |
| Interest income | **2,986** | 2,788 |
| Return on plan assets, excluding interest income | **(457)** | 29,550 |
| Employer contributions | **13,903** | 13,765 |
| Benefits paid | **(29,682)** | (34,637) |
| Other | **(15,174)** | (1,866) |
| Balance at end of the year | **526,246** | 554,671 |

The Group expects to contribute 12,461 million yen to the defined benefit plans for the year ending March 31, 2020.



### (4) The components of the fair value of plan assets by asset category

The components of the fair value of plan assets by asset category are as follows:

(Millions of Yen)

| | 2019 | | 2018 | |
|---|---|---|---|---|
| | With quoted market price in an active market | With no quoted market price in an active market | With quoted market price in an active market | With no quoted market price in an active market |
| Bonds | **80,469** | **—** | 83,441 | — |
| Equity investments | **208,456** | **—** | 249,400 | — |
| Cash and cash equivalents | **43,857** | **—** | 32,799 | — |
| General accounts at life insurance company | **—** | **126,547** | — | 123,396 |
| Other | **—** | **66,915** | — | 65,633 |
| Total | **332,783** | **193,463** | 365,641 | 189,030 |

### (5) Significant actuarial assumptions

The significant actuarial assumptions used to determine the present value of defined benefit obligations for the Company are as follows:

| | 2019 | 2018 |
|---|---|---|
| Discount rate | **0.3%** | 0.3% |

### (6) Sensitivity analysis

The effects on defined benefit obligations of increase in the discount rates are as follows:

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Effects of incremental increase in discount rate by 0.5% | **33,151 million yen decrease** | 32,049 million yen decrease |

The sensitivity analysis assumes that other assumptions remain unchanged.

### (7) Defined contribution plans

The amounts recognized as expenses for defined contribution plans are 6,557 million yen and 5,008 million yen for the years ended March 31, 2019 and 2018, respectively.

### (8) Employee benefits expenses

The Group incurred employee benefits expenses of 869,640 million yen and 831,273 million yen for the years ended March 31, 2019 and 2018, respectively. These expenses are included in “Cost of sales” and “Selling, general and administrative expenses” in the consolidated statements of profit or loss.

Salary, bonus, statutory health and welfare benefits and retirement benefits expenses are included in employee benefits expenses.

## 21. EQUITY AND OTHER EQUITY ITEMS

### (1) Common stock and reserves

The total number of shares authorized to be issued and shares outstanding are as follows:

| | Number of shares authorized to be issued (Thousands) | Number of shares outstanding (Thousands) |
|---|---|---|
| As of March 31, 2017 | 2,000,000 | 950,321 |
| Changes | — | — |
| As of March 31, 2018 | 2,000,000 | 950,321 |
| Changes | — | — |
| As of March 31, 2019 | **2,000,000** | **950,321** |

All the shares authorized to be issued and shares outstanding are without par value.

Capital surplus

Capital surplus comprises of amounts generated through capital transactions that are not recorded in common stock, and its primary component is capital reserves.

The Companies Act of Japan stipulates that one-half or more of the proceeds from issuance of shares should be incorporated in common stock, and that the remainder shall be incorporated in capital reserve included in capital surplus. The act stipulates that the capital reserve may be incorporated in common stock upon resolution at the general meeting of shareholders.

Retained earnings

Retained earnings consist of legal reserves and accumulated earnings. The Companies Act of Japan provides that one-tenth of cash dividends be appropriated as capital reserve or legal reserve at the date of distribution until the total amount of these reserves equals one-fourth of common stock. Legal reserve may be utilized to cover capital losses upon resolution at the general meeting of shareholders.

**(2) Treasury stock**

The total number of treasury stock held by the Group is as follows:

| | Number of shares (Thousands) |
|---|---|
| As of March 31, 2017 | 67,674 |
| Changes | 36 |
| As of March 31, 2018 | 67,710 |
| Changes | (37,912) |
| As of March 31, 2019 | **29,797** |

The Company used 38,161 thousand shares of the treasury stock to acquire shares of Nisshin Steel through the share exchange on January 1, 2019.

## 22. DIVIDENDS

The dividends paid by the Company are as follows:

(Year ended March 31, 2019)

**(1) Dividends paid**

| Date of resolution | Class of share | Total amount of dividends (Millions of Yen) | Dividends per share (Yen) | Record date | Effective date |
|---|---|---|---|---|---|
| Shareholders' meeting held on June 26, 2018 | Ordinary shares | **35,355** | **40** | March 31, 2018 | June 27, 2018 |
| Board of directors meeting held on November 2, 2018 | Ordinary shares | **35,355** | **40** | September 30, 2018 | December 3, 2018 |

**(2) Dividends that belong to the current consolidated reporting year but become effective in the subsequent consolidated reporting year**

| Date of resolution | Class of share | Source of dividends | Total amount of dividends (Millions of Yen) | Dividends per share (Yen) | Record date | Effective date |
|---|---|---|---|---|---|---|
| Shareholders' meeting held on June 25, 2019 | Ordinary shares | Retained earnings | **36,880** | **40** | March 31, 2019 | June 26, 2019 |

(Year ended March 31, 2018)

**(1) Dividends paid**

| Date of resolution | Class of share | Total amount of dividends (Millions of Yen) | Dividends per share (Yen) | Record date | Effective date |
|---|---|---|---|---|---|
| Shareholders' meeting held on June 27, 2017 | Ordinary shares | 39,776 | 45 | March 31, 2017 | June 28, 2017 |
| Board of directors meeting held on October 27, 2017 | Ordinary shares | 26,517 | 30 | September 30, 2017 | November 30, 2017 |

**(2) Dividends that belong to the current consolidated reporting year but become effective in the subsequent consolidated reporting year**

| Date of resolution | Class of share | Source of dividends | Total amount of dividends (Millions of Yen) | Dividends per share (Yen) | Record date | Effective date |
|---|---|---|---|---|---|---|
| Shareholders' meeting held on June 26, 2018 | Ordinary shares | Retained earnings | 35,355 | 40 | March 31, 2018 | June 27, 2018 |

## 23. REVENUE

**(1) Disaggregation of revenue**

Disaggregation of revenue from contracts with customers and its relationship with segment revenue are as follows.

(Year ended March 31, 2019)

(Millions of Yen)

| | Steelmaking and Steel Fabrication | Engineering and Construction | Chemicals and Materials | System Solutions | Consolidated |
|---|---|---|---|---|---|
| Japan | **3,431,461** | **264,674** | **155,184** | **201,868** | **4,053,188** |
| Asia | **1,194,440** | **34,746** | **78,872** | **2,831** | **1,310,890** |
| Middle East | **113,180** | **2** | **319** | **—** | **113,502** |
| Europe | **142,335** | **20,645** | **4,426** | **66** | **167,473** |
| North America | **279,575** | **997** | **4,055** | **151** | **284,779** |
| Central and South America | **188,473** | **279** | **156** | **34** | **188,944** |
| Africa | **46,202** | **—** | **0** | **—** | **46,202** |
| Pacific | **12,963** | **—** | **0** | **—** | **12,964** |
| Total | **5,408,633** | **321,346** | **243,014** | **204,952** | **6,177,947** |

Revenue is classified based on the geographic location of customers and presented at the amount less adjustment of inter-segment transactions.

**(2) Contract balances**

(Millions of Yen)

| | At beginning of the year (As of April 1, 2018) | As of March 31, 2019 |
|---|---|---|
| Receivables | 685,761 | **774,803** |
| Contract assets | 45,044 | **67,769** |
| Contract liabilities | 22,936 | **28,488** |

Receivables and contract assets are included in "Trade and Other Receivables" in the consolidated statement of financial position.

Contract liabilities are included in "Other current liabilities" in the consolidated statement of financial position.

The amount included in the contract liabilities as of April 1, 2018 and recognized as revenue for the year ended March 31, 2019 amounted to 20,099 million yen.

The amount recognized as revenue for the year ended March 31, 2019 from performance obligations satisfied in previous periods is immaterial.

(3) Transaction price allocated to the remaining performance obligation

(Millions of Yen)

| | As of March 31, 2019 | Engineering and Construction | System Solutions |
|---|---|---|---|
| Within 1 year | 259,610 | 184,782 | 74,828 |
| Over 1 year | 202,262 | 170,569 | 31,693 |
| Total | 461,872 | 355,351 | 106,521 |

The above is included transaction price allocated to the remaining performance obligation whose original expected duration o performance obligation is one year or less and is presented at the amount less adjustment of inter-segment transactions.
The Group applied the practical expedient and does not disclose the information with respect to Steelmaking and Steel Fabrication segments and Chemicals and Materials segments as original expected duration of performance obligation is mostly one year or less.

(4) Assets recognized from the costs to obtain or fulfill a contract with a customer

The Group's incremental costs of obtaining a contract and costs to fulfill a contract with customer required to be recognized as assets are immaterial.

## 24. SELLING, GENERAL AND ADMINISTRATION EXPENSES

The components of selling, general and administrative expenses are as follows:

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Transportation and storage | 161,091 | 141,873 |
| Salaries and bonuses | 141,390 | 137,687 |
| Retirement benefit costs | 8,713 | 7,336 |
| Research and development costs | 58,621 | 61,019 |
| Depreciation and amortization | 8,693 | 10,064 |
| Other | 189,901 | 175,804 |
| Total | 568,409 | 533,787 |

## 25. RESEARCH AND DEVELOPMENT COSTS

The total amounts of research and development costs included in "Cost of sales" and "Selling, general and administrative expenses" are as follows:

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Research and development costs | 72,043 | 74,071 |

## 26. OTHER OPERATING INCOME AND OTHER OPERATING EXPENSES

The components of "Other operating income" and "Other operating expenses" are as follows:

(1) Other operating income

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Dividends received | 20,156 | 17,832 |
| Foreign exchanges gains (net) | 6,152 | — |
| Other | 76,296 | 73,689 |
| Total | 102,606 | 91,521 |

Dividend income is generated mainly from financial assets measured at fair value through other comprehensive income.

(2) Other operating expenses

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Foreign exchanges losses (net) | — | 3,976 |
| Impairment losses | — | 18,075 |
| Losses on disposal of fixed assets | 27,665 | 30,540 |
| Other | 42,455 | 46,181 |
| Total | 70,120 | 98,773 |

## 27. LOSSES ON NATURAL DISASTER

Losses related to weather related natural disasters were incurred during the year ended March 31, 2019. The nature of the losses represent costs on restoration, disposal of machinery and other related costs which amounted to 22,349 million yen.

## 28. GAINS OR LOSSES FROM REORGANIZATION

As part of its strategic initiative, the Company has realigned resource allocation to certain of its business and has incurred losses from reorganization.

The reorganization losses are principally divided into impairment losses of 16,882 million yen, losses on withdrawal from businesses of 17,443 million yen and losses incurred to withdraw inactive facilities and other losses of 15,154 million yen for the year ended March 31, 2019.

Impairment losses relate to goodwill and impairment of equity method investments due to changes in recoverable amounts as a result of reorganization of business activities. Refer to Note 30 "Impairment of Assets" for further discussion. Losses on withdrawal from businesses mainly consist of losses related to the pending withdrawal from large casting and forgings business operated by Japan Casting & Forging Corporation, an affiliate in the Steelmaking and Steel Fabrication segment, due to unfavorable business environment. Losses incurred to withdraw
inactive facilities and others losses mainly consist of the termination and demolition losses of blast furnace of Wakayama Works which was replaced by a new facility in February 2019.

## 29. FINANCE INCOME AND FINANCE COSTS

The components of "Finance income" and "Finance costs" are as follows:

(1) Finance income

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Interest income | 6,028 | 5,710 |
| Other | 76 | 1,933 |
| Total | 6,104 | 7,644 |

Interest income is generated mainly from financial assets measured at amortized cost.

(2) Finance costs

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Interest expense | 19,133 | 21,339 |
| Other | 3,311 | 3,245 |
| Total | 22,445 | 24,584 |

Interest expense is generated mainly from financial liabilities measured at amortized cost.

# 30. IMPAIRMENT OF ASSETS

### (1) Impairment losses

(Year ended March 31, 2019)

(Millions of Yen)

| Steelmaking and Steel Fabrication | Engineering and Construction | Chemicals and Materials | System Solutions | Adjustments | Total |
|---|---|---|---|---|---|
| **11,909** | **4,972** | — | — | — | **16,882** |

Impairment losses in the Steelmaking and Steel Fabrication segment were recognized mainly due to strategic realignments of its businesses in order to address unfavorable business environment. This includes the impairment loss of 5,990 million yen related to goodwill of a subsidiary which is in a business of manufacturing and distribution of railway wheels and axles in the U.S. This impairment loss was recognized due to the decision to reorganize the operation of certain business in the U.S. in the Steelmaking and Steel Fabrication segment. The recoverable amount of related assets was calculated based on the fair value less costs of disposal which was determined using the market approach and was categorized within Level 3 of the fair value hierarchy. Impairment loss of 5,919 million yen related to the investment accounted for using the equity method held by a subsidiary which operates mining business in Australia was recognized as a result of re-review of its investment plan. The recoverable amount related to this investment is calculated based on value-in-use using the discounted cash flow method with the pre-tax discounted rate of 8.0%.

Impairment loss in the Engineering and Construction segment are recognized mainly due to unfavorable business environment. This goodwill related impairment loss was incurred by a subsidiary which operates environmental plant business in Europe. The recoverable amount of related assets was calculated based on value-in-use by using the discounted cash flow method with the pre-tax discounted rate of 8.0%.

(Year ended March 31, 2018)

(Millions of Yen)

| Steelmaking and Steel Fabrication | Engineering and Construction | Chemicals and Materials | System Solutions | Adjustments | Total |
|---|---|---|---|---|---|
| 9,932 | 2,472 | 3,334 | 2,570 | (234) | 18,075 |

Impairment losses in the Steelmaking and Steel Fabrication segment are recognized mainly due to unfavorable business environment. This includes the impairment losses of 8,505 million yen recognized with respect to the operating assets held by a subsidiary in the U.S. which operates pipe business and the carrying amount of related assets was reduced to the recoverable amount of zero. The recoverable amount of related assets is calculated based on value-in-use using the discounted cash flow method.

Impairment losses in the Engineering and Construction segment are recognized due to unfavorable business environment. This is arisen from the reduction in the carrying amount of goodwill acquired in business combinations of a subsidiary which operates environmental plant engineering business in Europe. The recoverable amount of related assets is calculated based on value-in-use using the discounted cash flow method with the pre-tax discounted rate of 8.0%.

Impairment losses in the Chemicals and Materials segment are recognized due to unfavorable business environment. This is arisen from the reduction in the carrying amount of the operating assets held by a subsidiary which operates coal chemicals business in China.

Impairment losses in the System Solutions segment are recognized by assessing the forecast of future earnings with respect to a part of data center assets. The recoverable amount of related assets is calculated based on the fair value less costs of disposal which is mainly based on real estate appraisals and was categorized within Level 3 of the fair value hierarchy.

### (2) Impairment test of goodwill

The breakdown of the carrying amount of goodwill by segment is as follows:

(Millions of Yen)

| Operating segment | 2019 | 2018 |
|---|---|---|
| Steelmaking and Steel Fabrication | **44,477** | 28,596 |
| Engineering and Construction | **3,300** | 8,641 |
| Chemicals and Materials | **—** | — |
| System Solutions | **5,025** | 5,025 |
| Total | **52,803** | 42,263 |

The recoverable amount of the cash-generating units to which the goodwill is allocated is calculated based on value-in-use or the fair value less costs of disposal. In measuring value in use, past experience and external evidence are reflected and the estimated future cash flows are discounted to the present value. The future cash flows are estimated based on a business plan approved by management, which covers a maximum period of five years, and a growth rate for subsequent years.

The discount rate is calculated based on the weighted average cost of capital of each cash-generating unit which is the pre-tax discounted rate of mainly 8.0%.

# 31. OTHER COMPREHENSIVE INCOME

The components of other comprehensive income are as follows:

(Year ended March 31, 2019)

(Millions of Yen)

| | Incurred during the year | Reclassification | Before tax effect | Tax effect | After tax effect |
|---|---|---|---|---|---|
| Items that cannot be reclassified to profit or loss | | | | | |
| Changes in fair value of financial assets measured at fair value through other comprehensive income | **(138,361)** | **—** | **(138,361)** | **33,804** | **(104,557)** |
| Remeasurements of defined benefit assets | **(6,641)** | **—** | **(6,641)** | **3,109** | **(3,531)** |
| Share of other comprehensive income of investments accounted for using the equity method | **(2,953)** | **—** | **(2,953)** | **—** | **(2,953)** |
| Subtotal | **(147,956)** | **—** | **(147,956)** | **36,913** | **(111,042)** |
| Items that might be reclassified to profit or loss | | | | | |
| Changes in fair value of cash flow hedges | **6,155** | **(4,234)** | **1,921** | **(398)** | **1,522** |
| Foreign exchange differences on translation of foreign operations | **(42,391)** | **(111)** | **(42,502)** | **1,246** | **(41,256)** |
| Share of other comprehensive income of investments accounted for using the equity method | **(21,750)** | **62** | **(21,687)** | **—** | **(21,687)** |
| Subtotal | **(57,985)** | **(4,283)** | **(62,269)** | **847** | **(61,421)** |
| Total | **(205,942)** | **(4,283)** | **(210,225)** | **37,761** | **(172,464)** |

"Incurred during the year" and "Reclassification" in shares of other comprehensive income of investments accounted for using the equity method are stated with the amount after tax effect.

(Year ended March 31, 2018)

(Millions of Yen)

| | Incurred during the year | Reclassification | Before tax effect | Tax effect | After tax effect |
|---|---|---|---|---|---|
| Items that cannot be reclassified to profit or loss | | | | | |
| Changes in fair value of financial assets measured at fair value through other comprehensive income | 94,274 | — | 94,274 | (29,051) | 65,222 |
| Remeasurements of defined benefit assets | 29,253 | — | 29,253 | (9,831) | 19,422 |
| Share of other comprehensive income of investments accounted for using the equity method | 5,125 | — | 5,125 | — | 5,125 |
| Subtotal | 128,653 | — | 128,653 | (38,883) | 89,770 |
| Items that might be reclassified to profit or loss | | | | | |
| Changes in fair value of cash flow hedges | (2,351) | 4,678 | 2,326 | (538) | 1,788 |
| Foreign exchange differences on translation of foreign operations | 12,390 | (215) | 12,174 | (1,582) | 10,592 |
| Share of other comprehensive income of investments accounted for using the equity method | (2,488) | (113) | (2,602) | — | (2,602) |
| Subtotal | 7,550 | 4,349 | 11,899 | (2,120) | 9,778 |
| Total | 136,203 | 4,349 | 140,552 | (41,003) | 99,548 |

"Incurred during the year" and "Reclassification" in shares of other comprehensive income of investments accounted for using the equity method are stated with the amount after tax effect.

## 32. EARNINGS PER SHARE

Profit for the year attributable to common shares of the parent is as follows:

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Profit for the year attributable to owners of the parent | **251,169** | 180,832 |
| Profit for the year not attributable to ordinary equity holders of the parent | — | — |
| Profit for the year used to calculate basic earnings per share | **251,169** | 180,832 |

Diluted earnings per share is not presented as there are no potential dilutive shares.

The weighted average number of ordinary shares outstanding is as follows:

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Weighted average number of ordinary shares outstanding | **891,387,729** | 882,629,157 |



## 33. FINANCIAL INSTRUMENTS

**(1) Capital management**

Under the presumption that a certain level of financial stability is maintained, the Group has capital management policies which emphasize operational efficiency of invested capital, maximize corporate value by utilizing funds in investments (including investments in capital expenditure, research and development and M&A) which are expected to generate revenue which exceeds the cost of capital to enable sustainable growth and, at the same time, meet the demands of shareholders by providing returns to shareholders based on profits. The necessary funds to achieve this are primarily provided through cash flows from operating activities which are generated from maintaining and enhancing the Group's earnings power, and the Group raises funds through borrowings from banks and the issuance of corporate bonds, as necessary.

The Group identifies Return on Equity ("ROE") and Debt Equity Ratio ("D/E ratio") as key management indicators to achieve medium and long-term profit growth and stability of the financial base. ROE is calculated by dividing profit for the year attributable to owners of the parent by the equity attributable to owners of the parent. D/E ratio is calculated by dividing interest-bearing debts by the equity attributable to owners of the parent.

| | 2019 | 2018 |
|---|---|---|
| ROE (%) | **7.9** | 6.0 |
| D/E Ratio (times) | **0.73** | 0.69 |

There are no significant capital regulations which are applied to the Company.

**(2) Classification of financial instruments**

**(a) Valuation techniques used to measure the fair value for the financial instruments with a carrying amount measured at fair value**

(i) Equity instruments

The fair value of marketable equity instruments is measured using quoted market prices at the end of the reporting period.

The fair value of non-marketable equity instruments is estimated using appropriate valuation techniques, such as the market approach.

(ii) Derivatives

The fair value of derivatives is measured with reference to prices provided by the counterparty and forward exchange rates.

**(b) Classification by levels in the fair value hierarchy**

The fair value hierarchy of financial instruments is classified from Level 1 to Level 3 as follows:

Level 1: Fair value measured with quoted prices in active markets for identical assets or liabilities,

Level 2: Fair value measured using inputs that are directly or indirectly observable for assets or liabilities other than those in Level 1,

Level 3: Fair value measured using inputs that are not based on observable market data for assets or liabilities.

**(c) Method to measure the changes in fair value**

FVPL: Method of measuring changes in fair value through profit or loss

FVOCI: Method of measuring changes in fair value through other comprehensive income

### (d) Carrying amounts of financial instruments by classification

The carrying amounts of financial instruments by classification as of March 31, 2019 and 2018 are as follows:

(As of March 31, 2019)

Financial assets

(Millions of Yen)

| | Carrying amount | | | |
|---|---|---|---|---|
| | | Fair value | | |
| | Amortized cost | FVPL | FVOCI | Total |
| Current assets | | | | |
| Cash and cash equivalents | **163,176** | **—** | **—** | **163,176** |
| Trade and other receivables | **900,563** | **—** | **—** | **900,563** |
| Other financial assets | **12,844** | **590** | **3,480** | **16,915** |
| Derivatives | **—** | **590** | **3,480** | **4,071** |
| Debt instruments | **12,844** | **—** | **—** | **12,844** |
| Non-current assets | | | | |
| Other financial assets | **84,211** | **—** | **728,456** | **812,668** |
| Equity instruments | **—** | **—** | **718,470** | **718,470** |
| Derivatives | **—** | **—** | **9,985** | **9,985** |
| Debt instruments | **84,211** | **—** | **—** | **84,211** |

Derivatives included in FVOCI represent the effective portion of hedging instruments designated in cash flow hedge.

The carrying amount of "Trade and other receivables" in the table above does not include the assets recognized in accordance with IFRS 15 which amounts to 67,769 million yen.

Financial liabilities

(Millions of Yen)

| | Carrying amount | | | |
|---|---|---|---|---|
| | | Fair value | | |
| | Amortized cost | FVPL | FVOCI | Total |
| Current liabilities | | | | |
| Trade and other payables | **1,611,403** | **—** | **—** | **1,611,403** |
| Bonds and borrowings | **506,571** | **—** | **—** | **506,571** |
| Other financial liabilities | | | | |
| Derivatives | **—** | **258** | **758** | **1,017** |
| Non-current liabilities | | | | |
| Bonds and borrowings | **1,815,905** | **—** | **—** | **1,815,905** |
| Other financial liabilities | | | | |
| Derivatives | **—** | **—** | **6,501** | **6,501** |
| Other non-current liabilities | **142,149** | **—** | **—** | **142,149** |

Derivatives included in FVOCI represent the effective portion of hedging instruments designated in cash flow hedge.

The carrying amount of "other non-current liabilities" in the table above does not include the liabilities recognized in accordance with IAS 19 which amounts to 24,085 million yen.

(As of March 31, 2018)

Financial assets

(Millions of Yen)

| | Carrying amount | | | |
|---|---|---|---|---|
| | | Fair value | | |
| | Amortized cost | FVPL | FVOCI | Total |
| Current assets | | | | |
| Cash and cash equivalents | 142,869 | — | — | 142,869 |
| Trade and other receivables | 832,040 | — | — | 832,040 |
| Other financial assets | 12,351 | 61 | 6,765 | 19,178 |
| Derivatives | — | 61 | 6,765 | 6,827 |
| Debt instruments | 12,351 | — | — | 12,351 |
| Non-current assets | | | | |
| Other financial assets | 74,538 | — | 933,088 | 1,007,627 |
| Equity instruments | — | — | 926,465 | 926,465 |
| Derivatives | — | — | 6,623 | 6,623 |
| Debt instruments | 74,538 | — | — | 74,538 |

Derivatives included in FVOCI represent the effective portion of hedging instruments designated in cash flow hedge.

Financial liabilities

(Millions of Yen)

| | Carrying amount | | | |
|---|---|---|---|---|
| | | Fair value | | |
| | Amortized cost | FVPL | FVOCI | Total |
| Current liabilities | | | | |
| Trade and other payables | 1,580,597 | — | — | 1,580,597 |
| Bonds and borrowings | 496,833 | — | — | 496,833 |
| Other financial liabilities | | | | |
| Derivatives | — | 329 | 344 | 674 |
| Non-current liabilities | | | | |
| Bonds and borrowings | 1,611,153 | — | — | 1,611,153 |
| Other financial liabilities | | | | |
| Derivatives | — | — | 6,572 | 6,572 |
| Other non-current liabilities | 120,156 | — | — | 120,156 |

Derivatives included in FVOCI represent the effective portion of hedging instruments designated in cash flow hedge.

The carrying amount of "Other non-current liabilities" in the table above does not include the liabilities recognized in accordance with IAS 19 which amounts to 22,971 million yen.

### (e) Financial instruments measured at fair value

The tables below represent the financial instruments measured at fair value on a recurring basis by level as of March 31, 2019 and March 31, 2018.

(As of March 31, 2019)

Financial assets measured at fair value

(Millions of Yen)

| FVPL | Level 1 | Level 2 | Level 3 | Total |
|---|---|---|---|---|
| Other financial assets | | | | |
| Derivatives | **—** | **590** | **—** | **590** |

| FVOCI | | | | |
|---|---|---|---|---|
| Other financial assets | | | | |
| Equity instruments | **638,768** | **—** | **79,702** | **718,470** |
| Derivatives | **—** | **13,466** | **—** | **13,466** |

Derivatives included in FVOCI represent the effective portion of hedging instruments designated in cash flow hedge.

Financial liabilities measured at fair value

(Millions of Yen)

| FVPL | Level 1 | Level 2 | Level 3 | Total |
|---|---|---|---|---|
| Other financial liabilities | | | | |
| Derivatives | **—** | **258** | **—** | **258** |

| FVOCI | | | | |
|---|---|---|---|---|
| Other financial liabilities | | | | |
| Derivatives | **—** | **7,260** | **—** | **7,260** |

Derivatives included in FVOCI represent the effective portion of hedging instruments designated in cash flow hedge.

(As of March 31, 2018)

Financial assets measured at fair value

(Millions of Yen)

| FVPL | Level 1 | Level 2 | Level 3 | Total |
|---|---|---|---|---|
| Other financial assets | | | | |
| Derivatives | — | 61 | — | 61 |

| FVOCI | | | | |
|---|---|---|---|---|
| Other financial assets | | | | |
| Equity instruments | 847,645 | — | 78,819 | 926,465 |
| Derivatives | — | 13,388 | — | 13,388 |

Derivatives included in FVOCI represent the effective portion of hedging instruments designated in cash flow hedge.

Financial liabilities measured at fair value

(Millions of Yen)

| FVPL | Level 1 | Level 2 | Level 3 | Total |
|---|---|---|---|---|
| Other financial liabilities | | | | |
| Derivatives | — | 329 | — | 329 |

| FVOCI | | | | |
|---|---|---|---|---|
| Other financial liabilities | | | | |
| Derivatives | — | 6,917 | — | 6,917 |

Derivatives included in FVOCI represent the effective portion of hedging instruments designated in cash flow hedge.

The changes of equity instruments measured at Level 3 are as follows:

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Balance at beginning of the year | **78,819** | 83,237 |
| Net changes in fair value | **1,122** | 1,197 |
| Acquisitions | **116** | 54 |
| Sale / settlements | **(641)** | (2,106) |
| Other | **286** | (3,562) |
| Balance at end of the year | **79,702** | 78,819 |

### (f) Equity instruments measured at fair value through other comprehensive income ("FVOCI")

(i) Fair value of significant equity instruments measured at FVOCI by name

(As of March 31, 2019)

(Millions of Yen)

| | |
|---|---|
| Toyota Motor Corporation | **80,312** |
| POSCO | **70,952** |
| Suzuki Motor Corporation | **38,006** |
| Recruit Holdings | **37,110** |
| Central Japan Railway Company | **30,633** |

(As of March 31, 2018)

(Millions of Yen)

| | |
|---|---|
| POSCO | 96,996 |
| Toyota Motor Corporation | 79,778 |
| SUMCO Corporation | 64,783 |
| Suzuki Motor Corporation | 44,462 |
| Vallourec S.A. | 37,466 |

(ii) Fair value at the time of derecognition for assets that were derecognized and cumulative gains or losses on disposal

The Group derecognizes certain financial assets that are measured at fair value through other comprehensive income as a result of disposals through sale occurring as a result of review of business relationships.

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Fair value at the time of derecognition | **83,726** | 37,532 |
| Cumulative gains or losses on disposal (net of tax) | **14,679** | 6,542 |

(iii) Dividends recognized for the equity investments measured at FVOCI during the reporting period

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Investment derecognized in the reporting period | **2,168** | 865 |
| Investment held at the end of reporting period | **17,988** | 16,967 |
| Total | **20,156** | 17,832 |

### (3) Fair value of financial instruments

Financial instruments measured at amortized cost

The fair value of financial assets and financial liabilities measured at amortized cost is as follows:

(As of March 31, 2019)

(Millions of Yen)

| | Carrying amount | Fair value | | |
|---|---|---|---|---|
| | | Level 1 | Level 2 | Level 3 |
| Financial assets (Current) | | | | |
| Other financial assets | | | | |
| Debt instruments | **12,844** | **9,498** | **0** | **3,345** |
| Financial assets (Non-current) | | | | |
| Other financial assets | | | | |
| Debt instruments | **84,211** | **11** | **7,512** | **76,699** |
| Financial liabilities (Current) | | | | |
| Bonds and borrowings | **506,571** | **60,386** | — | **446,571** |
| Financial liabilities (Non-current) | | | | |
| Bonds and borrowings | **1,815,905** | **224,669** | — | **1,618,043** |

(As of March 31, 2018)

(Millions of Yen)

| | Carrying amount | Fair value | | |
|---|---|---|---|---|
| | | Level 1 | Level 2 | Level 3 |
| Financial assets (Current) | | | | |
| Other financial assets | | | | |
| Debt instruments | 12,351 | 1,233 | 3,103 | 8,018 |
| Financial assets (Non-current) | | | | |
| Other financial assets | | | | |
| Debt instruments | 74,538 | 23 | 5,497 | 69,015 |
| Financial liabilities (Current) | | | | |
| Bonds and borrowings | 496,833 | 86,080 | — | 411,133 |
| Financial liabilities (Non-current) | | | | |
| Bonds and borrowings | 1,611,153 | 215,686 | — | 1,415,613 |

The tables do not include financial assets and liabilities measured at amortized cost whose fair values approximate their carrying amounts.

Valuation techniques used to measure the fair value of financial instruments measured at amortized cost

- The fair value of a marketable financial asset is measured with reference to its market price.
- The fair value of a non-marketable financial asset is measured with reference to the price quoted by financial institutions.
- The fair value of a bond is measured with reference to its market price.
- The fair value of a borrowing is measured at the present value of the total amounts of principal and interest discounted by the Group's incremental borrowing rate with a similar term.

**(4) Risk management**

The Group is exposed to various financial risks (market risk, credit risk and liquidity risk) arising from its business activities and implements risk management processes to minimize these financial risks.

**(a) Market risk management**

(i) Foreign currency risk

Trade receivables denominated in foreign currencies arising from exports of products are exposed to foreign currency risk.
Trade payables, notes payable and other payables are, in principle, come due within one year. Certain trade payables are denominated in foreign currencies arising from imports of raw materials and exposed to foreign currency risk.
The Group enters into forward exchange contracts and currency swaps to hedge foreign exchange risk arising from sales and capital transactions and investing and financing activities of the Group.
Derivative transactions are executed in accordance with the internal derivative transaction policy. According to the internal l derivative transaction policy, the policy for entering into a derivative transaction of financial instruments is discussed and approved by the Financial Management Committee and reported as necessary at the Board of Directors' meeting. Subsequently the Financial Controller approves the implementation of derivatives within the approved authority limits and reports that transaction amounts as well as gains or losses arising from derivative transactions to the Financial Management Committee on a regular basis.
The Group's principal foreign currency risk exposures for the years ended March 31, 2018 and 2019 are as follows:

(Millions of USD)

| | 2019 | 2018 |
|---|---|---|
| Net exposure (liability) | **78** | (174) |

Impacts on profit before income taxes in the consolidated statements of profit or loss if Japanese yen were to appreciate by 1% against the U.S. Dollar at the end of the reporting period are as follows. In this analysis, the impacts on the assets and liabilities denominated in foreign currencies as of March 31, 2018 and 2019 are estimated by assuming that variables, such as outstanding balances and interest rates, are constant.

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Impacts on profit before income taxes | **(86)** | 185 |

(ii) Interest rate risk

Certain bonds and long-term borrowings are floating-rates debts. The interest expenses vary depending on interest rates.
The Group enters into interest rate swap contracts to mitigate the risk of interest rate fluctuations.

Impacts on income taxes in the consolidated statements of profit or loss if interest rates were to increase by 1% at the end of the reporting period are as follows. In this analysis, all other variables are assumed to be constant.

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Impacts on profit before income taxes | **(6,043)** | (5,787) |

(iii) Market price fluctuation risk

Marketable equity instruments mainly represent the shares of trade counterparties for which are purchased to strengthen business alliances and are exposed to market price fluctuation risk. The Group monitors the market price on a regular basis and regularly evaluates the necessity to retain the respective investments.

**(b) Credit risk management**

In accordance with the internal credit management policy, the Group shares customer credit records with related departments, and provides for credit protection measures as necessary. Trade receivables, including notes and accounts receivable, are exposed to the credit risk of customers. The Group limits transactions to customers who are also the principal suppliers of the Group such that the trade receivables due from the customers may be offset with the trade payables and borrowings, or to customers with high credit ratings where and the Group concludes that there are limited credit risks.

(i) Credit risk exposure

The total amount of the contractual amounts of financial guarantees and loan commitments and the carrying amount of financial assets (net of impairment) represents its maximum exposure to credit risk without taking into account of any collaterals held.
For the credit risk exposure, the Group recognizes the allowance for doubtful accounts by measuring the lifetime expected credit losses.
Allowance for doubtful accounts with respect to trade receivables is assessed by multiplying the carrying amount of trade receivables by the rate of historical credit losses on an individual basis.

(ii) Financial assets subject to allowance for doubtful accounts

The aging of trade and other receivables is as follows:

(Millions of Yen)

| Days past due | 2019 | 2018 |
|---|---|---|
| Current | **964,845** | 831,985 |
| Within 90 days | **4,991** | 1,684 |
| Over 90 days and within 1 year | **729** | 363 |
| Over 1 year | **173** | 108 |
| Total | **970,740** | 834,142 |

(iii) Changes in allowance for doubtful accounts

The changes in allowance for doubtful accounts are as follows:

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Balance at beginning of the year | **5,878** | 5,854 |
| Increase during the year | **1,776** | 1,529 |
| Decrease during the year | **(696)** | (1,513) |
| Other | **183** | 7 |
| Balance at end of the year | **7,142** | 5,878 |

**(c) Liquidity risk management**

The Group manages its liquidity risk on financing activities (the risk that debts cannot be paid by the due dates) by preparing and regularly updating a cash flow forecast based on the reports obtained from respective departments. Furthermore, the Group has a line of credit to cover for unforeseen circumstances.

The figures below show the remaining amount of the Group's financial liabilities by contractual maturity at the end of the reporting period, but do not contain financial guarantees where the Group is obligated to make payments on the obligations arising from financial guarantee contracts. The maximum amounts of guarantees that are extended by the Group are described in Note 36"Loan Guarantees".

(As of March 31, 2019)

(Millions of Yen)

| | Carrying amount | Total contractual cash flow | Within 1 year | Over 1 year but within 5 years | Over 5 years |
|---|---|---|---|---|---|
| Trade and other payables | **1,611,403** | **1,611,403** | **1,611,403** | **—** | **—** |
| Borrowings | **1,922,476** | **1,922,476** | **326,571** | **657,235** | **938,670** |
| Bonds | **280,000** | **280,000** | **60,000** | **100,000** | **120,000** |
| Lease liabilities | **46,754** | **46,754** | **8,783** | **21,034** | **16,936** |
| Commercial paper | **120,000** | **120,000** | **120,000** | **—** | **—** |
| Derivatives | **7,519** | **7,019** | **2,656** | **4,363** | **—** |
| Total | **3,988,154** | **3,987,654** | **2,129,414** | **782,633** | **1,075,606** |

(As of March 31, 2018)

(Millions of Yen)

| | Carrying amount | Total contractual cash flow | Within 1 year | Over 1 year but within 5 years | Over 5 years |
|---|---|---|---|---|---|
| Trade and other payables | 1,580,597 | 1,580,597 | 1,580,597 | — | — |
| Borrowings | 1,723,290 | 1,723,290 | 322,133 | 584,131 | 817,024 |
| Bonds | 295,696 | 295,700 | 85,700 | 140,000 | 70,000 |
| Lease liabilities | 49,768 | 49,768 | 8,550 | 22,582 | 18,635 |
| Commercial paper | 89,000 | 89,000 | 89,000 | — | — |
| Derivatives | 7,246 | 8,080 | 2,279 | 5,478 | 323 |
| Total | 3,745,600 | 3,746,436 | 2,088,260 | 752,192 | 905,983 |

### (5) Derivatives

#### (a) Impacts on the consolidated statement of financial position

(i) Derivative assets and liabilities designated as hedging instruments

(As of March 31, 2019)

(Millions of Yen)

| Types of hedges | Derivative assets and liabilities | Notional amount: Total | Notional amount: Settlement in excess of one year | Carrying amount (Fair value): Assets | Carrying amount (Fair value): Liabilities |
|---|---|---|---|---|---|
| Cash flow hedge | Foreign exchange forward contract | **217,369** | **6,762** | **1,752** | **750** |
| | Interest rate swap | **264,704** | **252,848** | **730** | **6,509** |
| | Currency swap | **67,353** | **66,280** | **9,462** | **—** |
| | Commodity swap | **2,529** | **1,058** | **1,519** | **—** |
| | Total | **551,957** | **326,949** | **13,466** | **7,260** |

(As of March 31, 2018)

(Millions of Yen)

| Types of hedges | Derivative assets and liabilities | Notional amount: Total | Notional amount: Settlement in excess of one year | Carrying amount (Fair value): Assets | Carrying amount (Fair value): Liabilities |
|---|---|---|---|---|---|
| Cash flow hedge | Foreign exchange forward contract | 246,189 | 9,113 | 1,069 | 303 |
| | Interest rate swap | 275,939 | 258,741 | 601 | 6,613 |
| | Currency swap | 83,244 | 67,353 | 11,665 | — |
| | Commodity swap | 321 | 217 | 52 | — |
| | Total | 605,695 | 335,425 | 13,388 | 6,917 |

The carrying amount (fair value) of derivative assets are included in "Other financial assets". The carrying amount (fair value) of derivative liabilities are included in "Other financial liabilities". The changes in the fair value of the hedged item that are used as the basis for recognition of the ineffective portion is not disclosed as the amount is immaterial.

(ii) Derivative assets and liabilities not designated as hedges

(Millions of Yen)

| | As of March 31, 2019: Assets | As of March 31, 2019: Liabilities | As of March 31, 2018: Assets | As of March 31, 2018: Liabilities |
|---|---|---|---|---|
| Foreign exchange forward contract | **492** | **248** | 4 | 381 |
| Interest swap | — | — | 2 | — |
| Currency swap | **97** | **10** | 118 | 11 |
| Total | **590** | **258** | 124 | 392 |

#### (b) Changes in fair value of cash flow hedges

The changes in fair value of hedging instruments designated as cash flow hedges of the Group recognized in other comprehensive income in the consolidated statements of comprehensive income or loss are as follows.

(Year ended March 31, 2019)

(Millions of Yen)

| Risk classification | Beginning of the year | Changes in fair value of cash flow hedge recognized in the other comprehensive income | Amount transferred to profit or loss from other components of equity as a reclassification adjustment | End of the year | The account in which the reclassification adjustment to profit or loss is recognized |
|---|---|---|---|---|---|
| Foreign currency risk | **426** | **4,407** | **(4,186)** | **646** | Other operating income/Other operating expenses |
| Interest rate risk | **(5,559)** | **228** | **5** | **(5,326)** | Finance income/ Finance costs |
| Other | **52** | **1,519** | **(52)** | **1,519** | — |
| Total | **(5,080)** | **6,155** | **(4,234)** | **(3,159)** | |

(Year ended March 31, 2018)

(Millions of Yen)

| Risk classification | Beginning of the year | Changes in fair value of cash flow hedge recognized in the other comprehensive income | Amount transferred to profit or loss from other components of equity as a reclassification adjustment | End of the year | The account in which the reclassification adjustment to profit or loss is recognized |
|---|---|---|---|---|---|
| Foreign currency risk | (682) | (3,626) | 4,734 | 426 | Other operating income/Other operating expenses |
| Interest rate risk | (6,762) | 1,222 | (18) | (5,559) | Finance income/ Finance costs |
| Other | 37 | 52 | (37) | 52 | — |
| Total | (7,407) | (2,351) | 4,678 | (5,080) | |

## 34. RELATED PARTIES

### (1) Related party transactions

Details of significant transactions with related parties are as follows:

(Year ended March 31, 2019)

(Millions of Yen)

| Category | Name | Description of transaction | Amount | Account | Outstanding balance |
|---|---|---|---|---|---|
| Associate | Nippon Steel & Sumikin Bussan Corporation | Sells steel products | **1,170,241** | Trade and other receivables | **46,251** |

The terms and conditions applied to related party transactions are determined based on terms equivalent to those that prevail in arm's length transactions.

(Year ended March 31, 2018)

(Millions of Yen)

| Category | Name | Description of transaction | Amount | Account | Outstanding balance |
|---|---|---|---|---|---|
| Associate | Nippon Steel & Sumikin Bussan Corporation | Sells steel products | 849,244 | Trade and other receivables | 39,236 |

The terms and conditions applied to related party transactions are determined based on terms equivalent to those that prevail in arm's length transactions.

### (2) Key management personnel compensation

Compensation paid to the directors of the Group is as follows:

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Salary | **935** | 857 |

## 35. COMMITMENTS

Significant commitments related to the acquisition of assets are as follows:

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Contractual commitments related to acquisition of property, plant and equipment and intangible assets | **393,230** | 316,808 |

## 36. LOAN GUARANTEES

The Group provides guarantees for the bank loans of its joint ventures and associates which would require the Group to repay the loan in the event of a default.

(Millions of Yen)

| | 2019 | 2018 |
|---|---|---|
| Guarantees for the bank loans of joint ventures and associates | **62,506** | 82,721 |

## 37. SUBSEQUENT EVENTS

There are no material subsequent events.



# Independent Auditor's Report

KPMG

**Independent Auditor's Report**

To the Shareholders and the Board of Directors of Nippon Steel Corporation:

We have audited the accompanying consolidated financial statements of Nippon Steel Corporation and its consolidated subsidiaries, which comprise the consolidated statements of financial position as at March 31, 2019 and 2018, and the consolidated statements of profit or loss, statements of comprehensive income or loss, statements of changes in equity and statements of cash flows for the years then ended , and a significant accounting policies and other explanatory information.

**Management's Responsibility for the Consolidated Financial Statements**

Management is responsible for the preparation and fair presentation of these consolidated financial statements in accordance with International Financial Reporting Standards, and for such internal control as management determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

**Auditor's Responsibility**

Our responsibility is to express an opinion on these consolidated financial statements based on our audits. We conducted our audits in accordance with auditing standards generally accepted in Japan. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the consolidated financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the consolidated financial statements. The procedures selected depend on our judgment, including the assessment of the risks of material misstatement of the consolidated financial statements, whether due to fraud or error. In making those risk assessments, we consider internal control relevant to the entity's preparation and fair presentation of the consolidated financial statements in order to design audit procedures that are appropriate in the circumstances, while the objective of the financial statement audit is not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

**Opinion**

In our opinion, the consolidated financial statements present fairly, in all material respects, the financial position of Nippon Steel Corporation. and its consolidated subsidiaries as at March 31, 2019 and 2018, and their financial performance and cash flows for the years then ended in accordance with International Financial Reporting Standards.

KPMG AZSA LLC

June 25, 2019
Tokyo, Japan

# Principal Subsidiaries and Affiliates (As of March 31, 2019)

| Company | Paid-in Capital (Millions of yen) | Shareholding Ratio(%) | Business Content |
|---|---|---|---|
| **Steelmaking and Steel Fabrication (453 companies)** | | | |
| **Consolidated Subsidiaries (347 companies)** | | | |
| Sanyo Special Steel Co., Ltd. | 53,800 | 50.3 | Makes and markets special steel products |
| Nisshin Steel Co., Ltd. | 30,000 | 100.0 | Makes and markets ordinary steel, stainless steel and specialty steel |
| Nippon Steel & Sumikin Coated Sheet Corporation | 12,588 | 100.0 | Makes and markets galvanized sheets, prepainted galvanized sheets, coated sheets, and construction materials |
| Osaka Steel Co., Ltd. | 8,769 | 60.9 | Makes and markets shapes, bars, and billets |
| Nippon Steel & Sumikin Metal Products Co., Ltd. | 5,912 | 100.0 | Makes and markets structural materials for buildings and civil engineering work, prepainted galvanized sheets, steelmaking fluxes, and CC powders |
| Nippon Steel & Sumikin Pipe Co., Ltd. | 5,831 | 100.0 | Makes, coats and markets steel pipes and tubes |
| Krosaki Harima Corporation | 5,537 | 42.9 | Makes, markets and constructs refractories |
| Nippon Steel & Sumikin Texeng Co., Ltd. | 5,468 | 100.0 | Conducts engineering, maintenance, and operations relating to machinery, electrical instrumentation, systems, and construction for steel-production and other facilities |
| Nippon Steel & Sumikin Stainless Steel Corporation | 5,000 | 100.0 | Makes and markets stainless steel |
| Nippon Steel & Sumikin Logistics Co., Ltd. | 4,000 | 100.0 | Undertakes ocean and land transportation and warehousing |
| Nippon Steel & Sumikin SG Wire Co., Ltd. | 3,634 | 100.0 | Makes and markets bars and wire rods |
| Geostr Corporation | 3,352 | 42.0 | Makes and markets concrete and metal products for civil engineering and building construction work |
| Nippon Steel and Sumikin Welding Co., Ltd. | 2,100 | 100.0 | Makes and markets welding materials and apparatuses |
| Nippon Steel & Sumikin Drum Co., Ltd. | 1,654 | 100.0 | Makes and markets drums |
| Nippon Steel & Sumikin Blast Furnace Slag Cement Co., Ltd. | 1,500 | 100.0 | Makes and markets cement and steelmaking slag and calcined lime products |
| Nippon Steel & Sumikin Cement Co., Ltd. | 1,500 | 85.0 | Makes and markets cement |
| Nippon Steel & Sumikin Finance Co., Ltd. | 1,000 | 100.0 | Engages in the Group's financing operations |
| Nippon Steel & Sumikin Stainless Steel Pipe Co., Ltd. | 916 | 100.0 | Makes and markets stainless-steel pipes |
| Nippon Steel & Sumikin Steel Wire Co., Ltd. | 697 | 51.0 | Makes and markets secondary products using bars and wire rods |
| Nippon Steel & Sumikin Eco-Tech Corporation | 500 | 84.2 | Designs, builds, operates, maintains, and manages water-treatment and other systems; designs civil-engineering projects; and performs environmental and chemical analysis |
| Nippon Steel & Sumikin Bolten Corporation | 498 | 85.0 | Makes and markets high-tension bolts, etc. |
| Nippon Steel & Sumikin Shapes Corporation | 400 | 100.0 | Makes and markets H-beams |
| NIPPON STEEL AND SUMIKIN TUBOS DO BRASIL LTDA. | R$2,002 million | 100.0 | Markets seamless steel pipe |
| NS-Siam United Steel Co., Ltd. | THB13,007 million | 80.2 | Makes and markets cold-rolled sheets and galvanized sheets |
| National Pipe Company Limited | SAR200 million | 51.0 | Makes and markets primarily steel line pipes |
| Standard Steel, LLC | US$47 million | 100.0 | Makes and markets railway wheels and axles |
| NIPPON STEEL & SUMITOMO METAL U.S.A., INC. | US$40 million | 100.0 | Invests companies in North American region focusing on U.S. and gathers information |
| PT. PELAT TIMAH NUSANTARA TBK. | US$26 million | 35.0 | Makes and markets tinplate |
| NIPPON STEEL & SUMITOMO METAL (Thailand) Co., Ltd. | THB718 million | 100.0 | Gathers information in Asian region focusing on Thailand |
| NIPPON STEEL & SUMITOMO METAL Australia Pty. Limited | A$21 million | 100.0 | Participates in mine development in Australia and gathers information |
| NIPPON STEEL & SUMIKIN Steel Processing (Thailand) Co., Ltd. | THB571 million | 66.5 | Makes and markets cold-heading wire and cold-finished bars |
| Ovako AB | Euro60 thousand | 100.0 | Makes and markets special steel and secondarily processed products |

315 other companies





| Company | Paid-in Capital (Millions of yen) | Shareholding Ratio(%) | Business Content |
|---|---|---|---|
| **Steelmaking and Steel Fabrication (453 companies)** | | | |
| **Affiliates Accounted for by the Equity Method (106 companies)** | | | |
| Godo Steel, Ltd. | 34,896 | 15.2 | Makes and markets shapes, rails, bars, billets and wires |
| Topy Industries Ltd. | 20,983 | 20.3 | Makes and markets shapes, bars, and industrial machine parts |
| Kyoei Steel Ltd. | 18,515 | 25.8 | Makes and markets shapes, steel bars, and billets; processes and markets steel |
| Nippon Steel & Sumikin Bussan Corporation | 16,389 | 35.0 | Markets, imports and exports steel, industrial machinery and infrastructures, textiles, foods, and other products |
| Nippon Denko Co., Ltd. | 11,026 | 20.9 | Makes and markets ferroalloy/functional materials, environmental business and electric supply business |
| Nichia Steel Works, Ltd. | 10,720 | 22.6 | Makes and markets bolts and wire products |
| NS United Kaiun Kaisha, Ltd. | 10,300 | 32.8 | Undertakes ocean transportation |
| Unipres Corporation | 10,136 | 16.3 | Manufactures and sell automotive parts |
| Osaka Titanium technologies Co., Ltd. | 8,739 | 23.9 | Makes and markets metal titanium, polysilicon, high-functioning materials developed from titanium and silicon for new applications |
| Nippon Coke & Engineering Company Limited | 7,000 | 21.7 | Markets coal; makes and markets coke |
| Japan Casting & Forging Corporation | 6,000 | 42.0 | Makes and markets casting, forgings, ingots and billets |
| Sanko Metal Industrial Co., Ltd. | 1,980 | 32.0 | Makes, processes, installs and sells metal roofs and building materials |
| Sanyu Co., Ltd. | 1,513 | 34.5 | Makes and markets cold-finished bars and cold-heading wire |
| Nihon Teppan Co., Ltd. | 1,300 | 34.0 | Markets, processes, and imports and exports steel products, metal processing machines, and electrical/electronic devices |
| Usinas Siderúrgicas de Minas Gerais S.A.-USIMINAS | R$13,200 million | 31.2 | Makes and markets steel products |
| VALLOUREC SOLUÇÕES TUBULARES DO BRASIL S.A. | R$8,688 million | 15.0 | Makes seamless steel pipe |
| Baosteel-NSC Automotive Steel Sheets Co., Ltd. | RMB3,000 million | 50.0 | Makes and markets automotive steel sheets |
| WISCO-NIPPON STEEL Tinplate Co., Ltd. | RMB2,310 million | 50.0 | Makes and markets tinplate and tinplate sheets |
| Jamshedpur Continuous Annealing & Processing Company Private Limited | INR12,330 million | 49.0 | Makes and markets automotive cold-rolled steel sheets |
| UNIGAL Ltda. | R$584 million | 30.0 | Makes galvanized sheets |
| Companhia Nipo-Brasileira De Pelotizacao | R$432 million | 33.0 | Holding and leasing of manufacturing facilities of pellets |
| Guangzhou Pacific Tinplate Co., Ltd. | US$36 million | 25.0 | Makes and markets tinplate |

84 other companies

| Company | Paid-in Capital (Millions of yen) | Shareholding Ratio(%) | Business Content |
|---|---|---|---|
| **Engineering and Construction (37 companies)** | | | |
| **Consolidated Subsidiaries (33 companies)** | **Affiliates Accounted for by the Equity Method (4 companies)** | | |
| Nippon Steel & Sumikin Engineering Co., Ltd. | 15,000 | 100.0 | Makes and markets industrial machinery and equipment and steel structures; undertakes civil engineering and building constructions work; waste and regeneration treatment business; electricity, gas, and heat supply business |

36 other companies

| Company | Paid-in Capital (Millions of yen) | Shareholding Ratio(%) | Business Content |
|---|---|---|---|
| **Chemicals and Materials (27 companies)** | | | |
| **Consolidated Subsidiaries (20 companies)** | **Affiliates Accounted for by the Equity Method (7 companies)** | | |
| NIPPON STEEL Chemical & Material Co., Ltd. | 5,000 | 100.0 | Makes and markets coal chemicals, petrochemicals, electronic materials, semiconductor components and materials, electronic components and materials, carbon-fiber composite products, and metal-processed products |

26 other companies

| Company | Paid-in Capital (Millions of yen) | Shareholding Ratio(%) | Business Content |
|---|---|---|---|
| **System Solutions (21 companies)** | | | |
| **Consolidated Subsidiaries (20 companies)** | **Affiliates Accounted for by the Equity Method (1 company)** | | |
| NS Solutions Corporation | 12,952 | 61.3 | Provides engineering and consulting pertaining to computer systems, outsourcing and other services using IT |

20 other companies

Other (1 company)

**Affiliates Accounted for by the Equity Method (1 company)**

Total consolidated subsidiaries: 420 companies

Total equity-method affiliates (consisting of associates and joint ventures accounted for by the equity method as well as joint operations) : 119 companies

Financial Information

# Total Shareholder Return, Stock Price and Market Cap, and Strategic Shareholdings

| FY | 2014 | 2015 | 2016 | 2017 | 2018 |
|---|---|---|---|---|---|
| Total shareholder return (TSR) (%) | 109.2 | 80.2 | 96.1 | 90.5 | **79.8** |
| (Comparative indicator: Dividend-included TOPIX; %) | (130.7) | (116.5) | (133.7) | (154.9) | **(147.1)** |
| Highest share price (¥) | 333.0 | 350.5 | 2,912.0 | 3,132.0 | **2,527.0** |
| (After the 1-for-10 share consolidation on October 1, 2015; ¥) | | (2,608.0) | | | |
| Lowest share price (¥) | 243.3 | 225.3 | 1,787.5 | 2,228.0 | **1,794.0** |
| (After the 1-for-10 share consolidation on October 1, 2015; ¥) | | (1,773.5) | | | |
| Market cap (as of fiscal year end; ¥ bn) | 2,874.7 | 2,054.5 | 2,437.5 | 2,220.4 | **1,856.9** |
| Strategic shareholding : Number of issues<br>Recorded amount | 430 | 408 | 372 | 361 | **345** |
| Amount reported on the balance sheet (¥ bn) | 587.5 | 441.8 | 603.4 | 635.9 | **464.8** |
| Nikkei Stock Average (as of fiscal year end; ¥) | 19,206.99 | 16,758.67 | 18,909.26 | 21,454.30 | **21,205.81** |

1: Total shareholder return is obtained by dividing return (dividend and capital gains) from stock investment by the invested amount (stock price). Calculated based on Cabinet Office Order on Disclosure of Corporate Affairs.
TSR = (Stock price at end of each fiscal year + Cumulative per-share dividends paid since FY2014)/ Price at the end of FY2013
2: TOPIX tracks all domestic companies listed in the First Section of the Tokyo Stock Exchange
3. Nippon Steel performed a 1-for-10 share consolidation on October 1, 2015. The share prices in fiscal 2015 indicate the year's high and low before the share consolidation. The year's high and low after the share consolidation are in parentheses.

# Investor Information (As of March 31, 2019)





## Head Office

2-6-1, Marunouchi, Chiyoda-ku,
Tokyo 100-8071, Japan
Phone: +81-3-6867-4111
URL: https://www.nipponsteel.com/en/

## Inception

April 1, 1950

## Common Stock

¥419,524 million

## Stock Code

5401

## Common Shares (Issued)

950,321,402 shares

## Common Shares (Authorized)

2,000,000,000 shares

## Number of Shareholders

453,253

## Listings

Tokyo Stock Exchange
Nagoya Stock Exchange
Fukuoka Stock Exchange
Sapporo Securities Exchange

## ADR Information

Trading market: OTC (Over-the-counter)
ADR ratio: 1 ADR: 1 share of common stock
Ticker symbol: NPSCY
OUSIP number: 65461T101
Depositary bank: JPMorgan Chase Bank, N.A.

Contact for inquiries regarding our ADR program:
JPMorgan Chase Bank N.A.
P.O. Box 64504
St. Paul, MN 55164-0504, U.S.A.
Phone: +1-800-990-1135
(Toll-free within the U.S.A.)
+1-651-453-2128 (Outside the U.S.A.)
E-mail: jpmorgan.adr@eq-us.com

## Registration Agent

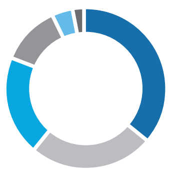
Sumitomo Mitsui Trust Bank, Limited
1-4-1, Marunouchi, Chiyoda-ku,
Tokyo 100-0005, Japan
Phone inquiries 0120-785-401
(Toll-free for domestic phone calls only)
+81-3-3323-7111 (Outside Japan)

## Number of Shares per Trading Unit

100 shares

## Share Ownership by Category

(Ratio of shares held to the total number of common shares (issued))



- Financial institutions 36%
- Overseas investors 25%
- Individuals and others in Japan 20%
- Other companies 12%
- Securities companies 4%
- Treasury stock 3%

## Principal Shareholders

| Name | Shares owned (Thousands) | Shareholding ratio (%)* |
|---|---|---|
| Japan Trustee Services Bank, Ltd. (Trust Account) | 48,028 | 5.2 |
| The Master Trust Bank of Japan, Ltd. (Trust Account) | 46,976 | 5.1 |
| Nippon Life Insurance Company | 24,532 | 2.7 |
| Japan Trustee Services Bank, Ltd. (Trust Account 5) | 18,034 | 2.0 |
| Japan Trustee Services Bank, Ltd. (Trust Account 9) | 16,537 | 1.8 |
| Sumitomo Corporation | 16,239 | 1.8 |
| Sumitomo Mitsui Banking Corporation* | 14,647 | 1.6 |
| Meiji Yasuda Life Insurance Company | 14,064 | 1.5 |
| MUFG Bank, Ltd. | 13,957 | 1.5 |
| JPMorgan CHASE BANK 385151 | 12,621 | 1.4 |

*The shareholding ratio is calculated after treasury stock owned by Nippon Steel Corporation is excluded from the number of common shares (issued).





### Overview of corporate communication tools

**Corporate Website**

The website comprehensively describes the nature of company operations, general aspects of the company, IR information, hiring information, and ESG information.

https://www.nipponsteel.com/en/

**Integrated Report**

This report conveys overall business and management information to investors.

https://www.nipponsteel.com/en/ir/library/annual_report.html

**Sustainability Report**

This report describes Nippon Steel's Environmental, Social, and Governance initiatives.

https://www.nipponsteel.com/en/csr/

**Various reports for investors**

- Basic Facts About Nippon Steel
- Financial Results Summary
- Corporate Governance Report
- Documents related to the General Meeting of Shareholders, etc.



### Disclaimer regarding forward looking statements

This integrated report is not disclosure document statutory required by the Act on Financial Instruments and Exchange and other laws and does not guarantee accuracy and completeness of the information. This report contains statements that constitute forward looking statements including expectations based on the assumptions, projections, and plans as of the published date of this report. It should be noted that actual business results and other matters could differ materially from the details contained in this report.
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