

**KOBELCO Group  
Integrated Report 2021**

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Director, Executive Officer  
**Yoshihiko Katsukawa**



Executive Vice President and Representative Director  
**Fusaki Koshiishi**



President, CEO and Representative Director  
**Mitsugu Yamaguchi**



Executive Vice President and Representative Director  
**Koichiro Shibata**



Director, Executive Officer  
**Hajime Nagara**



Independent Director  
**Yumiko Ito**



# To Continue to be Indispensable to Customers and Society



Independent Director  
**Takao Kitabata**



Independent Director  
**Hiroyuki Bamba**



Director (Audit & Supervisory Committee Member)  
**Hiroshi Ishikawa**



Independent Director (Audit & Supervisory Committee Member)  
**Masaaki Kono**



Independent Director (Audit & Supervisory Committee Member)  
**Yoshiiku Miyata**



Director (Audit & Supervisory Committee Member)  
**Yasushi Tsushima**



Independent Director (Audit & Supervisory Committee Member)  
**Kunio Miura**

# Dedicating Our Heart and Soul

## Sustainability Management

The KOBELCO Group's wish is to contribute to a world in which people, now and in the future, can fulfill their hopes and dreams while enjoying safe, secure, and prosperous lives. We will pour our heart and soul to accelerate our efforts for sustainability management based on the distinctive technologies we have cultivated over the 100-year history of the KOBELCO Group.



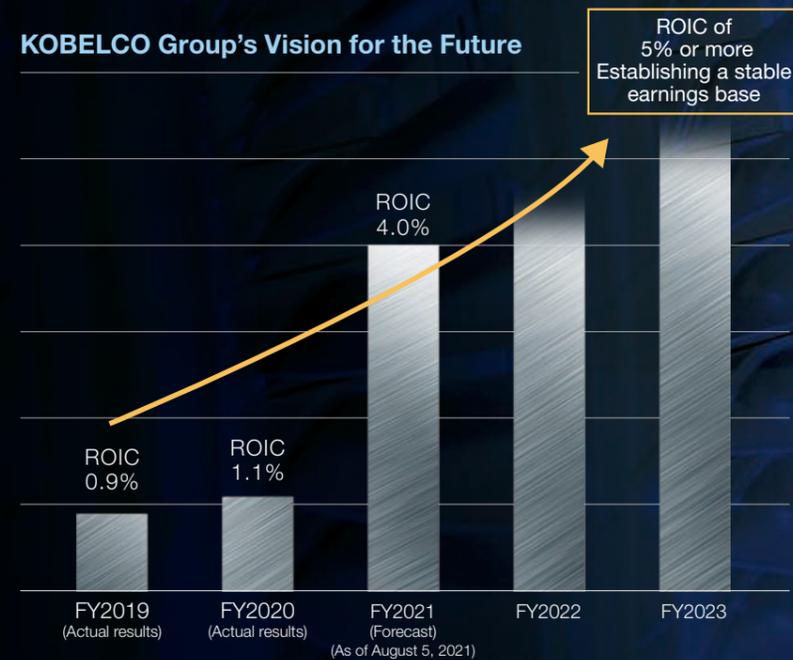
KOBELCO Group's Corporate Philosophy	
<b>KOBELCO's View of the Future</b>	<p><b>Our view of a society and future to be attained as we carry out KOBELCO's Mission</b></p> <p>We envision a world in which people, now and in the future, can fulfill their hopes and dreams while enjoying safe, secure, and prosperous lives.</p>
<b>KOBELCO's Mission</b>	<p><b>Our mission and the social significance of the KOBELCO Group that we must fulfill</b></p> <p>Our mission is to provide solutions to the needs of society, by making the best use of the talents of our employees and our technologies.</p>
<b>Core Values of KOBELCO</b>	<p><b>The commitments of the KOBELCO Group to society and the values shared by the entire KOBELCO Group</b></p> <ol style="list-style-type: none"> <li>1. We provide technologies, products and services that win the trust and confidence of our customers we serve and the society in which we live.</li> <li>2. We value, and support the growth of, each employee on an individual basis, while creating a cooperative and harmonious environment.</li> <li>3. Through continuous and innovative changes, we create new values for the society of which we are a member.</li> </ol>
<b>Six Pledges of KOBELCO</b>	<p><b>Code of Conduct for all Group employees to follow to fulfill the Core Values of KOBELCO and the Quality charter</b></p> <ol style="list-style-type: none"> <li>1. Uphold the Highest Sense of Ethics and Professionalism</li> <li>2. Contribute to the Society by Providing Superior Products and Services <a href="#">Quality Charter</a></li> <li>3. Establish a Comfortable but Challenging Work Environment</li> <li>4. Live in Harmony with the Local Community</li> <li>5. Contribute to a Sustainable Environment</li> <li>6. Respect Each Stakeholder</li> </ol>

# Regaining Our Foothold

## Establishing a Stable Earnings Base

Aiming to regain the ability to generate earnings that is not affected by the external environment, we will make determined efforts to establish a stable earnings base and return to a growth trajectory leading to the sustainable growth of the KOBELCO Group.

### KOBELCO Group's Vision for the Future



Transforming KOBELCO into a corporate group that achieves sustainable growth and maintaining a **ROIC of 8% or more on a stable basis**

Solving social issues and creating economic value through business activities

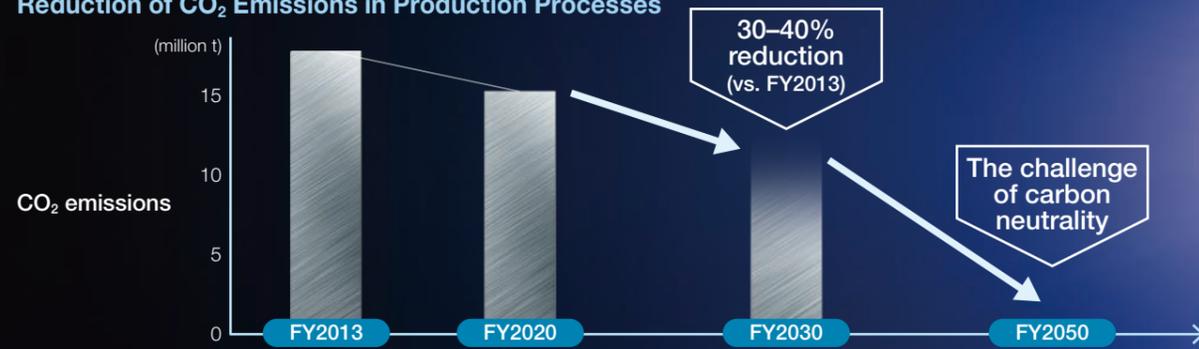
# Taking Bold Steps Toward the Future

## Taking on the Challenge of Realizing Carbon Neutrality

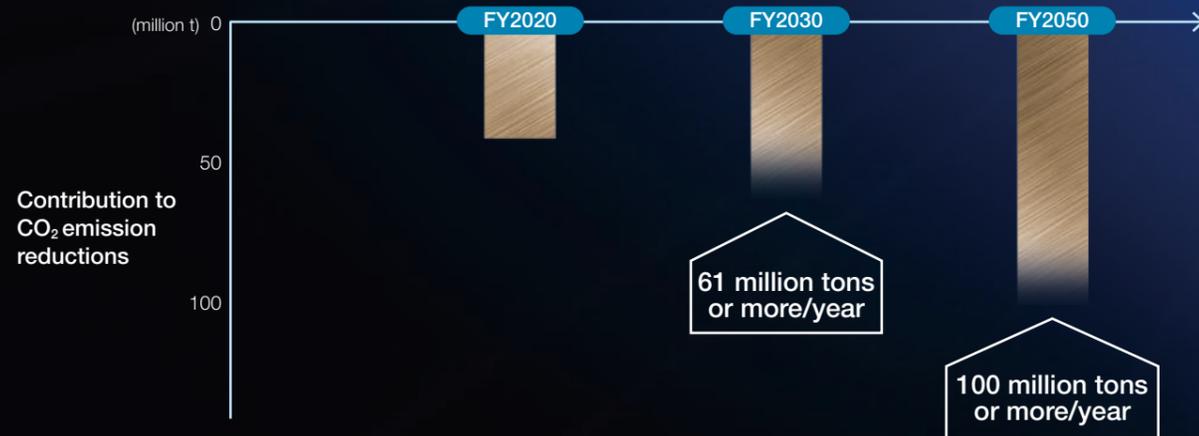
Achieving carbon neutrality is a challenge for the KOBELCO Group, but at the same time it presents us an enormous business opportunity.

We will contribute to the realization of a carbon-neutral society by reducing CO<sub>2</sub> emissions from our production processes by integrating our Group's technologies, as well as through our unique technologies, products, and services.

### Reduction of CO<sub>2</sub> Emissions in Production Processes



### Contribution to Reduction of CO<sub>2</sub> Emissions through Technologies, Products, and Services



# Transforming KOBELCO



## Dedicating utmost efforts to transform the KOBELCO Group toward the goals of the new Medium-Term Management Plan

Three years have passed since I took office as president in 2018. With the firm resolve to transform the KOBELCO Group, I have been making serious efforts to prevent the recurrence of the quality misconduct that prompted me to assume the presidency of the Company. We needed to prove that the Company has really changed to society. It was not only about resolving the quality misconduct, but also changing the corporate culture—the root cause of the incident. Our corporate culture was based on siloed business operations. The business was segmented and separately carried out by respective business divisions that handle materials, machinery, and electric power. At that time, we had no clear perspectives in terms of what the KOBELCO Group aims to achieve.

In order to remove the barriers between business divisions, we launched a project to create our corporate philosophy. In its formulation process, we emphasized a bottom-up approach so that employees could pour their hearts and souls into what they create. Through this process the corporate philosophy was completed, and it has now gained recognition and empathy among employees through the companywide initiative to promote dialogues and has started to take root as our new corporate culture. As a benefit of this, the Company is becoming a more open organization where discussions and cooperation are taking place across business divisions.

The KOBELCO Group possesses diverse technologies and human resources. Opportunities for new value creation are being produced from the cross-sectoral sharing and integration of various technologies and expertise. Recently, we identified issues of materiality to achieve our mission and vision expressed in the Group Corporate Philosophy. The Materiality presents a list of priority issues, including “contributing to a green society.” I believe addressing these issues will lead to the KOBELCO Group’s great leaps forward.

On the other hand, we are facing a harsh reality that we need to restore our unstable earnings base—a remaining issue from the previous Medium-Term Management Plan (FY2016–2020). To shore up medium- to long-term value creation, we first must achieve the establishment of a stable earnings base under the new Medium-Term Management Plan (FY2021–2023) and ensure that earnings are strong enough to generate ROIC of at least 5% by fiscal 2023.

We recognize that accomplishing the two priority themes of establishing a stable earnings base and taking on the challenge of realizing carbon neutrality, announced in the new Medium-Term Management Plan, is the minimum requirements for the KOBELCO Group to survive and develop as a corporation in the market. I believe it is my mission to make utmost efforts to achieve these goals.

A handwritten signature in black ink that reads "M. Yamaguchi".

Mitsugu Yamaguchi  
President, CEO and  
Representative Director

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## Editorial Policy

The KOBELCO Group is committed to dialogue with all of its stakeholders. As part of its commitment, the Group has been publishing integrated reports since fiscal 2018. The aim is to provide a comprehensive understanding of the economic and social value created by the Group by reporting on its management strategies, business activities, social activities, and environmental activities.

We hope that this report will lead to a greater understanding among all of our stakeholders of our efforts to achieve sustainable growth through the promotion of sustainability management.

## Scope of Reporting

In principle, this Integrated Report covers the activities of Kobe Steel, Ltd. and its Group companies in Japan and overseas.

## Period of Reporting

This Integrated Report covers fiscal 2020, (April 1, 2020–March 31, 2021). However, when necessary, this Integrated Report refers to fiscal years before and after the period.

In fiscal 2020, Kobe Steel reorganized the Iron & Steel Business and the Aluminum & Copper Business into two new business divisions, the Steel & Aluminum Business and the Advanced Materials Business, to focus on materials and parts, respectively.

## Integrated Report 2021 Production Process

1. Since fiscal 2018, former three reports—the Group Profile, the Annual Report, and the Sustainability Report—have been combined into the Integrated Report.
2. After publishing *Integrated Report 2020*, we asked analysts, institutional investors, Group employees, and other internal and external stakeholders to give their frank opinions and comments on the report. We also applied for awards offered by outside organizations for relative assessment of the report.
3. In light of these assessments for the previous report, the Integrated Report Editorial Subcommittee under the Sustainability Management Committee wrote a draft of this report in cooperation with the Head Office departments and business divisions.
4. We completed *Integrated Report 2021* through discussions with the management team at the Sustainable Management Committee meetings and other occasions.

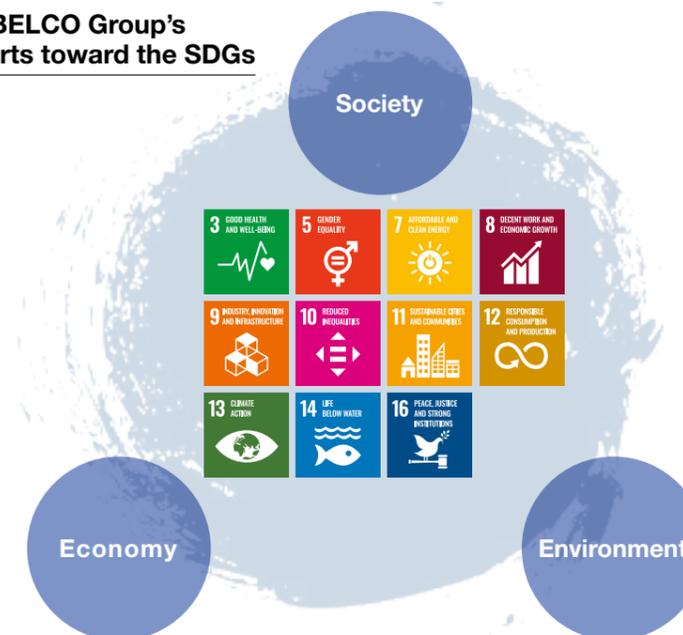
## Disclaimer Regarding Forward-Looking Statements

This Integrated Report contains forward-looking statements about the Company's forecasts, beliefs, expectations, aims, and strategies. These forward-looking statements are based on the Company's judgments and assumptions using currently available information, and these forecasts may differ substantially from actual results due to a variety of factors that may change over time, such as uncertainties within its judgments and assumptions, future business operations, and changes in conditions inside and outside the Group. Kobe Steel assumes no responsibility for revising these forward-looking statements or other content in this report.

Below is a list of factors that may contribute to these uncertainties and changes. This includes but not limited to:

- Changes in economic conditions, demand, and prices in major markets
- Political situations in major markets and regulations, including trade regulations
- Fluctuations in foreign exchange rates
- Availability and prices of raw materials
- Products and services, price strategies of competitors, business developments including alliances and M&A
- Changes in strategies of the Company's alliance partners

## KOBELCO Group's Efforts toward the SDGs



## Referenced Guidelines

- Sustainability Reporting Standards of the Global Reporting Initiative (GRI)
- ISO 26000 (Guidance on social responsibility)
- International Integrated Reporting Framework of the International Integrated Reporting Council (IIRC)
- Guidance for Integrated Corporate Disclosure and Company-Investor Dialogues for Collaborative Value Creation of the Ministry of Economy, Trade and Industry

## Initiatives We Value

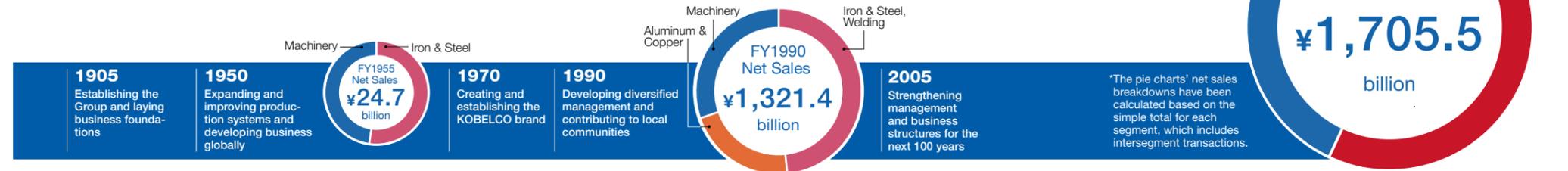
- United Nations Global Compact
- Sustainable Development Goals
- Recommendations by the Task Force on Climate-related Financial Disclosures (TCFD)



# History of the KOBELCO Group

# Celebrates 115th anniversary

In 1905, the general partnership trading company Suzuki Shoten acquired a steel business in Wakinohama, Kobe, called Kobayashi Seikoshō, operated by Seiichiro Kobayashi, and changed its name to Kobe Seikoshō. Then, in 1911, Suzuki Shoten spun off the company to establish Kobe Steel Works, Ltd. at Wakinohamacho, Kobe.



The KOBELCO Group will create new value and contribute to resolving issues faced by customers and society by leveraging its expertise, technologies, and manufacturing capabilities fostered in a broad range of business fields that cover the Steel & Aluminum, Advanced Materials, Welding, Machinery, Engineering, Construction Machinery, and Electric Power.

### Materials

- 1905** Begins steel casting and forging business
- 1916** Begins steel products business
- 1917** Begins copper business
- 1937** Begins aluminum business
- 1940** Begins welding business
- 1955** Achieves first industrial production of titanium metal in Japan
- 1959** Establishes integrated steel production
- 1968** Establishes production base in Thailand for welding electrodes
- 1970** Completes Kakogawa Works
- 1979** Develops ARCMAN™ welding robot
- 2006** Starts up processing plant for special steel wire rod used in automobiles in China
- 2014** Establishes base in China for manufacture and sale of automotive cold-rolled, high-strength steel
- 2016** Begins producing aluminum panel material at Tianjin plant in China
- 2017** Consolidates upstream processes at Kakogawa Works
- 2018** Establishes production and sales base (KPEX) in the U.S. for aluminum extrusions and fabricated products
- 2020** Reorganizes materials segment

### 21 Core Technologies

Core technologies making contributions in the Materials field

- Coal conversion and application technology
- Melting, forging, and welding technology
- Metallographic structure control technology
- Structural deformation and breakdown evaluation technology
- Functional electronic materials technology
- Inclusions (in metal) control technology
- Metal working process technology
- Metal surface control technology
- Atomic-level analysis and evaluation technology
- Magnetic property control technology

### Machinery

- 1914** Begins machinery business
- 1926** Begins engineering business
- 1930** Begins construction machinery business
- 1962** Begins overseas plant business
- 1975** Introduces automated guideway transit (AGT) system
- 1983** Acquires U.S. company Midrex Technologies, Inc.
- 2004** Establishes manufacturing and sales base for standard compressors in China
- 2006** Establishes manufacturing and sales base for nonstandard compressors in U.S.
- 2014** Celebrates 100th anniversary of machinery business
- 2017** Acquires world's leading isostatic press manufacturer, Quintus Technologies of Sweden

Core technologies making contributions in the Machinery field

- Machine vibration, noise, and dynamics characteristics control technology
- Thermal and fluid dynamics control technology
- Melting, forging, and welding technology
- Metal surface control technology
- Magnetic property control technology
- Welding mechanism modeling technology
- Adsorption and desorption technology
- Metal working process technology
- Direct-reduced-iron production technology
- Electric control technology

### Electric Power

- 1996** Enters wholesale power supply (IPP) business
- 2002** Starts up Kobe Power Plant
- 2016** Begins Electric Power Business
- 2019** Starts commercial operations at Moka Power Plant

Core technologies making contributions in the Electric Power field

- Coal conversion and application technology
- Thermal and fluid dynamics control technology
- Adsorption and desorption technology
- Metal surface control technology
- Metallographic structure control technology

### Companywide

- 1905** Company's establishment, propelling major pre-war conglomerate Suzuki Shoten into heavy industry field
- 1937** Becomes listed on stock exchanges in Tokyo, Osaka, and Kobe
- 1960** Opens office in New York
- 1979** Establishes KOBELCO as international unified trademark
- 1988** Establishes U.S. headquarters in New York
- 1995** Suffers damage in Great Hanshin-Awaji Earthquake
- 2000** Establishes Corporate Code of Ethics
- 2005** Celebrates 100th anniversary
- 2006** Establishes corporate philosophy
- 2011** Establishes China headquarters
- 2017** Launches Next 100 Project
- 2019** Establishes regional headquarters in Europe
- 2020** Formulates Group Corporate Philosophy
- 2021** Announces KOBELCO Group Medium-Term Management Plan (FY2021-FY2023)

Core technologies supporting monozukuri in the three fields

- Measurement technology under special conditions
- Process control technology
- Servicing technology
- OR (Operations Research) application technology
- ICT (Information-communication-technology) application technology

# Value Creation Process Fulfilling the Needs of Society

The KOBELCO Group contributes to solving social issues by creating new value through the provision of technologies, products, and services under the sustainability management framework based on the newly established Group Corporate Philosophy. At the same time, we aim to improve corporate value while fulfilling our various social responsibilities.

## Group Corporate Philosophy

### Inputs

### Outputs

### Outcomes

#### Major Operating Capital (Fiscal 2020)

##### Financial Capital

Consolidated net sales: ¥1,705.5 billion  
 Stockholders' equity: ¥719.7 billion  
 Interest-bearing debt: ¥785.7 billion  
 (Excluding project financing)

##### Human Capital

Number of employees (consolidated): 40,517

##### Production Capital

Tangible fixed assets: ¥1,078.6 billion  
 Depreciation: ¥100.8 billion

##### Intellectual Capital

21 core technologies  
 R&D expenses: ¥31.0 billion

##### Social and Relationship Capital

Communication with stakeholders

##### Natural Capital

The Challenge of Realizing Carbon Neutrality by 2050  
 CO<sub>2</sub> emissions: 15.3 million tons  
 Contribution to reducing CO<sub>2</sub> emissions: 40.9 million tons  
 Water recycling rate: 96%  
 Total energy consumption: 182PJ (1PJ = 10<sup>15</sup>J)

**Materials businesses**  
 →p. 52

**Machinery businesses**  
 →p. 56

**Electric power business**  
 →p. 60

**Technical development**  
 →p. 62

#### Raw Materials and Parts Procurement

Iron ore  
 Coal  
 Aluminum ingot  
 Titanium sponge  
 Other secondary materials, etc.  
 Various production facilities, repair parts, etc.

Parts  
 Equipment  
 Materials  
 Components  
 Various production facilities, repair parts, etc.

Coal  
 Natural gas  
 Generators  
 Repair parts

## KOBELCO Group

### Business Model

#### Materials

Steel & Aluminum    Advanced Materials    Welding

#### Machinery

Machinery    Engineering    Construction Machinery

#### Electric Power

Electric Power

#### Customers

##### Mobility

Automobiles  
 Aircraft  
 Shipbuilding  
 Rolling stock

##### Energy & Infrastructure

Construction and civil engineering  
 Environmental and energy facilities  
 Urban transit systems  
 Electric power and gas

##### Life

Container materials  
 Electrical equipment and electronics

### Value Provided

#### Social value

Contributing to a green society

Ensuring safety and security in community development and manufacturing

Providing solutions for the future connecting people and technology

#### Economic value

FY2023 Targets

ROIC of 5% or more

#### Corporate value

Promoting active participation of diverse human resources

Pursuing governance that supports sustainable growth

#### KOBELCO Group Medium-Term Management Plan (FY2021–FY2023)

#### KOBELCO Group FY2030 Targets

(1) Reduction of CO<sub>2</sub> emissions in production processes  
**Reduction target: Down 30–40% (vs. FY2013)**

(2) Reduction of CO<sub>2</sub> emissions through technologies, products, and services  
**Reduction target: 61 million tons**

#### Business Foundation

(1) Diversity and inclusion →p. 76  
 (2) Work style reforms →p. 75

(3) Human resources development →p. 74

(1) Compliance and risk management →p. 98  
 (2) Respect for human rights →p. 75  
 (3) Safety and health →p. 77

(4) Quality assurance →p. 102  
 (5) Corporate governance →p. 88

Distinctive Technologies, Products, and Services

# Creating Products that Link the Present with the Future

Since its founding in 1905, the KOBELCO Group has created and supplied products needed by its customers for more than 100 years. Today, the KOBELCO Group operates businesses centered on seven segments, and its main customer fields can be divided into three categories of Mobility, Energy & Infrastructure, and Life.

## Contributing to a green society

**Automobiles**



**Reduce environmental burden**  
**Non-copper coated solid wires (SE wires)**

Reduce environmental burden through our original wire surface treatment technology, which eliminates the need for copper coating treatment during manufacturing

**Automobiles**



**40% share of the world market**  
**Rubber mixers**

Indispensable for production of tires and rubber products. Offer high productivity and energy efficiency based on our leading-edge technologies

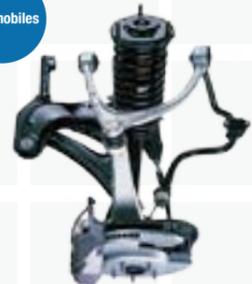
**Automobiles**



**Japan's leading producer**  
**Steel powder**

For use in complex-shaped automotive parts and environmental applications such as purification of polluted soil and water

**Automobiles**



**Japan's leading producer**  
**Aluminum forged parts for automotive suspension systems**

More than 40% lighter than conventional steel forged parts

**Environment and energy**



**World-renowned high reliability**  
**LNG vaporizers**

Equipment for gasifying liquefied natural gas (LNG) for use in gas-fired power plants and city gas facilities

**Environment and energy**



**Effective use of biomass**  
**Wood biomass power generation**

Unused timber from forest thinning left in mountains is used as biomass fuel for boiler power generators

**Environment and energy**



**Effective utilization of biogas**  
**Sewage biogas city gas pipe injection facility**

City gas facility that refines biogas from sewage sludge to the same quality as city gas

**Environment and energy**



**Leading market share in Japan**  
**Emeraude standard compressors**

Oil-free compressors with best-in-class specs and energy efficiency

**Environment and energy**



**Largest market share in Japan**  
**Fluidized-bed gasification and melting furnaces**

Address needs in the waste treatment field for reducing CO<sub>2</sub> emissions and reducing final landfill disposal volume

**Environment and energy**



**World's top share**  
**MIDREX® Process**

World's leading direct reduction process, with over 80 plants in operation worldwide

**Environment and energy**



**Largest market share in Japan**  
**Printed circuit heat exchanger (PCHE)**

Compact heat exchangers for use in hydrogen fueling stations and natural gas-related equipment

**Shipbuilding**



**Exclusive world-class technology**  
**Compressors for LNG carriers**

Compressors for supplying fuel in LNG carriers. Contribute substantially to reducing CO<sub>2</sub> emissions

**Environment and energy**



**Full product lineup**  
**Water treatment facilities**

Meeting a wide range of water treatment needs by offering facilities for treating water, sewage, industrial water, wastewater, and sludge, as well as pure/ultra-pure water production facilities



Distinctive Technologies, Products, and Services

# Creating the Essentials for Society

**Construction and civil engineering**

**Improve quality and productivity of structural steel welding**  
**REGARC™-equipped structural steel welding systems**  
 Enhancing quality and productivity of structural steel welding through our original REGARC™ welding process, which significantly reduces spatters and fumes during welding

**Construction and civil engineering**

**Contribute to improved quality and efficiency**  
**Flux-cored wires**  
 Enable high work efficiency and reduce spatter and fumes to improve workplace environments. Used in a wide variety of applications, including shipbuilding, architectural steel frames, and bridges

**Construction and civil engineering**

**Contributions to reductions in lifecycle costs**  
**KOBEMAG® corrosion resistant steel sheets**  
 Superior corrosion and abrasion resistance and high workability. Used in wide applications, including structural components, buildings, electric machinery, and automobiles; certified by the Ministry of Land, Infrastructure, Transport and Tourism for compliance with building standards in February 2020

**Shipbuilding**

**Reduce welding time by roughly 20%**  
**Robotic welding systems for hull assembly in shipbuilding**  
 Automated welding by robots contributes to improved productivity and robotization of welding for hull assembly in shipbuilding

**Automobiles**

**High-strength aluminum alloys**  
**Aluminum extrusions and fabricated products for automobiles**  
 Contributing to automobile weight reduction as components of bumpers and structural frames

**Automobiles**

**Advanced surface processing technology**  
**Aluminum sheets for automotive body panels**  
 Contributing to automobile weight reduction as a material for engine hoods, etc.

**Construction and civil engineering**

**Excellent transportability**  
**New model TK-G Series telescopic boom crawler cranes**  
 While being less than three meters wide during transport, retains the original series' sturdy structure capable of withstanding tough foundation and civil engineering work, compact layout with superior operability, and ability to lift to great heights

## Ensuring safety and security in community development and manufacturing

**Container materials**

**Holding approx. 70% market share in Japan**  
**Aluminum bottle can stock**  
 Holding approx. 30% or more domestic market share of aluminum beverage can stock and approx. 70% of aluminum bottle can stock, which requires complex processing

**Automobiles**

**Largest market share in Japan**  
**Copper alloys for automotive terminals and connectors**  
 For use in wire harnesses that serve as the "nerves" of cars. Holding approximately 30% share of the domestic market

## Providing solutions for the future connecting people and technology

**Construction and civil engineering**

**ICT-enabled construction machinery with efficiency and safety**  
**Computerized construction work brand "Dig Nav"**  
 ICT-enabled construction machinery with a navigation system that significantly increases work efficiency by incorporating monitor displays and alarms in the driver's cab as well as a machine control system that allows the operator to conduct complex work operations through simple manipulation of a lever

7 AFFORDABLE AND CLEAN ENERGY

8 DECENT WORK AND ECONOMIC GROWTH

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

11 SUSTAINABLE CITIES AND COMMUNITIES

3 GOOD HEALTH AND WELL-BEING

8 DECENT WORK AND ECONOMIC GROWTH

9 INDUSTRY, INNOVATION AND INFRASTRUCTURE

**Urban transit systems**  
 Building earth-friendly communities

**Urban transit systems**  
 With the Company's system integration expertise in the urban transit sector, various transit systems have been delivered both in Japan and overseas, including an ODA project to construct the Jakarta Mass Rapid Transit

**Rolling stock**

**Largest market share in Japan**  
**Aluminum shapes for rolling stock**  
 Adopted both in Japan and overseas as materials that shape the bodies of rolling stock

**Construction and civil engineering**

**Contribute to longer lifespans of steel bridges**  
**Eco-View steel plates® for longer-lasting paint on bridges**  
 Eco-View steel plates offer excellent paint corrosion resistance, extending the interval for repainting bridges, even in high-salinity environments. Help reduce lifecycle costs

**Automobiles**

**Japan's leading producer**  
**High-strength steel sheets**  
 Leading producer in development and commercialization of ultrahigh-strength steel sheets

**Aircraft**

**Major supplier in Asia**  
**Aircraft gearboxes**  
 Aircraft parts utilizing aluminum casting, forging, analysis technologies, and alloy development capabilities

**Electrical equipment and electronics**

**Holding approx. 15% market share in Asia**  
**Materials for semiconductor leadframes**  
 Using proprietary elemental bonding to develop copper-alloy strip products that combine strength, conductivity, and heat resistance

# Message from the President and CEO



**Mitsugu Yamaguchi**  
President, CEO and  
Representative Director

**We have kicked off a new KOBELCO Group Medium-Term Management Plan (FY2021–2023) that prioritizes the establishment of a stable earnings base and the challenge of realizing carbon neutrality. For the Group to get onto a growth trajectory, we must first stabilize our current earnings base.**

## Introduction

I believe it is the Group's social responsibility to keep our manufacturing sites and power plants running as per normal and provide the technology, products, and services required to sustain people's lives, social infrastructure, and other necessities, even in the midst of the COVID-19 pandemic. All employees at manufacturing sites have been working together to prevent the spread of infection so that operations can continue without a hitch. Thanks to their efforts, we have been able to operate our business, not being significantly affected by the pandemic to date. I would like to take this opportunity to express my sincere gratitude not only to our employees but also to our customers, business partners, and other stakeholders for their continued support of the Group's business activities.

## Identifying Materiality Toward Medium- to Long-Term Value Creation

For more than 100 years, the KOBELCO Group did not have a corporate philosophy in written form, and that has something to do with how the Group was built. Starting with the steel casting and forging business, we have developed various businesses such as machinery, rolled steel, copper, engineering, construction machinery, aluminum, welding, and more recently electric power. However, since the management of these operations was undertaken by each business division, we were not very conscious of what the Group as a whole was aiming for, even though each business division was ready and willing to take on the challenge of making further improvement. On the occasion of the 100th anniversary of the Company's founding in 2005, we formulated a corporate philosophy, which is the current Core Values of KOBELCO, but unfortunately this initiative was not so successful in increasing recognition among employees.

In 2017, we launched the Core Values of KOBELCO Next 100 Project. Along with this move, we held discussions and shared the awareness that the corporate philosophy should be something familiar to each and every employee and be implemented on a daily basis. We therefore redefined the original corporate philosophy as the Core Values of KOBELCO to represent our commitments to society and the shared values of the Group. We also formulated the Six Pledges of KOBELCO, a code of conduct for all Group employees to follow in order to fulfill the Core Values.

While promoting such initiative, the Company disclosed the quality misconduct. With this incident, we caused a lot of trouble to many stakeholders and the KOBELCO brand was seriously damaged. It gave me a true sense of crisis. Even if we make a big organization, there is no meaning unless it has a soul in it. So, in order to put our souls into what we do, we first worked to raise awareness of the Core Values of KOBELCO and the Six Pledges of KOBELCO and instill them in employees' minds. By doing so, we encouraged people to start putting them into practice in daily work.

However, while these principles served as guidelines for daily operations, we were missing important points—the perspective of who we are and what we are aiming for. So, in May 2020, we newly established our corporate philosophy by integrating KOBELCO's View of the Future (corporate vision) and KOBELCO's Mission (corporate mission) into the existing principles of the Core Values of KOBELCO and the Six Pledges of KOBELCO that are considered as a foundation that support the two new statements.

At this point, we still had some work to do. It was to identify the Company's materiality that fills the gap between the abstract concept (KOBELCO's View of the Future and

## Message from the President and CEO

KOBELCO's Mission) and the daily practical guidelines (the Core Values of KOBELCO and the Six Pledges of KOBELCO).

When we aim for a world envisioned in KOBELCO's View of the Future, we need to clarify what we place importance on from a medium- to long-term perspective. To this end, we held a series of discussions among members of the management team, including Independent Directors, in light of the operating environment up ahead, business compatibility, and what our stakeholders consider most important. As a result, we have identified issues of materiality as follows:

- **Contributing to a green society**
- **Ensuring safety and security in community development and manufacturing**
- **Providing solutions for the future connecting people and technology**
- **Promoting active participation of diverse human resources**
- **Pursuing governance that supports sustainable growth**

### Review of the FY2016–2020 Group Medium-Term Management Plan

In the Fiscal 2016-2020 Group Medium-Term Management Plan, we worked to establish a business enterprise focused on three core business areas of materials, machinery and electric power and sought to address two themes: (1) the establishment of a stable earnings base centered on the consolidation of upstream processes in the steel business and the launch of new electric power projects; and (2) the pursuit of growth opportunities anchored by strategies to reduce the weight of vehicles.

To establish a stable earnings base, we reviewed our strategy in the steel business, a long-time pillar of earnings. In the steel business, there has been a wide range of fluctuations in earnings. In addition, it has become apparent that structural problems such as the rise of Chinese steel makers and shrinking future demand in Japan. Taking these factors into consideration, we adopted a strategy of consolidating upstream processes and reducing fluctuations in earnings in order to improve efficiency and boost competitiveness. In the electric power business, we launched new projects that would have potential to generate stable earnings. In the construction machinery business, despite a temporary uptick in earnings, we took steps to reorganize the construction machinery business in China mainly because of a sizeable amount of bad debts. Of the various businesses in our Group, those that are not expected to grow in the future or that are deemed not suitable for allocating management resources were reviewed in terms of capital relationships and some of them were sold. In the steel business, however, even though we completed the scheduled consolidation of upstream processes at steelworks, we were not able to boost earnings as expected due to skyrocketing raw material prices, US-China trade friction, and other changes in the external environment. The electric power business is making progress as planned, but it has been facing changes in the external environment as coal-fired power generation is being watched more harshly than ever before. In the construction machinery business, earnings are steadily growing after its reorganization, but competition is intensifying owing to the rise of Chinese manufacturers.

In pursuing growth opportunities, we pushed ahead with strategies to reduce the weight of automobiles to comply with stricter fuel efficiency regulations and worked on proactively expanding the compressor business. However, the automotive industry gave priority to vehicle electrification over weight reduction while accelerating environmental efforts, including response to stricter fuel efficiency regulations. This pushed back the timing of growth in demand for lighter materials. In addition, it turned out that we should address issues of *monozukuri*\* capabilities in terms of productivity. In the compressor sector, the business did not expand as expected due to a decline in investment appetite caused mainly by the sluggish crude oil market and the impact of the COVID-19 pandemic.

As a result, we recorded a net loss in two of the five fiscal years under the previous

medium-term management plan, and we have not yet achieved the goal of strengthening our profitability and financial position.

\**Monozukuri* means craftsmanship in manufacturing.

### New Medium-Term Management Plan

In light of the challenges identified under the Fiscal 2016–2020 Group Medium-Term Management Plan, the new Medium-Term Management Plan prioritizes the establishment of a stable earnings base, with the aim of achieving a ROIC of at least 5% throughout the Group in fiscal 2023 when all of our power plants go into full-scale operation and contribute to earnings. To achieve this, we will implement the following five key measures.

#### 1. Strengthening the earnings base of the steel business

The current strong domestic demand is expected to decline in the long run. Even before the outbreak of COVID-19, the steel business recorded an ordinary loss in fiscal 2019 due to the impact of US-China trade friction, despite the crude steel production of 6.37 million tons (excluding the electric arc furnace production at Takasago Works). We will first establish a structure that enable us to secure stable earnings with crude steel production of 6.3 million tons and then in the long run, we will aim to maintain profitability even with 6.0 million tons.

#### 2. Smooth startup and stable operation of new electric power projects

The No. 3 and No. 4 units of the Kobe Power Plant will commence commercial operations in the second half of fiscal 2021 and the second half of fiscal 2022, respectively. This means all of the Group's power plants will go into operation. Stable operations at each of our power plants will enable us to help stabilize regional energy supply and shore up our earnings base.

#### 3. Strategic investment in the materials businesses leading to earnings contribution

We believe demand for lighter materials in the automotive industry will remain strong. The aim of weight reduction is shifting from realizing better fuel efficiency of gasoline-powered vehicles to extending the driving range of electric vehicles (EVs), but there is still a strong need to reduce the weight of EVs equipped with heavy batteries. In addition, weight reduction is still required from the viewpoint of collision safety. Although there has been a delay in the timing of strategic investment making contribution to earnings from the initial expectations, we will work to secure earnings at the earliest possible time.

#### 4. Restructuring unprofitable businesses

Amid changes in the demand environment and industrial structure, we plan to streamline the steel casting and forging business, titanium business, and crane business with the aim of returning to profitability through fiscal 2021–2022. The steel casting and forging business is mainly for the shipbuilding sector, and we anticipate a recovery in shipbuilding demand from around 2024 or 2025. However, the shipbuilding industry is in the direction of shrinking, so we will take steps to reexamine our business structure in line with this trend. In the titanium business, the recovery of demand for aircraft has been slow owing to COVID-19 travel restrictions. Accordingly, we will look to offset earnings losses by reducing fixed costs and boosting sales of other items. In the crane business, we already made the decision to downsize our operations in light of intensifying competition, so we will continue to move forward with this approach. Other underperforming businesses are also expected to return to profitability in 2023.

#### 5. Stabilizing earnings in the machinery business and responding to growing markets

We anticipate an increase in demand for carbon neutrality in our machinery businesses up ahead. We will seek to timely respond to growing demand in the future.

By implementing these measures, we aim to achieving a ROIC of 5% or higher in fiscal

## Message from the President and CEO

2023. Going forward, we plan to utilize ROIC in the management of each business. In addition, we are always prepared with a number of strategies in case the external environment deteriorates more than expected or in case our efforts of cutting fixed costs or other measures fail. For the implementation of these measures, we will set milestones and review strategies whenever necessary.

As for the investments over the period of fiscal 2021–2023, we have no plans for any new large-scale investments because we have finished our strategic investments and we are now focused on reaping profits. Nevertheless, we will undertake the necessary case studies in preparation for changes in the operating environment, like the acceleration of the trend toward carbon neutrality. We are taking a defensive stance over the next three years, but if a turning point comes, we will not hesitate to make swift management decisions.

### The Challenge of Carbon Neutrality

The new Medium-Term Management Plan unveiled a roadmap for carbon neutrality. Some businesses of the KOBELCO Group, particularly the steel and electric power businesses, emit a lot of CO<sub>2</sub>. While leveraging social and technological innovations, we will set our sights on reducing CO<sub>2</sub> emissions in these businesses and achieving carbon neutrality in our production processes.

Furthermore, the KOBELCO Group possesses a wide range of technologies, products, and services that contribute to reducing CO<sub>2</sub> emissions in society. The transition to carbon neutrality presents business opportunities and the KOBELCO Group will strive to contribute to the realization of a carbon-neutral society by integrating our diverse technologies, products, and services.

In the materials businesses, we will work to reduce CO<sub>2</sub> emissions from blast furnaces not only by further developing existing technology, but also by leveraging the Group's unique technologies combined with MIDREX® Process in the engineering business.

There are several options for achieving carbon neutrality, including high-grade steelmaking with electric arc furnaces and hydrogen reduction ironmaking, and the combined use of external innovative technologies. Although there are many issues to overcome, including technological hurdles, huge investment and development costs, and rising production costs—not to mention the impact they have on our finances, we will boldly take on these challenges.

In the electric power business, we will endeavor to curb CO<sub>2</sub> emissions with ammonia co-firing and single-fuel firing. We will also strive to make energy use of local communities even more efficient by leveraging the biomass technology of our subsidiary Kobelco Eco-Solutions Co., Ltd.



In the materials businesses, from the viewpoint of contributing to the realization of a carbon-neutral society, we have been providing products that contribute to automotive weight reduction and electrification. Our machinery businesses boast a lineup of products including compressors, heat exchangers, and vaporizers. These products had been used to compress fossil fuels, among other applications, but nowadays they are catering to social needs related to carbon neutrality, such as storage and transportation of hydrogen and ammonia. In addition, we have the MIDREX® Process, which is a direct reduction ironmaking method that uses natural gas. Midrex has an approximately 60% share of the global direct reduced iron market. We will continue to contribute to reduction of CO<sub>2</sub> emissions from society by providing CO<sub>2</sub> reduction solutions through the MIDREX® Process, while responding to growing demand for electric arc furnaces, providing CO<sub>2</sub> reduction solutions for blast furnaces, and taking on the challenge of developing hydrogen reduction ironmaking processes.

### Promoting Sustainability Management

In its history of more than 100 years, the KOBELCO Group has always strived to contribute to society and will continue to do so. However, social needs are changing. We therefore will need to promote sustainable management by responding to the changing needs of society and integrating the Group's diverse technologies to create new value, while securing earnings for business continuity.

Although each of our business units is not very large, the Group as a whole has a wealth of technologies and knowledge that we have accumulated over the years, and we must make the most of them. Up until now, our Group had struggled to leverage synergies of various technologies and knowledge possessed by respective businesses. As a result, the corporate value of the Group was equivalent to the simple sum of the business segments. But we are now conscious of our ability to combine different expertise. By bringing together all of the Group's technologies and insights, we will provide solutions to the needs of society and enhance our corporate value.

At the same time, we must strive to reinforce our management foundation, including the governance that underpins corporate value, as well as the effective utilization of human resources. We must never forget the lessons learned from the quality misconduct. I will continue to fulfil my responsibility while pouring my heart and soul into the Company.

### In conclusion

Today the world is changing rapidly and drastically. Especially with the occurrence of the COVID-19 pandemic and abnormal weather events of late, there is a growing demand for a sustainable society that offers safety and security. Under these circumstances, our Group's mission of providing solutions to the needs of society by making the best use of the talents of our employees and our technologies is becoming increasingly important. The KOBELCO Group will continue to support the United Nations Global Compact—an initiative we joined this year—as we strive to realize a sustainable society in order to fulfil our corporate social responsibilities. We appreciate the continued guidance and encouragement of all our stakeholders.

Mitsugu Yamaguchi  
President, CEO and  
Representative Director

# Framework for Sustainability Management

## Promotion of Sustainability Management Based on the Group Corporate Philosophy

The KOBELCO Group promotes sustainability management based on the Group Corporate Philosophy by addressing key management issues that are classified into two categories: the business foundation area to support business activities and the value creation area to realize business growth.

We will pursue sustainable growth and the medium- to long-term enhancement of our corporate value to realize a world envisioned in KOBELCO's View of the Future as we carry out KOBELCO's Mission.

### Group Corporate Philosophy

#### KOBELCO's View of the Future

We envision a world in which people, now and in the future, can fulfill their hopes and dreams while enjoying safe, secure, and prosperous lives.

#### KOBELCO's Mission

Our mission is to provide solutions to the needs of society, by making the best use of the talents of our employees and our technologies.

#### Core Values of KOBELCO

#### Six Pledges of KOBELCO



### KOBELCO's Mission

Our mission is to provide solutions to the needs of society, by making the best use of the talents of our employees and our technologies.

KOBELCO's assets and strengths lie in the various talents of each employee as well as in its diverse technologies that support our broad range of businesses. We have cultivated these advantages in an effort to meet the needs of the times.

We continue to take on the challenge of transcending organizational boundaries and conventional thinking to solve increasingly complex issues, while supporting the foundations of society.

### KOBELCO's View of the Future

We envision a world in which people, now and in the future, can fulfill their hopes and dreams while enjoying safe, secure, and prosperous lives.

Our technologies, products, and services are not only for those who live in the present, but also for future generations.

KOBELCO sees a sustainable, beautiful, and flourishing world in the future, with safety and security in people's lives. Such a future will give rise to value that creates new conveniences and comfort and help people fulfill their hopes and dreams.

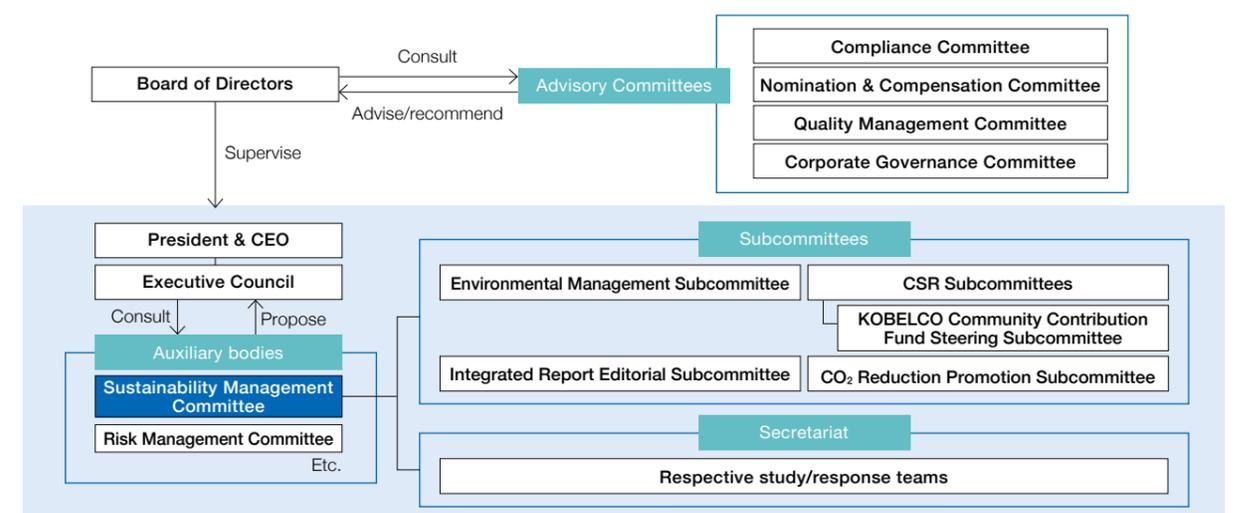
## Framework for Promoting Sustainability Management

In promoting sustainability management, priority issues are addressed through a management cycle that centers on the Sustainability Management Committee, an auxiliary body to the Executive Council. While proactively disclosing information and utilizing promotion tools, such as ESG external assessments and SDGs, we have put into place a system that allows the Board of Directors to monitor sustainability management.

## The Sustainability Management Committee's Structure and Functions

- Chair (Responsible officer):** Hajime Nagara, Director, Executive Officer
- Report to the Board of Directors:** Once every quarter
- Meetings:** Once every quarter
- Functions:**
- Identify sustainability-related issues of the Group
  - Create the schedule for sustainability promotion activities
  - Advise on the Group's Medium-Term Management Plan
  - Monitor and advise on the Group's sustainability promotion activities
  - Announce information on the initiatives that the Company supports and promote relevant activities
  - Respond to external assessments on the environment, society, and governance

## Sustainability Management Committee in the Organizational Chart



# Materiality and Indicators/ Targets

In May 2020, the KOBELCO Group formulated a new Group Corporate Philosophy, and toward sustainable growth based on the Group Corporate Philosophy, we defined a framework for sustainability management that addresses key management issues by classifying them into the value creation area and the business foundation area.

More recently, based on the Group Corporate Philosophy, our Group has identified its Materiality composed of five key issues to be addressed in order to achieve sustainable growth while securing profitability and to become a corporate group indispensable to society through providing solutions to social issues and creating new value over the medium to long term.

## Process of Identifying Materiality

Under the leadership of the Chair of the CSR Committee (present Sustainability Management Committee), we evaluated the appropriateness of the materiality evaluation process and analysis results and examined issues of materiality that should be addressed with priority.

The process is as follows:

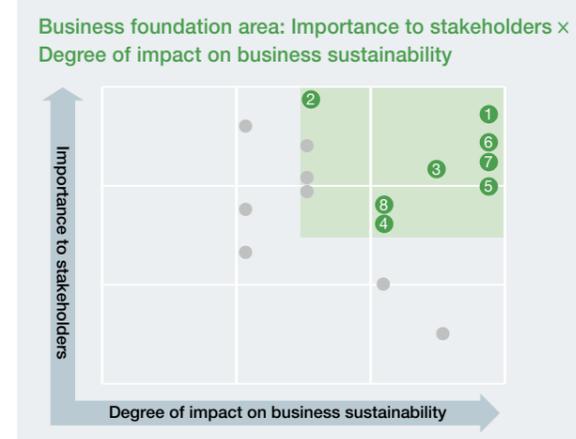
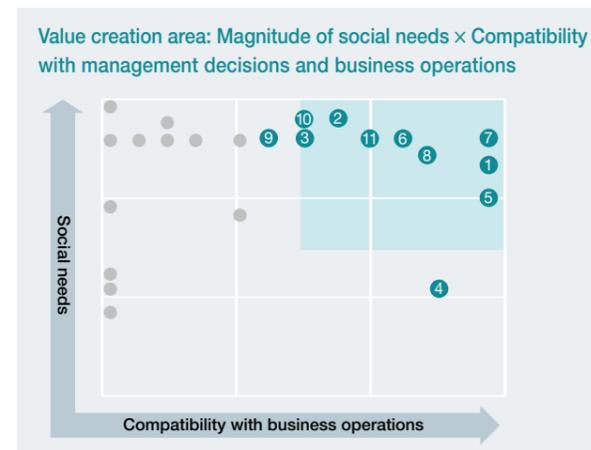
(1) Comprehensively identify social issues with reference to megatrends, international frameworks and guidelines.

The frameworks and guidelines referred to include the following:

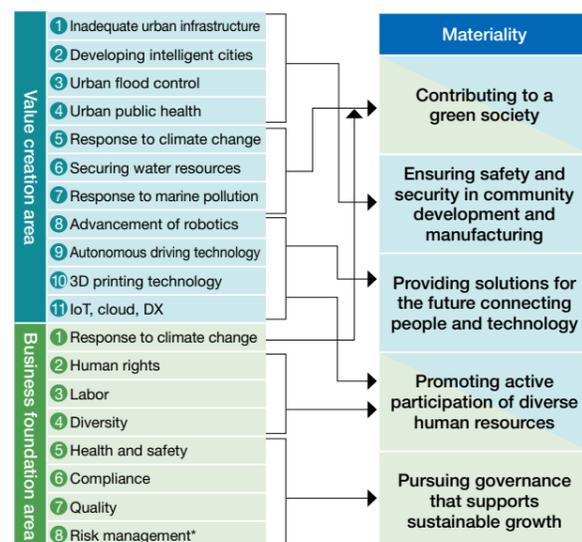
- Ten Principles of the UN Global Compact
- Sustainable Development Goals (SDGs)
- OECD Guidelines for Multinational Enterprises
- UN Guiding Principles on Business and Human Rights

- GRI Standards
- SASB Standards
- ISO 26000

(2) Score the social issues on their level of importance from the following viewpoints and map them out



(3) Merge key issues that are common to both of the value creation and business foundation areas and identify similar issues



\*Including top risks relating to environmental laws and regulations, disaster prevention, etc.

(4) Discuss issues several times at the management level, including Independent Directors, while checking their consistency with the Group Corporate Philosophy

(5) Finalize materiality and receive approval from the Board of Directors

## Indicators/Targets for Materiality

Materiality of the KOBELCO Group	Indicators/Targets				
	Indicators	Targets	Actual (FY2020)		
<b>Contributing to a green society</b> <sup>*1</sup> 	Response to climate change	(1) Reduction of CO <sub>2</sub> emissions in production processes	FY2030: Down 30-40% (compared to FY2013 levels) FY2050: Taking on the challenge of realizing carbon neutrality	Down 21%	
		(2) Reduction of CO <sub>2</sub> emissions through technologies, products, and services	FY2030: 61 million tons (including at least 45 million tons through MIDREX <sup>®</sup> Process) FY2050: 100 million tons or more	40.9 million tons	
		(3) Reduction of CO <sub>2</sub> emissions in the electric power business	FY2030: Increasing efficiency of coal-fired power plants USC or higher FY2050: Taking on the challenge of realizing carbon neutrality	—	
	Response to resource recycling	(4) Water recycling rate	Maintaining at 95% or higher	95.9%	
		(5) Waste recycling rate	Recycling of three major items <sup>*2</sup> FY2025: 99%	98.7%	
<b>Ensuring safety and security in community development and manufacturing</b> 	Supplying energy focused on energy security, economic efficiency, environment, and safety (3E plus S) Providing materials and machinery that meet needs Improving safety and productivity	(6) Percentages of target products in the product mix	FY2025: Percentage of wire rods/bars and high-strength steel in the steel business: 52%	44%	
		(7) Number of digitization projects	—	— <sup>*3</sup>	
		(8) Progress rates of reconstruction of existing systems	—	—	
<b>Providing solutions for the future connecting people and technology</b> 	Reforms in manufacturing and operations through digital transformation (DX)	(9) Number of DX personnel trained	a. FY2023: About 500 <sup>*4</sup> b. FY2023: About 140 <sup>*4</sup>	a. 35 b. 99	
		Fusion and innovation of diverse intellectual assets	(10) New business creation	FY2025: Multiple task forces (TFs) to move toward creating new businesses FY2030: Multiple TFs to launch new businesses (annual target earnings of 1 billion yen or more per business)	—
	(11) Number of employees with PhD		—	177	
	<b>Promoting active participation of diverse human resources</b> 		Diversity & inclusion <sup>*5</sup>	(12) Employment rate of female new graduates	FY2023: a. Career-track administrative positions: 50% or more b. Career-track technical positions: 15% or more c. General technical positions: 15% or more
		(13) Ratio of female managers		Doubled from fiscal 2020	2.7%
(14) Employment rate of people with disabilities		2.3% (statutory employment rate)		2.34%	
(15) Number of non-Japanese employees		—		87	
Work style reform		(16) Percentage of employees taking special childcare leave (Male employees)	FY2023: 100%	77.8%	
		(17) Turnover of employees within 10 years	Less than 15%	15.8%	
		(18) Overtime hours worked	—	16.6 (per month/employee)	
Human resource development	(19) Average number of days of annual paid leave taken	15 (per year/employee)	11		
	(20) Actual total of hours worked	Under 2,000 per year	1,978 h		
<b>Pursuing governance that supports sustainable growth</b> 	Compliance and risk management	(21) Continuation of employee awareness survey	—	Ongoing	
		(22) Improving and expanding employee training	a. Total hours trained (across all employees) b. Average hours of training per employee	a. 210,948 h b. 18 h	
	Respect for human rights	(23) Number of internal reporting (whistleblowing) cases	—	112	
		(24) Improving and expanding employee training	— <sup>*6</sup>	—	
	Health and safety	(25) Lost time injury frequency rate	0.10 or less	0.24 (calendar year)	
		(26) Improving and expanding supervisor training	—	65	
		(27) Accreditation rate in compliance with Quality Guidelines in internal quality audit	70% of internal quality audit target locations in FY2023	— <sup>*7</sup>	
	Quality assurance	(28) Automation rate of testing and inspection equipment as defined by the Company	— <sup>*8</sup>	—	
		(29) Continuation of customer satisfaction survey	—	Ongoing	
Corporate governance	(30) Improving the effectiveness of the Board of Directors	—	Ongoing		

\*1. A green society is not limited to the narrow meaning of a society that merely uses natural energy, but is defined as a society that addresses climate change and resource recycling.

\*2. Three major items: Slag, dust, and sludge

\*3. From fiscal 2021, we started to count the number of projects with the target carefully selected.

\*4. a. IT evangelists (those who take the initiative to plan and promote business reforms in their respective divisions utilizing IT)

b. Data scientists (those capable of advanced data analysis)

\*5. To ensure diversity among core personnel, we will continue to examine our response to the revised Corporate Governance Code.

\*6. We are studying ways to improve and expand human rights training for employees and to implement human rights due diligence.

\*7. We began Quality Guideline accreditation from the quality audit in fiscal 2021.

\*8. Medium- to long-term targets are under consideration.

# Mission Story



Midrex Technologies, Inc.  
**Stephen Montague**  
 President & CEO

**The MIDREX® Process is the key to achieve the roadmap for carbon neutrality. We have interviewed Stephen Montague, the President & CEO of Midrex Technologies, Inc. (a wholly owned subsidiary of Kobe Steel), who is leading the company's business operations, to talk about the current situation and the future.**

## MIDREX® Process and Current situation

**Q. I have heard that Midrex has been receiving many inquiries from potential customers. Could you explain the situation?**

**A.** The market has taken a very steep upturn, particularly since the first of this year. Early last year there was high interest, but when COVID-19 came, many companies paused their activities. By the end of last year, activity began to resume, and we expected some gradual increase in plant sales, but it didn't happen that way. Around February, there was a really sharp increase, and I think this is the most activity that I've seen in nearly 20 years. I believe the primary reason is that every steelmaker today is taking decarbonization seriously and they're making their transition plans. And these transition plans include direct reduced iron (DRI).

**Q. What was the situation before the pandemic? Was there an increase in the number of inquiries?**

**A.** There was. Some very proactive steelmakers were already looking at their plans for the future. And, to be really frank, I expected the steel industry to use the COVID-19 pandemic as an excuse for not pushing decarbonization. I've been pleasantly surprised that not only did the interest return where it was before the pandemic, but it has now escalated beyond our expectations.

**Q. You said that the number of inquiries has been increasing rapidly. Could you tell us which areas or regions are most actively looking to do business with Midrex?**

**A.** For confidentiality reasons, it's best not to mention specific projects under development, but generally speaking, the CIS market, especially Russia, is extremely active. They have all the right ingredients for being a low-cost producer of DRI. They have iron ore, natural gas, and the prospect for hydrogen in the future, and they already have the mindset to be an exporter of hot briquetted iron (HBI). In addition, there is activity in the US and MENA. There is even considerable activity in Europe, driven by the need for decarbonization, where historically we would not have imagined new DRI plants given the high cost of energy. These are just some examples. Any place where there's a strong push for decarbonization, like Europe, and

places where natural gas is affordable and/or hydrogen will be affordable and in sufficient quantities in the future have the biggest potential for new DRI plants.

## Strengths of the MIDREX® Process

**Q. As there is growing interest in the MIDREX® Process, we need to provide more basic information about it. Midrex has a share of about 60% of the world DRI/HBI production (about 80% of natural gas based DRI/HBI). What do you think are the strengths of the MIDREX® Process, and what makes it differentiate from other processes in the market?**

**A.** You may be looking more for a technical answer, but first I will tell you our greatest strengths—our people and our culture, because they are the foundation of the Midrex team. Of course, we have to differentiate ourselves technically, but it is people who drive innovation and people who build and operate plants, so it always comes back to the people and teamwork.

From the technical point of view, Midrex pioneered HBI. We also introduced multiple methods to transport hot DRI to adjacent melters. As you know, we are now commercializing MIDREX H<sub>2</sub>™ for 100% hydrogen-based reduction of iron ore. All of these factors, combined with the strong foundation of the MIDREX® Process, have allowed us to maintain the dominant market share.

Midrex has the expertise to not only design but also supply the major components of the Process such as our proprietary

## About the MIDREX® Process



voestalpine's Go West plant in the US produces 2 million tons of DRI annually

shaft furnace and reformer as well as many other systems in the plant. We manage these things by ourselves and create the opportunity to learn more about them and continually innovate.

In terms of strengths of the MIDREX® Process, the production reliability with proven long-term plant performance is built on state-of-the-art technology. MIDREX® plants typically exceed their annual rated capacity and in fact some older plants now reach nearly double the rated capacity owing to continuous innovation. Flexibility is also extremely important especially given the rapid changes in the market. Midrex plants have the flexibility to utilize both high and low Fe iron ores, multiple energy sources (e.g. natural gas, hydrogen, coke oven gas), and the ability to produce multiple products simultaneously like hot DRI to an adjacent melter along with HBI.

I think there is another key factor that is not technical: our relationship with Kobe Steel, Ltd. This is an important reason why Midrex has been able to keep our strong market position. Kobe Steel acquired Midrex in 1983. Throughout the steel business cycles, the ups and downs, through it all, Kobe Steel has taken a long view to stand beside us and support our business. This has made a huge difference. It has provided a very stabilizing effect that has allowed us to endure and prosper over a long period.

**Q. What challenges or issues do you think Midrex may face in the future?**

**A.** There are two primary challenges: people and innovation. The first challenge is finding the right teammates to add to Midrex as we grow. It is not just people who have the right resume—they have to fit the culture.

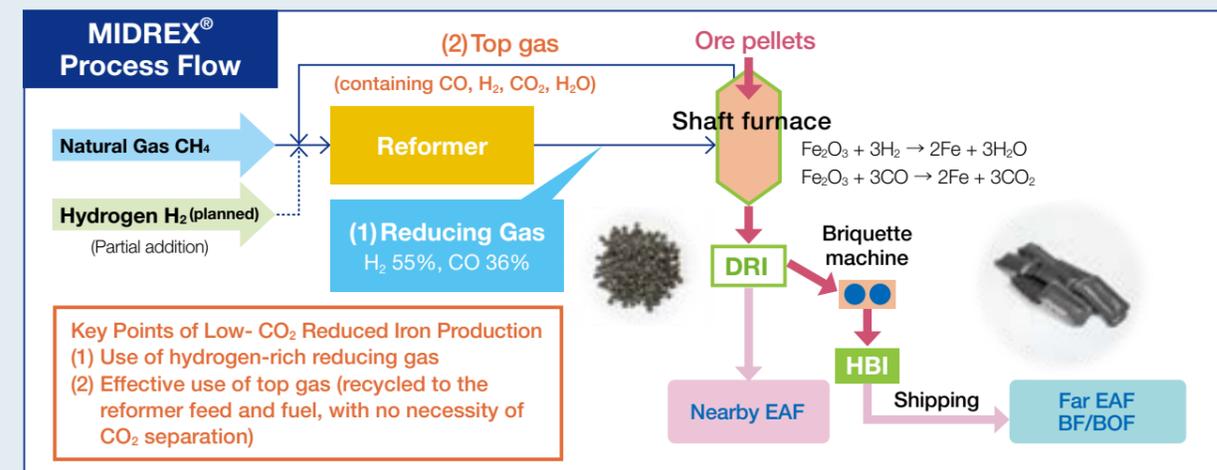
The second challenge is innovation. Competition is increasing and innovation is the way to create technical advantage with new products and new uses for existing products such as HBI for the blast furnace, utilization of low Fe iron ore, MIDREX H<sub>2</sub>™, and MIDREX Carbon Capture. Commercializing these products in the right timeframe is going to be the biggest challenge for our team. We have a dedicated R&D Center and relationships with partners including Kobe Steel that add to our own expertise which helps us address these challenges head on.

**Q. There are some technical questions pointed out in the market. For example, if only high-grade iron ore is suited for direct reduction ironmaking, and the challenges in using hydrogen as reducing agent. What is your view on these issues?**

**A.** MIDREX® plants have used lower Fe pellets and will use lower Fe pellets even more so in the future. The flexibility to use

<b>MIDREX® Process:</b>	Produces direct reduced iron (DRI) by directly reducing iron ore with reducing gas (containing a large amount of hydrogen) obtained by reforming <b>natural gas</b>
<b>CO<sub>2</sub> reduction:</b>	<b>20–40%</b> (EAF using DRI vs. BF/BOF)
<b>Leading market share:</b>	<b>Over 80</b> MIDREX modules worldwide, producing <b>80%</b> of the world's DRI*;
	*Natural gas based DRI/HBI

DRI (Direct Reduced Iron): Clean iron source (Fe ~90%, low impurities), widely used and substituting high-grade scrap and pig iron in EAF, BF and BOF  
 HBI (Hot Briquetted Iron): Compacted & briquetted DRI for long distance transport by sea or other means



Source: KOBELCO Group's CO<sub>2</sub> Reduction Solution for Blast Furnace Ironmaking (February 16, 2021)

## Mission Story

either high or low Fe pellets in the shaft furnace is certainly one of the strengths of the MIDREX® Process over our competitors. For the question about reduction with hydrogen, the MIDREX® Process operated commercially for many years with about 75% hydrogen in the reducing gas. So, it is a small leap up from 75% hydrogen to 100% hydrogen. With our experience and our test data, we are very confident about going to 100%.

### Prospects for the Medium-Term Management Plan and Medium- to Long-Term Vision

**Q. In the Medium-Term Management Plan of the KOBELCO Group, which was announced in May, “taking on the challenge of realizing carbon neutrality” is one of the most important issues. In this effort, MIDREX® Process is expected to play an extremely important role. Could you tell us about Midrex’s initiatives and medium- to long-term business strategies for solving the global issue of CO<sub>2</sub> reduction?**

**A.** Our strategy is quite simple. Utilize the MIDREX® Process and our future innovations to help iron ore companies and steel companies transition to low CO<sub>2</sub> metallics such as DRI and HBI with the goal of reaching carbon neutrality.

Many of the decisions we take in the next five years will greatly affect the progress we make towards commercializing innovative products like MIDREX H<sub>2</sub>™, HBI for Blast Furnace, and MIDREX Carbon Capture. The success we have in the next five years towards creating these products and other innovations will determine our long-term success. It doesn’t mean that there will be 10 plants with these new products in the next five years. In the next five years we have to invest in the technology.

Some people say hydrogen is not until 2030. That’s not true. There are companies that are going to build commercial-size hydrogen-based DRI plants in the next five years. We will see several 100% hydrogen-based plants. We will see people begin to use MIDREX Carbon Capture. We will see blast furnaces using HBI.

This will create “lighthouse projects” to launch these technologies. Then these lighthouses will show the world the way to the future. From 2030 and beyond, we’ll see many more projects, particularly as hydrogen becomes more widespread and affordable with green electricity.

**Q. You are seeing an increasing number of inquiries right now. Do you have capacity limitation to pursue those projects? And, do you have a plan to expand it?**

**A.** Of course, like every company, we have a certain capacity. Fortunately, the Midrex business model includes our Construction Licensees. Midrex already has long-term relationships with trusted companies like Primetals, SMS/Paul Wurth, and Kobe Steel. We’ve successfully, over a number of years, leveraged these relationships to build plants together.



So, even as a small company, Midrex is able to amplify what we can do in the marketplace, with our Construction Licensees. Around 2005 to 2008 we were able to do seven projects at the same time with only two construction licensees. Now we have three construction licensees. So, I would expect to be able to do quite a few more. At the same time, we’re growing to become a larger company to manage the increase, as well.

### Closing

**Q. We would like to hear your view about the role that MIDREX® Process would play in the future of iron and steel making.**

**A.** Our world and our industry are changing very rapidly. If steelmakers must be carbon neutral in 2050, then we will not continue to make iron with coal/coke. DRI will grow because there’s no other proven way to reach carbon neutrality. It’s going to be a journey of almost 30 years and such a large transition requires a lot of changes.

These changes are going to be painful. If we have to walk 1000 miles, it’s better to start now and walk a little each day over a long period. Those who wait to start the journey are going to suffer more. Those who start the journey soon, can make a more gradual transition.

The days of being slow and conservative are gone. Winning companies will take action now and begin moving towards the market trends. Winners will not wait for perfect timing because no one knows when that will be. It’s the future. You can’t wait and you can’t forecast it.

Simply begin moving in the direction of the market trends and be agile—ready to make adjustments. That’s what we’re doing at Midrex. We see the trends. I don’t know the perfect timing, but I know the way the world is moving, and we will keep moving in that direction together with Kobe Steel as “One Team” in order to contribute to the future growth of iron and steel industry.

### Developing Construction Machinery Telematics System that Solves Social Issues Specific to Construction Sites

The “K-DIVE CONCEPT” is a worker-centric construction machinery telematics system powered by next-generation remote operation technology. Based on a heavy machinery remote operating system, this technology enables us to digitally transform on-site processes at customer sites by connecting people, heavy machinery, and worksites at all times. Heavy machinery can be operated from an on-site office or remote location, the benefits of which include improved safety and productivity at customer worksites, accelerated acquisition of technical skills by employees, and the advancement of working style reforms. The concept also opens up job opportunities to a wide range of people, including elderly operators, women, and people with disabilities. Our worker-centric K-DIVE CONCEPT has been favorably received by many of our customers and business partners, and we are confident that it can help solve social issues such as labor shortages and the handing down of technical knowledge.



**Yoichiro Yamazaki**

General Manager of Business Development Department and Corporate Planning Division, Kobelco Construction Machinery, Co., Ltd. Visiting Professor at Hiroshima University

### Contributing to CO<sub>2</sub> Reduction by Expanding Sales of Aluminum Sheets for Automotive Body Panels to Reduce Vehicle Weight

Under the Paris Agreement on climate change, China has declared that it will reduce CO<sub>2</sub> emissions by 60-65% by 2030 compared to 2005 levels and aim to achieve carbon neutrality by 2060. Behind this commitment is the pressing need to improve fuel efficiency of passenger vehicles, which also means there is a growing need for lighter materials.

The China Automotive Technology and Research Center (CATARC) estimates that the amount of aluminum used per vehicle in China will increase from 180 kg in 2019 to 200 kg by 2030. Driven by growing demand for aluminum panels, orders received at Kobelco Automotive Aluminum Rolled Products (China) Co., Ltd. (KARP) in Tianjin, China have increased remarkably over the past few years. In particular, many of KARP’s products are used in electric vehicles.

As a sales representative at KARP’s Shanghai Branch, I have been committed to expanding sales to European and US-based automakers. Every time I see a car of automakers which I have worked with on the streets of Shanghai, I feel proud to be doing my job that can help improve the environment.



**Zhu Wenyu**

Sales Dept., Shanghai Branch, Kobelco Automotive Aluminum Rolled Products (China) Co., Ltd.

### Helping Solve Social Issues by Developing Materials with Various Properties

In the Surface Design & Corrosion Research Section, we are undertaking R&D to provide materials that meet customer needs with high functionality, high durability, and long life with the aim of contributing to a green society and ensuring safety and security in community development. We contribute to solving social issues by creating new value with such products as **KENIFINE™**, a highly functional anti-bacterial coating technology that is effective against COVID-19, and Eco-View, corrosion-resistant steel that can reduce lifecycle costs by extending the painting cycle of bridges and other structures. In addition, with the aim of realizing a hydrogen-fueled society, we are also working on the development of conductive surface treated titanium for fuel cell separators to be installed in next-generation mobility systems, as well as technology that can extend the service life of materials in order to address the problem of hydrogen embrittlement, which occurs to high-pressure tanks and other chambers that are exposed to highly concentrated hydrogen, as it weakens the strength of materials with hydrogen permeating the material surface. We will continue striving to develop materials that solve various social issues.



**Mikako Takeda**

Head of Surface Design & Corrosion Research Section, Materials Research Laboratory Technical Development Group, Kobe Steel, Ltd.

# KOBELCO Group Medium-Term Management Plan (FY2021–FY2023)

Under the Fiscal 2016–2020 Group Medium-Term Management Plan that commenced in April 2016, we aimed to establish three core business areas: materials, machinery, and electric power. However, we have yet to establish those three business pillars due to changes in demand forecasts for our automotive weight reduction strategy, which we have aggressively invested in, as well as due to the emergence of issues concerning our *monozukuri* capabilities and profitability particularly in the materials businesses. In these circumstances, we must continue to work to restore profitability.

Looking at the business environment surrounding our Group, we anticipate further deterioration of structural problems in the steel industry, changes in society moving towards carbon neutrality, and the advancement of digital transformation. We will need to proactively address all of these areas as opportunities for business structure reform and as new sources of earnings.

In light of these circumstances, we have placed top priority on establishing a stable earnings base and taking on the challenge of realizing carbon neutrality in the new KOBELCO Group Medium-Term Management Plan for fiscal 2021–2023.



## The two most important issues to be addressed under the new Medium-Term Management Plan

- (1) Establishing a stable earnings base
- (2) Taking on the challenge of realizing carbon neutrality

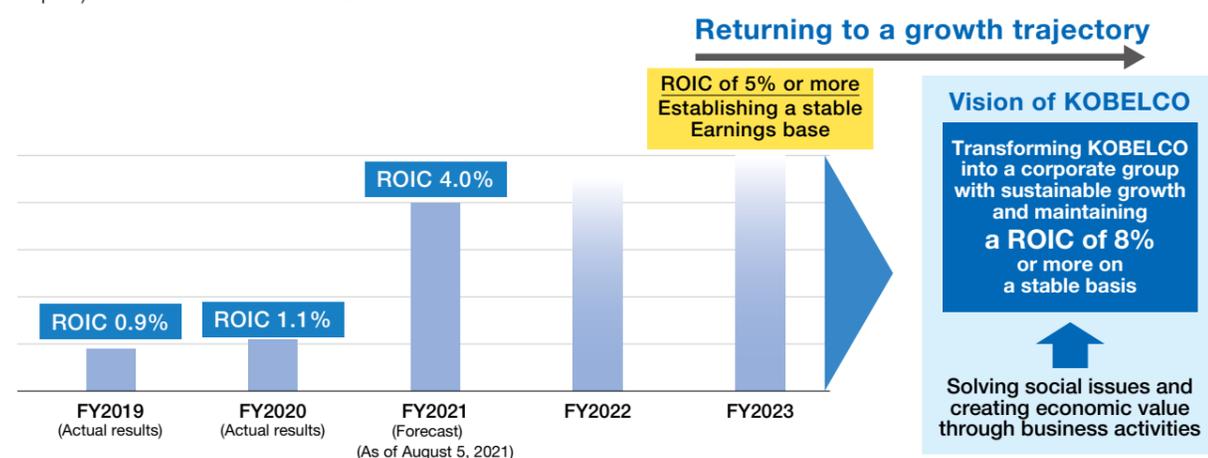
### (1) Establishing a Stable Earnings Base

During the period of our new Medium-Term Management Plan, we will further pursue initiatives aimed at strengthening profitability focused on the materials businesses and establish a stable earnings base for the KOBELCO Group.

We will look to achieve a ROIC (return on invested capital) of at least 5% in fiscal 2023 when our new electric

power projects come into operation and fully contribute to earnings. In the future, our Group aims to maintain a stable ROIC of 8% or higher and achieve sustained growth.

To this end, we will steadily implement the following five key measures.



### Strengthening the earnings base of the steel business

- Under the assumption that domestic demand will continue to decline over the long term, we will establish a structure that can guarantee stable earnings with crude steel production of 6.3 million tons of and secure profitability even with 6.0 million tons.

### Smooth startup and stable operation of new electric power projects

- We will secure earnings of 40.0 billion yen/year from the stable operation of Kobe Power Plant's No. 1 and No. 2 units and Moka Power Plant's No. 1 and No. 2 units and the planned commercial operation of Kobe Power Plant's No. 3 and No. 4 units.

### Strategic investment in the materials businesses leading to earnings contribution

- We will promote strategic investment for automotive weight reduction to realize early earnings contribution by responding to the continuously growing need for lighter vehicles, despite adverse factors such as delays in demand rise and challenges in *monozukuri* capability.

### Restructuring unprofitable businesses

- Amid changes in the demand environment and industrial structure, we are streamlining the steel casting and forging business and the titanium business, which incurred impairment of fixed assets in fiscal 2019, as well as the crane business, which continues to suffer losses, with the aim of turning profits from fiscal 2021–2022.

### Stabilizing earnings in the machinery businesses and responding to growing markets

- In the machinery and engineering businesses, we will expand environmental contribution menu, including solutions to CO<sub>2</sub> reductions, and respond to the growing markets while promoting intra-Group collaboration.
- In the construction machinery business, we will work to depart from dependence on the Chinese market, turn profits from businesses leading to new value creation through providing solutions for innovations such as workstyle reforms in the construction industry, and promote commercialization of peripheral businesses through providing know-how on the installation of new systems.

## (2) Taking on the Challenge of Realizing Carbon Neutrality

The KOBELCO Group has set targets for 2030 and a vision for 2050 from two angles: (1) reducing CO<sub>2</sub> in the Group's production processes; and (2) contributing to reducing CO<sub>2</sub> emissions with the Group's technologies, products, and services.

In order to achieve carbon neutrality in 2050, we will make bold efforts to reduce CO<sub>2</sub> in our production processes mainly by promoting technological development

and utilizing external innovative technologies. In addition, we will capture growing demand for these menus as a business opportunity, taking advantage of our strengths that enables the fusion of technologies and diverse menus that contribute to reducing CO<sub>2</sub> emissions, such as MIDREX<sup>®</sup> Process and materials for lightweight and electric vehicles.

	FY2030 targets	FY2050 vision
Reduction of CO <sub>2</sub> emissions in production processes	30–40%* <sup>1</sup> (vs. FY2013)	Take on the challenge of achieving carbon neutrality
Contribution to reduction of CO <sub>2</sub> emissions through technologies, products, and services* <sup>2</sup>	61 Mt (including 45 Mt or more through MIDREX <sup>®</sup> Process* <sup>3</sup> )	100 Mt or more

\*<sup>1</sup> Most of the reduction targets are associated with iron and steel making processes. We reviewed the targets announced in September 2020 (with the change from BAU to the total amount basis, and the increased use of original solutions reflected).

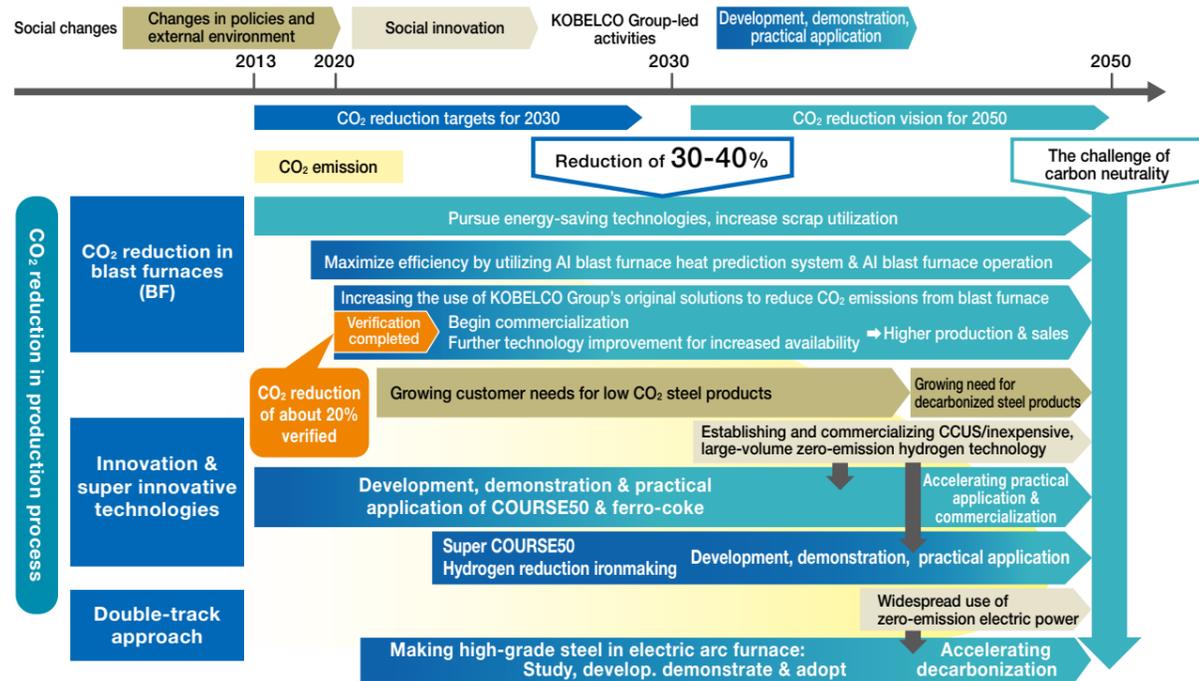
\*<sup>2</sup> The KOBELCO Group contributes to the reduction of CO<sub>2</sub> emissions in various areas of society through its distinctive technologies, products, and services.

\*<sup>3</sup> Reviewed calculation formula announced in September 2020

### Roadmap for Carbon Neutrality in Ironmaking Process

We will strive to lead the industry in the field of CO<sub>2</sub> emission reduction and differentiate ourselves from other companies by utilizing our Group's original MIDREX<sup>®</sup> technologies for blast furnaces as announced in February 2021, while promoting the development of existing

technologies (energy-saving technologies, increased use of scrap, blast furnace operation technology utilizing AI, etc.) as well as innovative technologies (COURSE50, ferro-coke, etc.). We are also considering the introduction of high-grade steel production using electric arc furnaces.



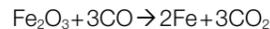
### Blast Furnace Ironmaking

#### Why does the blast furnace emit so much CO<sub>2</sub>?

Roughly 80–90% of CO<sub>2</sub> emissions from iron and steel production is generated by the blast furnace process. This owes to the two functions of the blast furnace.

#### (1) Reduction of iron ore

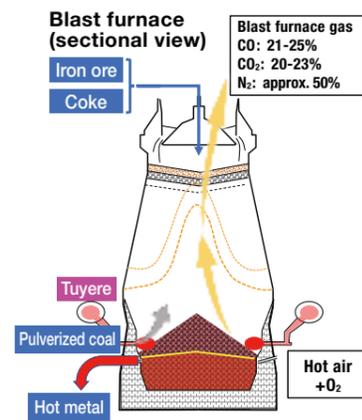
Carbon contained in coke is used to remove oxygen from iron ore.



#### (2) Melting of iron (from solid to liquid)

Iron is melted with combustion heat during carbon combustion and reaction heat during reduction.

These functions make it possible to produce high-grade steel with less impurities compared to the electric arc furnace route that melts scrap iron.



### MIDREX<sup>®</sup> Process

The MIDREX<sup>®</sup> Process is a direct reduction ironmaking technology developed by Midrex Technologies, Inc., Kobe Steel's wholly-owned U.S. subsidiary in the US.

It is the world's leading natural gas-based direct reduction ironmaking method, accounting for roughly 80% of the world's natural gas-based direct reduced iron (DRI) production (approximately 60% of the world's total DRI

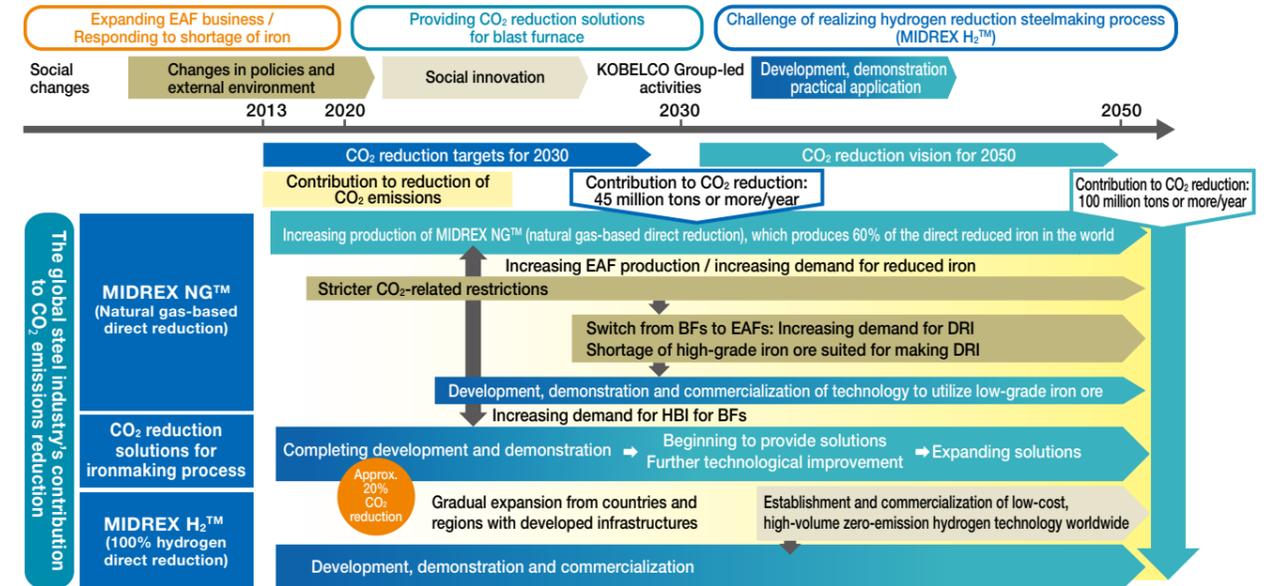
production). Compared to the blast furnace method, the MIDREX<sup>®</sup> Process can lower CO<sub>2</sub> emissions in the ironmaking process by around 20–40%. Over 80 MIDREX<sup>®</sup> plants have been in operation worldwide.

Please refer to the interview with the Midrex President & CEO on pages 30–32.

### Roadmap for CO<sub>2</sub> Reduction through Midrex<sup>®</sup> Process

The MIDREX<sup>®</sup> Process—a proprietary technology of the KOBELCO Group—is a direct reduction ironmaking method that uses natural gas. This process accounts for approximately 60% of the global direct reduced iron (DRI) production. We will continue to drive earnings growth and contribute to the reduction of CO<sub>2</sub> emissions by

providing solutions through the MIDREX<sup>®</sup> Process, while striving to meet greater demand for electric arc furnaces, providing CO<sub>2</sub> reduction solutions for blast furnaces, and taking on the challenge of developing hydrogen reduction ironmaking processes.



### CO<sub>2</sub> Reduction Solutions for Ironmaking Process

We successfully demonstrated technology that can reduce CO<sub>2</sub> emissions from blast furnace operations by charging a large amount of HBI\* produced with the MIDREX<sup>®</sup> Process

in a blast furnace. Please refer to page 70 for more details.

\*Hot briquetted iron: direct reduced iron (DRI) in a briquetted form. Since hot DRI is not suitable for long-distance transportation, it is pressed into a compact solid (briquette) upon being discharged from the reduction furnace.

### MIDREX H<sub>2</sub><sup>TM</sup> (100% hydrogen-based direct reduction)

In the MIDREX<sup>®</sup> Process, natural gas can be gradually replaced with hydrogen to achieve even greater CO<sub>2</sub> emission reductions. In addition, it has been confirmed that the process can be switched to a hydrogen-based reduction ironmaking method that uses 100% hydrogen gas as reductant without the need for additional large investment.

Midrex Technologies, Inc. has entered into a joint research agreement with ArcelorMittal, the world's largest steelmaker, to supply the hydrogen-based direct reduction ironmaking technology in the research and development of low-carbon ironmaking using hydrogen, promoted by ArcelorMittal.

As part of the agreement, Midrex Technologies also entered into an agreement to undertake the design of a demonstration plant for the production of reduced iron using hydrogen, which will be constructed at ArcelorMittal's

Hamburg plant in Germany, utilizing Midrex's technology.

In this demonstration plant, verification of hydrogen reduction will be conducted by recovering hydrogen contained in the top gas from the existing DRI plant that uses natural gas as reductant. The plant will produce about 100,000 tons of DRI per year, making it the world's largest DRI plant that uses only hydrogen as reductant.



ArcelorMittal's existing DRI plant in Hamburg, Germany

### Initiatives in the Automotive Field

Many major countries have set targets for vehicle electrification as part of their efforts to achieve carbon neutrality, and automakers are accelerating their move toward vehicle electrification. The KOBELCO Group is contributing to this shift in the automotive industry with products that enhance the electric vehicle (EV) qualities, including bearing steel, special steel, magnetic materials,

and titanium foil.

And making vehicles lighter not only improves the fuel efficiency of conventional gasoline-powered vehicles but also extends the driving range of EVs. We are working to reduce CO<sub>2</sub> emissions through the supply of materials and components that contribute to the automotive weight reduction.

KOBELCO Group's Contribution to Vehicle Electrification		
Products	Main applications (target parts)	Anticipated effects
Steel: High strength steel	Body frame, bumper, door impact beam	Improved characteristics from lightweighting (Easing weight increase in electrification) • Improved fuel economy for hybrid cars • Longer driving range of electric cars • Improved collision safety (Easing increased braking distance)
Aluminum: Extrusions		
Aluminum: Panel material	Hood, door, roof, fender	Improved characteristics of electric cars
Aluminum: Forged suspensions	Suspension	
Steel: Bearing steel, Special steel wire rod	Electromagnetic parts (motor, etc.) Cold-forged parts (gears, shafts, etc.)	Improved characteristics of electric cars
Steel: Pure iron soft magnetic material (wire rod)		
Steel powder: Magnetic steel powder		
Titanium: NC titanium	Fuel cell stack	Improved characteristics of fuel cell cars

Note: Applications for ICEV (Internal Combustion Engine Vehicle), HEV (Hybrid Electric Vehicle), PHEV (Plug-in Hybrid Vehicle), BEV (Battery Electric Vehicle), FCEV (Fuel Cell Electric Vehicle)

### Renewable Energy Initiatives

From a long-term perspective, we expect a shift from fossil fuels to natural gas and renewable energy as a result of significant changes in the composition of global primary energy sources. In the machinery businesses, our Group will help reduce CO<sub>2</sub> emissions through the provision of technology, products, and services that can

contribute to these fields. In the welding and other materials businesses, we will contribute to the transition to renewable energy through our distinctive technologies, products, and services.

Please refer to pages 56-59 for information about our initiatives in the machinery businesses.

### Welding Solutions

#### Liquefied CO<sub>2</sub> Storage Tanks

For liquefied CO<sub>2</sub> storage tanks, the industry plans to use high-strength steel, but the possibility of using cryogenic steel is increasing in the future. We have been developing high-efficiency electroslag welding materials and methods that employ cryogenic steel for fuel tanks of ships. Going forward, we believe this technology can be applied to liquefied CO<sub>2</sub> storage tanks. By proposing a high-quality, high-efficiency welding process and responding to demand for the construction of liquefied CO<sub>2</sub> storage tanks, we will contribute to the building of a CO<sub>2</sub> recycling infrastructure and the reduction of CO<sub>2</sub> emissions.

high-quality, high-efficiency technologies, including narrow groove welding, high-speed weldability, and high rigidity. We have started developing our own welding materials and processes with a view to commercial application. In particular, the Japanese market is moving toward the introduction of offshore wind power generation, so we expect an increase in demand for high-efficiency welding to lower power generation costs. Going forward, we will continue to develop high-efficiency welding processes and optimal welding materials and increase customer value by proposing welding solutions of our expertise, thereby supporting offshore wind power generation from the welding field and contributing to the reduction of CO<sub>2</sub> emissions.



#### Offshore Wind Power Generation Towers

In the welding of offshore wind power generation towers, special welding processes are used. These require

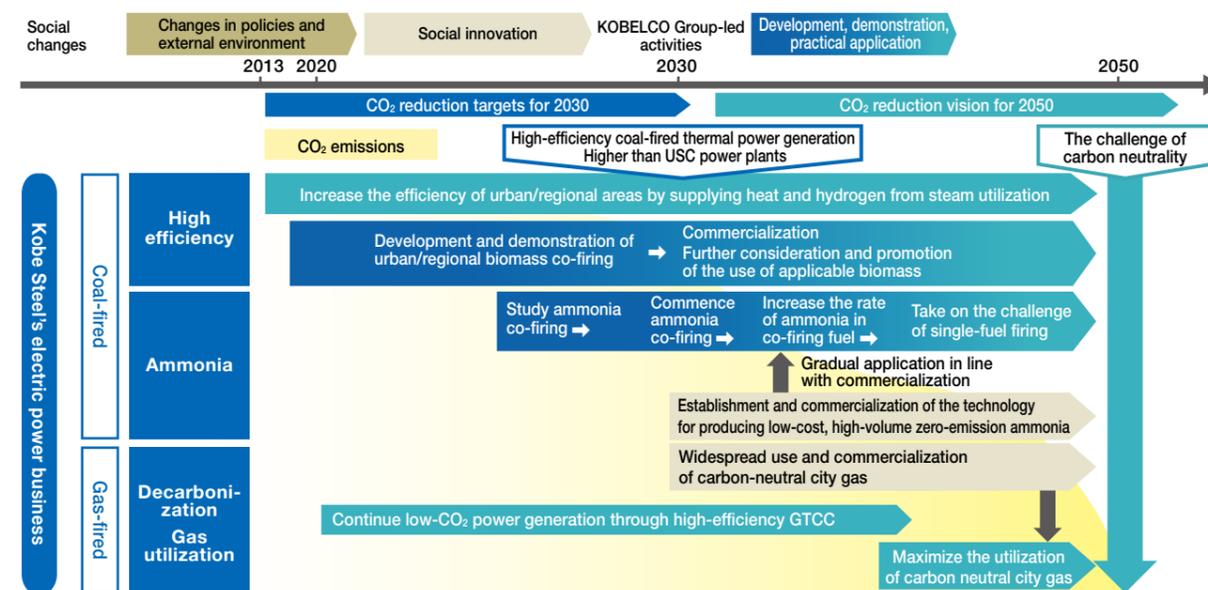


### Roadmap for Carbon Neutrality in the Electric Power Business

In the coal-fired power generation at the Kobe Power Plant, we will supply heat and hydrogen to surrounding areas using steam from the power plant and increase the efficiency of region-wide energy use. We will promote the collaboration of the Electric Power Business and the Engineering Business divisions to strengthen CO<sub>2</sub> reduction initiatives such as co-firing of biomass fuel (sewage sludge and food residue) and ammonia, aiming to achieve the world's most advanced urban coal-fired power plant. In

the gas-fired power generation at the Moka Power Plant, we will continue stable operation of low-CO<sub>2</sub> power generation using high-efficiency GTCC.

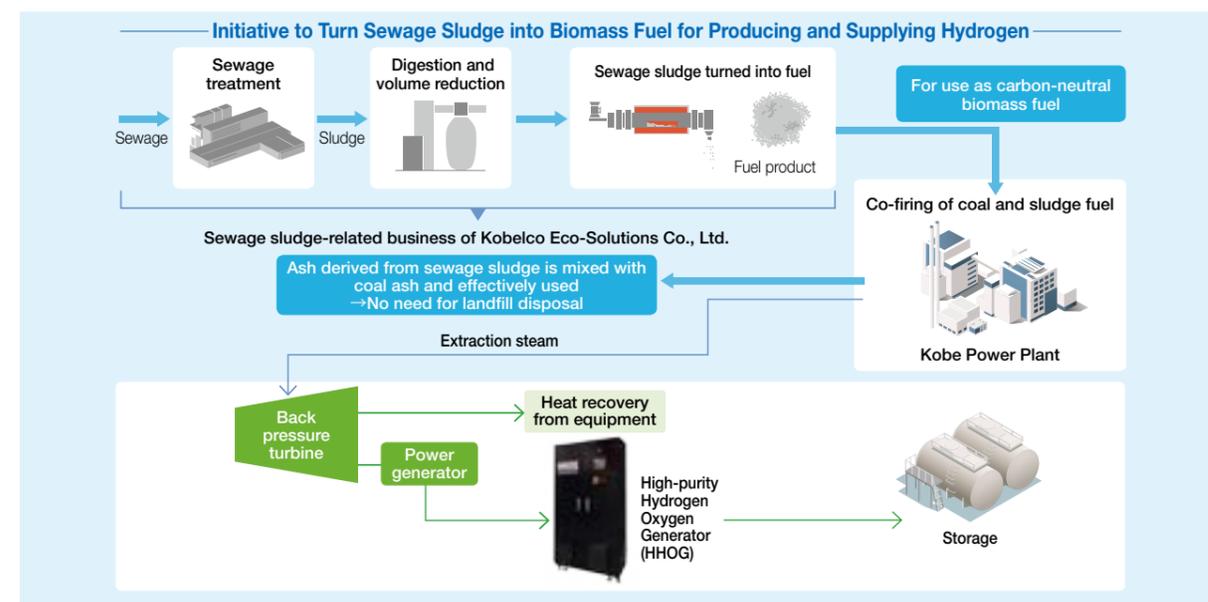
In addition, at the Kobe Power Plant, we will increase the rate of co-firing of ammonia, and ultimately we will take on the challenge of single-fuel firing. At the Moka Power Plant, we are also considering the maximum use of carbon neutral city gas, and through these measures, we aim to achieve carbon neutrality by 2050.



### Urban/Regional Biomass Co-firing: Initiatives for Effective Use of Underutilized Energy

In collaboration of Kobelco Eco-Solutions Co., Ltd., which operates sewage sludge treatment business, and the Kobe Power Plant, we plan to convert sewage

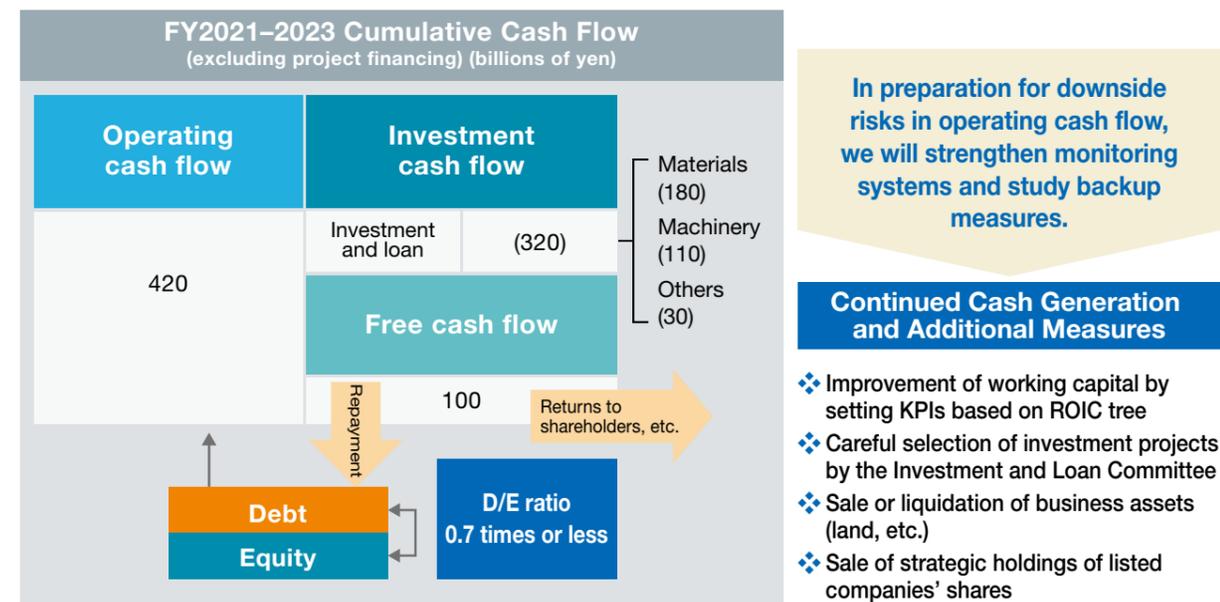
sludge into fuel and use it as a biomass fuel for co-firing at the Kobe Power Plant.



**Financial Strategy**

The basic policy of the Group's financial strategy during the period of the new Medium-Term Management Plan is to carefully select capital and other investments and loans with the goal of keeping investment cash flow within the scope of operating cash flow and achieving a D/E ratio of 0.7 times or less at the end of fiscal 2023.

In addition, we will continue to promote activities to improve working capital and similar metrics, and in preparation for downside risks in operating cash flow, we will strengthen monitoring systems and study and prepare backup measures.



**Returns to Shareholders**

Our basic policy is to return profits to shareholders through dividends. Kobe Steel determines dividends taking its financial condition, business performance, future capital needs and other factors into overall consideration with the aim of paying dividends on a continuous and steady basis in principle.

For the time being, the target dividend payout ratio will continue to be 15–25% of consolidated net income attributable to owners of the parent. However, we will review the situation, including the possibility of raising the payout, starting in fiscal 2023.

	FY2019	FY2020	FY2021–2022	FY2023 and beyond
Dividend payout ratio	NA	15.6% (10 yen/share)	15–25%	To be reviewed including a raise

**Business Portfolio Management**

In light of the problems with the previous Medium-Term Management Plan, which included insufficient focus on asset efficiency and cost of capital and inadequate monitoring of each business unit, the Group will

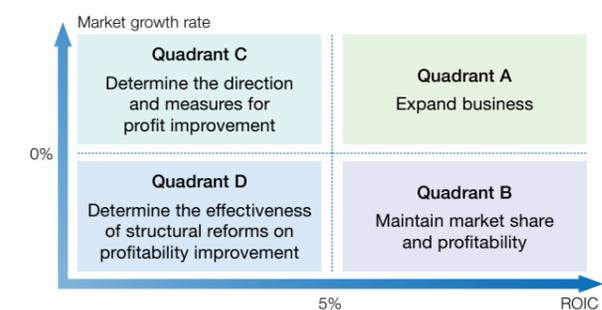
use return on invested capital (ROIC) in the management and evaluation of our business units and work to make efficient use of capital costs and management resources and strengthen the business foundation.

Business Portfolio Management	Management in Business Units
<ul style="list-style-type: none"> <li>• Development of business portfolio strategy</li> <li>• Monitoring of business units</li> <li>• Investment decisions based on business portfolio strategy</li> </ul>	<ul style="list-style-type: none"> <li>• Setting of KPIs based on ROIC tree</li> <li>• Performance management using KPIs</li> </ul>

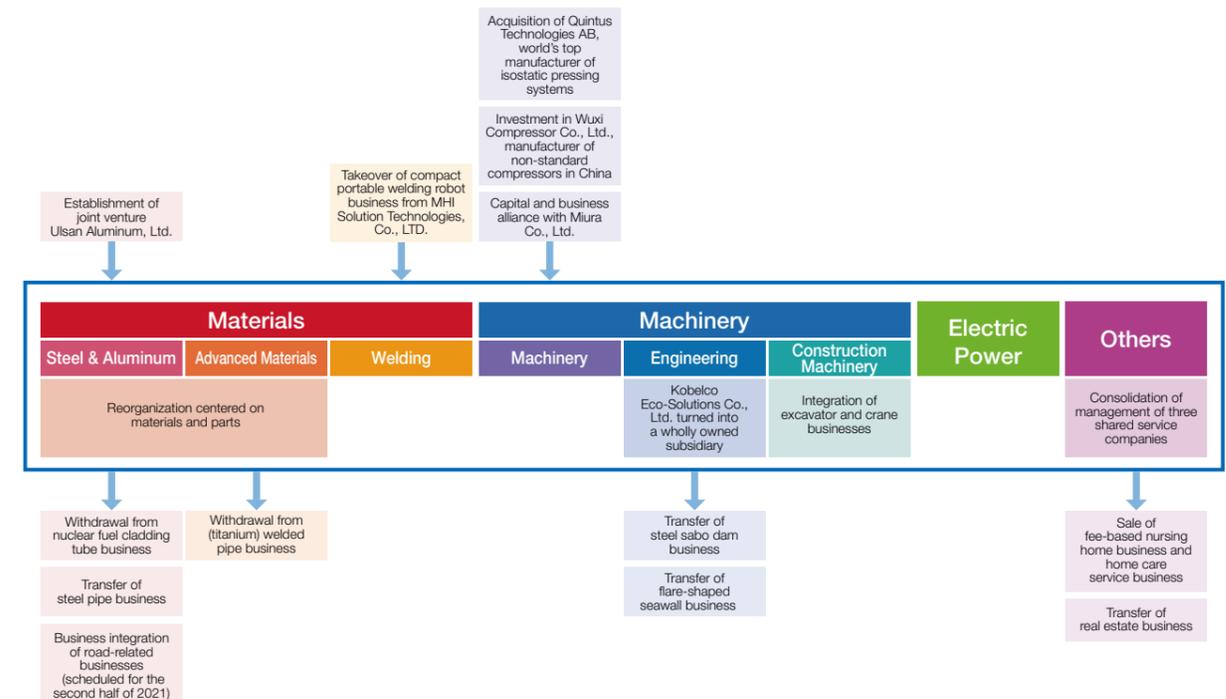
**Business Portfolio Management Policy**

In order to manage our business portfolio, we divide it into four quadrants (A to D) along the axes of profitability (ROIC) and market growth potential. This allows us to consider and implement measures tailored to each quadrant and to optimize the allocation of management resources according to the corresponding strategy.

To implement these measures, we established the Business Portfolio Management Committee and the Investment and Loan Committee in April 2021 as auxiliary bodies to the Executive Council.



**Business Structure Changes (Since 2016)**

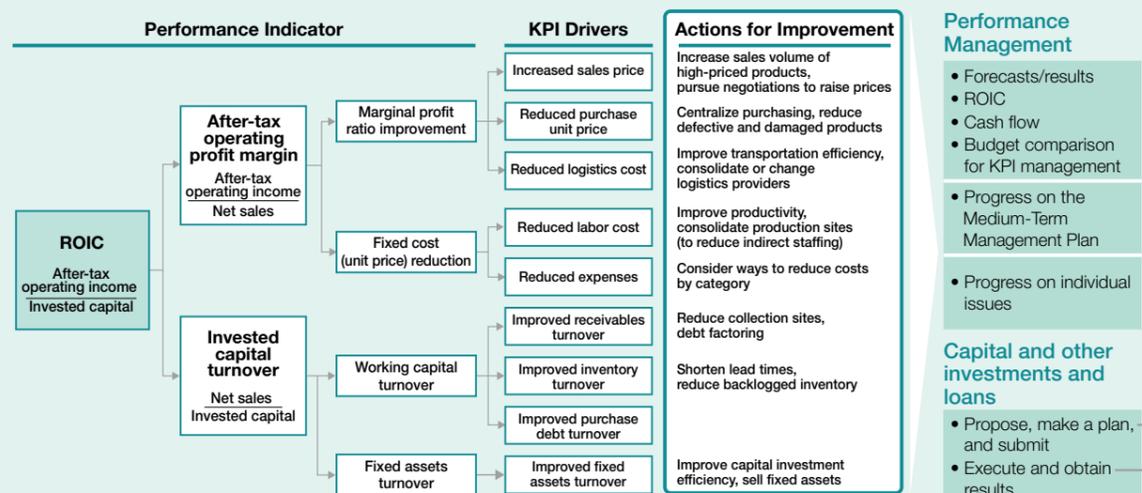


**Business Units**

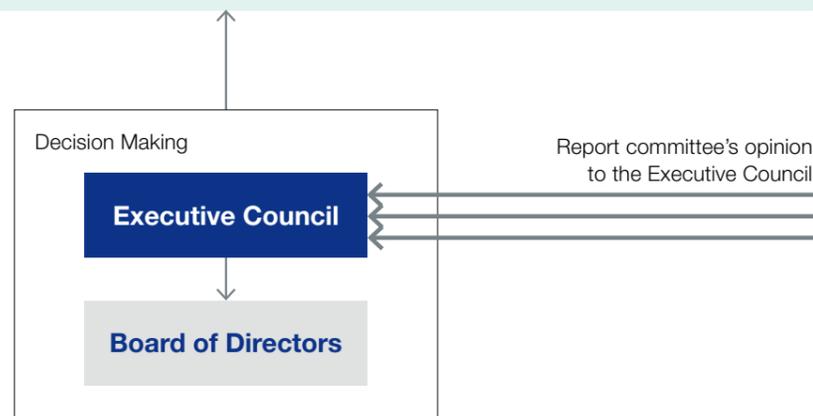
**Business Management Based on ROIC Tree**

In each business unit, major KPIs are set using the ROIC tree, and performance management is conducted based on the KPIs. The Business Portfolio Management Committee conducts monitoring on a quarterly basis.

ROIC tree (The following is a generalized ROIC tree for explanatory purposes only.)



\*Net operating profit after tax (NOPAT) = operating income + dividend income + equity method investment income - tax expenses



**Business Portfolio Management Committee**

**Development of Business Portfolio Strategy**

From the perspective of asset efficiency and cost of capital, the committee formulates Companywide business portfolio strategies and optimal capital structure policies consistent with the strategy.

- Formulate policies for optimal capital structure and cash allocation based on financial planning
- Develop Companywide business portfolio strategies
- Discuss the positioning of each business unit (in the four quadrants) in the Companywide business portfolio strategy
- Consider investment quotas and prioritization by business unit and division

**Monitoring of Business Units**

The committee conducts performance monitoring and KPI management of each business unit.

- Carry out ROIC and cash flow management by business unit and Group company
- Direct and monitor the development of improvement plans for unprofitable businesses
- Examine the future of unprofitable businesses and individual businesses
- Discuss the direction of management resource allocation for new businesses

**Investment and Loan Committee**

**Preliminary Deliberations**

The committee confirms the consistency of important investment projects with the business portfolio strategy, conducts preliminary deliberations that include risk analysis of investment projects and evaluation of the businesses to be invested in, and reports the findings to the Executive Council.

**Main Items to be Checked**

1. Consistency between the positioning of the business units in the business portfolio and the investments implemented
2. 3C analysis and SWOT analysis of the relevant investment and business unit
3. Risk analysis of investment project\*
4. Identification of follow-up items

\* Risk analysis is conducted by the relevant departments, including Corporate Planning Department, Finance and Accounting Department, Business Development Department, IT Planning Department, Environment and Safety Department, Legal Department, etc.

**Investment Project Follow-up**

For important investment projects, the committee will review progress after the investment is made and report the findings to the Executive Council.

- Review the progress on important investment projects
- For projects that have not yet achieved their targets, conduct focused monitoring and, in some cases, reconsider the project plans
- Accumulate knowledge and know-how through the centralized management of investment projects to strengthen the PDCA cycle
- Report the results of the review to the Executive Council

	Business Portfolio Management Committee	Investment and Loan Committee
Committee Chair (Responsible officer)	Executive Officer overseeing the Corporate Planning Dept. (Vice Chair: Executive Officer responsible for the Corporate Planning Dept.)	Executive Officer responsible for the Corporate Planning Dept.
Functions	<ul style="list-style-type: none"> <li>• Develop business portfolio strategy</li> <li>• Monitor profit and loss and cash flow of each business unit</li> </ul>	<ul style="list-style-type: none"> <li>• Preliminary deliberation before making decisions on important new projects</li> <li>• Follow-up of ongoing projects</li> </ul>

# Message from the CFO



**Under the new Medium-Term Management Plan, we will steadily implement our “aggressive” initiative of establishing a stable earnings base and our “defensive” initiative of strengthening the corporate financial structure.**

**Yoshihiko Katsukawa**  
Director, Executive Officer

## Summary of FY2020 Results and Previous Medium-Term Management Plan

In fiscal 2020, sales decreased significantly both in Japan and overseas due to the impact of the COVID-19 pandemic. In the second half of the fiscal year, however, owing to a recovery in demand in the automotive industry and Companywide efforts to improve profitability, we recorded an ordinary income of 16.1 billion yen. In addition, we managed to keep a D/E ratio of 1 or lower, excluding early procurement of borrowings, by controlling expenditures, strengthening cash management, and improving working capital.

Under the previous Medium-Term Management Plan, Kobe Steel aimed to establish a business enterprise centered on the three core business areas of materials, machinery and electric power. The plan included measures

to establish a stable earnings base by consolidating upstream operations in the steel business and advancing new power generation projects, in addition to pursuing growth opportunities through automotive weight reduction strategies and other active investments. However, due to changes in demand assumptions and *monozukuri* capability issues, the automotive weight reduction strategies will likely take longer to contribute to earnings than initially expected. In addition, in fiscal 2019, we recorded significant impairment losses in the titanium, aluminum suspensions and aluminum casting and forging businesses. As a result, due to the challenges remaining in the materials businesses as a whole, we were unable to establish the “three-pillar business enterprise” as planned.

## Goals of the New Medium-Term Management Plan—ROIC Target

Under the new Medium-Term Management Plan, fiscal 2021–2023 is defined as a period for establishing a stable earnings base while ensuring a reliable return on investment. With our capital cost (WACC: weighted average cost of capital) in mind, we set a target for fiscal 2023 of achieving a ROIC (return on invested capital) of at least 5%. Our ROIC in fiscal 2020 was 1.1%, but we expect an improvement to 4% (as of August 5, 2021) in fiscal 2021. Currently, we are approaching our goal, and we

intend to achieve it step by step, aiming for establishing a system that can achieve a ROIC of 5% or higher on a stable basis.

As a measure of capital efficiency, ROIC has the advantage of being able to compare business assets across business units, as well as comparing them with the Company's overall cost of capital. Another advantage is that the ROIC tree can be used to break down elements to identify which elements are growth drivers. We have

already created a ROIC tree for each business unit, identified KPIs (Key Performance Indicators) for the driver elements, and incorporated them into the targets for each worksite, although it will take some time for the business units to be able to fully utilize them.

To improve ROIC, you can either improve earnings (the numerator) or improve the efficiency of the invested

capital (the denominator); however, our approach links both earnings and invested capital. In terms of earnings, key measures include strengthening the earnings base of the steel business, making strategic investments contribute to earnings, and restructuring unprofitable businesses. In terms of invested capital, it will be important to reduce inventories and capital expenditures across all businesses.

## Business Portfolio Strategy

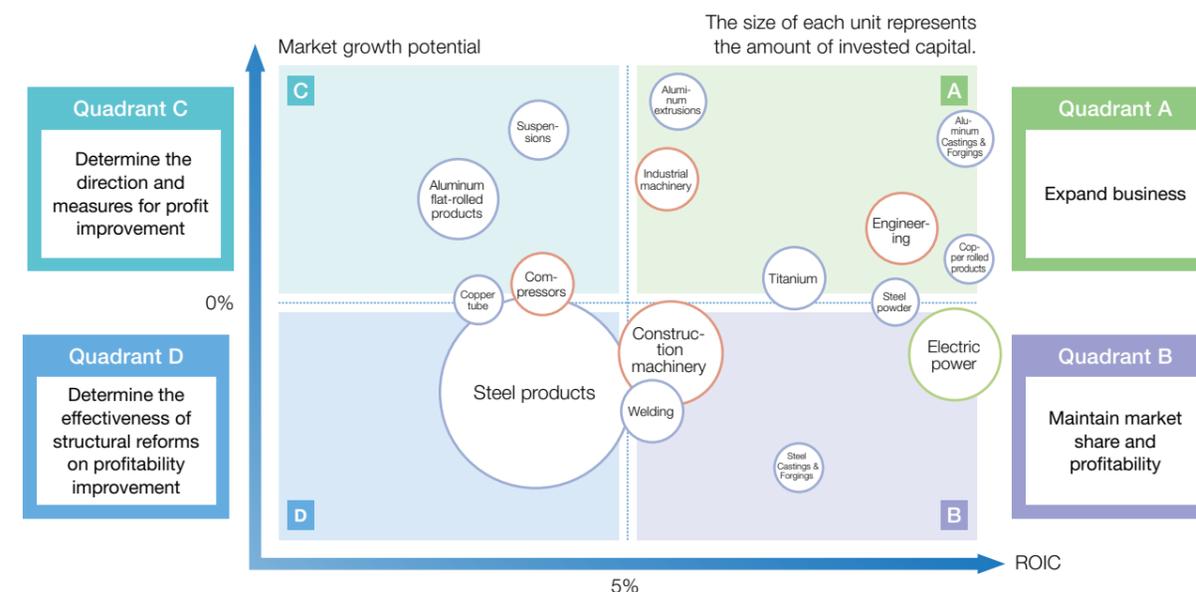
For management purposes, we have categorized our business portfolio into four quadrants based on ROIC and market growth potential, and then plotted the position of each business unit. In April of this year, the Business Portfolio Management Committee was established as an auxiliary body to the Executive Council. The functions of the committee are to promote business portfolio management and monitor the performance of each business unit. The committee discusses the position of each business unit, investment priorities, and the future of unprofitable businesses, and reports the results of its deliberations to the Executive Council.

As a result, the Executive Council now has a mechanism for open discussion of portfolio strategy based on the common benchmark of ROIC. However, since the business areas of materials, machinery and electric power have very different characteristics, it is necessary to consider not only ROIC but also business characteristics. In

terms of ROIC, process industries such as our materials businesses are at a disadvantage compared to the machinery businesses, but they will be evaluated differently in the contribution to value creation. Some businesses may have a ROIC of 10%, while other businesses may result in 5%. However, our final goal is to achieve a minimum of 5% overall.

In the business portfolio, it is particularly important to address the “Quadrant D” where both ROIC and market growth rates are low. The first task is to determine whether it is possible to improve capital efficiency and shift those businesses to the “Quadrant B” where the market growth rate is low but a ROIC of 5% or more can be expected. In the case of unprofitable businesses, we will instruct them to formulate improvement plans and strengthen monitoring, and if they fail to improve, we will review our strategy at an appropriate time.

## Business Portfolio (Assumption for FY2023)



## Message from the CFO

### Selecting Investment Projects and Ensuring their Success

Along with the Business Portfolio Management Committee, the Investment and Loan Committee was established in April of this year with the goal of reinforcing the PDCA cycle. The committee will work with the Business Portfolio Management Committee to manage invested capital. Specifically, in addition to preliminary deliberations that include risk analysis of investment projects and evaluation of the businesses to be invested in, the committee will hold in-depth discussions on the timing and feasibility of implementation and make recommendations to the Executive Council.

Also, with respect to the follow-up of investment projects that have already been decided, to ensure that the

desired results are achieved as planned, the committee will take advantage of the centralized management of investment projects to assemble the knowledge and know-how, conduct a thorough discussion, and report the follow-up results to the Executive Council. The PDCA (Plan-Do-Check-Act) cycle for investment projects tends to be lax in terms of C and A (Check and Action). However, by strengthening the follow-up (Check), we will be able to identify issues at an early stage and steadily implement measures for improvement (Action). As in the case of unprofitable businesses, we will focus on monitoring the projects that have not met their targets and review our strategy as necessary.

### Investment Plan in the New Medium-Term Management Plan

Large investments were made during the period covered by the previous Medium-Term Management Plan, and the period of fiscal 2021–2023 has been defined as essentially a payback period for these investments with limited new investments. On the other hand, supporting digital transformation (DX) is a priority, so we are planning to invest about 15 billion yen per year in IT strategy-related investments. This includes R&D of the K-DIVE CONCEPT, a remotely operated hydraulic excavator. With respect to R&D and capital investment for carbon neutrality, we

will implement those related to the MIDREX® Process as planned, but other than that, no such investments are included in the new Medium-Term Management Plan. However, there is no doubt that significant additional investment in carbon neutrality will be required as we approach the year 2030. If an investment is necessary for the development of sustainability management, which leads to the long-term improvement of our corporate value, we will continue to invest without hesitation even if ROIC deteriorates temporarily.

### Reducing Capital Costs

We recognize that our current cost of capital, as demanded by the market, is around 5%. While improving ROIC, we also need to make efforts to lower the cost of capital, which sets the hurdle rate for investments. There are three effective ways to lower the cost of capital: **(1) establish a stable earnings base, (2) strengthen the corporate financial structure, and (3) proactively disclose information to the market.**

#### (1) Establishing a stable earnings base

In order to stabilize earnings, it is necessary to lower the fixed costs of businesses with high earnings volatility, such as steel products and construction machinery, to make them less susceptible to market fluctuations. In terms of steel, we are planning to produce 6.7 million tons of crude steel in fiscal 2021, but we aim to establish

a profit structure that will allow us to remain profitable even if production falls to 6 million tons in the future. We will appropriately monitor each business to ensure that it is progressing as planned, and at the same time, review the business portfolio strategy of the entire company as necessary.

#### (2) Strengthening the corporate financial structure

We estimate the cumulative operating cash flow for the three-year period of fiscal 2021–2023 to be 420 billion yen. On the other hand, we have completed our scheduled large strategic investments and new investments in the future will be limited within the scope of operating cash flow. Therefore, free cash flow is assumed to be 100 billion yen, which will be used to repay interest-bearing

debt, excluding returns to shareholders, etc. By doing so, we aim to achieve a D/E ratio of 0.7 or less at the end of fiscal 2023 and return to an A+ financial rating in the future. At the same time, to prepare for downside risk in operating cash flow, we will strengthen our monitoring and consider backup measures such as the sale of business assets.

In addition, in June 2021, we issued five-year bonds amounting to 10 billion yen, which was a long-awaited milestone for the Company. We had not been able to issue corporate bonds since 2015 due to poor performance and the quality misconduct. As a result, we had to rely on borrowing, and our ratio of direct financing had fallen to 20%. Going forward, we will issue corporate bonds in a more consistent manner, including 7-year, 10-year and other long-term bonds, to bring the ratio

closer to the normal direct ratio. In addition, we will consider various other financing options such as green and transition financing in view of our efforts towards carbon neutrality.

#### (3) Proactive disclosure of information to the market

I believe that appropriate risk-taking is necessary to achieve sustainable growth and increase corporate value. We should strive to reduce uncertainty by disclosing important risks and our measures to deal with them in order to close the information gap between the companies and markets. We have been disclosing information appropriately through financial results briefings, business briefings, press releases, etc., and we will continue to proactively disclose information that is beneficial to the market.

### To Our Stakeholders

Our stakeholders, including shareholders and investors, are invaluable to the Company, especially in bringing external perspectives to the attention of management. Going forward, we hope to increase the opportunities for dialogue as a way to receive valuable feedback.

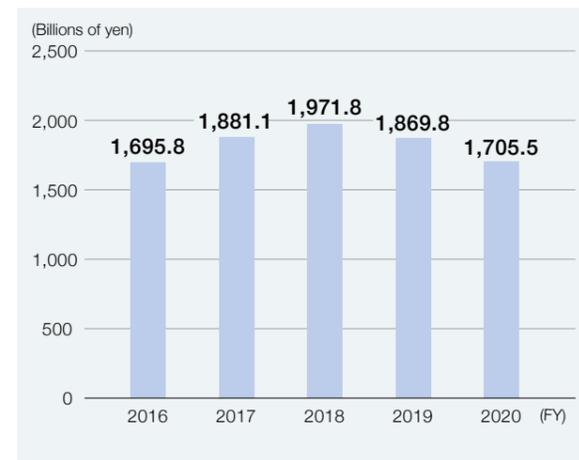
With respect to the dividend payout ratio, the current ratio of 15-25% will be maintained for fiscal 2021-2022, as we are still in the process of establishing a stable

earnings base. However, we are fully aware that this level is low compared to other companies, and we intend to review our options, including an increase, starting in fiscal 2023. To do so, it is necessary to first establish a stable earnings base and return to a growth trajectory. I will devote my utmost efforts to solving our financial challenges in order to achieve the ROIC target of 5% or higher.

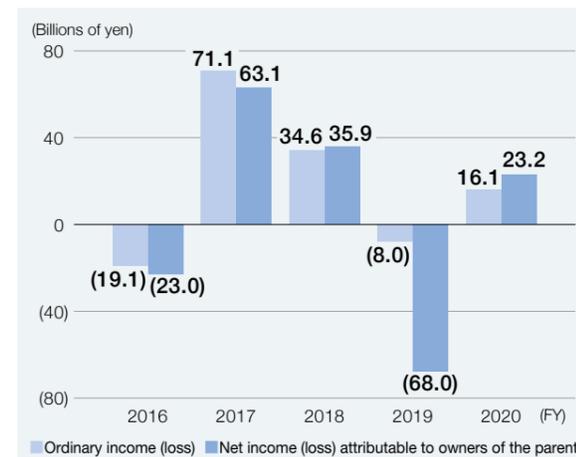


# Financial Highlights

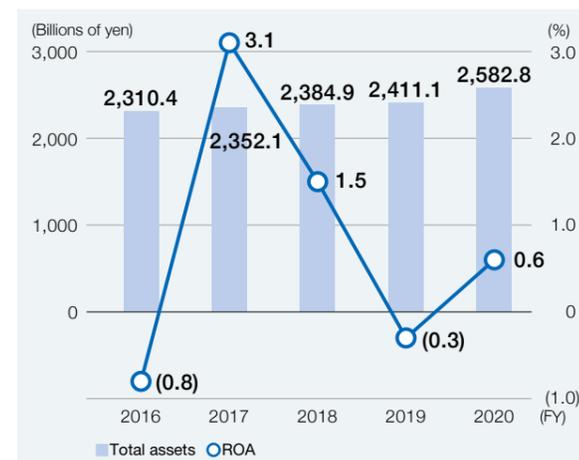
## Net Sales



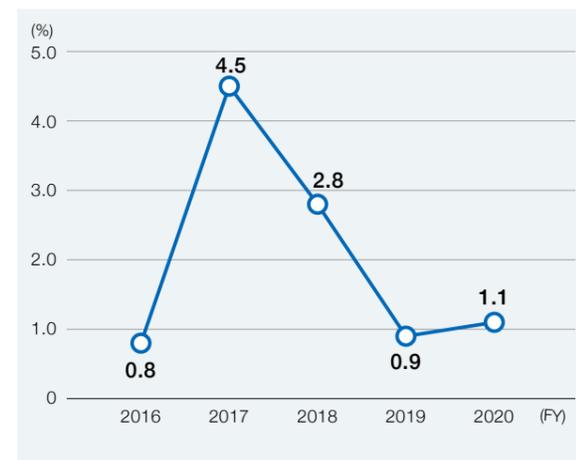
## Ordinary Income (Loss)/Net Income (Loss) Attributable to Owners of the Parent



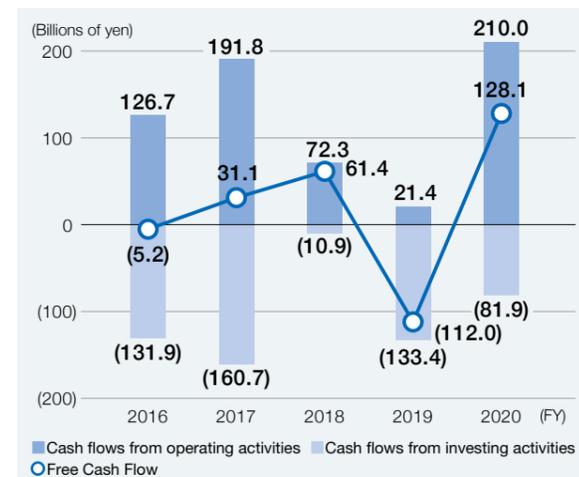
## Total Assets/ROA



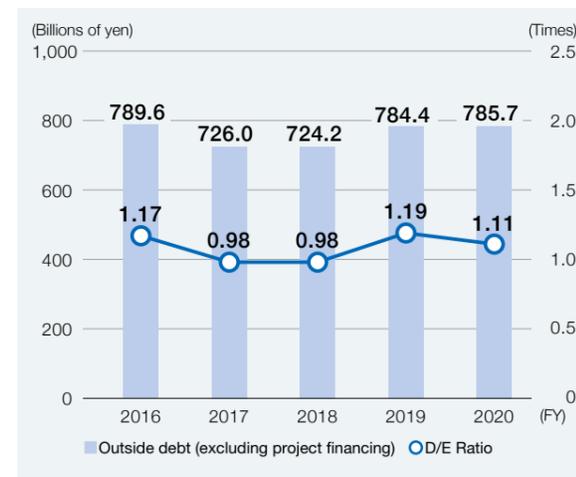
## ROIC



## Free Cash Flow



## Outside Debt & D/E Ratio



# At a Glance

		Segment	
Materials Businesses		<b>Steel &amp; Aluminum</b> Net sales <b>¥696.3 billion</b> (down ¥83.9 billion year on year) Ordinary income (loss) <b>¥(22.6) billion</b> (down ¥6.1 billion year on year) Total assets <b>¥1,000.3 billion</b> (down ¥22.1 billion year on year) Number of employees <b>12,424</b>	
		<b>Advanced Materials</b> Net sales <b>¥238.1 billion</b> (down ¥58.9 billion year on year) Ordinary income (loss) <b>¥(12.1) billion</b> (up ¥13.1 billion year on year) Total assets <b>¥256.0 billion</b> (down ¥21.1 billion year on year) Number of employees <b>6,080</b>	
		<b>Welding</b> Net sales <b>¥70.0 billion</b> (down ¥13.7 billion year on year) Ordinary income (loss) <b>¥1.7 billion</b> (down ¥1.1 billion year on year) Total assets <b>¥77.6 billion</b> (down ¥2.0 billion year on year) Number of employees <b>2,514</b>	
	Machinery Businesses		<b>Machinery</b> Net sales <b>¥175.3 billion</b> (up ¥9.3 billion year on year) Ordinary income (loss) <b>¥11.4 billion</b> (up ¥1.8 billion year on year) Total assets <b>¥181.3 billion</b> (down ¥3.4 billion year on year) Number of employees <b>4,661</b>
			<b>Engineering</b> Net sales <b>¥136.1 billion</b> (down ¥5.3 billion year on year) Ordinary income (loss) <b>¥4.4 billion</b> (down ¥1.3 billion year on year) Total assets <b>¥123.8 billion</b> (down ¥15.1 billion year on year) Number of employees <b>3,524</b>
		<b>Construction Machinery</b> Net sales <b>¥333.1 billion</b> (down ¥27.6 billion year on year) Ordinary income (loss) <b>¥12.7 billion</b> (up ¥5.2 billion year on year) Total assets <b>¥334.6 billion</b> (down ¥6.3 billion year on year) Number of employees <b>7,917</b>	
Electric Power Business		<b>Electric Power</b> Net sales <b>¥80.4 billion</b> (up ¥4.7 billion year on year) Ordinary income (loss) <b>¥20.6 billion</b> (up ¥11.7 billion year on year) Total assets <b>¥321.3 billion</b> (up ¥69.6 billion year on year) Number of employees <b>263</b>	
	Other Businesses		<b>Other Businesses</b> Net sales <b>¥27.8 billion</b> (down ¥5.8 billion year on year) Ordinary income (loss) <b>¥4.2 billion</b> (up ¥0.8 billion year on year) Total assets <b>¥56.1 billion</b> (up ¥1.2 billion year on year) Number of employees <b>1,637</b>

# Economic Environment by Customer Domain

The KOBELCO Group operates businesses centered on seven segments, and its main customer fields can be divided into three categories of Mobility, Life, and Energy & Infrastructure. The table below summarizes the economic environment, risks and opportunities associated with each of these three categories.

Target	Economic Environment	Risks and Opportunities	Related Segments
<b>Mobility</b>			
<b>Automobiles</b>	<ul style="list-style-type: none"> <li>Although production is recovering from the impact of the COVID-19 pandemic, the pace of recovery differs by region.</li> <li>On the other hand, the global semiconductor shortage is having a major impact on automobile production. This impact is expected to continue throughout fiscal 2021.</li> <li>In the medium- to long-term, global automobile production will steadily increase due to increased demand in emerging countries.</li> <li>In response to accelerating global efforts to become carbon neutral, many countries will strengthen efforts to support zero-emission vehicles. As a result, electrification will further accelerate.</li> <li>More and more new models will be "connected cars" that share internet access and data with various devices.</li> <li>There is a growing trend toward practical application of self-driving cars in countries around the world along with the advancement of testing and legislation.</li> </ul>	<p><b>Risks</b></p> <ul style="list-style-type: none"> <li>Decline in demand for automobiles due to changes in lifestyles and increased adoption of sharing and MaaS (Mobility as a Service)</li> <li>Further tightening of fuel efficiency regulations and enactment of Life Cycle Assessment (LCA) regulations</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Acceleration of electrification</li> <li>Greater adoption of connected and self-driving vehicles</li> </ul>	Steel & Aluminum Advanced Materials Welding Machinery
<b>Aircraft</b>	<ul style="list-style-type: none"> <li>Demand decreased significantly due to travel restrictions caused by the COVID-19 pandemic. Demand is expected to return to pre-COVID levels in 2023 or later.</li> <li>The profitability of the airline industry has deteriorated. Demand for new aircraft is sluggish due to a reduction in the number of aircraft in use and a reconsideration of fleet upgrades.</li> <li>On the other hand, cargo demand remains strong.</li> <li>In response to accelerated efforts to become carbon neutral, there has been an increase in the use of fuel-efficient aircraft, improved engines, and the adoption of alternative aviation fuels.</li> </ul>	<p><b>Risks</b></p> <ul style="list-style-type: none"> <li>Decrease in passenger demand due to lifestyle changes</li> <li>Sluggish demand for new aircraft due to deteriorating profitability</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Increase in cargo demand</li> <li>Expanded use of fuel-efficient aircraft and improved engines</li> </ul>	Advanced Materials
<b>Shipbuilding</b>	<ul style="list-style-type: none"> <li>As the global economy grows, the volume of marine cargo movements and the new shipbuilding market will expand over the medium to long term. However, the supply-demand balance deteriorated significantly due to the completion of a large number of new vessels ordered during the boom period and the supply of vessels that exceeded the growth in the volume of marine cargo. It will take some time for demand to recover.</li> <li>The COVID-19 pandemic has halted new shipbuilding negotiations, and the rapid acceleration of global warming countermeasures has lowered shipowners' confidence in placing orders.</li> <li>In response to the significant tightening of environmental regulations, study of the introduction of zero-emission vessels is accelerating.</li> <li>The development of IoT and AI, and the logistics revolution, have led to changes in the concept and value of shipping, including the concept of autonomous ships.</li> </ul>	<p><b>Risks</b></p> <ul style="list-style-type: none"> <li>Deterioration in the supply-demand balance</li> <li>Rise of Chinese and Korean shipbuilders</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Accelerated introduction of zero-emission ships and additional needs</li> <li>Introduction of IoT and AI for ships</li> </ul>	Steel & Aluminum Advanced Materials Welding
<b>Life</b>			
<b>Food containers</b>	<ul style="list-style-type: none"> <li>Environmental considerations are driving a shift from plastic bottles to aluminum cans. Steady demand for aluminum cans is expected to continue.</li> </ul>	<p><b>Risks</b></p> <ul style="list-style-type: none"> <li>Weather conditions</li> <li>Decline in domestic production due to imported materials</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Return to metal containers due to the growing attention to the problem of microplastic</li> </ul>	Steel & Aluminum
<b>IT &amp; semi-conductors</b>	<ul style="list-style-type: none"> <li>There is a significant increase in demand for semiconductors for gaming machines and computers due to the increase in telework and stay-at-home consumption impacted by the COVID-19 pandemic.</li> <li>There is an increase in demand for semiconductors for data centers and smartphones compatible with 5th generation mobile communication systems (5G).</li> <li>Despite cyclical changes in demand, this sector is anticipated to grow over the medium to long term.</li> </ul>	<p><b>Risks</b></p> <ul style="list-style-type: none"> <li>Market fluctuations (supply-demand mismatches)</li> <li>Geopolitical risks</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Advancement of digital transformation</li> <li>Expanded adoption of connected and self-driving cars</li> </ul>	Steel & Aluminum Advanced Materials
<b>Energy &amp; Infrastructure</b>			
<b>Construction &amp; civil engineering</b>	<ul style="list-style-type: none"> <li>In addition to expected delays in construction work due to the prolonged impact of the COVID-19 pandemic, sluggish corporate earnings and cooling personal consumption are expected to slow the recovery in demand.</li> <li>Overseas, as in Japan, it will take time for investment to recover.</li> <li>Global demand is expected to expand in the U.S., Europe, and ASEAN markets due to increased infrastructure investments in 2021 or later. The Chinese market is expected to continue growing against the backdrop of strong infrastructure investment.</li> <li>In Japan, demand is expected to gradually recover after bottoming out in FY2021 and then remain generally flat over the medium term.</li> </ul>	<p><b>Risks</b></p> <ul style="list-style-type: none"> <li>Decline in infrastructure investment in many countries due to economic downturn</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Acceleration of efforts toward the development of smart cities</li> <li>IT for construction machinery (automatic operation, remote control, etc.)</li> <li>DX progress at construction sites</li> </ul>	Steel & Aluminum Welding Construction Machinery

Target	Economic Environment	Risks and Opportunities	Related Segments
<b>Energy &amp; Infrastructure</b>			
<b>Water treatment and waste treatment</b>	<ul style="list-style-type: none"> <li>While demand for domestic public investment is expected to continue for the time being due to the government's Plan for Building National Resilience and similar programs, the market is undergoing changes such as population decline, regionalization, and public-private partnerships.</li> <li>Demand for water treatment-related infrastructure will continue to grow, especially in emerging Asian countries, as overseas populations increase and living standards improve.</li> </ul>	<p><b>Risks</b></p> <ul style="list-style-type: none"> <li>Slowdown in public investment in Japan</li> <li>Decline in overseas demand due to the impacts of the US-China conflict and COVID-19 pandemic</li> <li>Upgraded technical standards for reducing environmental impact, etc., and increased cost burden and intensified competition in the development and verification of technologies</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Increasing needs driven by economic growth in emerging countries</li> </ul>	Engineering
<b>Oil refining and petro-chemical</b>	<ul style="list-style-type: none"> <li>Global demand is expected to grow as the economy recovers, although it has been declining due to restrictions on the movement of people and declining economic activity caused by the COVID-19 pandemic. However, oil demand is expected to continue to decline over the medium to long term due to factors such as improved fuel efficiency and the shift to other energy sources.</li> <li>With changes in the business environment toward carbon neutrality, it is expected that the current uncertainty will continue due to delays in development and capital investment projects by major oil companies.</li> <li>As the business environment continues to change in the face of stricter environmental regulations, it is necessary to make efforts to reduce greenhouse gas emissions through leveraging new non-fossil energy businesses such as renewable energy and hydrogen for future growth.</li> </ul>	<p><b>Risks</b></p> <ul style="list-style-type: none"> <li>Shift in the business environment towards carbon neutrality</li> <li>Declining demand for crude oil and price fluctuations</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Expansion of non-fossil energy businesses</li> </ul>	Machinery
<b>Industrial machinery</b>	<ul style="list-style-type: none"> <li>Demand for industrial machinery has declined as user companies hold back capital investments against the backdrop of US-China trade friction, the prolonged Brexit, and the impact of the COVID-19 pandemic, while investments in some major industries have already peaked. Although capital investment is expected to recover in the future in response to the recovery in demand in major user industries, the pace of recovery remains slow and the situation is still uncertain.</li> <li>In the medium to long term, global demand will increase gradually, mainly in emerging countries. Domestic demand is also expected to recover gradually.</li> <li>With the acceleration of carbon-neutral initiatives, there is growing demand for CO<sub>2</sub> reduction and energy conservation.</li> </ul>	<p><b>Risks</b></p> <ul style="list-style-type: none"> <li>Decline in investment sentiment due to corporate economic downturn</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Growing demand for energy conservation to achieve carbon neutrality</li> <li>Advancement of labor savings and work style reform accompanying the progress of DX</li> </ul>	Welding Machinery
<b>Renewable energy</b>	<ul style="list-style-type: none"> <li>Demand temporarily declined as the appetite for capital investment has receded due to the impact of the COVID-19 pandemic.</li> <li>However, adoption of renewable energy will expand with the acceleration of carbon-neutral initiatives, resulting in significant growth over the medium to long term.</li> <li>This expansion may be further accelerated by future national policies.</li> </ul>	<p><b>Risks</b></p> <ul style="list-style-type: none"> <li>Delays in the development of national policies and legislation</li> <li>Cost competition due to intensifying competition and increased cost burden for development and verification of technologies</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Acceleration of carbon neutrality leading to legislation and increased investment in many countries</li> <li>Expanded use of renewable energy driven by lower cost of facilities</li> </ul>	Welding Machinery Engineering
<b>Urban transit</b>	<ul style="list-style-type: none"> <li>In emerging countries where the population concentrates in metropolitan areas, there is a strong need for transportation systems to alleviate traffic congestion and prevent air pollution.</li> <li>Japanese ODA loan projects will continue, mainly in Southeast Asia.</li> </ul>	<p><b>Risks</b></p> <ul style="list-style-type: none"> <li>Decline in users in Japan due to the declining birthrate and the aging of society</li> <li>Delays in Japanese ODA loan projects and other projects due to the COVID-19 pandemic and a slowdown in the appetite for invest</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Demand for maintenance of existing projects and emergence of new and extension projects in Japan</li> <li>Continuation of Japan's infrastructure export policy</li> </ul>	Engineering
<b>Direct reduced iron</b>	<ul style="list-style-type: none"> <li>Interest has been increasing in the direct reduction ironmaking process, which emits less CO<sub>2</sub> than the blast furnace route.</li> <li>With growing global demand for zero-emission steel production, steel manufacturers are leaning toward adopting this technology.</li> </ul>	<p><b>Risks</b></p> <ul style="list-style-type: none"> <li>Deterioration in supply-demand balance due to oversupply, especially by Chinese steelmakers</li> <li>Decline in investment sentiment of steelmakers due to economic downturn</li> <li>Intensifying competition and lower barriers to entry due to the rapid expansion of the direct reduced iron market</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Growing interest in low-CO<sub>2</sub> steel products associated with acceleration of carbon neutrality</li> <li>Tighter regulations on CO<sub>2</sub> emissions in many countries</li> <li>Increased need for lower CO<sub>2</sub> through expanded use of carbon pricing</li> </ul>	Steel & Aluminum Engineering
<b>Electric power</b>	<ul style="list-style-type: none"> <li>Intensified competition in electric power sales and the revitalization of wholesale electric power trading market have been taking place as a result of Japan's electricity system reforms, including the full liberalization of the retail market.</li> <li>There is a downtrend in prices in the wholesale electricity market, owing to a large influx of solar power and other forms of renewable energy.</li> <li>Japan seeks to reduce greenhouse gas emissions by 2030 while ensuring a stable energy supply, economic efficiency, and environmental compliance with priority on safety.</li> </ul>	<p><b>Risks</b></p> <ul style="list-style-type: none"> <li>Anti-coal trend and investor divestment movement</li> <li>Fading out of inefficient coal-fired power plants</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>With the progress of electrification and hydrogenation in the non-electric power sector, the amount of electricity required is expected to increase in the future</li> <li>Increasing need for decarbonized thermal power sources as a way to stabilize and adjust the electricity system</li> <li>Creation of new electricity markets triggered by the electricity liberalization</li> </ul>	Engineering Electric Power

# Materials Businesses



The Medium-Term Management Plan has laid out our 2030 targets and 2050 vision for carbon neutrality. In the materials businesses, reducing CO<sub>2</sub> emissions in the steelmaking process is a major issue, along with the efforts to establish a stable earnings base such as securing orders for lightweight materials for automobiles and strengthening our *monozukuri* capabilities. The Group will work to achieve its 2030 targets by introducing its proprietary HBI (hot briquetted iron) charging technology for blast furnaces, announced in February 2021. With respect to the vision of achieving carbon neutrality by 2050, there are many issues to be overcome in terms of technical hurdles, costs, and other factors, but we will strengthen our efforts to achieve this goal.

Meanwhile, the Group has many technologies and products that contribute to carbon neutrality. These technologies and products have been adopted by customers for a variety of environmentally friendly products, including electric vehicles. We will also work to strengthen these product capabilities as we work to reduce CO<sub>2</sub> in a wide range of ways.

Executive Vice President  
**Makoto Mizuguchi**

## Strategy

In the materials businesses, we place priority on the realization of a green society, in particular achieving carbon neutrality. With respect to CO<sub>2</sub> reduction from blast furnaces, we have already demonstrated the ability to reduce CO<sub>2</sub> emissions by about 20% by charging HBI into the blast furnace, and we will continue to improve the technology for commercialization and widespread use.

In addition, we are participating in three development projects (COURSE50, Ferro-coke, and Super COURSE50) that are being promoted by the New Energy and Industrial Technology Development Organization (NEDO), and we are taking a double-track approach by studying how to make high-grade iron in electric arc furnaces.

To contribute to CO<sub>2</sub> emission reduction, automakers are not only reducing weight but also accelerating the commercialization of electric vehicles. The Group will also take advantage of its strength of operating materials, parts, and welding businesses to contribute to automakers' carbon neutrality efforts through various technologies and products.

Looking at the current situation in the materials businesses, demand is recovering faster than expected in the automotive sector, which is our main customer base, and there is strong demand for IT, semiconductors, and beverage can materials. These factors have been contributing to high production rates at our manufacturing sites in Japan and overseas. On the other hand, from the perspective of medium- to long-term business strategy, it is important to firmly establish a stable earnings base during the period of the Medium-Term Management Plan in order to capture various business opportunities that may arise.

To this end, the materials businesses will focus on the following three key issues.

### ◆ Strengthening the Earnings Base in the Steel Business

Kobe Steel increased its cost competitiveness in the steel

business by consolidating upstream operations at steelworks in fiscal 2017. However, the reduction of fixed costs at the steelworks has been slower than we expected at the time of the previous Medium-Term Management Plan. Under the assumption that demand will decrease over the medium to long term, we will eliminate upward elasticity and establish a structure to secure stable earnings with crude steel production of 6.3 million tons per year and maintain profitability even with 6 million tons.

Going forward, we will either improve the marginal profit ratio or lower the break-even point by reducing fixed costs, pursuing cost reductions in variable costs, and improving the product mix (shifting to high value-added products such as specialty and high-strength steel) with the aim of increasing earnings.

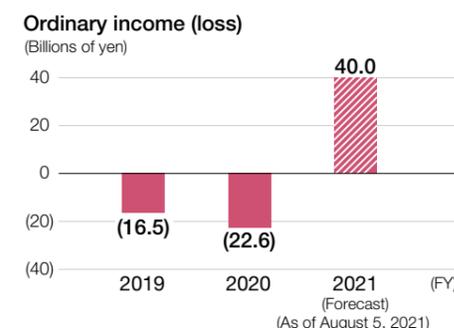
### ◆ Strategic Investment Leading to Earnings Contribution

Although we made strategic investments to promote our strategy of reducing the weight of automobiles, these investments have not yet made their anticipated contribution to earnings due to factors such as delays in the expected demand growth for automotive lightweight materials and issues of *monozukuri* capability. However, the need for automotive weight reduction is expected to increase in the future, and during fiscal 2021 we will work to resolve the *monozukuri* issues so that we can receive approval of materials and begin mass production as soon as possible.

### ◆ Restructuring Unprofitable Businesses

The steel casting and forging business and the titanium business recorded significant impairment losses in fiscal 2019. We will work on streamlining these businesses to return them to profitability in fiscal 2021–2022. For details of actions to be undertaken by each business, please see page 54.

## Steel & Aluminum



Note: Starting in fiscal 2020, Kobe Steel has changed its reportable segments in accordance with the reorganized corporate structure and business management units. The results include only the figures from fiscal 2019 onwards.

### Fiscal 2020 Summary

#### Steel

- Overall demand declined mainly in the automotive sector due to the impact of the COVID-19 pandemic.
- Sales prices fell mainly due to lower raw material prices and lower export prices.
- In addition to variable cost improvement, emergency profit improvement measures such as fixed cost reductions were implemented. However, due to the large impact of the decrease in sales volume, an ordinary loss of 23.3 billion yen was recorded.

#### Aluminum flat-rolled products

- Demand for beverage can materials and IT semiconductors has increased, despite a decrease in demand for automotive products.
- An ordinary income of 600 million yen was recorded, due in part to sales expansion and cost reductions.

## Promoting Sustainability Management



- We contribute to solving social issues in various fields by providing customers with unique technologies and products.
- We are working to improve efficiency of blast furnaces in order to establish a low-CO<sub>2</sub> ironmaking process and achieve a sustainable steel supply.
- We are helping preserve marine environments by slowing the increase in plastic waste, especially plastic bottles through

- the production of highly recyclable aluminum can stock.
- The Group will leverage synergies in its materials businesses to promote its own automotive weight reduction proposal activities, such as the global supply of automotive weight reduction technologies and lightweight materials, thereby contributing to further CO<sub>2</sub> reduction in the automotive sector.

## Business Strengths

### Steel

- Improved cost competitiveness through consolidation of upstream processes
- Distinctive products (special steel wire rods, high-strength steel)

### Aluminum flat-rolled products

- Beverage can stock: Strong relationships with customers
- Automotive: State-of-the-art heat treatment line : Proposal of solutions (analysis, design)
- Disks: Approx. 60% of global market share

## Important Issues and Initiatives

### Steel

- By reducing fixed costs and variable costs, establish a structure to secure stable earnings with crude steel production of 6.3 million tons per year and maintain profitability even with 6 million tons
- Improve the product mix by leveraging products with unique characteristics (special steel wire rods and high-strength steel)
- Obtain a selling price commensurate with the value of the product
- Promote initiatives to become the world's leading steel company in the field of CO<sub>2</sub> reduction

### Aluminum flat-rolled products

- Expand sales of products for beverage cans and IT/semiconductors
- Ensure that strategic investment project (aluminum materials for automotive body panels) contributes to earnings
  - Ensure Chinese subsidiaries reliably capture growing demand in China
  - Establish a mass production system with a new panel line at Moka Works
- Reduce costs by strengthening *monozukuri* capabilities
- Strengthen environmental friendliness
  - Support reducing the weight of automobiles
  - Improve recycling rate, utilization of green aluminum, etc.

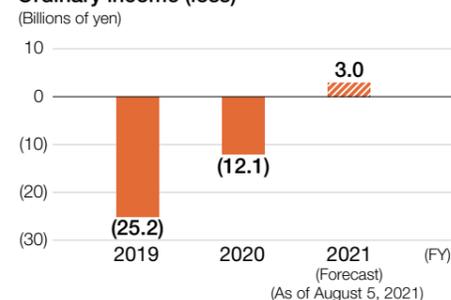
## TOPICS

- KOBELCO Group's CO<sub>2</sub> Reduction Solution for Blast Furnace Ironmaking (see p. 70)

# Materials Businesses

## Advanced Materials

### Ordinary income (loss)



Note: Starting in fiscal 2020, Kobe Steel has changed its reportable segments in accordance with the reorganized corporate structure and business management units. The results include only the figures from fiscal 2019 onwards.

### Fiscal 2020 Summary

- There was a decline in demand for automobiles, aircraft, and shipbuilding.
- An ordinary loss of 12.1 billion yen was recorded partly due to sales expansion, fixed cost reduction, and reduced depreciation by recording an impairment loss in fiscal 2019.

### Promoting Sustainability Management



- Pursue activities to propose products that meet the growing need for weight reduction in transportation equipment (automobiles, aircraft, ships, rolling stock, etc.) and vehicle electrification, which not only improves the driving performance but also contributes to reducing CO<sub>2</sub> emissions during operation
- Contribute to the reduction of environmental burden by improving the recycling and resource circulation rates

- Through agile organizational management of the parts business, accelerate synergies by strengthening information sharing and collaboration focused on customers and technologies such as casting, forging, and machining, translate our high market share in each market into revenue, and continue to be indispensable for our customers and society through offering reliable and valuable products

### Business Strengths

- Automobiles**
  - Own materials/parts products, and production bases in line with the trends of weight reduction and CASE
- Shipbuilding**
  - Japan's only full lineup manufacturer
- Aircraft**
  - Strong relationships with customers and extensive delivery track record
- IT**
  - Strong relationships with customers and extensive delivery track record

### Social Changes to Impact on Business

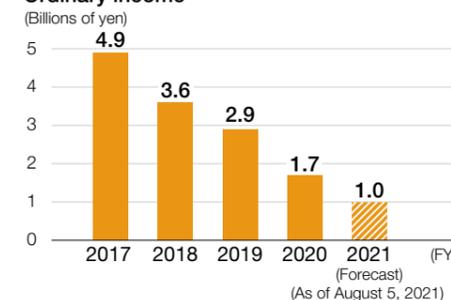
- Response to climate change
- Progress of digital transformation
- Changes in industrial structure triggered by COVID-19

### Important Issues and Initiatives

- Castings and forgings**
  - Amid declining demand in Japan, the following measures will be taken to return to profitability in FY2022:
    - Withdrawal from unprofitable businesses
    - Large-scale personnel reduction
- Titanium**
  - Review aircraft strategy in response to changes in industrial structure caused by COVID-19
  - Promote mass production of NC titanium for automotive fuel cells and return to profitability in FY2021
- Aluminum castings and forgings**
  - Expand sales in the IT and rolling stock fields and rebuild the sand-casting business
- Suspensions**
  - Respond to demand by maximizing production at the three bases of Japan, the U.S. and China (strengthen *monozukuri* capabilities)
- Aluminum extrusions**
  - Expand sales through product differentiation (automotive parts) and secure stable base cargo by promoting expansion of sales (rolling stock, spot sales)
- Copper rolled products**
  - Reliably capture growing demand for automotive terminals and semiconductors and maximize production; secure stable earnings in the lead frame business
- Steel powder**
  - Respond to vehicle electrification
- Copper tube**
  - Promote differentiation from Chinese competitors' products by expanding high-value-added product menu

## Welding

### Ordinary income



### Fiscal 2020 Summary

- There was a decline in demand for automobiles, construction machinery, and shipbuilding.
- An ordinary income of 1.7 billion yen, down 1.1 billion yen, was recorded despite fixed cost reductions.

### Promoting Sustainability Management



- We will contribute to society through our welding solution business that meets the needs of our customers by providing distinctive products and services globally, including welding materials with lower environmental impact (solid wire with no copper coating); our REGARC™ welding process, which significantly reduces the amount of spatter generated; and our automation solutions (robotic welding systems for hull assembly in shipbuilding).
- In collaboration with a customer, we developed a welding process that reduces slag generation and enhances the anti-corrosion performance of chassis components, an issue that arises when reducing the weight of automobiles,

- thereby contributing to the weight reduction of transportation equipment.
- Using AI to increase the functionality of welding robots, we will achieve the same quality welding as skilled welders and contribute to customers' *monozukuri* in terms of both efficiency and quality.
- We released the KOBELCO WELDING smartphone app, which gives customers access to technical information on welding and solutions for particular welding problems, thereby bringing our problem-solving assistance closer to the customer.

### Business Strengths

- The only company in Japan offering a total menu of welding materials, robot systems, power sources, and processes
- Ability to propose solutions based on our on-site insights and quick responses
- Largest sales organization for welding materials in the Japanese welding industry

### Social Changes to Impact on Business

- Response to climate change
- Labor shortage due to the declining birthrate and aging population
- Business transformation

### Important Issues and Initiatives

- Strengthen earnings base through structural reforms
  - Review production structure and right-size workforce
  - Promote DX and smart factories
- Increase earnings through practical application of welding solutions
  - Propose technical solutions by combining materials, systems, and processes
- Strengthen the earnings base of overseas businesses
  - Improve profits by improving management efficiency
  - Expand welding solutions overseas

### TOPICS

- Initiatives in welding solutions (see p. 38)
  - Liquefied CO<sub>2</sub> storage tank
  - Offshore wind power tower

# Machinery Businesses



We operate our machinery businesses for global customers in a diverse range of fields, including automobiles, aircraft, shipbuilding, construction and civil engineering, social and industrial infrastructure, and the environment and energy. Furthermore, our machinery businesses cover a broad range of technologies, products, and services that help reduce CO<sub>2</sub> emissions and ease the burden on the environment. On a worldwide basis, these businesses have the potential to provide solutions to the social issues faced by our customers and contribute to the environment and society.

The Group's machinery businesses are playing an increasingly active role in the realization of a sustainable society. We believe that creating and strengthening value through combining technologies, products and services in the machinery businesses worldwide will be a driver of the medium- to long-term growth of our machinery businesses.

In the machinery businesses, we are also working on reducing CO<sub>2</sub> emissions in collaboration with the steel and electric power businesses. By demonstrating our comprehensive capabilities, we will contribute to the KOBELCO Group's achievement of carbon neutrality.

Executive Vice President  
**Kazuto Morisaki**

## Strategy — Stabilizing Earnings and Responding to Growing Markets

### ◆ Machinery Business / Engineering Business

We place importance on advancing energy conversion and responding to growing market. While the fossil fuel sector is gradually shrinking due to stricter environmental regulations, the market is expected to expand in the environment-related fields.

We will enhance our environmental contribution menus, including CO<sub>2</sub> reduction, and actively engage in growth markets while advancing cooperation within the Group.

The machinery businesses, which are highly dependent on the fossil fuel sector, will begin to shift to the hydrogen and ammonia sectors.

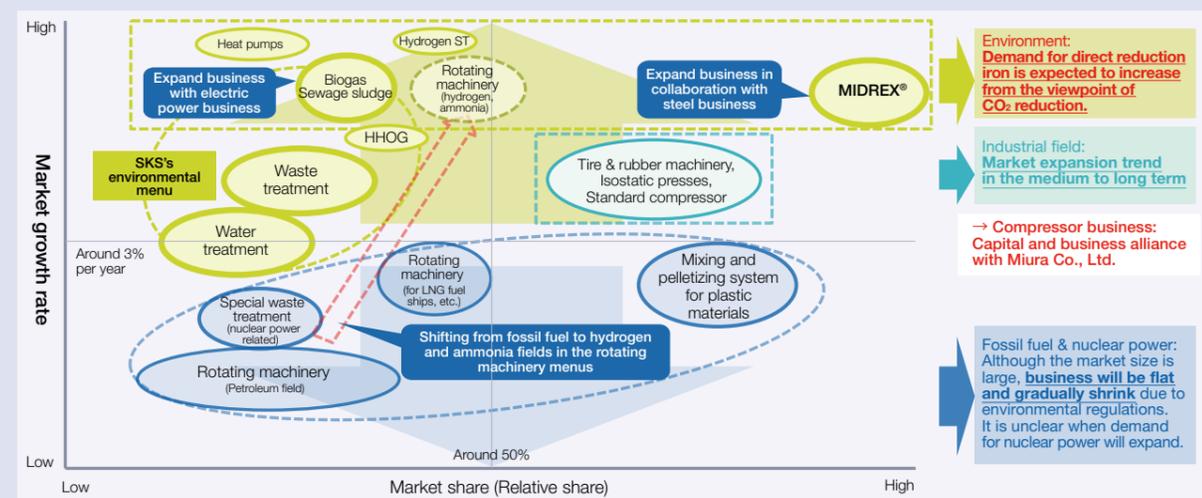
The Engineering Business offers a number of environmentally friendly options, including the MIDREX<sup>®</sup> Process, water treatment, and waste treatment. We aim to demonstrate the Group's collective strengths and create value unique to the Group by mutually utilizing management resources of the Machinery business and the Engineering business

and by collaborating with the steel business and electric power business.

### ◆ Construction Machinery Business

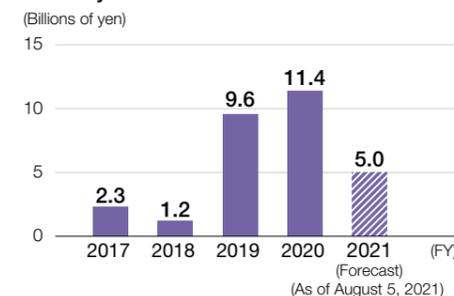
In the previous Medium-Term Management Plan for fiscal 2016 to 2020, we completed the restructuring of our business in China and established a structure that can generate stable profits in the major market China. However, competition is intensifying due to the rise of Chinese manufacturers with product strength and service capabilities.

Going forward, in order to quickly break away from the existing profit structure, which is highly dependent on the Chinese market, we will work to generate revenue in other areas. At the same time, we will aim to transform our profit structure by generating revenue from new value creation businesses that provide solutions for innovations such as workstyle reforms in the construction industry and by commercializing businesses related to construction machinery.



## Machinery

### Ordinary income



### Fiscal 2020 Summary

- **Orders:** Decreased both in the industrial machinery and compressor sectors against the backdrop of reductions and deferral of capital investments due to the impact of COVID-19.
- **Net sales:** Increased due mainly to sales of compressors for LNG-fueled ships as well as plastic processing machinery and compressors for the petrochemical sector, for which orders were strong in the previous fiscal year.
- **Ordinary income:** Increased due to cost reduction efforts such as fixed cost reduction.

### Promoting Sustainability Management



- Contributing to providing clean transportation: Promoting the production and sales of compressors for LNG-fueled ships, hydrogen stations, and other means of transportation with low environmental impact
- Contributing to energy conservation and reduction of CO<sub>2</sub> emissions in a wide range of fields: Providing highly efficient heat pumps for use in a wide range of fields, from commercial air conditioning to industrial cooling and heating
- Reducing energy consumption of compressors used worldwide: Promoting the production and sale of high-efficiency, energy-saving compressors



- Achieving high levels of economic productivity: Promoting cutting-edge technological innovation, such as IP processing for products manufactured by 3D printers
- Contributing to waste reduction: Promoting the production and sale of equipment that contributes to higher efficiency and longer service life of components, such as surface treatment and IP processing
- Contributing to the reduction of automotive emissions: Promoting the spread of fuel-efficient tires by pushing ahead with high-quality rubber mixers that enable the manufacture of fuel-efficient tires

### Business Strengths

- All types of compressors (screw, turbo, and reciprocating) are available to provide the best compressor for each application
- Creating new value through collaboration with other businesses

### Social Changes to Impact on Business

- Changes in the energy mix as a result of stricter environmental regulations (shifting from fossil fuels to hydrogen and ammonia)
- Business transformation
- Waste reduction

## TOPICS

### Conclusion of basic agreement on capital and business alliance with Miura Co., Ltd.

Through the capital and business alliance with Miura Co., Ltd., we will become the world's first utility platformer with air compressors, heat pumps, and boilers, able to offer a one-stop service that provides customers with a comprehensive solution to saving energy and reducing CO<sub>2</sub> emissions.

For more information, please see our website.  
[https://www.kobelco.co.jp/english/releases/1207993\\_15581.html](https://www.kobelco.co.jp/english/releases/1207993_15581.html)



Standard compressors (Kobe Steel, Ltd.)

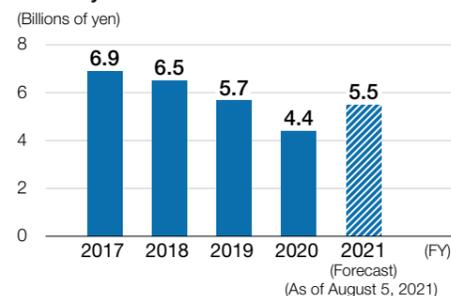


Boilers (Miura Co., Ltd.)

# Machinery Businesses

## Engineering

### Ordinary income



### Fiscal 2020 Summary

- **Orders:** Decreased from the previous fiscal year that saw orders for large-scale projects in the water treatment and waste treatment related businesses.
- **Net sales and ordinary income:** Decreased from the previous fiscal year due to the postponement of overseas construction projects caused by the impact of the COVID-19 pandemic.

### Promoting Sustainability Management



- Contributing to CO<sub>2</sub> reduction  
In addition to the MIDREX<sup>®</sup> Process, which contributes to CO<sub>2</sub> reduction, we provide renewable energy sources through hydrogen oxygen generators and woody biomass generators, etc.
- Contributing to securing safe water sources and the creation of sustainable communities  
· We provide technologies, products, and services that contribute to infrastructure development and a recycling-

oriented society based on the water treatment and waste treatment businesses.  
· We contribute to the development of transportation infrastructure through self-driving technologies and system integration capabilities that we developed through supplying new transit systems.



### Business Strengths

- Extensive lineup of environmentally friendly options including CO<sub>2</sub> reduction and renewable energy
- Process owner of the MIDREX<sup>®</sup> Process with a high market share of direct reduction iron plants
- Creating new value through collaborations with other businesses, such as CO<sub>2</sub> reduction solution for blast furnace ironmaking and co-firing of biomass fuel (sewage sludge and food residue) at the Kobe Power Station

### Social Changes to Impact on Business

- Efforts to achieve carbon neutrality
- Support for a recycling-oriented society

### TOPICS

#### Contract Signed to Supply New MIDREX<sup>®</sup> HBI Plant in Russia

Midrex Technologies, Inc., a Kobe Steel's wholly owned subsidiary in the United States, and its consortium partner Primetals Technologies, Limited, signed a contract with Mikhailovsky HBI LLC to supply a hot briquetted iron (HBI) plant using the MIDREX<sup>®</sup> Process in Russia. The plant, designed with the latest technology, will have the world's largest annual production capacity of 2.08 million tons of HBI, while reducing energy consumption and environmental impact. The plant is also designed to be able to shift to the full use of hydrogen as reductant in the future. Through the supply of the plant, we will further contribute to the reduction of CO<sub>2</sub> emissions.



HBI (bar in the center)

#### Order Received from Private Water Company for Construction of Largest Treatment Plant in Hanoi, Vietnam

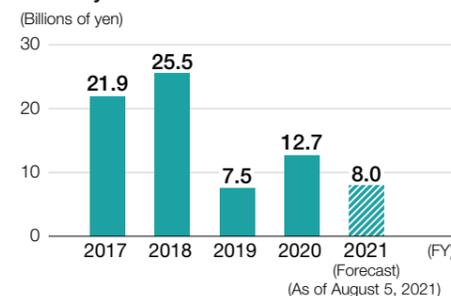
Kobelco Eco-Solutions Co., Ltd. and Kobelco Eco-Solutions Vietnam Co., Ltd. received a joint order from the Hong River Surface Water Joint Stock Company for the construction of a water treatment plant in Hanoi, Vietnam. The water treatment plant to be constructed will be one of the largest in Hanoi, with a treatment capacity of 300,000m<sup>3</sup>/day, and will use our technology of open siphon filtration (OSF). We will continue to develop our water infrastructure business in the Southeast Asian region, including Vietnam, and contribute to the supply of reliable, high-quality tap water.



Contract signing ceremony

## Construction Machinery

### Ordinary income



### Fiscal 2020 Summary

- **Unit sales:** Sales of hydraulic excavators increased in Japan. Overseas sales increased in China, but sales in Europe and Southeast Asia decreased due to the impact of the COVID-19 pandemic. Sales of crawler cranes decreased from fiscal 2019 both in Japan and overseas due to the impact of the COVID-19 pandemic.
- **Ordinary income:** Increased due to cost reduction through emergency measures.

### Promoting Sustainability Management



- Contributing to solving the shortage of construction workers, improving site productivity, and ensuring essential safety through unmanned operations: K-DIVE CONCEPT, a remote operation technology for construction equipment, enables "telework at construction sites"



- Contributing to the creation of a global recycling-oriented society:  
Providing a wide range of recycling machinery such as automobile dismantling machines
- Contributing to the reduction of climate change risks:  
Development and commercialization of construction machinery employing low-carbon technologies such as electrification and fuel cells

### Business Strengths

- Noise reduction and energy-saving technologies for hydraulic excavators and cranes
- K-DIVE CONCEPT technology for remote operation of hydraulic excavators

### Social Changes to Impact on Business

- Digitalization
- Widespread teleworking
- Declining and aging population in the construction industry

### TOPICS

#### K-DIVE CONCEPT —Remote Operation Technology for Hydraulic Excavators

Kobelco Construction Machinery Co., Ltd. has been advancing R&D for its K-DIVE CONCEPT under the slogan of realizing a teleworking system centered on people who work at construction sites. If successful, this system will enable on-site work without being restricted to specific people, locations, or times, helping to eliminate shortages of skilled construction workers, and improving productivity through on-site automation.

#### STEP 1 Short-range remote operations in local wireless communication environments



- Uses local wireless communication tailored to the user's on-site environment
- Remote control of machines at adjacent sites, such as scrap yards of demolition contractors, from a local office
- Multi-connectivity function to improve work efficiency
- Dashboard functions for operation management, construction progress, process management, and safety training

#### STEP 2 Local wireless communications + long-range remote operations in wide-area network environments



- Remote operation from a control room far away from the construction site
- Effective utilization of human resources at remote sites
- In addition to the functions of STEP 1, the training simulator function enables efficient operator training

#### STEP 3 Matching service for heavy machinery, operators, and sites



- Network system connects remote operators to construction site managers
- Matches work levels to construction site work levels
- Remote control by freelance operators from satellite locations
- Serves as remote cockpits for virtual training

# Electric Power Business



We are taking all necessary measures to ensure stable operation of our electric power business in order to provide a stable supply of electricity through the operations of the No. 1 and No. 2 units at the Kobe Power Plant and the No. 1 and No. 2 units at the Moka Power Plant, which are currently in operation and serving as social infrastructure. The No. 3 and No. 4 units at the Kobe Power Plant, which are under construction, are also progressing as planned. Commercial operation of the No. 3 unit is scheduled to begin in the second half of fiscal 2021 and the No. 4 unit in the second half of fiscal 2022.

Currently, the global energy environment is undergoing major changes, with a transition to renewable energy that is becoming a major power source. Meanwhile, as occurred in Japan and Texas in the winter of 2021, it was recognized that thermal power sources would play an important role in the supply and coordination of electric power when weather conditions worsen and power supply becomes tight. Large-scale, highly efficient thermal power plants like ours therefore assume a significant responsibility in society.

Taking on the challenge of realizing carbon neutrality by 2050, the Electric Power Business will continue to promote reductions of carbon emissions and decarbonization in accordance with national laws and policies while supplying its customers with safe, economical, and stable electricity. In addition, we will communicate the social significance of our power business to our stakeholders while engaging sincerely in the mission that we are called upon to fulfill.

Executive Officer  
**Jiro Kitagawa**

## Social Significance of the Electric Power Business

### ◆ National Energy Policy

On October 26, 2020, Japan's Prime Minister announced a national policy that aims to become carbon neutral by 2050. In addition, at the 2021 Leaders' Climate Summit held in April of this year, Japan set a target of a 46% reduction in greenhouse gas emissions from 2013 levels by 2030.

In order to achieve these decarbonization goals, Japan's energy plan calls for an optimal mix of energy sources that prioritizes safety while ensuring a stable supply of energy, economic efficiency, and environmental compliance.

Under this plan, thermal power generation contributes to the stable supply of electric power, through functions such as the ability to adjust the balance of supply and demand by absorbing variations in the output of solar and wind power affected by weather and other factors, as well as its inertial force that reduces the possibility of blackouts. As the adoption of renewable energy continues to expand, thermal power generation will remain necessary to compensate for the variability of renewable energy in the supply and coordination of electric power.

Going forward, the Japanese government will continue to promote next-generation, high-efficiency thermal power generation, retire inefficient thermal power sources, and promote the use of fuels such as ammonia and hydrogen, with the goal of replacing current methods with decarbonized thermal power generation.

Based on the roadmap set out in the Medium-Term Management Plan, the Group will continue to stably supply highly economical electric power over the long term, while strengthening its efforts to achieve even higher efficiency and lower carbon with the aim of becoming carbon neutral by 2050. Through the stable supply of electricity, we will contribute to local communities and the global environment in order to realize safe, secure, and prosperous lifestyles for everyone.

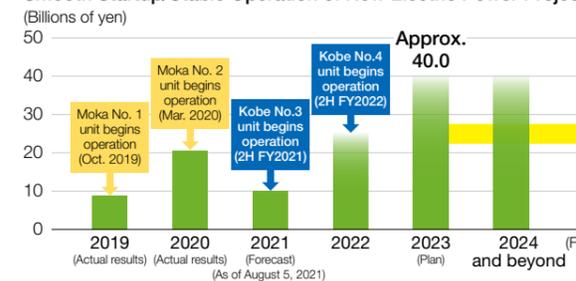
### ◆ Kobe Steel's Initiatives

In the Medium-Term Management Plan announced in May this year, we announced the medium- to long-term policies for our electric power business. We are committed to implementing measures toward our 2050 vision of taking on the challenge of realizing carbon neutrality.

Roadmap to 2030		
Kobe	Coal fired	<ul style="list-style-type: none"> <li>Increase the energy efficiency of cities/regions by supplying heat and hydrogen from steam utilization</li> <li>Co-firing of biomass fuel</li> <li>Study ammonia co-firing</li> </ul>
Moka	Gas fired	<ul style="list-style-type: none"> <li>Continue low-CO<sub>2</sub> power generation through high-efficiency GTCC</li> </ul>

Roadmap to 2050		
Kobe	Coal fired	<ul style="list-style-type: none"> <li>Increase the rate of ammonia in co-firing fuel, and take on the challenge of single-fuel firing</li> </ul> <p><b>[Social innovation]</b> <b>Establishment and commercialization of low-cost, zero-emission ammonia technology</b></p>
Moka	Gas fired	<ul style="list-style-type: none"> <li>Maximize utilization of carbon-neutral city gas</li> </ul> <p><b>[Social innovation]</b> <b>Widespread use and commercialization of carbon-neutral city gas</b></p>

## Smooth Startup/Stable Operation of New Electric Power Projects



Figures are actual results and forecasts of ordinary income in the Electric Power segment

## Fiscal 2020 Summary

In FY2020, the Electric Power Business recorded an ordinary income of 20.6 billion yen as the Moka Power Plant became fully operational and winter brought an increase in demand for electricity supply.

## Promoting Sustainability Management

The Electric Power Business will lead the way in sustainability management based on the Group Corporate Philosophy. In order to continue to provide solutions to the needs of society, by making the best use of the talents of our employees and our

technologies, as stated in KOBELCO's Mission, we will accelerate the practical application of CO<sub>2</sub> reduction technologies in the Electric Power Business through intra-Group collaborations with our Engineering and other businesses.

## Business Strengths

Kobe	Coal fired	<ul style="list-style-type: none"> <li>Helping improve electric power self-sufficiency of Kobe City and Hanshin region</li> <li>Compliance with toughest environmental standards in Japan</li> <li>Improvement of overall energy efficiency by harnessing power generation equipment for heat supply</li> <li>Effective use of sewage sludge from urban areas as biomass fuel</li> <li>Very low transmission losses from power plants due to their location in areas of high electricity demand</li> <li>Operating technologies accumulated from in-house power generation in the steel industry</li> <li>Utilization of infrastructure of port facilities</li> </ul>
Moka	Gas fired	<ul style="list-style-type: none"> <li>The Japan's first inland thermal power plant with low risk of damage from natural disasters such as earthquakes and tsunamis, serving as backup to Tokyo metropolitan area</li> <li>Adoption of the world's highest level of GTCC</li> <li>Utilization of existing infrastructure such as gas trunk lines and industrial complexes that have already been developed, as well as technologies and know-how accumulated from in-house power generation</li> </ul>

## Social Changes to Impact on Business

### [Risks]

- Anti-coal trend and investor divestment movement
- Japanese government has announced a plan to fade out inefficient coal-fired power generation in order to align the power supply composition in FY2030 with its greenhouse gas reduction plan.

### [Opportunities]

- As the transportation, industry, and consumer sectors continue to transition toward electrical and hydrogen power, demand for electricity is expected to increase in the future.
- Renewable energy, which will be the main power source in the future, is susceptible to fluctuations in output affected by weather and other factors. Therefore, decarbonized thermal power generation will remain indispensable for stabilizing the electricity system.
- New electricity markets are being created through the electricity liberalization.
- The development of carbon-free fuels such as ammonia for thermal power generation is becoming more active.

## TOPICS

### ◆ Artist's Impression of Planned No. 3 and No. 4 Units at the Kobe Power Plant



### ◆ Mirain Tour Facility at the Moka Power Plant



"Smart wall" interface allows visitors to learn about the Moka Power Plant and energy production

# Technical Development and DX Strategy



The KOBELCO Group aims to become a provider of technologies, products, and services that help solve social issues, including carbon neutrality, together with our customers.

In terms of technical development, we are committed to three goals: 1) Contributing to the establishment of a carbon-neutral society through the integration of existing technologies and innovative research and development; 2) Digital transformation (DX) to support stable, high-quality manufacturing; and 3) Implementing new business concepts to revamp the KOBELCO Group's business portfolio.

Meanwhile, with respect to driving DX, we will accelerate the shift to a new system that provides higher value in indirect operations and sales operations by restructuring our core systems and actively introducing AI and other technologies. We will also pursue Group synergies by promoting the digital shift in the management of the Group's proprietary technologies and customer needs.

Executive Vice President,  
Representative Director  
**Koichiro Shibata**

## Review of Technical Development under Previous Medium-Term Management Plan

We have made progress in restoring trust, launching large-scale strategic investments, and developing technologies for the stable production of high-strength steel, aluminum flat-rolled products, and titanium foil. In addition, our researchers are working closely with our manufacturing sites to strengthen their *monozukuri* capabilities, and this work will continue during the period of the new Medium-Term Management Plan. We have also developed strategic models for standard compressors, rotating machinery, and other equipment.

Furthermore, with respect to CO<sub>2</sub> reduction, we are promoting the use of direct reduction iron in blast furnaces and studying concrete measures to improve the efficiency of power generation.

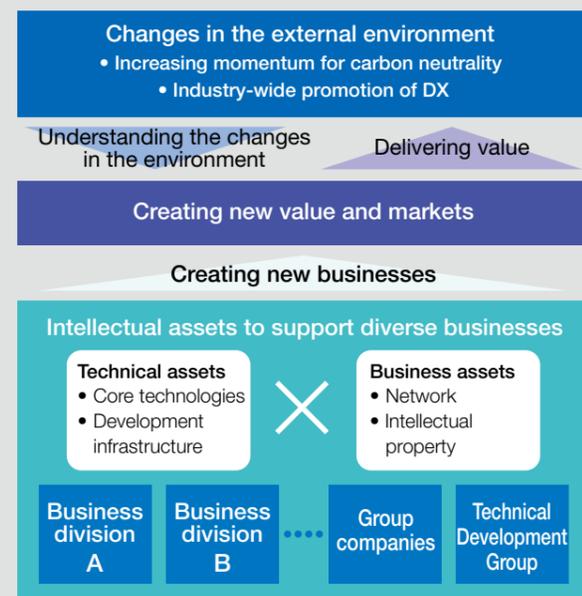
## Transformation for New Business Creation

In order to accelerate activities for the creation of new businesses, Kobe Steel established the Business Development Department under the Head Office, against the backdrop of rapid and significant social changes, such as carbon neutrality and digital transformation (DX). We see these changes as a business opportunity to plan and develop new businesses.

The mission of the Business Development Department is "Contributing to a green society" and "Ensuring safety and security in community development and manufacturing." We will create new value and markets by linking marketing and innovation, while making changes to existing markets with solutions that only the KOBELCO Group can provide. To do this, we need to combine the various intellectual assets of the Group (technical assets × business assets) and also work on DX and human resource development.

## Direction of Technical Development

The KOBELCO Group is taking on the following three challenges: 1) Achieving carbon neutrality through the integration of existing technologies and innovative development; 2) Establishing stable, high-quality manufacturing process through DX; and 3) Revamping KOBELCO Group's business portfolio through the revitalization of innovation activities. In order to achieve carbon neutrality, we are pursuing hydrogen reduction and blast furnace operation technology utilizing AI in the ironmaking process and investigating the use of biomass and ammonia in the electric power business. Furthermore, in the transportation sector, we are working to improve the characteristics of materials and machinery to support the transition to electric power and fuel cells, in addition to the automotive weight reduction that we have been working on.

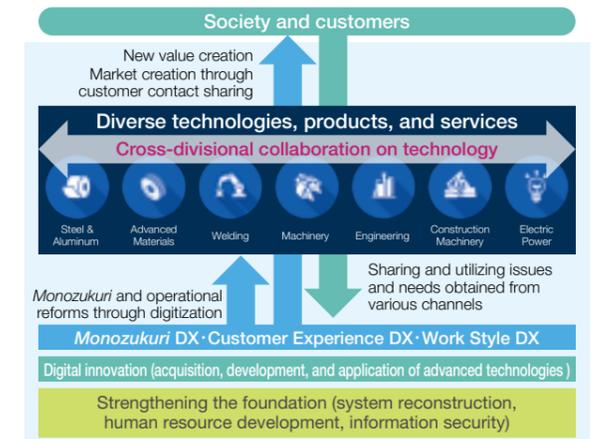


As the business environment changes dramatically due to digital technology and data utilization, we are promoting our digital transformation (DX) in order to solve social issues, create new value for our customers, and implement solutions to our management issues in accordance with the strategy outlined below.

## Basic policy on DX strategy

The basic policy on our DX strategy is transforming our Group's value chain with digital technology from the customer's perspective, with the aim of creating new value and providing solutions for customers and society by leveraging synergies that the KOBELCO Group can provide as a corporate group that operates a wide range of businesses. Based on this policy, we will implement a DX strategy that leverages the Group's unique strengths as follows.

- We will create new value by integrating the diverse and distinctive technologies that are the strength of the KOBELCO Group, which operates a wide range of businesses.
- We will consider the issues and needs identified through the contact with our diverse customers and stakeholders as important assets, and by promptly sharing and utilizing them, we will correctly understand what they require from us so that we can provide new products and services that meet their requirements.
- We will strengthen and accelerate the acquisition and development of advanced technologies and its application to business through special-purpose digital organizational units to respond to the increasingly sophisticated demands of society.
- We will respond to rapid social changes and changing business needs by moving away from customization-oriented approach and instead implementing optimal solutions based on the concepts of standardization and "fit to standard."



## Companywide DX Initiatives

The DX Strategy Committee has designated *monozukuri*, customer service, and work style as three priority themes in the value creation area for DX promotion. While keeping pace with the rapid changes in business needs, we will continue to address four priority themes in the business foundation area and promote DX across the entire Company.

Executive Council	DX Strategy Committee	DX Strategy Project Group	Subcommittees		Metrics	Business divisions
			Value Creation	Business Foundation		
			A. <i>Monozukuri</i> DX	Improve <i>monozukuri</i> capabilities by promoting data utilization through cutting-edge digital technology	Number of digitalization projects	
			B. Customer Experience DX	Strengthen customer contact points and services from the customer's perspective to enhance the value of the customer experience		
			C. Work Style DX	Achieve drastic productivity improvement by utilizing digital technology to create an environment that facilitates work without being bound by conventional practices		
			D. System Reconstruction	Completely reconstruct complicated existing systems, which are hindering the adoption of advanced technologies, to create an environment that can respond flexibly to changes.	Rate of progress in reconstructing existing systems	
			E. Human Resource Development	Establish programs to quickly and continuously develop DX experts that are in short supply	Number of DX experts trained	
			F. Infrastructure and Security*	Build infrastructure and ensure a security level to support DX initiatives in the value creation area and the reconstruction of existing systems		
			G. IT Architecture	Establish IT technology standards and processes for efficient Companywide reconstruction of existing systems		

\*About our information security initiatives  
We established the Information Security Subcommittee as a subordinate body of the Risk Management Committee, which is an auxiliary body of the Executive Council. The subcommittee works on information security at the management level, including the establishment of information security policies, development of standards, education, audits, and introduction of threat prevention tools.

## IT Investment

We are planning an IT capital investment of 45 billion yen over three years starting from fiscal 2021, which will enable us to reconstruct the core systems that form the foundation for data utilization in management and to build the foundation for the digital shift in *monozukuri* and services. The goals of the investment are to improve productivity, increase customer value, and utilize data for management, as shown in the table below.

Area	Investment Sector		Objective	Three-year investment (billion yen)
Value Creation	Smart factories, digital engineering	A, D	Innovative productivity improvement in <i>monozukuri</i>	10.0
	Digital services, digitalization of customer contact points	B	Improve customer value by transforming existing businesses	5.0
	Use of AI and RPA in office operations	C	Shift employees to value-creating work	0.5
Business Foundation	Core system reconstruction, IT architecture design and construction	D, G	Data-driven management, speed management	17.0
	Security, governance	F	Minimize management risk	0.5
	Others			12.0

## Messages from Directors



In response to the quality misconduct, announced in October 2017, the KOBELCO Group has implemented measures to prevent recurrence, carried out fundamental reforms to its corporate culture and organizational management system, and established reliable quality control systems.

In fiscal 2020, we stepped up our quality control efforts and launched the KOBELCO TQM (Total Quality Management) initiative with the aim of taking the next step toward the sustainable growth of the Group and the realization of the Group Corporate Philosophy. The action principles of KOBELCO TQM set forth "customer perspective," "participation of all members," and "constant improvement" in accordance with the Core Values of KOBELCO in the Group Corporate Philosophy.

We will continue striving to improve quality by strengthening management in each of our businesses through KOBELCO TQM activities, reaffirming that reliable quality is the linchpin of manufacturing and an essential element in earning customers' trust. To provide products and services that please our customers, we will identify issues from the perspective of customers and other stakeholders and work together with all of our employees to resolve them so that the KOBELCO Group can offer value indispensable to customers and society.

In order to realize these initiatives, the safety, health, and well-being of all employees are also important. For this reason, we are working on various safety and health activities to create a vibrant workplace where employees can work safely and with peace of mind.

Executive Vice President and Representative Director

**Fusaki Koshiishi**



In 2021, we identified the KOBELCO Group's materiality and introduced it in our Medium-Term Management Plan. Clarifying our priority issues has enabled us to reaffirm our commitment to KOBELCO's View of the Future and KOBELCO's Mission.

Companies are required to manage their businesses in a sustainable manner, starting with addressing the Sustainable Development Goals (SDGs). Accordingly, our Group has developed a sustainability management framework based on the Group Corporate Philosophy. Under this framework, we aim to further enhance corporate value by fulfilling our corporate social responsibilities and contributing to solving social issues through the provision of enhanced technologies, products, and services. We will also work with our business partners to build a responsible supply chain.

Our Group has a diverse employee base because we operate a wide range of businesses, and our business sites are located around the world. We are committed to promoting diversity, respecting each other's personality, individuality, and diverse qualities, and creating a work environment where individual employees can work actively while performing to the best of their abilities. We will work together with all employees to address social issues and create new value.

**Hajime Nagara**

Director, Executive Officer  
Chair of the Sustainability Management Committee  
Chair of the Risk Management Committee

## Initiatives for the Environment

### Basic Environmental Management Policy and Framework

Through environmental management based on three corporate visions, we aim to contribute to a world in which people, now and in the future, can fulfill their hopes and dreams while enjoying safe, secure, and prosperous lives.

We envision a world in which people, now and in the future, can fulfill their hopes and dreams while enjoying safe, secure, and prosperous lives. In realizing that vision, we assume the important responsibility of passing on to future generations a healthy global environment in which all forms of life can thrive. To this end, the KOBELCO Group is promoting environmental management based on the KOBELCO Group's Basic Environmental Management Policy, which consists of three visions, and has formulated the Six Initiatives for Environmental Management that align with the Six Pledges of KOBELCO.

The KOBELCO Group has been and will continue to provide solutions to the needs of society, including those related to global environmental issues by leveraging its diversity in its people and technologies with due consideration to the environment in all aspects.

#### Basic Environmental Management Policy

As an environmentally advanced corporate group, the KOBELCO Group will fulfill its social responsibilities, improve its environmental capabilities, and enhance its corporate value by implementing the following initiatives.



Enhance corporate value further through Group environmental management (improving Group environmental capabilities)

#### Six Pledges of KOBELCO and Six Initiatives for Environmental Management

Based on its Basic Environmental Management Policy, the KOBELCO Group has identified the following initiatives for environmental management that align with the Six Pledges of KOBELCO, which sets forth its standards of conduct.

Six Pledges of KOBELCO	Six Initiatives for Environmental Management	
1 Uphold the Highest Sense of Ethics and Professionalism	Ensuring thorough risk management	In addition to thorough compliance with environmental laws and regulations, we will properly implement environmental management by identifying environmental risks in business activities and striving to mitigate these risks.
2 Contribute to the Society by Providing Superior Products and Services	Contributing to the environment through technologies, products, and services	We will contribute to the environment by providing environmentally friendly technologies, products, and services.
3 Establish a Comfortable but Challenging Work Environment	Promoting environmental initiatives with full employee participation	We will continue to promote environmental education and learning to foster a workplace culture where all employees are willing to take eco-friendly actions and participate in eco-office activities to create an energy-saving and healthy work environment.
4 Live in Harmony with the Local Community	Coexisting and cooperating with society	We will contribute to local communities through forest preservation activities and the KOBELCO Forest Fairy Tale Prize, and other environmental activities undertaken by respective business sites such as cleanup activities around their facilities.
5 Contribute to a Sustainable Environment	Environmentally friendly manufacturing	We will commit to environmentally friendly manufacturing in all aspects, including reducing environmental impact, addressing global warming, and promoting resource recycling.
6 Respect Each Stakeholder	Disclosing environmental information	We will provide accurate information on our environmental management activities to stakeholders through the disclosure of environmental information and communication with local communities and customers.

# Initiatives for the Environment

## Medium-Term Environmental Targets and Initiatives

The KOBELCO Group is committed to environmentally friendly business practices. We established the Medium-Term Environmental Management Plan for Fiscal 2021–2023 and are implementing initiatives in the six key areas of our Basic Environmental Management Policy.

Self-assessment ○:Progressing as planned ▲:Some issues remaining ✕:Plan not achieved

	Initiatives for Implementation	Long-Term Policies	Medium-Term Targets (FY2021–2023)	Fiscal 2020 Results	Initiatives for Fiscal 2021	
VISION 1 Environmentally friendly manufacturing	Measures against global warming	Help prevent global warming by promoting energy conservation and CO <sub>2</sub> reduction in all business activities <b>&lt;Target for 2030&gt;</b> Reduce CO <sub>2</sub> emissions from production processes by 30-40% (compared with FY2013). <b>&lt;Vision for 2050&gt;</b> Take on the challenge of achieving carbon neutrality	<ul style="list-style-type: none"> <li>Promote medium- to long-term technological development based on the roadmap and continue working on energy conservation initiatives, in order to achieve the targets for 2030 and vision for 2050</li> </ul>	<ul style="list-style-type: none"> <li>CO<sub>2</sub> Reduction Promotion Subcommittee and CO<sub>2</sub> Reduction Technology Study Working Group further studied various issues, reviewed targets for 2030, and formulated the vision for 2050</li> <li>Demonstrated a technology that reduces CO<sub>2</sub> emissions by around 20% by charging into the blast furnace a large amount of hot briquetted iron (HBI) produced with the MIDREX® Process (developed by U.S.-based Midrex Technologies, Inc., a wholly owned subsidiary of Kobe Steel)</li> </ul>	<ul style="list-style-type: none"> <li>Formulate and announce a roadmap for carbon neutrality in 2050 in cooperation of CO<sub>2</sub> Reduction Promotion Subcommittee and CO<sub>2</sub> Reduction Technology Study Working Group</li> <li>Steadily continue energy conservation initiatives while conducting energy-saving investments to achieve targets</li> </ul>	pp. 36–39, pp. 72–73
	Promoting resource recycling	Continue activities aimed at zero landfill waste <b>&lt;Target&gt;</b> Recycling rate: 99% (FY2025) (Major by-products: slag, sludge, and dust)	<ul style="list-style-type: none"> <li>Continue reducing the amount of waste disposed; and achieve and maintain the industry's voluntary action plan targets</li> <li>Carry out appropriate disposal in accordance with the Guidelines Related to Management of Iron and Steel Slag Products</li> </ul>	<ul style="list-style-type: none"> <li>Made steady progress as scheduled by the waste treatment plans established by each business and achieved the FY2020 recycling rate of 98.7%, contributing to achieving the targets of the Voluntary Action Program for Environmental Protection of the Japan Iron and Steel Federation</li> <li>Implemented proper operations in accordance with the guidelines at Kakogawa Works and Takasago Works; conducted internal audits at all business locations regarding proper treatment of slag</li> </ul>	<ul style="list-style-type: none"> <li>Work on the 3Rs to achieve the FY2025 recycling rate target</li> <li>Carry out appropriate disposal in accordance with the Guidelines Related to Management of Iron and Steel Slag Products</li> </ul>	p. 68
	Appropriate management of chemical substances	Reduce hazardous substances in accordance with the Kobe Steel Group Policy on Controlling Hazardous Chemical Substances	<ul style="list-style-type: none"> <li>Properly manage and reduce or replace chemical substances, and properly comply with the Act on Special Measures concerning Promotion of Proper Treatment of PCB Wastes and Act on Rational Use and Appropriate Management of Fluorocarbons</li> </ul>	<ul style="list-style-type: none"> <li>Completed JESCO registration of high-concentration PCB waste (transformers, fluorescent lamp ballasts, etc.) owned by business sites in the Kitakyushu and Osaka business areas for disposal by March 31, 2021; facilities in other business areas also expected to finish processing by the legal deadline; continued conducting surveys to identify low-concentration PCBs contained in equipment currently in use and made partial disposals</li> <li>Responded appropriately to the Act on Rational Use and Proper Management of Fluorocarbons</li> </ul>	<ul style="list-style-type: none"> <li>Continue disposal of high-concentration PCB waste according to plans at remaining sites in our business areas; continue conducting surveys to identify low-concentration PCBs contained in equipment currently in use and formulate plans for disposal by legally mandated deadline</li> <li>Properly manage equipment that use fluorocarbons</li> </ul>	Our website
	Reducing environmental impact	Ensure thorough voluntary controls and make continuous efforts toward reducing the environmental impact	<ul style="list-style-type: none"> <li>Continue thorough operational management and facility management in an effort to reduce environmental impact from air emissions, etc.</li> </ul> <b>&lt;Targets&gt;</b> Maintain water recycling rate of 95% or higher for the entire Group; Water pollution load COD: 474 tons/year; total nitrogen: 2,513t/year; total phosphorus: 23 tons/year	<ul style="list-style-type: none"> <li>Continued thorough management of soot/smoke and wastewater</li> <li>Achieved voluntary targets every month (3t/km<sup>2</sup>/month) for dust fall at Kakogawa Works</li> <li>Achieved a water recycling rate of 96%</li> <li>Water pollution loads: 243 tons/year of COD; 1,915 tons/year of total nitrogen; 3 tons/year of total phosphorus</li> </ul>	<ul style="list-style-type: none"> <li>Continue thorough operational management and facility management in an effort to reduce environmental impact from air emissions, etc.</li> </ul>	p. 68
	Ensuring thorough risk management	Pursue systematic and deliberate efforts to reduce risks	<ul style="list-style-type: none"> <li>Continue on-site environmental audits by the Head Office and expand audits to Group companies and affiliated companies in an effort to promote the establishment of independent environmental management systems</li> <li>For overseas Group companies, promote the same level of environmental management as in Japan and improve risk management through activities such as on-site environmental inspections</li> </ul>	<ul style="list-style-type: none"> <li>Improved environmental management levels at production sites through the use of environmental management systems and carried out environmental audits and other measures to confirm the progress</li> <li>Postponed local environmental audits of overseas Group companies due to the impact of COVID-19, and conducted self-checks using checklists; Conducted remote audits of Group companies in the U.S. with the support of regional headquarters</li> </ul>	<ul style="list-style-type: none"> <li>Increase environmental management levels through training for employees at production sites, implement environmental audits and confirm progress</li> <li>Carry out on-site environmental assessments for Group companies in Singapore and China, and increase environmental management levels at each company</li> </ul>	Our website
	Promoting environmental initiatives with full employee participation	Constantly improve the environmental awareness of all KOBELCO Group employees	<ul style="list-style-type: none"> <li>Continue initiatives such as stratified training, e-learning, and environmental training for Group companies, and encourage the use of the KOBELCO Eco-Life Notebook (household eco-account book), in an effort to increase environmental awareness</li> </ul>	<ul style="list-style-type: none"> <li>Increased employees' environmental awareness and knowledge through KOBELCO Group Environmental Meeting, stratified training, and e-learning</li> <li>Encouraged use of KOBELCO Eco-Life Notebook to raise environmental awareness at home</li> </ul>	<ul style="list-style-type: none"> <li>Raise environmental awareness by continuing measures such as stratified training and environmental training for Group companies, as well as promoting the use of the KOBELCO Eco-Life Notebook</li> </ul>	Our website
VISION 2	Contributing to the environment through technologies, products, and services	Create environmentally sustainable products and new businesses with due consideration to the environment in all technological and product development <b>&lt;Target for 2030&gt;</b> Contribution to CO <sub>2</sub> emission reduction: 61 million tons (including at least 45 million tons of MIDREX®) <b>&lt;Vision for 2050&gt;</b> Contribution to CO <sub>2</sub> emission reduction: 100 million tons or more	<ul style="list-style-type: none"> <li>Contribute to the creation of a low-carbon society through the efforts of the entire KOBELCO Group by working on issues related to the environment and energy fields, such as weight reduction of transportation vehicles, the creation of a hydrogen-based society, and the diversification of power sources</li> </ul>	<ul style="list-style-type: none"> <li>CO<sub>2</sub> Reduction Promotion Subcommittee and CO<sub>2</sub> Reduction Technology Study Working Group further studied various issues, reviewed targets for 2030, and formulated the vision for 2050</li> <li>Demonstrated technology that reduces CO<sub>2</sub> emissions by around 20% by charging into a blast furnace a large amount of hot briquetted iron (HBI) produced with the MIDREX® Process (developed by U.S.-based Midrex Technologies, Inc., a wholly owned subsidiary of Kobe Steel)</li> <li>Established and participated in the Japan Hydrogen Association with eight other private companies to promote global collaboration and formation of supply chains in the hydrogen field</li> </ul>	<ul style="list-style-type: none"> <li>Formulate and announce a roadmap for carbon neutrality in 2050 in cooperation of CO<sub>2</sub> Reduction Promotion Subcommittee and CO<sub>2</sub> Reduction Technology Study Working Group</li> <li>Work to achieve CO<sub>2</sub> emission reduction targets and help reduce CO<sub>2</sub> emissions in society by expanding sales of CO<sub>2</sub> reduction technologies, products, and services and conducting technical development of multi-materials</li> </ul>	pp. 36–39, pp. 72–73
	Coexisting and cooperating with society	Promote coexistence and cooperation with local communities from the environmental perspective	<ul style="list-style-type: none"> <li>Promote the KOBELCO GREEN PROJECT, centered on the three key activities of the KOBELCO Forest Fairy Tale Prize, forest development, and environmental education outreach to children's centers, in an effort to cooperate and coexist in harmony with local communities</li> </ul>	<ul style="list-style-type: none"> <li>Received more than 400 submissions for the 8th annual KOBELCO Forest Fairy Tale Prize, with backing from all municipalities in which our 12 domestic business sites are located</li> <li>Suspended environmental education outreach to children's centers and forest development activities due to COVID-19</li> </ul>	<ul style="list-style-type: none"> <li>Continue to promote KOBELCO GREEN PROJECT (comprising KOBELCO Forest Fairy Tale Prize, forest development activities, and environmental education outreach to children's centers*) to better coexist and cooperate with local communities</li> </ul> * Environmental education outreach to children's centers has been suspended due to COVID-19.	p. 79
VISION 3	Disclosing environmental information	Take active steps to disclose environmental information and improve communication with all stakeholders	<ul style="list-style-type: none"> <li>Continue disclosing information in an effort to communicate with all stakeholders</li> </ul>	<ul style="list-style-type: none"> <li>Disclosed environmental information via Integrated Report, Company website, environmental monitors, and other sources; introduced Group environmental technologies and products at exhibitions</li> <li>Expressed support for the recommendations of the Task Force on Climate-related Financial Disclosure (TCFD) and joined the TCFD Consortium (organization of supporting companies in Japan)</li> </ul>	<ul style="list-style-type: none"> <li>Continue disclosing information and enhance communication with all stakeholders</li> </ul>	Our website

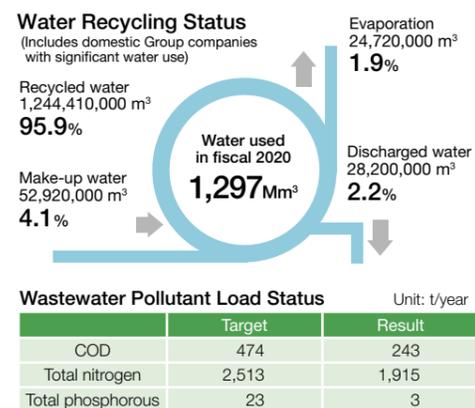
## Initiatives for the Environment

### Reduction of Environmental Impacts

#### Water Pollution Measures

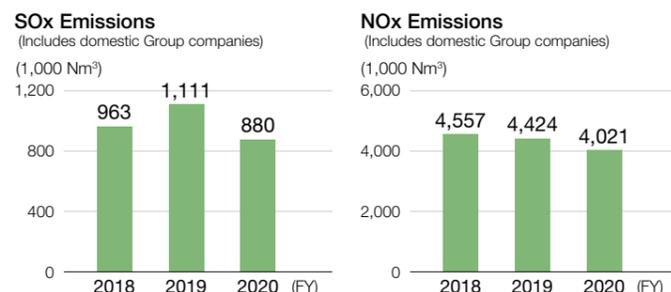
In terms of water use, the Group is working to reduce water consumption by prioritizing the efficient use of water in production processes, as well as recycling of water, with the goal of maintaining a water recycling rate of 95% or higher. In fiscal 2020, we achieved a recycling rate of 96%, exceeding our target, and we will strive to maintain that level in the future.

Regarding the pollutant load in wastewater, we have set targets for chemical oxygen demand (COD), total nitrogen, and total phosphorus for business sites located in areas with wastewater risks. We are also working to reduce the pollutant load of wastewater discharged into public water by purifying wastewater from production processes using treatment systems suited to their specific characteristics. We achieved our targets for wastewater pollutant loads in fiscal 2020.



#### Air Pollution Measures

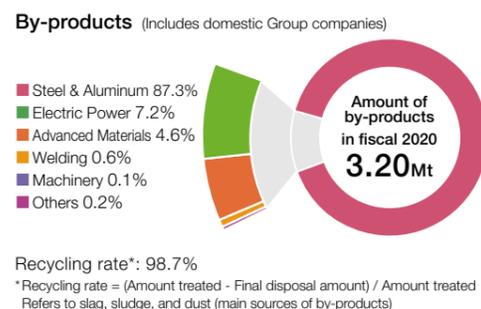
We have taken measures to limit SOx (sulfur oxide) emissions from manufacturing processes, including reducing fuel consumption by conserving energy, using low-sulfur fuels, and switching to city gas, as well as implementing measures to reduce exhaust gas, such as desulfurization. Likewise, to reduce NOx (nitrogen oxide) emissions, we have implemented low NOx combustion technology and energy saving measures.



### Promoting Resource Recycling

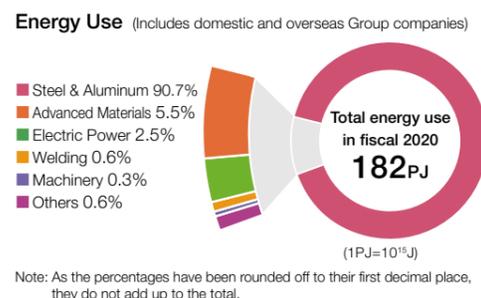
Seeking to make effective use of limited resources, we are working to reduce the generation of waste and actively promoting recycling by increasing the added value of by-product materials from production processes and developing and introducing new applications.

In fiscal 2020, the Group generated 3.2 million tons of by-product materials, with the steel and aluminum businesses accounting for around 87%. We are also actively working to improve yield and reduce the use of by-product materials and have set a target of 99% for recycling of slag, dust, and sludge in fiscal 2025. Our recycling rate in fiscal 2020 was 98.7%. We will continue striving to achieve our target.



### Measures Against Global Warming (Energy Use in Production Processes)

In response to global warming, the KOBELCO Group has been promoting the streamlining and R&D to reduce energy consumption throughout its operations. In fiscal 2020, we took measures to conserve energy by installing inverters, upgrading to high-efficiency equipment, and switching to LED lights at our business sites. The KOBELCO Group used 182 PJ of energy in fiscal 2020 (equivalent to 4.69 million kl of crude oil). Of this total, approximately 91% was used in the Steel & Aluminum Business and approximately 6% in the Advanced Materials Business.



For information on other initiatives and our BCP, please visit the site below.

<https://www.kobelco.co.jp/english/sustainability/risk.html>



## Climate-Related Disclosures Based on TCFD Recommendations (Environmental Management, CO<sub>2</sub>)

### Initiatives to Reduce CO<sub>2</sub> Emissions

The KOBELCO Group recognizes CO<sub>2</sub> reduction is a top management priority. In May 2021, we announced our aim to increase corporate value through a transition to carbon neutrality by 2050.

Going forward, the KOBELCO Group will continue to pursue reduction of CO<sub>2</sub> emissions in order to contribute to realize “a world in which people, now and in the future, can fulfill their hopes and dreams while enjoying safe, secure, and prosperous lives” as envisioned in KOBELCO’s View of the Future.

### Governance and Risk Management

We have a structure in place whereby the Executive Council deliberates and decides on important matters concerning CO<sub>2</sub> reduction that may have a major impact on our business operations and the Board of Directors oversees these procedures.

Under the Sustainability Management Committee, an auxiliary body to the Executive Council, we established the CO<sub>2</sub> Reduction Promotion Subcommittee to study Companywide measures to lower CO<sub>2</sub> emissions.



### Process for Identifying and Managing Climate-Related Risks

In the KOBELCO Group, the CO<sub>2</sub> Reduction Promotion Subcommittee leads the study of both risks and opportunities associated with climate change, as shown in the flowchart below.

The study results are reported to and deliberated by the Sustainability Management Committee, and the Executive Council makes final decisions.

Board of Directors	Monitors CO <sub>2</sub> reduction measures that may have a major impact on management	Quarterly
Executive Council	Deliberates and decides on important matters related to CO <sub>2</sub> reduction measures	At least once per year
Sustainability Management Committee	Deliberates important matters related to CO <sub>2</sub> reduction measures	At least 4 times per year

(Hajime Nagara, Director, Senior Executive Officer; Chair of the Sustainability Management Committee)



### Strategy

Kobe Steel analyzes the medium- to long-term risks and opportunities associated with climate change considering the social scenarios presented by the International Energy Agency; the long-term visions formulated and announced by the Japan Iron and Steel Federation, the Japan Aluminium Association, and other industry organizations; and the energy policies of Japan. The appropriateness of the measures implemented by the Company is assessed based on these analyses.

Medium-Term Management Plan	pp. 36–39
Materials-related initiatives	pp. 52–55
Machinery-related initiatives	pp. 56–59
Electric power-related initiatives	pp. 60–61

#### Climate-related risks

As exemplified by the introduction of carbon pricing schemes, environmental regulations on climate change are becoming stricter and may have significant impact on the KOBELCO Group’s business performance and financial position. In addition, given the increasing severity of damages from floods and typhoons, it is anticipated that the increase of natural disasters due to climate change may cause declines in production volumes and disruptions of supply chains.

#### Climate-related opportunities

As international concern for climate change-related issues rises, demand is growing for low-carbon products and services. We expect an increase in demand for the KOBELCO Group’s products and services that help reduce CO<sub>2</sub> emissions, such as materials for automotive weight reduction and the MIDREX<sup>®</sup> Process over the medium to long term.

## Initiatives for the Environment

### Climate Change Related Risks and Opportunities over the Short to Medium and Long Terms

	Risks		Opportunities	
	Short to medium term (by FY2030)	Long term (by FY2050)	Short to medium term (by FY2030)	Long term (by FY2050)
Policy and legal systems	Higher costs stemming from regulatory tightening		Growing demand for technologies, products, and services that contribute to reduction of CO <sub>2</sub> emissions (automotive weight reduction, MIDREX <sup>®</sup> Process, etc.)	
Market and technology transitions	Rising capital investments, research and development expenses, and operating costs associated with low-carbon technologies			
Reputation	Deterioration of corporate reputation due to insufficient or delayed information disclosure		Differentiation from other companies by establishing a reputation as a front-runner in combating climate change	
Physical risks (natural disasters, etc.)	Reduction of production volumes and disruptions of supply chains due to increases in floods, typhoons, and other natural disasters		Increase in demand for products due to increased public and capital investments for disaster prevention	
	Increases in costs of countermeasures and reductions in production volumes at factories in coastal locations due to damage from rising sea levels and high tides			

■ High risk  
 ■ Low risk  
 ■ Large opportunity  
 ■ Small opportunity

### Responses to Risks and Opportunities (R&D)

#### Reduction of CO<sub>2</sub> Emissions in Production Processes

Japan's steelmaking technologies are already at the most advanced levels in the world. Kobe Steel is participating with other steelmakers in the development projects that are being promoted by the New Energy and Industrial Technology Development Organization (NEDO) in a bid to further reduce CO<sub>2</sub> emissions in the blast furnace ironmaking process and to realize practical application of these developments.

In addition, the Company is advancing research and development with the aim of increasing energy efficiency in its iron reduction and melting processes.

#### Contribution to Reduction of CO<sub>2</sub> Emissions through Technologies, Products, and Services

Our existing lineup of products that help reduce CO<sub>2</sub> emissions includes automotive weight reduction materials and heat pumps. We will continue developing technologies to further contribute to CO<sub>2</sub> reduction with these solutions. We are also striving to develop new technologies, products, and services that help reduce CO<sub>2</sub> emissions, including MIDREX-H<sub>2</sub><sup>™</sup> (100% hydrogen direct reduction).

### Climate Change: Scenario Analysis

#### Implementation and Monitoring of Scenario Analysis

Under the Sustainability Management Committee, we established the CO<sub>2</sub> Reduction Promotion Subcommittee to study Companywide measures to lower CO<sub>2</sub> emissions. The subcommittee has taken the lead in conducting medium-term (2030) and long-term (2050) scenario analyses of climate change in the Group.

Our scenario analysis is based on the Sustainable Development Scenario (SDS) to limit the global temperature

rise to 2 °C, presented by the International Energy Agency (IEA). We also refer to long-term visions published by industry organizations to which we belong, such as the Japan Iron and Steel Federation (JISF) and the Japan Aluminium Association, to conduct our analyses and evaluations. For the electric power segment, which is closely related to Japan's energy policy, we conduct scenario analysis based on the energy policy of the national government.

#### Impact on Business

As more than 90% of our CO<sub>2</sub> emissions come from the steelmaking process, the medium- to long-term trends in the steel industry will have the greatest impact on our business. According to the "JISF Long-Term Vision for Climate Change Mitigation—A Challenge towards Zero-Carbon Steel," there is a certain correlation between economic growth and the amount of steel accumulated per capita. As the population increases, therefore, the total amount of steel stock will grow.

Steel production can be broadly divided into production with natural resources (iron ore, mainly using blast furnaces and direct reduced iron) and production with reusing scrap (mainly using electric furnaces). According to JISF predictions, the reuse of scrap is expected to increase

significantly due to the increase in the total amount of steel stock. On the other hand, demand for steel cannot be met by recycling scrap alone. Accordingly, production using natural resources (iron ore) will continue to require the same level of production as at present.

Amid growing interest in addressing climate change and disclosing relevant information, the importance of CO<sub>2</sub> reduction efforts in the iron and steel industry is expected to continue increasing. For this reason, we anticipate that our stakeholders, including national and local governments, investors, and customers, will pay greater attention to our efforts to reduce CO<sub>2</sub> emissions from our own facilities and expand our environmental menu that contributes to CO<sub>2</sub> emission reduction.

#### Risks and Opportunities

One of our core businesses is the manufacture and sale of steel products, which falls under the industry category of energy intensive basic materials. The Group's CO<sub>2</sub> emissions in fiscal 2020 totaled 15.3 million tons (Scope 1 & 2), which ranks high even in Japan's manufacturing industry. Accordingly, we recognize that future climate change policies, laws, and regulations, including carbon pricing, are risks that may have a significant impact on our business operations. Please refer to page 36 for our CO<sub>2</sub> emission reduction roadmap for 2050.

The Japan Meteorological Agency (JMA) and various research institutes have reported that as global warming progresses, the amount of precipitation tends to rise due to the increase of water vapor in the atmosphere, and damage caused by heavy rain and typhoons tends to become more severe. The risk of production stoppages and supply chain disruptions stemming from severe typhoons and heavy rains in recent years is also becoming more and more apparent. We recognize that further

intensification of typhoons, floods, and other natural disasters caused by climate change poses a risk that could have a significant impact on our operations and lead to suspension of production activities.

In accordance with our Risk Management Regulations, we have defined "climate-related regulations" and "natural disaster preparation and recovery" as "Top Risks" that are expected to have a particularly severe impact when an event occurs, with the aim of strengthening our risk management.

Meanwhile, demand for products and services that generate low CO<sub>2</sub> emissions is increasing amid growing international interest in climate-related issues. For this reason, we expect demand for products that help reduce CO<sub>2</sub> emissions, such as our automotive weight reduction materials and the MIDREX<sup>®</sup> Process, to grow over the medium to long term. Please refer to pages 37–38 for information on our strategy for the environmental menu that contributes to reducing CO<sub>2</sub> emissions.

### KOBELCO Group's CO<sub>2</sub> Reduction Solution for Blast Furnace Ironmaking

—Innovative Technology to Reduce CO<sub>2</sub> Emissions by 20% from Blast Furnace Operations Successfully Verified—

Kobe Steel, Ltd. successfully demonstrated the technology that can reduce a significant amount of CO<sub>2</sub> emissions from blast furnace operations, combining the technologies of Midrex in the engineering business and the blast furnace operation technology in the iron and steel business. This achievement is a result of the integrated efforts of the KOBELCO Group leveraging its diverse businesses.

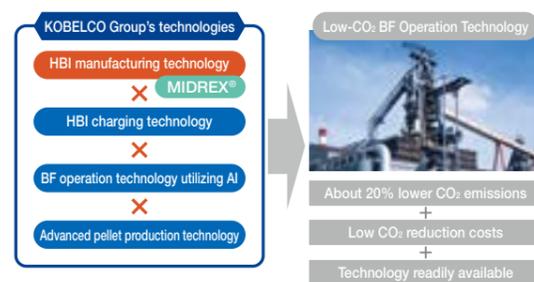
The quantity of CO<sub>2</sub> emissions from the blast furnace is determined by the reducing agent rate (RAR)<sup>\*1</sup> or the quantity of carbon fuel used in blast furnace ironmaking. In the demonstration test, it was verified that RAR could be stably reduced from 518 kg/tHM (ton hot metal) to 415 kg/tHM by charging a large amount of hot briquetted iron (HBI) produced by the MIDREX<sup>®</sup> Process. The results indicate that this technology can reduce CO<sub>2</sub> emissions by approximately 20% compared to a conventional method<sup>\*2</sup>.

In addition, the world's lowest level of coke rate (239 kg/tHM) has been achieved in the demonstration test of this technology. The Company sees it as a promising solution that could become readily available in the near future at a lower additional cost compared to other CO<sub>2</sub> reduction measures.

The key technologies that led to this achievement are two proprietary technologies developed by the KOBELCO Group, which are commonly available for other companies' blast furnaces.

#### Two key technologies

- Technologies of Midrex for HBI manufacturing (engineering business)



· Blast furnace operation technologies (iron and steel business): HBI charging technology for blast furnaces, blast furnace operation technology utilizing AI, and our Company's proprietary advanced pellet production technology

We will continue striving to refine our low CO<sub>2</sub> blast furnace operation technology to further reduce CO<sub>2</sub> emissions and lower CO<sub>2</sub> reduction costs, thereby reducing our own CO<sub>2</sub> emissions. Based on the aforementioned solution, we will help accelerate CO<sub>2</sub> reduction through promoting HBI charging in blast furnaces around the world.

\*1 Reducing agent rate (RAR) = coke rate (determined by the quantity of coke used in blast furnace) + pulverized coal rate (determined by the quantity of pulverized coal injected into blast furnace). Coke is carbon fuel made from coal.

\*2 The results are compared with fiscal 2013, which is the base year of the CO<sub>2</sub> reduction targets set by the government and the KOBELCO Group.

# Initiatives for the Environment Metrics and Targets

## Metric A Reduction of CO<sub>2</sub> Emissions in Production Processes

### Targets

In May 2021, the KOBELCO Group announced that it would take on the challenge of achieving carbon neutrality by 2050 and increasing corporate value through this transition. We have raised our targets for fiscal 2030 (from the level announced in September 2020) to accelerate efforts to achieve carbon neutrality by 2050.

### CO<sub>2</sub> Emissions in the Past

In the wake of the oil crisis, which spanned from the 1970s to the 1990s, Japan's steel industry moved to utilize energy more effectively by installing waste heat recovery systems and conserving energy while switching to continuous process flows and streamlined processes. From the 1990s, the steel industry took steps to effectively use waste materials, focused on upgrading waste heat recovery systems and increasing the efficiency of equipment. In recent years, industry players have installed highly efficient gas turbine power plants. Kobe Steel has maintained a consistent approach in advancing various energy conservation and CO<sub>2</sub> reduction measures through proactive capital investments. For example, the Company installed highly efficient gas turbine power generation facilities that use gas from blast furnaces at Kakogawa Works over the period from fiscal 2009–2014, resulting in a substantial reduction of CO<sub>2</sub> emissions.

Compared with fiscal 2013, we generated 21% less CO<sub>2</sub> emissions in fiscal 2020, partly due to a decline in production volume in the first half of the year.

In the ironmaking process, we successfully demonstrated a technology that can reduce CO<sub>2</sub> emissions from the blast furnace by around 20%. This was made possible by charging a large amount of hot briquetted iron (HBI) produced by the MIDREX<sup>®</sup> Process, a direct reduced iron production method using natural gas, into a blast furnace. (See page 70 for details.)

We also developed an AI-based blast furnace heat prediction system, which has been in operation since August 2020 in the No. 2 blast furnace at Kakogawa Works. This enables automatic and highly accurate prediction of hot metal temperatures five hours in advance, thus preventing in-furnace temperature drops and other problems and leading to more stable operations. We will promote further development of this blast furnace operation technology utilizing AI to enable more advanced control of furnace conditions.

The KOBELCO Group will continue striving to reduce CO<sub>2</sub> emissions in order to achieve its fiscal 2030 targets and fiscal 2050 vision.

### CO<sub>2</sub> Emissions from Energy Use

In fiscal 2020, our Group's CO<sub>2</sub> emissions from energy use totaled 15.3 million tons. Of this amount, about 94% was emitted from the Steel & Aluminum Business, about 4% from the Advanced Materials Business, and about 2% from the Electric Power Business.

**2050 Vision**  
Take on the challenge of achieving carbon neutrality

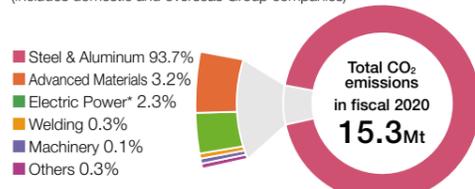
**Fiscal 2030 Target**  
Reduce CO<sub>2</sub> emissions in production processes  
**30% to 40%**  
reduction (compared with fiscal 2013)\*\*1,2

**Fiscal 2020 Result**  
**21%**  
reduction (compared with fiscal 2013)\*\*1,2

\*1. Total of Scope 1 and Scope 2  
\*2. Covered range for reduction target: Business operations of Kobe Steel, Ltd., and Kobelco Construction Machinery Co., Ltd. (together representing around 94% of CO<sub>2</sub> emissions of the entire Group)(Fiscal 2020 performance)  
Fiscal 2013 emissions in covered range: 18.2 million tons  
Fiscal 2020 emissions in covered range: 14.4 million tons

### CO<sub>2</sub> Emissions from Energy Use

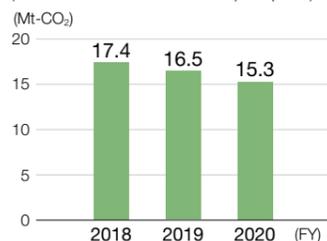
(Total of Scope 1 and Scope 2, excluding some areas\*)  
(Includes domestic and overseas Group companies)



\* CO<sub>2</sub> emissions in the electric power business calculated based on the Ministry of the Environment's Manual for Calculating and Reporting Greenhouse Gas Emissions (Version 4.7, released in June 2021) and excluding CO<sub>2</sub> emissions (approximately 8.2 million tons) related to electricity transmitted from power plants

### CO<sub>2</sub> Emissions from Energy Use\*

(Total of Scope 1 and Scope 2, excluding some areas)  
(Includes domestic and overseas Group companies)



\* For information on Group companies covered, see the Integrated Report for the corresponding fiscal years.

## Metric B Contribution to Reduction of CO<sub>2</sub> Emissions through Technologies, Products, and Services

### Targets

The KOBELCO Group contributes to reduction of CO<sub>2</sub> emissions in various areas of society through its distinctive technologies, products, and services. For these contributions, the Group has set the vision for fiscal 2050 and raised the targets for fiscal 2030 from the level announced in September 2020.

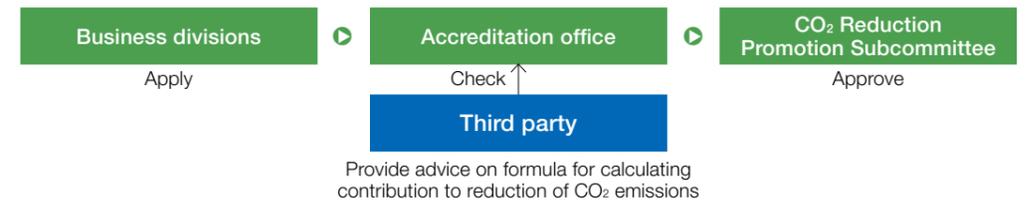
Regarding the contributions to reduction of CO<sub>2</sub> emissions through technologies, products, and services, the Group has instituted an internal accreditation system. For the formulas used in accreditations, we receive advice from Kiyotaka Tahara, the Director of the Research Laboratory

for IDEA at the Research Institute of Science for Safety and Sustainability, Department of Energy and Environment, AIST.

**FY2050 Vision**  
CO<sub>2</sub> emission reduction contribution:  
**100 million tons or more**

**FY2030 Target**  
CO<sub>2</sub> emission reduction contribution:  
**61 million tons or more**

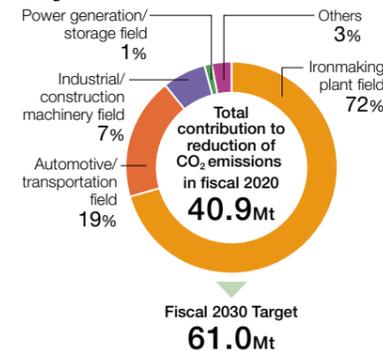
### Accreditation Flow



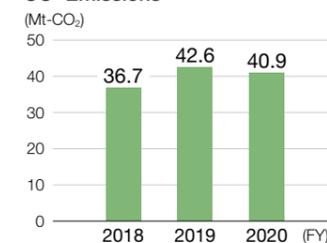
### Contribution to Reduction of CO<sub>2</sub> Emissions

The CO<sub>2</sub> Reduction Promotion Subcommittee estimates that the KOBELCO Group's technologies, products, and services contributed to reduction of CO<sub>2</sub> emissions totaling 40.9 million tons in fiscal 2020.

### Contribution to Reduction of CO<sub>2</sub> Emissions



### Contribution to Reduction of CO<sub>2</sub> Emissions



\* Prior-year results have been revised due to a review of the calculation method.

Technologies, Products, and Services	Contribution to Reduction (10,000 tons/year)	Concept behind Reduction	
Ironmaking plant field	MIDREX <sup>®</sup> Process	2,932	Low CO <sub>2</sub> direct-reduced iron production method
Automotive/transportation field	Ultra-high-strength steel for automobiles	652	Improvements in fuel economy by using high-strength, lightweight materials to reduce weight of automobiles and transportation equipment
	Wire rods for suspension springs	19	
	Wire rods for automotive valve springs	53	
Industrial/construction machinery field	High-strength steel for ships	27	Benefit of weight reduction in reducing power consumption
	Aluminum shapes materials for rolling stock	6	
Industrial/construction machinery field	Heat pumps, standard compressors, SteamStar, binary generators, Eco-Centri	231	Energy conservation by achieving higher efficiency and utilizing unused energy
	Fuel-efficient construction machinery	37	
Power generation/storage field	Wood biomass power generation, waste-to energy (WtE)	24	Reducing fossil resource use through the use of resources that contribute to carbon neutrality
Others	Blast furnace cement	109	Reduction in energy used to produce cement by utilizing recycled resources as inputs

In addition, Kobe Steel plans to calculate the contributions to reduction of CO<sub>2</sub> emissions through the following technologies, products, and services.

### Other major technologies, products, and services that contribute to CO<sub>2</sub> emission reductions (The amount of contribution will be calculated in the future.)

Technologies, Products, and Services	Concept behind Reduction
Automotive/transportation field	Fuel-cell separator materials, aluminum shapes for rolling stock, titanium for aircraft components, crankshafts for ships, compressors for LNG carriers, microbinary generators for ships*
Hydrogen utilization field	High-purity Hydrogen Oxygen Generator (H-HOG)
Power generation/storage field	Conversion of sludge to fuel, utilization of sludge at coal-fired thermal power plants, compressed air energy storage system*

\*Products and services planned to be provided to customers in the future

# Initiatives for Society

## Human Resources

The KOBELCO Group believes that in order to fulfill its social responsibilities as a company and further enhance its corporate value, it is important to encourage its diverse employees to demonstrate their individuality and utilize their talents so that they can work with pride and passion. Along with this, it is also important to develop human resources who have enthusiasm to tackle issues that our society faces and flexibility to respond to social changes. In order to achieve these goals, we have been implementing a variety of initiatives under the Medium-Term Management Plan starting from fiscal 2021 with the themes of: 1) Building a new personnel system to heighten awareness of making changes, taking on challenges, and producing results; 2) Encouraging the growth of future generations and developing a spirit of taking on new challenges; 3) Creating new value by utilizing the diversity of individuals; and 4) Further promoting work style reforms.

Item	Previous Plan	FY2021-2023 Medium-Term Management Plan
Reforming the personnel system	<ul style="list-style-type: none"> <li>Clarification of evaluation standards</li> <li>Retirement age extension</li> <li>Promoting feedback</li> </ul>	<b>Building a new personnel system to heighten awareness of making changes, taking on challenges, and producing results</b> <ul style="list-style-type: none"> <li>Clarify expected roles and abilities</li> <li>Review the seniority-based personnel system (with a focus on roles and results)</li> <li>Make careful selections of management positions and promote the appointment of professional human resources</li> </ul>
Strengthening personnel development	<ul style="list-style-type: none"> <li>Leader training (strengthening selected training, promoting executive training)</li> </ul>	<b>Encouraging the growth of future generations and developing a spirit of taking on new challenges</b> <ul style="list-style-type: none"> <li>Early development and systematic placement of management personnel</li> <li>Introduction and establishment of selective and autonomous education</li> <li>Enhanced education to strengthen <i>monozukuri</i> capabilities</li> </ul>
Diversity & Inclusion	<ul style="list-style-type: none"> <li>Supporting women's active participation</li> <li>Improving work-life balance of all employees</li> </ul>	<b>Creating new value by utilizing the diversity of individuals</b> <ul style="list-style-type: none"> <li>Strengthen support for diverse work styles and active participation of minorities</li> <li>Improve internal communication and build a diversity network*</li> </ul> <small>*Cross-organizational platform for knowledge acquisition and exchange of ideas on diversity development</small>
Work style reforms	<ul style="list-style-type: none"> <li>Promoting telecommuting</li> <li>Increasing the number of paid days off taken</li> <li>Improving meetings and email efficiency</li> </ul>	<b>Further promoting work style reforms</b> <ul style="list-style-type: none"> <li>Business improvement and penetration of standard business practices</li> <li>Improvement of the office work environment</li> <li>Development of flexible working styles and employment systems</li> </ul>

### Reforming the Personnel System

In today's world where we are driven to make constant changes amid intensifying business competition, each and every employee needs to have awareness of making innovative changes and create new value. To foster their motivation, we believe it is necessary to place greater emphasis on their roles and performance in evaluating them and deciding on their treatment. For this purpose, we are studying how to implement a personnel system that will help achieve this goal.

**TOPICS** **Extension of Retirement Age to 65 from FY2021**

As birthrates decline and populations age, it is becoming increasingly difficult to secure human resources. In response to this trend, Kobe Steel changed its mandatory retirement age from 60 to 65 in fiscal 2021 with the aim of improving the motivation of seasoned employees, heightening *monozukuri* capabilities, and fostering a sense of solidarity in the workplace. The change in the mandatory retirement age enables employees to work from the time they join the Company until they reach the age of 65 under the same employment conditions while allowing continuous compensation systems. In addition, we will revise our personnel system in conjunction with this change to create a framework that reflects the abilities and achievements of individuals more appropriately in compensation. This will lead to an increase in employees' motivation for growth.

### Human Resource Development

We have defined our ideal image of human resources with the aim of ensuring that each and every employee shares diverse values and has pride and passion in their daily work. For human resource development, Kobe Steel conducts employees' training mostly by on-the-job training but also provides training programs that complement it. We revise the contents of the training programs annually. In particular, in the current Medium-Term Management Plan period, we are pursuing the following three initiatives under the theme of "encouraging the growth of future generations and developing a spirit of taking on new challenges."

■ **Early development and systematic placement of management personnel**

We are providing selective training that incorporates business administration. We support the growth of employees not only by the human resource development through training, but also by proactively adopting systematic personnel allocation.

■ **Introduction and establishment of selective and autonomous education**

We are reducing traditional stratified training and moving towards

selective and autonomous education. While employees are encouraged to autonomously build their own careers and learn on their own, the Company will provide growth opportunities for them and support the active participation of diverse human resources.

■ **Enhanced education to strengthen *monozukuri* capabilities**

In order to maintain and improve our *monozukuri* capabilities, which are the source of our competitiveness, we have been systematically promoting the transfer of skills within the Company. Going forward, we will implement measures to further strengthen our *monozukuri* capabilities, including revising the training system up to the fifth year of employment and enhancing the development of supervisors, who play a key role in the workplace.

**TOPICS** **IT Human Resource Development**

We are promoting IT human resource development as a foundation for the advancement of digital transformation (DX) across the Company.

First and foremost, we aim to develop approximately 500 "IT evangelists" by fiscal 2023 as human resources who plan and advance business reforms in their own departments utilizing IT. To this end, we are implementing a range of training programs, including design thinking, requirements definition, and project management.

### Work Style Reform Activities

Our Group's work style reform activities aim to secure and retain excellent human resources, create time to enhance workplace communication, and create a healthy working environment. To this end, we have been implementing a wide range of initiatives, including increasing the number of days of paid leave taken by employees, establishing rules for meetings and email, promoting business transformation utilizing IT, loosening dress codes in some offices, and establishing a better work environment.

Many employees' work styles and values have changed due to the impact of COVID-19, and we are working to minimize the risk of infection by recommending safe work practices such as telecommuting, staggered working hours, and active use of online meetings. As a result, the use of telecommuting and paperless systems is becoming more widespread. Going forward, we aim to increase work efficiency by improving the work-from-home system and promoting workspaces without assigned seating (hot desking) in offices, and to further improve productivity by creating a workplace culture that encourages active communication and autonomous thinking.

During the period covered by the new Medium-Term Management Plan, we believe it is important to improve

the way we work on a daily basis with the participation of all employees, including executives, and to further enhance the quality of all corporate activities, including business operations and organizational structures, in order to realize our Group Corporate Philosophy. We will continue to proactively promote initiatives that will lead to the strengthening of our corporate competitiveness, with the aim of improving productivity while at the same time pursuing a healthy working environment where diverse human resources can perform to the best of their potential.

FY2016-2017	Initiative to increase the number of paid leave days taken by employees
	Formulation of KOBELCO-way meeting rules to improve efficiency of meetings
	Formulation of KOBELCO-way email rules
FY2018-2020	Reform of work rules (prohibit work after 7 p.m.)
	Formulation of rules for efficient document preparation
	Implementation of business improvement awards
	Revision and promotion of work-from-home system
	Loosening of dress codes

### Strengthening Activities to Respect Human Rights and Resolve Human Rights Issues

As a corporate group that globally operates businesses, the Group respects the International Bill of Human Rights adopted by the United Nations and pursues its corporate activities based on international norms such as the United Nations' Guiding Principles on Business and Human Rights. In order to clearly demonstrate our stance that respect for human rights is an important social responsibility, we established the Kobe Steel Group's Basic Policy on Human Rights, which includes protections against child labor and forced labor, in October 2019.

To ensure that human rights awareness deeply permeates the entire Group, both in Japan and overseas, and to clarify our stance of not tolerating discrimination and harassment, we conduct human rights awareness training and have established consultation helplines. In fiscal 2020, we conducted anti-harassment training for all executives of Kobe Steel, and similar training was also held at our local subsidiary in China.

In addition, in March 2021, we signed the United Nations Global Compact and registered as a participating company. Going forward, as a company that endorses the principles of protecting human rights and eliminating unfair labor practices, we will continue our efforts to realize these principles by strengthening activities to respect human rights in our procurement activities, striving to identify human rights issues in our business activities, and strengthening our efforts to prevent human rights violation issues from occurring in the first place through the promotion of human rights due diligence.

The Kobe Steel Group's Basic Policy on Human Rights

[https://www.kobelco.co.jp/english/about\\_kobelco/csr/files/policy\\_en.pdf](https://www.kobelco.co.jp/english/about_kobelco/csr/files/policy_en.pdf)



**Activities in Line with the Group's Basic Policy on Human Rights**

**KOBELCO launched "Think About LGBT" initiative to promote understanding of LGBT people**

We aim to create a workplace environment where individuality is respected, and every employee can work with peace of mind and perform to the best of their abilities. To that end, we are conducting executive training and training for all employees, and working to develop various systems and create a healthy work environment.

\*LGBT stands for lesbian, gay, bisexual, and transgender. LGBT functions as an umbrella term for people's identity that refers to sexuality and gender identity.

KOBELCO  
LGBT ALLY logo

Our rugby ball shaped logo is inspired by Kobelco Kobe Steelers, a league one rugby club in Japan.

# Initiatives for Society Diversity & Inclusion

## KOBELCO Group's Diversity and Inclusion

We have been working to enhance the growth potential of the entire organization by encouraging people with diverse backgrounds and values to make the most of their abilities in the workplace. We believe this will lead to vigorous development of our business.

We are accelerating our activities by setting the vision, basic policy, and numerical targets for diversity development.

### Vision for the Future

- Each employee achieves self-improvement by demonstrating their own individuality and strengths
- "KOBELCO One Team" takes on challenges and creates new value from diverse ideas and experiences

### Basic Policy

- Value unique strength of individuals
- Promote a variety of working styles
- Take on the challenge of creating new value

### Numerical Targets

Item	Details	Target Value
Female	Improve the employment rate	Employment rate of female new graduates
	Development of leaders	<ul style="list-style-type: none"> <li>• Number of female managers</li> <li>• Number of female supervisors at manufacturing sites</li> </ul>
Supporting work-life balance	Improve men's participation in childcare	Percentage of male employees with children under one year old taking childcare leave

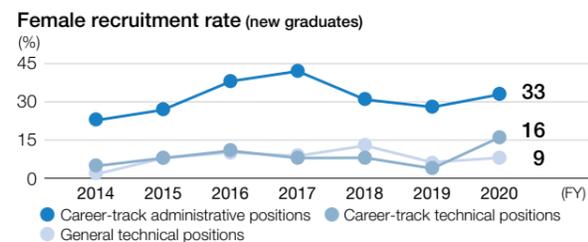
- Career-track administrative positions: 50% or more
- Career-track technical positions: 15% or more
- General technical positions: 15% or more

- Double from FY2020 baseline

- 100%

## Diversity-Conscious Recruitment

We have set targets for the recruitment of new female graduates and are strengthening our recruitment efforts. Furthermore, in order to support their success, we plan to hold informal social gatherings and new employee social gatherings.

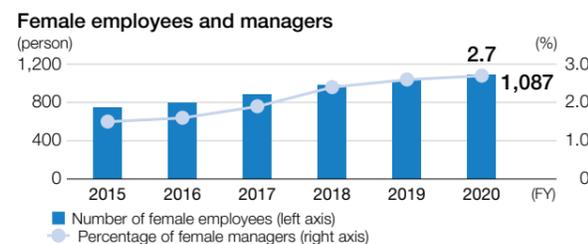


## Diversity-Conscious Hiring

We aim to improve our competitiveness by diversifying our management and leadership teams.

In addition to strengthening training, we are also communicating our stance in support of women's advancement outside the company.

- Declaration of Action by the Male Leaders Coalition for Empowerment of Women established by the Japanese government
- Keidanren "Challenge Initiatives for 30% of Executives to be Women by 2030"



## Establishment of Companywide Diversity Development Team

We recruited volunteers throughout the company who wished to work on diversity development and assembled them into a new team.

The team will develop and propose effective diversity measures that reflect the concerns and requests of employees from various departments and work sites. Through these activities, we also aim to revitalize communication that transcends organizational barriers.



## Providing Information on Diversity and Inclusion

### Holding Lunchtime Sessions

We hold forums where employees can hear the experiences of the president, internal and external leaders, and external experts to learn about a wide range of topics, including careers and diversity development. The goal is to help each participant develop their own career trajectory in which they

can leverage their own strengths, thereby achieving our policy of valuing unique strength of individuals.

### Diversity Communication Newsletter

We provide information about Diversity and Inclusion on the 15th of each month to share our diversity promotion activities widely across the company.

# Health and Safety

We believe that health and safety are fundamental to our business operations and take priority over all business activities. In accordance with this principle, we comply with all relevant laws and regulations and carry out various safety and health activities to create vibrant workplaces where employees can work in a safe and secure environment.

The KOBELCO Group implemented a variety of health and safety initiatives in fiscal 2020. For example, we formulated and developed Groupwide health and safety guidelines, reviewed the education status of supervisors, and took other steps to strengthen basic management and activities. We also worked on the understanding actual conditions at work sites and their improvement, through conducting health and safety diagnoses to identify issues and make improvements and using wearable cameras (awareness cameras) to manage risk and support workers.

As a result, we achieved zero fatalities and zero serious accidents for both our employees\*1 and contracted workers\*2 in fiscal 2020. On the other hand, while the lost time injury frequency rate has remained below the national average, it was 0.24 in fiscal 2020, exceeding the target of 0.10, and has not resulted in the eradication of accidents.

Issues we have identified include partial weaknesses in basic management and activities (discrepancies between workplaces) and the need to raise the safety management capabilities of each individual (including awareness of compliance with rules and risk prediction skills).

In fiscal 2021, we will further strengthen basic safety management and the implementation of activities (rebuilding and formulating corporate safety standard practices and providing thorough training) and create an upward-spiraling PDCA cycle through initiatives with full employee participation and individual guidance (encouraging all employees to participate in safety activities proactively and raising their safety awareness through individual guidance).

We will continue providing health and safety training at the Head Office and other business sites. Under the program conducted by the head office, we provide training for new employees (in their first to fifth years), training for newly appointed supervisors, and training for line managers with the aim of helping them acquire knowledge and skills related to health and safety.

\*1. All persons employed by the Company (including seconded employees and temporary or part-time employees)  
\*2. Workers under contract with the Company (including those under dispatch contracts)

## Health and Safety Policy (Priority Items)

### Safety-Related Policy

1. Develop human resources capable of practicing risk prediction and safety verification and steadily promote skills management
2. Conduct risk management and promote enhanced safety of facilities and work
3. Create a system that spirals up health and safety management and activities
4. Strengthen and support the health and safety management and activities of Group companies (including overseas companies)

### Health-Related Policy

1. Further improve work environments through compliance with laws and regulations and risk assessment related to the management of workplace involved with hazardous operations
2. Strengthen activities to prevent the onset of new mental-related diseases and continue early detection and response efforts
3. Strengthen efforts to prevent cardiovascular diseases and neoplasm (cancer)

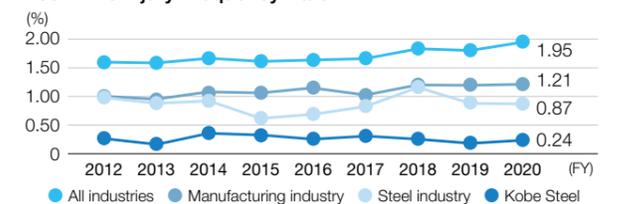
## Safety Code of Conduct Based on the Core Values of KOBELCO

- We follow the rules at the workplace and build trust with families and coworkers.
- We value each and every one of our coworkers and care for each other.
- We aim for higher levels of safety and security through continued improvement of workplace facilities and systems.

## Key Objectives (FY2021)

- Accidents leading to death or serious injury (involving three or more people at the same time): Zero
- Lost time injury frequency rate (LTIFR): 0.10 or less

## Lost Time Injury Frequency Rate\*



\*Lost time injury frequency rate (LTIFR) = Number of injuries requiring absence from work/Number of total hours worked x 1,000,000

## Initiatives to Help Employees Maintain and Improve Their Health

We aim to create a healthy work environment where employees can maintain and improve their mental and physical well-being.

### Providing Improved Health Checkups (Cooperation with health insurance association)

- Employees receive regular blood tests and endoscopic checkups, and all employees found to be infected with *Helicobacter pylori* receive treatment.
- Employees reaching 50 years of age receive full compensation for optional checkups at health screening clinics (tumor markers, breast cancer checkups, brain disease checkups, etc.). In addition, employees of at least 50 years of age and their spouses are partially compensated for medical costs.

### Mental health initiatives

- All of our business locations have consultation offices staffed by industrial counselors.

- We are creating a healthy workplace environment with an emphasis on work engagement based on the results of stress checks.

### Activities to Help Employees Maintain and Improve Their Health (Cooperation with health insurance association)

As part of our effort to address lack of exercise due to the spread of telecommuting, we post videos of stretching and back pain prevention exercises on our intranet.

### Selected under 2021 Certified Health & Productivity Management Outstanding Organizations Recognition Program (White 500)

In addition to being included in the Health & Productivity Stock Selection in 2021 for the third consecutive year (since first being included in fiscal 2015), the Company was selected under the Certified Health & Productivity Management Outstanding Organizations Recognition Program (White 500) in 2017, 2020, and 2021.



## Initiatives for Society Communication with Stakeholders

The KOBELCO Group is committed to proactive communication with stakeholders. We are earnestly listening to our stakeholders through dialogues with shareholders and other investors and surveys of our customers and business partners. In addition, we recognize that improving management transparency is a top management priority, and we are promoting timely, appropriate, and extensive information disclosure accordingly.

We also carry out various activities that contribute to local communities. Our efforts range from contribution to society through sports to initiatives undertaken by respective business locations, which include environmental activities, regional development, and community interaction centered on supporting the young people of the next generation.

### Communication with Shareholders and Investors

The Company strives to provide information and engage in dialogue with shareholders and investors through various tools and opportunities, including the issuance of integrated reports, the enhancement of the contents of the notice of ordinary meeting of shareholders and its early disclosure, and the holding of explanatory meetings. We will continue our efforts to promote better understanding of the Company's management policy and business operations among shareholders and investors using IT tools as well.

#### Domestic and Overseas Institutional Investors

We are promoting understanding of the Company among domestic and overseas institutional investors through proactive discussions with analysts, ESG officers and persons in charge of exercising voting rights. In fiscal 2020, we had meetings with a total of 178 institutional investors, held

financial results briefings four times a year, and carried out theme-based briefings, for example, about KOBELCO Group's CO<sub>2</sub> Reduction Solution for Blast Furnace Ironmaking.

#### Individual Investors

We are working on promoting understanding of the Company among individual shareholders and investors by issuing shareholder newsletter "To Our Shareholders" twice a year and disclosing information on our corporate website. Due to the impact of the COVID-19 pandemic, plant tours for shareholders are currently suspended; however, we will review the tours including the resumption, in consideration of future situations.

Information for shareholders and other investors

 <https://www.kobelco.co.jp/english/ir/>



### Communication with Customers and Business Partners

The KOBELCO Group conducts customer surveys with questions covering a wide range of subjects, including product quality, services, and delivery periods, as part of its

efforts to improve product and service quality. We consider seriously the results of these surveys, and we use this feedback to improve our products and services.

### Communication with Community Members

#### Contributions to Society through Sports

##### Sale of Etiquette Masks to Support Healthcare Professionals

In September 2020, we sold etiquette masks remade of rugby sweats, which the members of the Kobelco Kobe Steelers, the Kobe Steel rugby club, had actually worn in official matches and other occasions. This event was held as a charity for supporting healthcare professionals who are struggling to prevent the spread of COVID-19, and was supported by many rugby fans.

We donated 935,376 yen, a revenue generated through the sale of etiquette masks, to the Kobe City Support Fund for Healthcare Professionals on December 24, 2020.



##### Support for Activities of the Hyogo Guide Dogs for the Blind Association

The Kobelco Kobe Steelers has been supporting the mission of the Hyogo Guide Dogs for the Blind Association: nurturing guide dogs and raising regional awareness of accepting guide dogs. The team has been working with the association in activities including a fund-raising campaign to support guide dogs and selling charity goods at match venues since last year. This year as well, many visitors came to the booth to participate in our activities.



### Social Contributions in Japan and Overseas

#### Kobelco Construction Machinery Southeast Asia Co., Ltd. (KCMSA)

Aiming to foster a connection and coexist with the local community and promoting the employees' initiatives to share the joy of working in the KOBELCO Group and excitement gained from local contribution activities, we are carrying out mangrove planting activities, safety classes and safety awareness activities for students, and donation of supplies and equipment. By making employees and their families happy and proud to be members of the KOBELCO Group, we are striving to contribute to the creation of a corporate culture that leads to changes in awareness and organizational revitalization.



#### Kobe Wire Rod & Bar Plant and Kobe Power Plant

Triggered by a proposal from a member of the Foremen's Association, saying "Our office is supported by the local community. Let's do what makes the community happy," we have been providing Christmas presents such as sweets and home appliances to neighboring welfare facilities for children and the elderly. Many words of thanks that we received from them make us feel happy and motivated as well as the joy of being appreciated. The activities have taken root in the community.

This activity was awarded the Kobe City's citizen award (Flower Clock Award). Mayor of Higashinada Ward Office, Kobe City Government, Kanaya awarded a certificate of commendation to Foreman Akamatsu (in March 2021).



### KOBELCO GREEN PROJECT

#### KOBELCO Forest Fairy Tale Prize

The KOBELCO Group solicits stories about forests from elementary, junior high, and senior high school students across Japan with the aim of helping children, who will lead the next generation, develop a feeling of cherishing the forest that offers various blessings of nature. The winning stories are transformed into picture books with illustrations by picture book authors. The finished picture books are donated to schools and public libraries under the jurisdiction of the local governments that support this activity. The eighth annual prize, held in fiscal 2020, garnered a total of 426 submissions. *Mori no Kakehashi* (Forest Bridge), written by Miu Hayashi (Elementary School Division), and *Mori no Inochi no Subarashisa* (Wonderfulness of Forest Life), written by Rena Masui (Junior High and Senior High School

Division) were selected as the grand prize winners.

In addition to the prize, the Group is engaged in forest development programs carried out by employee volunteers and environmental education outreach to children's centers, and promotes these environmental contribution activities collectively called the KOBELCO GREEN PROJECT across the Group to better coexist and cooperate with society in the environmental aspect as well.

\*In fiscal 2020, forest development programs and environmental education outreach to children's centers were canceled due to the COVID-19 pandemic.



### KOBELCO Community Contribution Fund

The Company established the KOBELCO Community Contribution Fund in fiscal 2006 that marked the 100th anniversary of the Company's foundation and has been carrying out activities to support children through the Fund.

#### TOPICS

#### Letter of Appreciation from Kobe City

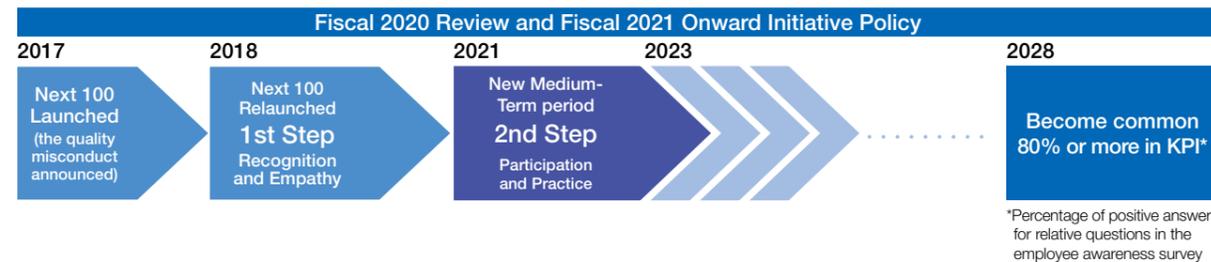
Kobe Corporate Research Laboratories, Kobe Steel, in cooperation with Nishi Ward Office, Kobe City Government, offered educational toys and picture books to childcare support groups in the ward as an activity of the Fund. This support activity was appreciated, and we received a letter of appreciation from the Kobe City Council of Social Welfare.



## Initiatives for Society Communication with Stakeholders

### Core Values of KOBELCO Next 100 Project (Communication with Employees)

As an initiative for aiming to unite all employees, create a corporate group full of pride, confidence, passion and hope, and achieve sustainable development, the KOBELCO Group launched the Core Values of KOBELCO Next 100 Project in fiscal 2017. A key focus of this initiative is to further instill the KOBELCO Group's Corporate Philosophy and to prevent us from forgetting the quality misconduct (namely, remembering the lessons learned). The project is promoting recognition and empathy among all employees toward the Next 100 Project activities, as well as participation and practice by all employees, hoping that such actions of each individual will grow into the corporate culture and take firm root in the organization.



#### Initiatives Focusing on Raising Awareness of the New Group Corporate Philosophy

In fiscal 2020, we worked to further increase awareness of our ongoing efforts, such as dialogue activities between top management and employees, based on the Group Corporate Philosophy established in May 2020. In addition, by sharing pledges made by senior management and department heads among employees and encouraging all employees to make a pledge by themselves and take actions as expressed in their pledges, we promoted participation and practice. We are also actively using online tools and promoting the initiative even amid the COVID-19 pandemic.

#### Initiatives toward the New Phase

During the period from fiscal 2021 to 2023, which is defined as the 2nd Step, we are continuously implementing the ongoing activities and adding further depth to them. Specifically, in order to strengthen participation and practice identified as an issue in the fiscal 2020 employee awareness survey, we are focusing on making the KOBELCO Core Values Awards more familiar and promoting the understanding of the Group's diverse businesses (including contribution to a green society and other contributions to solving social issues).

#### Major Actions and Schedule for Implementation

	Initiatives	Description	Actions Implemented/Planned
Participation and practice	Declaration of pledges by senior management, department heads and all employees	All employees make pledges using the KOBELCO Group's Corporate Philosophy cards. In fiscal 2020, we launched an initiative to share pledges by senior management across the Group companies both in Japan and overseas, and pledges by department heads in each workplace.	In fiscal 2021 as well, all of the executives have shared their pledges across the Group companies in Japan and overseas. Starting from the KOBELCO Core Values Day on March 6, while department heads announced their pledges in their workplaces, all employees wrote their pledges on the KOBELCO Group's Corporate Philosophy cards.
	Dialogue Platforms	(1) Instilling the Group Corporate Philosophy (2) Preventing the quality misconduct from being forgotten (3) Implementing Dialogue Platforms in each workplace for promoting two-way communication within the department	We continue to implement Dialogue Platforms with participation of all employees of Kobe Steel and its Group companies as a central initiative in the KOBELCO Core Values Month every October.
	KOBELCO Core Values Awards	We have been promoting the practice of the Corporate Philosophy throughout the Group through presenting awards to activities that exemplify the Group Corporate Philosophy and contribute to building a new corporate culture.	In fiscal 2020, 34 activities were awarded. By sharing good examples of activities throughout the Group, we continue to implement the initiative and promote the practice of the Group Corporate Philosophy.
Recognition and empathy	Dialogues between management and employees	President Yamaguchi and other senior executives communicate their thoughts to employees in an effort to proactively express management's commitment to initiatives to restore trust.	As of the end of fiscal 2020, President Yamaguchi was engaged in dialogues with approximately 1,400 Group employees on a total of 141 occasions in Japan and overseas. The dialogue activities are being continued in fiscal 2021.
	KOBELCO Core Values Place	The facility aims to share the lessons learned from the quality misconduct and pass it on to future generations.	As of the end of fiscal 2020, a total of approximately 5,200 people visited the facilities including online visits and actual visits to the satellite facilities. In fiscal 2021, we plan to further utilize the online version.
Identification of issues	Compliance and employee awareness surveys / feedback report	The surveys aim to comprehensively understand the current status and issues of employees' awareness in terms of their work and the Company, as well as the state of organizations.	We anticipated the Company's fiscal 2020 survey results would worsen due to changes in the management environment amid the COVID-19 pandemic, but we saw overall improvement. The survey will continue to be conducted in fiscal 2021.

## Establishment of Responsible Supply Chains

The KOBELCO Group formulated its Basic Procurement Policy and announced Requests to Suppliers composed of nine items including human rights and labor, and the environment in September 2020. Corporate social responsibility for supply chains has been drawing increasing attention from society. The Group considers efforts to deal with such issues as crucially important and will continue to promote initiatives for the establishment of responsible supply chains, while sharing social responsibility with its business partners.

#### Procurement Policies

Kobe Steel's procurement divisions act in accordance with the following basic policies.

1. Compliance with laws, regulations and other social norms
2. Fair and impartial transactions
3. Coexistence with the global environment through procurement
4. Partnership with suppliers
5. Management of confidential information

#### Promotion Structure

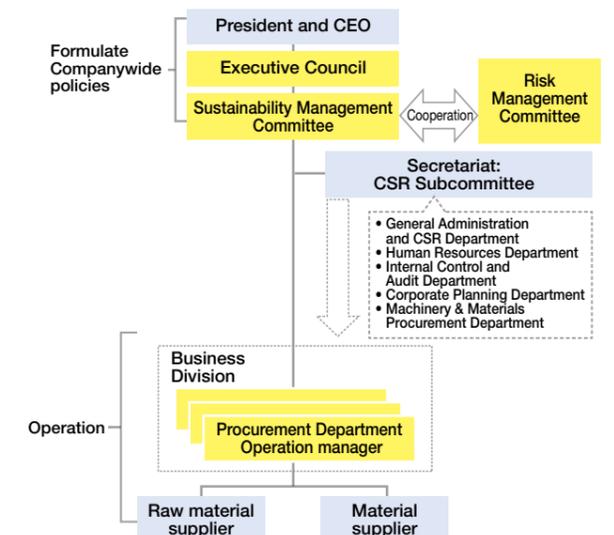
Companywide sustainability policies are proposed by the Sustainability Management Committee to the Executive Council, where consensus is built through deliberation. The implementation is led by operation managers of procurement departments under respective business divisions. From a viewpoint of risk management, the Sustainability Management Committee cooperates with the Risk Management Committee to strengthen the policy implementation.

#### Requests to Business Partners

The following are the items of social responsibility for which the Company seeks support and cooperation from its business partners. (Information on these initiatives are posted on the Company's corporate website.)

Legal compliance	Human rights and labor	Safety and health
The environment	Fair trade and ethics	Quality and safety
Information security	Business continuity plans	Social contribution

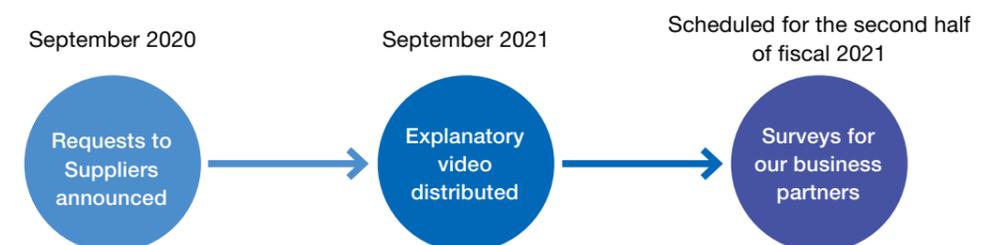
<https://www.kobelco.co.jp/english/sustainability/procurement.html>



#### Status of Initiatives in the Supply Chain

In September 2021, the KOBELCO Group distributed a video for its business partners toward establishment of responsible supply chains and explained the Group's approach and perspectives. The video showed the Group's framework for sustainability management, sustainability promotion structure, materiality as well as the status of the Group's initiatives for the environment, human rights, and other matters.

The Group will seek cooperation from its business partners in surveys that aim to properly understand their situations and reflect the results in activities for the establishment of responsible supply chains.



Initiatives for Governance

# Roundtable Talk Among Three Independent Directors

Faced with dramatic changes in the external environment such as the global trend toward carbon neutrality, the KOBELCO Group is entering a period of major transformation. In such a business environment, our attention is drawn to how the Group's Materiality (medium- to long-term key issues) and Medium-Term Management Plan are evaluated; what unique solutions to social issues our Group can provide; and how Independent Directors contribute to the sustainable growth of the Group. Concerning these issues, Independent Directors Mr. Takao Kitabata (Chairman of the Board of Directors and Chair of the Nomination & Compensation Committee), Ms. Yumiko Ito, and Mr. Masaaki Kono (Chair of the Audit & Supervisory Committee) sat down for a candid discussion from a wide range of perspectives.



Independent Director  
(Chair of Audit & Supervisory Committee)  
Masaaki Kono

Independent Director  
Yumiko Ito

Independent Director  
Chairman of the Board of Directors  
Takao Kitabata

## What became clear through Discussions on Materiality and Medium-Term Management Plan

**Ito** In identifying the Materiality, we analyzed the Group's business areas, business environment, and future social changes, and carefully examined the key issues that are critical for the Group's sustainable growth, under the Framework for Sustainability Management. I've been saying that we need a further breakdown of the Group Corporate Philosophy, which was established last year, in order to turn it into concrete actions. In this regard, the

Materiality identified this time will be helpful for everyone, from each department to individual employees, in understanding what they need to do as their own initiatives. In addition, it has clarified the positioning of the Medium-Term Management Plan as a more short-term plan. I believe that the Group Corporate Philosophy, Materiality, and Medium-Term Management Plan are now linked together.

**Kono** Discussions for identifying the Company's Materiality were carried out in a bottom-up manner, based on the process we used for establishing the Group Corporate Philosophy, which was drafted through working group discussions by the Group's employees. I felt that this process provided a solid foundation leading to the identification of the Materiality. In accordance with the Group Corporate Philosophy, we discussed the Vision of the KOBELCO Group for the Future, Materiality, and Medium-Term Management Plan in parallel. This added significant momentum to the Group. Throughout the process, I myself actively participated in the discussions and expressed my frank opinions.

**Kitabata** In identifying the Company's Materiality and establishing the Medium-Term Management Plan, a wide range of members, including us Independent Directors, held head-on discussions, including deliberations at the Board meetings.

**Kono** As a starting point for the discussions, we focused on the Vision of the KOBELCO Group for the Future, which allowed us to see the strengths and weaknesses of the Group in a fresh light. The Group's strengths lie in its technologies and R&D capabilities in a wide range of fields, as well as in the diverse human resources that support these capabilities. With respect to the Materiality, I think that it explicitly states our commitment to make the most of these strengths and contribute to solving issues of the future society, including carbon neutrality. How to leverage the Group's strengths to the best of its potential was an issue of greatest concern to all directors, both inside and outside the company. Through this process, we have rediscovered our strong will to present the unique value that the KOBELCO Group can offer. Our passion has been reflected in the concept of the Materiality and the Medium-Term Management Plan. I believe we had meaningful discussions that led to a new growth strategy.

**Ito** Before I became an Independent Director, I had an impression that Kobe Steel was a heavy industrial company. However, after having a closer look at the Company, I was surprised to find it had a wider range of technologies than I had expected. That's the source of value creation for the Group.

On the other hand, one of the weaknesses of the

Group is that the organization is so large that employees tend to focus only on their own business divisions to which they belong. This has always been a concern of mine. Being siloed inside a single business division is detrimental not only in terms of business, but in many other ways too. I think that was one of the factors that caused the quality misconduct in 2017. Recently, however, I feel that the entire company has come to a shared understanding that it needs to depart from such a silo approach. I think it's very important to further promote this awareness.

**Kono** In this regard, I feel that our discussions on the Materiality and the Medium-Term Management Plan laid a foundation for sharing technologies and know-how across departments. I recognize that we are now in the process of overcoming this siloed culture. For example, the KOBELCO Core Values Place was set up as a learning center that aims to share the lessons learned from the quality misconduct and pass them on to future generations. We directors visit the place once a year. On each visit to the place, I feel a strong resolve of all employees who are determined to never repeat this kind of misconduct again, standing in front of exhibitions that show us how the Company made mistakes in the past. This is one of the good examples of how the energy of employees, which had been confined in each business division, has become a source of power of overcoming the barriers of business divisions. I was very impressed with this. It's important to carry on this process of transformation on a constant and ongoing basis.

**Kitabata** With respect to the Materiality, it is also notable that some monitoring indicators have been introduced to evaluate the degree of achievement in a quantitative manner.

In formulating corporate management policies, it is a basic requirement for a company to adhere to social standards as a member of society. While assuring compliance, it is also essential for a company to establish the Group Corporate Philosophy that states the reason for its existence. People recognize the value of a company only when management indicators and the Corporate Philosophy are both in place. In this sense, the Materiality presented by the Company is highly significant, as it is considered as an embodiment of the Corporate Philosophy.

## Initiatives for Governance Roundtable Talk Among Three Independent Directors



Toward carbon neutrality by 2050, we are determined to stay the course. I believe the Group has the potential to become a game changer in the market by sharing its efforts and results with the world.

Takao Kitabata

### Materiality Indicates the Future Business Direction of the KOBELCO Group

**Kitabata** First of all, we will not be able to fulfill the statement of “contributing to a green society” without making a quantum leap in technological innovation toward carbon neutrality in 2050. The Group is confronted with a tough challenge because it has two major sources of CO<sub>2</sub> emissions: steelmaking and power generation. To fulfill our responsibility, we’re determined to stay the course, with a strong belief that the KOBELCO Group has the potential to become a game changer in the market by sharing its efforts and results with the world. This is a big challenge, but I hope that by working on it earnestly, we can make a significant contribution to society.

In addition to providing a variety of materials, the Group offers excellent technologies and products related to the urban and industrial infrastructure that supports the foundations of society. Examples include the stable supply of safe, environmentally friendly, and cost-conscious electric power to society; industrial machinery used in a wide range of manufacturing sites; water and waste treatment; high-rise buildings; and urban transportation systems. The statement of “ensuring safety and security in community development and manufacturing” is our commitment to contributing to solving social issues through our products, technologies, and services.

**Kono** From this perspective, I would like to mention this. Many people associate the KOBELCO Group with steelmaking because Kobe Steel bears the word “steel” in its company name. However, we are actually engaged in a wide range of businesses, including aluminum, copper, welding, industrial machinery, engineering, construction machinery, and electric power. I feel that it will be important for the Company to break away from the image of a steel manufacturer. The discussions for identifying materiality served as a catalyst and provided a foundation for building a new path for growth. Although the Company is still in the process of rebuilding, I feel that it has departed from the past history of over 100 years and have begun a

new process of growth for the next 100 years.

**Kitabata** With domestic crude steel production falling below 100 million tons, Japan’s steel industry faces structural problems that are threatening its survival. In addition, the Group faces the challenge of strengthening the profitability of its businesses outside the steel industry. In this sense, as Mr. Kono said, it’s essential for the Group to break away from the recognition or mindset that it relies on the steel industry as the mainstay of its business. I think such awareness is expressed in the statement of “ensuring safety and security in community development and manufacturing.”

Furthermore, the idea behind the statement of “providing solutions for a future connecting people and technology” is to provide customers with not only products but also solutions by utilizing the Group’s diverse technologies, know-how and other intellectual assets. I believe this embodies the solutions business that the Group has been engaged in for a long time. When I visited an old sake brewery in Niigata a long time ago, I saw sake barrels with the name of Shinko Pfadler\* on them, made in 1963. According to the sake brewer, the conventional cypress barrels had flaws in terms of hygiene and durability, so they asked the KOBELCO Group company (then known as Shinko Pfadler Co., Ltd.) for help, and the company produced enameled metal sake barrels for them. They said, “we are still using these barrels today, thanks to Kobe Steel.” When I heard these words, I was impressed that Kobe Steel had been providing solutions like this for such a long time.

\*Shinko Pfadler is current Kobelco Eco-Solutions Co., Ltd.

**Ito** I think the statement of “promoting active participation of diverse human resources” will be the key to fulfilling all of the five statements of the Materiality. To address the issue of the siloed organization that I mentioned earlier, the Company has clearly expressed that it will leverage its

diverse technologies and human resources and develop synergies among business divisions with the aim of creating new value. I believe these efforts will lead to “contributing to a green society,” “ensuring safety and security in community development and manufacturing,”

and “providing solutions for a future connecting people and technology.” For this reason, I evaluate highly that the Company included the statement of “promoting active participation of diverse human resources” as laid out in the Materiality.

### Path to Achieving the Materiality The KOBELCO Group’s Medium-Term Management Plan (FY2021–FY2023)

**Kitabata** The term of the current president Yamaguchi started off with many problems, including the quality misconduct and deteriorating profits. In fiscal 2019, he took the bold step of recording impairment losses and selling off idle assets. Despite such efforts, the business environment deteriorated further in fiscal 2020 due to the COVID-19 pandemic, and we faced a very difficult situation with possible ordinary loss that was anticipated for two consecutive fiscal years. Fortunately, the KOBELCO Group achieved profitability owing to an increase in demand from the automotive sector that recovered earlier than expected, combined with the effects of the Group’s emergency profit improvement measures.

**Kono** I myself participated in the discussions on the Medium-Term Management Plan soon after I became an Independent Director in June last year. At that time, the Company anticipated ordinary loss to be recorded for two consecutive years. So, I suggested that we should carefully assess our business portfolio in the early stage and immediately take actions for problems without procrastination, so that we can get the engine started from the first year of the Medium-Term Management Plan. There are things we can do immediately and things we can’t. With this in mind, we focused on the assessment of the business portfolio based on profitability (ROIC) and market growth potential. While sharing this basic concept, we held free and open discussions on specific

plans to respond to changes in the industrial structure.

**Ito** During the past year, we Independent Directors were discussing the Medium-Term Management Plan under a lot of strain, with the forecast that anticipated ordinary loss for two consecutive years. It was a year that made us keenly aware of the great responsibility of the Board of Directors.

In the past, we might have ended up making a slogan for identified issues, but this time we properly incorporated them into the Medium-Term Management Plan. As President Yamaguchi always says, we need to implement the PDCA cycle and produce results within the period of the Medium-Term Management Plan. As Independent Director, we have the responsibility to closely monitor the situation in order to make it happen.

**Kono** What was remarkable about this Medium-Term Management Plan was its formulation process. It was not just a compilation of separate plans of respective business divisions. The new Medium-Term Management Plan was developed through a series of discussions, including free talks, among the senior management sharing the Vision for the Future and the Materiality. It clearly shows that the entire company shares the Vision for the Future beyond boundaries of business divisions, and that each business division will implement the PDCA cycle based on specific KPIs. This point is highly regarded.



The Materiality, identified this time, will be helpful for everyone, from each department to individual employees, in understanding what they need to do as their own initiatives. In addition, it has clarified the positioning of the Medium-Term Management Plan as a more short-term plan. I believe that the Group Corporate Philosophy, Materiality, and Medium-Term Management Plan are now linked together.

Yumiko Ito

## Initiatives for Governance Roundtable Talk Among Three Independent Directors



In the discussion on the Medium-Term Management Plan, we focused on the assessment of the business portfolio based on profitability (ROIC) and market growth potential. While sharing this basic concept, we held free and open discussions on specific plans to respond to changes in the industrial structure. I think this approach was very effective.

Masaaki Kono

### Remarks on Changes in the Management Structure Expected Roles of Independent Directors

**Ito** Since the transition to a company with an Audit & Supervisory Committee in fiscal 2016, Kobe Steel has been striving to strengthen the supervisory function of the Board of Directors and improve its effectiveness. After the review of the composition of the Board of Directors and the criteria for agenda items, it became even clearer that the Board of Directors will focus on key management direction decisions and monitoring, including risk management. I believe that the Board of Directors has now a structure to further improve its operational effectiveness.

**Kitabata** Now that we've delegated more authority to the executives, we need to monitor the results of the execution more closely than before. To do so, it is necessary to receive high-quality reports from the executives and, based on these reports, promote high-quality discussions at the meetings of the Board of Directors and other bodies. We therefore conducted a review of the committees, which assist the Executive Council as auxiliary bodies to carry out important issues under the Medium-Term Management Plan. Meanwhile, the Board of Directors reviewed its agenda items in line with the changes in its structure. It is important for the executives to deepen their discussions on various important issues across business divisions. For my part, as Chairman of the Board of Directors, I will improve the quality of the discussions at the Board of Directors meetings and strengthen the monitoring of the business execution with the aim of contributing to the sustainable growth of the Group.

**Kono** We, the Independent Directors, will monitor from

the standpoint of independent outside directors and from the perspective of stakeholders whether the Group is in line with the Materiality and is executing what is envisioned in the Medium-Term Management Plan toward the Vision of the KOBELCO Group for the Future.

With regard to the review of the committees that Mr. Kitabata mentioned earlier, the Company established the Risk Management Committee as an auxiliary body that assist the Executive Council in formulating basic policies on risk management in general. The Company also made changes to its organizational structure of the head office divisions, which include the establishment of the Internal Control and Audit Department to unify and strengthen operations related to the development, operation, evaluation, and audit of internal controls, which will be implemented by the executives. As Chair of the Audit & Supervisory Committee, I will make sure that the internal controls of these systems are effectively utilized and carried out properly.

**Ito** While the Board of Directors of Kobe Steel is clearly aiming for a transition to a monitoring board, the Company established the Corporate Governance Committee that reports to the Board of Directors as an advisory committee to study the management structure capable of addressing changes in the business environment on a continued basis. At the Corporate Governance Committee, on which all three of us serve, we will discuss appropriate governance for the Group with a free-thinking mind and fulfil our responsibility for making recommendation to the Board of Directors. As Independent Directors, we will continue to dedicate our respective professional abilities to the task of monitoring.

### Message from the Chair of the Corporate Governance Committee

The Company has implemented various initiatives to strengthen governance, including the establishment of the Meetings of Independent Directors, the transition to a company with an Audit & Supervisory Committee, and substantial changes in the functions of the Board of Directors. On the other hand, with regard to corporate governance, the Company was facing the need to examine the overall organizational structure and further reflect an independent and objective viewpoint, as its long-standing practice was allowing each division to separately handle individual issues. Therefore, in order to implement a system of corporate governance that contributes to sustainable growth and enhancement of corporate value, we decided to newly establish a Corporate Governance Committee as an advisory body to the Board of Directors, and to create and promote an organizational review system for corporate governance and a mechanism for transparent, fair, and decisive decision-making, as part of the efforts to strengthen our ESG initiatives, which is one of the key issues in our Medium-Term Management Plan.

As chair of the committee, I would like to contribute to the new evolution of the organization by emphasizing the following two perspectives.

(1) I believe that the corporate governance system has been fairly enhanced in terms of functionality with changes implemented this year. The main issue, however, is about its actual performance—whether it is functioning properly as intended, in an organic and mutually interactive manner, centered on the Board of Directors. Specifically, we focus on the following points:

- 1) Effectiveness of the Board of Directors with a new organizational structure to take concrete improvement measures for its operation
- 2) Coordination between the Board of Directors and its advisory committees (Compliance, Nomination & Compensation, Quality Management, and Corporate Governance)
- 3) Coordination between the Corporate Governance Committee and each advisory committee
- 4) Activity status of the auxiliary committees that assist the Executive Council and coordination of such committees with the Board of Directors
- 5) Effectiveness of the Corporate Governance Committee itself

(2) The second perspective I wish to emphasize is the need to foster a sense of unity between senior management and employees in terms of corporate governance. As the concept of corporate governance becomes more familiar to employees, we can strengthen internal controls (internal control systems, risk management, compliance, and similar initiatives). In implementing measures to prevent the recurrence of the quality misconduct, the Group as a whole has been striving to foster this sense of unity to solve and overcome numerous challenges. We need to make use of that experience to firmly instill in both executives and employees of the importance of corporate governance and enhance our solidarity.

From my independent position as an Independent Director, I will do my best to contribute to the sustainable growth of the Group and the improvement of its corporate value.



Chair of the Corporate Governance Committee  
Independent Director **Hiroyuki Bamba**

# Initiatives for Governance Corporate Governance

## Basic Policy

The KOBELCO Group recognizes that corporate value includes not only business results and technological capabilities but also the stance on social responsibility to all stakeholders who may be affected by its business activities, such as shareholders, other investors, customers, suppliers, local communities, and employees in the KOBELCO Group. Earnestly undertaking efforts to improve all these factors leads to the enhancement of corporate value.

Therefore, corporate governance is not merely a form of the organization, but it is a framework for realizing

all the efforts the KOBELCO Group is undertaking. In the development of the framework, the Group places importance on establishing a system that contributes to improving corporate value by taking appropriate risks; collaborating with stakeholders; promoting appropriate dialogue with investors in the capital market; maintaining the rights of and fairness for shareholders; and ensuring transparency.

In keeping with this basic policy, the KOBELCO Group pursues improvements in corporate governance.

## Initiatives to Strengthen Corporate Governance

	1999	2010	2015	2020	(FY)
Philosophy and Policies		2000 Established the Corporate Code of Ethics → 2006 Established the Corporate Philosophy	→ 2017 Turned the Corporate Philosophy into the Core Values of KOBELCO and established the Six Pledges of KOBELCO Men and Women → 2020 Established a new Group Corporate Philosophy by integrating the newly formulated KOBELCO's View of the Future and KOBELCO's Mission	2015 Established the Basic Policy and Initiatives on the Corporate Governance of Kobe Steel, Ltd. 2016 Formulated Fiscal 2016-2020 Group Medium-Term Management Plan	
Organizational structure development	1999 Introduced an internal company system and adopted an executive officer system	→ 2010 Abolished the internal company system and introduced a business unit system	2003 Established the Compliance Committee as advisory committee to the Board of Directors	2015 Established the Meetings of Independent Directors 2016 Became a company with the Audit & Supervisory Committee 2018 Reassessed the role of the Board of Directors from the standpoint of enhancing its oversight functions → 2021 - Shifted to a Board of Directors that places greater emphasis on decisions regarding important management directions as well as on monitoring that encompasses risk management - Established the Corporate Governance Committee as an advisory body to the Board of Directors	
Directors and Executive Officers		2007 Appointed two Independent Directors	2015 Established principles on appointment of Directors/Audit & Supervisory Board Members and established standards for Independent Directors/Auditors 2016 Established training policy for executives 2019 Appointed the Company's first female Director 2021 Abolished the positions of Senior Managing Executive Officer and Managing Executive Officer		
Effectiveness Evaluation			2016 Introduced evaluation system for the Board of Directors		
Remuneration			2016 Revised Directors' remuneration system (introduced stock-type remuneration) → 2021 Partly revised the Directors' remuneration system		

For information about the Company's basic policy on corporate governance and policy on management structure, please see the Basic Policy and Initiatives on the Corporate Governance of Kobe Steel, Ltd.

[https://www.kobelco.co.jp/english/about\\_kobelco/kobesteel/governance/files/Basic\\_Policy\\_and\\_Initiatives.pdf](https://www.kobelco.co.jp/english/about_kobelco/kobesteel/governance/files/Basic_Policy_and_Initiatives.pdf)



## Outline of the Corporate Governance System

Organizational form	Company with Audit & Supervisory Committee
Number of Directors	13
Of whom are Independent Directors	6 (46.2%)
Of whom are Non-Executive Directors	8 (61.5%)
Of whom are female Directors	1 (7.7%)
Audit & Supervisory Committee Members	5
Of whom are Independent Directors	3
Term of Directors	One year (two years for Audit & Supervisory Committee Members)
Accounting Auditor	KPMG AZSA LLC

Note: Our Company has registered all six Independent Directors as Independent Directors with a Financial Instruments Exchange.

## Policy on the Management Structure (Management Structure and the Scope of Delegation in Management)

The Company believes the source of its corporate value is to generate synergies across a wide range of segments in different demand fields, business environments, sales channels and business scales, while recognizing that the pursuit of technological development and innovation, which is the cornerstone of the Company's sustainable growth, cannot be achieved without discussions with manufacturing sections.

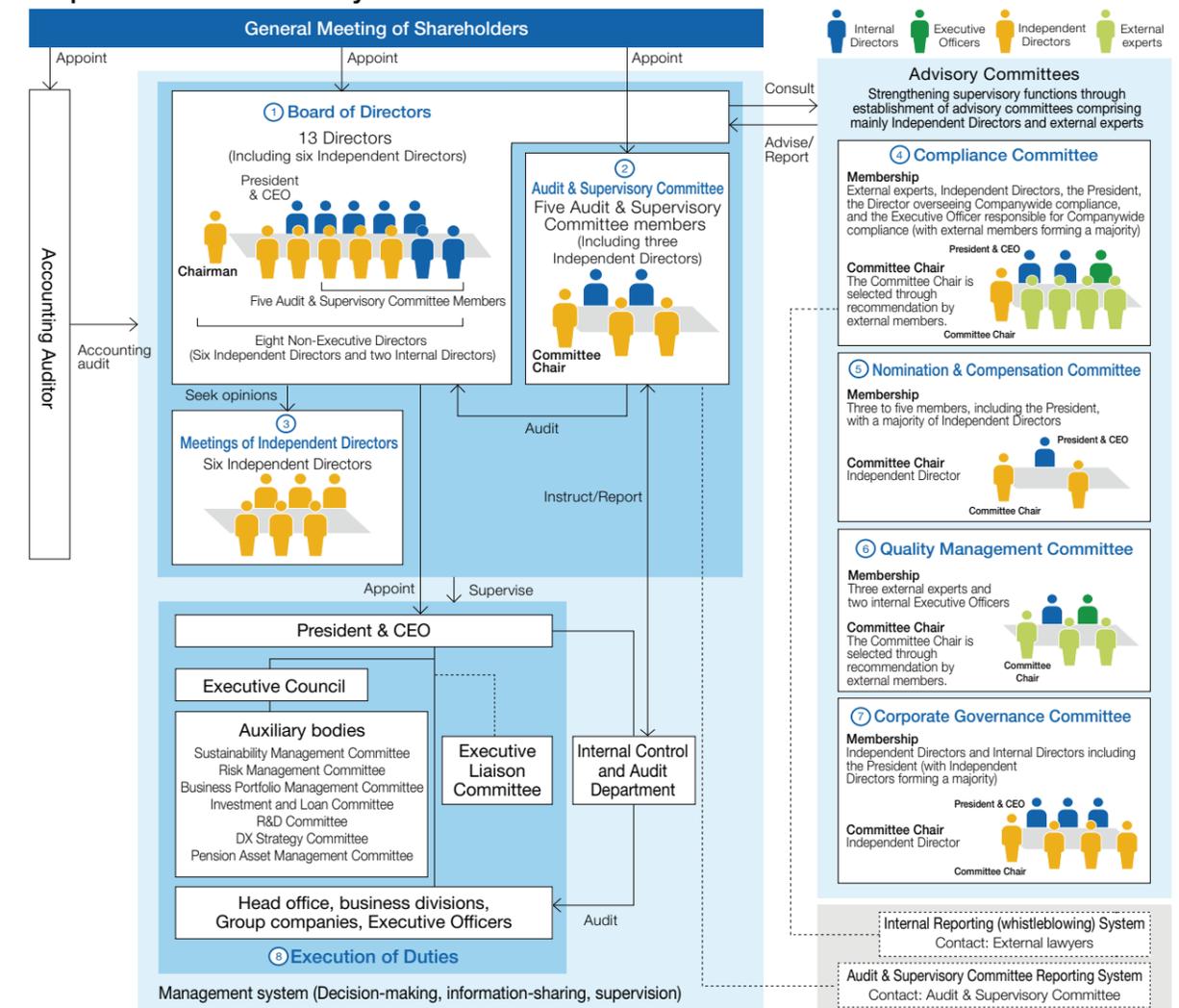
Furthermore, the Company believes it is necessary for the Board of Directors to hold active discussions and make appropriate decisions regarding the risk management and the distribution of management resources for a wide range of businesses, and at the same time, to flexibly supervise business execution. In order to achieve this, it is desirable that the Board of Directors have members with a correct understanding of the Company's business execution instead of completely separating the supervisory and execution functions.

In line with this approach, the Company has adopted an Audit & Supervisory Committee whose members have voting rights on the Board of Directors. Under this governance

structure, the Company aims to enable comprehensive audits of its extensive businesses, maintain and strengthen the supervisory function of the Board of Directors, and accelerate decision-making on management, with no clear boundaries that separate the supervisory and execution functions.

In order to improve the effectiveness of monitoring, the Company has established advisory committees, which are responsible for providing appropriate recommendations to the Board of Directors regarding compliance, nomination & compensation, quality management, and corporate governance. In order to improve the effectiveness of business execution, the Company established the Executive Council as a forum where executives, including the President, discuss important matters. In addition, the Company has set up various committees as auxiliary bodies to the Executive Council in order to oversee and promote important matters related to the business units, such as sustainability and business portfolio management. The activities of these committees are monitored by the Board of Directors.

## Corporate Governance System



# Initiatives for Governance

## Corporate Governance

### 1. Board of Directors

The number of Directors (excluding Directors who are Audit & Supervisory Committee Members) shall be not more than 15 as stipulated under the Articles of Incorporation of the Company. The Company takes the following measures to ensure that an appropriate number of Directors constitutes the Board of Directors to facilitate substantial discussion at meetings of the Board of Directors as well as enhance the auditing function, while considering its diversity.

At the Ordinary General Meeting of Shareholders in June 2021, the number of Directors was reduced from 16 to 13. The idea was to place greater emphasis on decisions related to important management directions as well as on risk management and other forms of monitoring toward the establishment of a management system that contributes to achieving sustainable growth and enhancing corporate value.

Percentage of Independent Directors: 46.2%

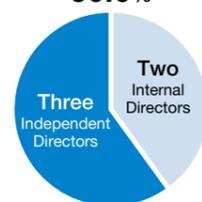


Purpose	Measures
To facilitate practical discussion at meetings of the Board of Directors, enhancing the supervisory function and ensuring its diversity	Six Independent Directors are appointed out of 13 Directors. * Five Directors who are Audit & Supervisory Committee members (including three Independent Directors)
To reflect a fair and neutral viewpoint of Independent Directors as well as the viewpoint of stakeholders including minority shareholders	Six Independent Directors are assigned.
To enhance fairness and transparency of the Board of Directors and advance growth strategies as a company	The ratio of Independent Directors is one-third or more. The Chairman of the Board of Directors is selected from among the Independent Directors in principle.
To strengthen the monitoring functions of the Board of Directors	Executive Directors include the President and Directors who oversee specific key Companywide functions. Eight Non-executive Directors (five Directors who are Audit & Supervisory Committee Members and three Independent Directors) form a majority of the Board of Directors.

### 2. Audit & Supervisory Committee

In principle, the Audit & Supervisory Committee of Kobe Steel consists of five members, including two Internal Directors and three Independent Directors. This membership is not only in accordance with the rules on audit and supervisory committees of Japan's Companies Act, which requires at least three Non-Executive Directors (a majority of whom must be Independent Directors), but it also ensures transparency and fairness and encourages satisfactory auditing for the diversified management of a wide range of business segments. The Chair of the Audit & Supervisory Committee is selected from among the Independent Directors.

Percentage of Independent Directors: 60.0%



Full-time Internal Audit & Supervisory Committee Members are mainly responsible for acting as liaisons between the management team and the Audit & Supervisory Committee and for coordinating with the internal audit departments. Independent Audit & Supervisory Committee Members are responsible for providing expert knowledge with respect to auditing and for maintaining fairness. To ensure these roles are fulfilled, the Company appoints Independent Audit & Supervisory Committee Members from diverse fields, including legal, financial, and industrial circles.

In addition, at least one of the Audit & Supervisory Committee Members must have a considerable degree of knowledge on finance and accounting in order to improve the effectiveness of audits.

A new internal reporting (whistle-blowing) system is in place that allows employees to contact the Audit & Supervisory Committee.

### 3. Meetings of Independent Directors

The Company has established the Meetings of Independent Directors to take full advantage of the Independent Directors' capabilities. The meetings are a platform where the Company shares with Independent Directors information regarding the Company's businesses excluding the nomination and compensation of executives.

The Meetings of Independent Directors consist solely of Independent Directors. Regular meetings are held every quarter and ad-hoc meetings are held when necessary.

The Executive Directors of the Company attend the Meetings of Independent Directors as appropriate to share information and exchange opinions with the Independent Directors.

### 4. Compliance Committee

The Company has established the Compliance Committee, as an independent advisory body to the Board of Directors, which deliberates matters regarding compliance with laws, regulations, and ethics concerning the Company's business activities.

The Compliance Committee consists of the President, the Executive Officer overseeing Companywide compliance, the Executive Officer responsible for Companywide compliance, an external lawyer (without a retainer agreement executed by the Company) in charge of receiving reports via the Internal Reporting (whistle-blowing) System, Independent Directors, and external experts. The majority of the committee consists of members from outside of the Company.

The Compliance Committee formulates fundamental policies regarding Groupwide compliance activities, monitors the progress of compliance activities, and submits reports and recommendations on necessary actions to the Board of Directors.

The Compliance Committee holds regular meetings semiannually and ad-hoc meetings when necessary.

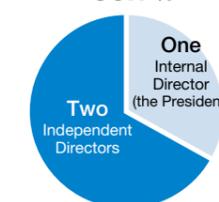
Percentage of external members: 62.5%



### 5. Nomination & Compensation Committee

The Company has established the Nomination & Compensation Committee, as an advisory body to the Board of Directors, which makes recommendations on important matters concerning the nomination and compensation of Directors and Executive Officers, including a successor to the Chief Executive Officer, in order to enhance fairness and transparency in the management of the Board of Directors. The Nomination & Compensation Committee consists of three to five members appointed by the Board of Directors, including the President, with the majority of members comprising Independent Directors. Meetings are held at least once every fiscal year and as needed. The Board of Directors fully respects the opinions of the Nomination & Compensation Committee and its decisions on relevant matters.

Percentage of external members: 66.7%



### 6. Quality Management Committee

The Company has established the Quality Management Committee, as an advisory body to the Board of Directors, which undertakes the continued monitoring of the effectiveness of measures to prevent a recurrence of the quality misconduct in the Group, in addition to continuously monitoring and advising on activities to strengthen quality management across the Group. Members of the Quality Management Committee include two internal executives of the Company and three external experts selected by the Board of Directors who have technical knowledge or legal knowledge on quality control. The committee is chaired by one of the external members.

Percentage of external members: 60.0%

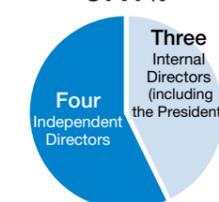


### 7. Corporate Governance Committee

The Company has established the Corporate Governance Committee, as an independent advisory body to the Board of Directors, which deliberates matters regarding corporate governance, including the formulation of basic policies, in order to realize corporate governance that helps to achieve sustainable growth of the Group and enhance corporate value.

The Corporate Governance Committee consists of the President, the Director or Executive Officer overseeing the Corporate Planning Department, the Director or Executive Officer overseeing the General Administration and CSR Department, and Independent Directors appointed by the Board of Directors. Independent Directors form a majority of the committee. The Committee Chair is selected from Independent Directors through vote among the members. The Corporate Governance Committee meets at least once every fiscal year and calls a meeting as needed.

Percentage of external members: 57.1%



### 8. Execution of Duties

The Board of Directors is responsible for deliberating and deciding on matters concerning the execution of important business and legal matters as well as for overseeing business execution.

However, to ensure prompt decision-making, the Company has established deliberation standards for meetings of the Board of Directors and delegated authority, within a certain scope, to persons responsible for specific duties, including the President and other executives.

In addition, by appointing Executive Officers as assistants to Directors who execute duties, the Company has established a system that enables the delegation of business management responsibilities and prompt decision making with respect to business management.

The term for Directors (excluding Audit & Supervisory Committee Members) and Executive Officers shall be one year to enable the Company to respond flexibly to a volatile business environment.

## Initiatives for Governance Corporate Governance

### Background and Experience of Directors (As of June 23, 2021)

	Age	Length of service as Director (years)	Planning/project management	Finance/accounting	Materials business	Machinery business	Electric power business	Technical development/manufacturing/facility technology	Overseas business	Legal/risk management	Insights into other industry sectors	Attendance at Board of Directors meetings (fiscal 2020)	Attendance at Audit & Supervisory Committee meetings (fiscal 2020)
<b>Mitsugu Yamaguchi</b> President, CEO and Representative Director	63	5	○	○	○	○	○	○	○	○		15 of 15 (100%)	—
<b>Fusaki Koshiishi</b> Executive Vice President and Representative Director	61	6	○		○			○				15 of 15 (100%)	—
<b>Koichiro Shibata</b> Executive Vice President and Representative Director	62	3	○		○			○				15 of 15 (100%)	—
<b>Yoshihiko Katsukawa</b> Director, Executive Officer	59	3	○	○		○	○			○		15 of 15 (100%)	—
<b>Hajime Nagara</b> Director, Executive Officer	59	1	○		○				○	○		11 of 11 (100%)	—
<b>Takao Kitabata</b> Independent Director	71	11								○	○	15 of 15 (100%)	—
<b>Hiroyuki Bamba</b> Independent Director	67	4	○					○			○	15 of 15 (100%)	—
<b>Yumiko Ito</b> Independent Director	62	2								○	○	14 of 15 (93%)	—
<b>Hiroshi Ishikawa</b> Director, Audit & Supervisory Committee Member	63	3	○			○			○			15 of 15 (100%)	17 of 17 (100%)
<b>Yasushi Tsushima</b> Director, Audit & Supervisory Committee Member	61	3	○	○	○	○	○					15 of 15 (100%)	17 of 17 (100%)
<b>Yoshiiku Miyata</b> Independent Director, Audit & Supervisory Committee Member	68	5	○						○		○	15 of 15 (100%)	17 of 17 (100%)
<b>Masaaki Kono</b> Independent Director, Audit & Supervisory Committee Member	64	1	○	○							○	11 of 11 (100%)	11 of 11 (100%)
<b>Kunio Miura</b> Independent Director, Audit & Supervisory Committee Member	68	1								○	○	11 of 11 (100%)	11 of 11 (100%)

Note: The Board of Directors and the Audit & Supervisory Committee have met 11 times each since June 24, 2020, when Directors Hajime Nagara, Masaaki Kono, and Kunio Miura assumed the post of Director.

### Evaluation of the Board of Directors

The Company's Board of Directors evaluated its effectiveness by conducting a survey targeting all 16 Directors who served in fiscal 2020. Based on the aggregated results of the survey and interviews, the Corporate Governance Committee submitted to the Board of Directors an initial

evaluation and recommendations for improvements. The Board of Directors then reviewed the evaluation results and analyzed current issues and deliberated future initiatives for improving effectiveness.

### Evaluation Results for Fiscal 2020

#### Overview of the Effectiveness Evaluation of the Board of Directors

Targets	All 16 Directors
Implementation process	Conducting a questionnaire targeting all Directors and holding interviews with each of them by the Corporate Governance Committee
Evaluation items	(1) Structure of the Board of Directors; (2) Agenda of the Board of Directors; (3) Documents for the Board of Directors; (4) Management of the Board of Directors; (5) Provision of information to Independent Directors; (6) Monitoring and supervision of Directors; (7) Other items (status of measures to prevent recurrence of the quality misconduct, formulation of the Medium-Term Management Plan, etc.)
Evaluation method	<ul style="list-style-type: none"> <li>Based on the results of the questionnaire and interviews, the Corporate Governance Committee submitted to the Board of Directors the results of the effectiveness evaluation and proposed the future direction for improving the effectiveness.</li> <li>The Board of Directors reviewed the evaluation results and identified current issues. Based on these, the Board of Directors deliberated future initiatives for improving effectiveness and passed resolutions on future measures.</li> </ul>

for the Board of Directors have been drawn up by the secretariat and distributed to people concerned to make continuous improvements in the preparation of appropriate documents.

Considering the above, the Company deems that the effectiveness of the Board of Directors has been steadily improved based on the previous effectiveness evaluation results. In addition, the Company recognizes that it is a future issue to further improve the effectiveness of the Board of Directors by promoting management focusing on management strategies and risk management to enhance corporate value along with changes in the composition of the Board of Directors and the criteria for submission of proposals.

#### Future Initiatives for Improving Effectiveness

In particular, with regard to communication with the executive side for strengthening monitoring functions, specific measures will be considered and implemented focusing on the following points:

1. Selection of matters to be discussed by the Board of Directors
2. Method of cooperation with committees that have Companywide functions, which assist the Executive Council as auxiliary bodies
3. Review of the business execution status report (reporter, contents, etc.)
4. Establishment of a system to provide feedback on the results of discussions at the Board of Directors to the executive side

The results of the Evaluation of the Board of Directors' Effectiveness are available on the following page of our website.

[https://www.kobelco.co.jp/english/about\\_kobelco/kobesteel/governance/index.html](https://www.kobelco.co.jp/english/about_kobelco/kobesteel/governance/index.html)



#### Summary of Analysis and Evaluation Results

In fiscal 2020, the Board of Directors and the Meetings of Independent Directors held discussions on several occasions in order to examine the direction of management strategies from a medium- to long-term perspective, the promotion of sustainability management, and the optimal management system. Based on the results of discussions, the Board of Directors formulated the framework of the Medium-Term Management Plan for fiscal 2021 to 2023. Besides, focusing on the areas for improvement identified in the effectiveness evaluation in fiscal 2019, the Board of Directors drastically revised the composition of its membership and the criteria for submission of proposals to the Board of Directors in order to further strengthen its monitoring functions. In addition, Guidelines for the Preparation of Materials

### Remuneration for Directors, Executive Officers and Accounting Auditor

#### Remuneration for Directors and Executive Officers

The Company has set forth the following remuneration system for Directors and Executive Officers in order to improve medium- to long-term corporate value, as well as to effectively offer incentives for Directors and Executive Officers to carry out their expected roles to their fullest capacities.

#### 1. Basic Approach to Remuneration for Directors and Executive Officers

1. The system aims to secure talented human resources who can contribute to the Company's sustainable development, and appropriately compensate for such efforts.
2. The system aims to share values widely with stakeholders and promote not only short-term growth but also medium- to long-term growth.
3. In offering the incentive for accomplishing consolidated business result targets, the system must be devised with due consideration of the characteristics of each business so that Directors and Executive Officers can fully carry out their roles.
4. In ensuring the objectivity and transparency of judgments regarding remuneration decisions, the Nomination & Compensation Committee deliberates on the state of the remuneration system and the necessity of its reevaluation.

Members are not eligible for performance-based compensation and medium- to long-term incentive compensation. The remuneration rank is determined by the President taking account of the level of responsibility of the assigned duties and reported to the Nomination & Compensation Committee and the Board of Directors.

3. Of performance-based compensation, the standard pay amount for the portion linked to division performance will be set at the level of 25–30% of basic remuneration for each rank and remuneration rank, the amount for the portion linked to individual evaluation will be set at the level of -5% to 5% of basic remuneration for each rank and remuneration rank, and the value of medium- to long-term incentive compensation provided per fiscal year will be set at the level of 25–30% of basic remuneration for each rank and remuneration rank.

4. Limits of remuneration and other benefits based on the resolution at the Ordinary General Meeting of Shareholders:

- Remuneration for Directors (excluding Directors who are Audit & Supervisory Committee Members)

- The limit of basic remuneration
  - Within a total of 650 million yen per fiscal year
- The limit of performance-based compensation
  - Within a total of 350 million yen per fiscal year
- The upper limit on the number of points granted medium- to long-term incentive compensation
  - 671,400 points per fiscal year

- Remuneration for Directors who are also Audit & Supervisory Committee Members (basic remuneration only)
  - Within a total of 132 million yen per fiscal year

#### 3. Performance-Based Compensation

1. In terms of the portion linked to division performance of performance-based compensation, a performance target will be set based on business management indices as stated in the Medium-Term Management Plan. Each business division also sets a performance target based on performance management indices for each business division. The amount to be paid is determined by multiplying the

## Initiatives for Governance Corporate Governance

- standard pay amount for each rank and remuneration rank by 0–200% according to the accomplishment of the target. The business management indices, which serve as the basis of calculation, are established by the Board of Directors.
- The portion linked to individual evaluation of performance-based compensation is subject to comprehensive evaluation, including the performance of assigned duties and business unit, the accomplishment of the target, and other aspects. The amount to be paid is determined by multiplying the basic remuneration for each rank and remuneration rank by -5% to 5% according to the evaluation results. Evaluation for Executive Officers overseeing business divisions and heads of business divisions is determined by the President, and evaluation for other Executive Officers is determined by the President after primary evaluation by Executive Officers overseeing business divisions and heads of business divisions. The details of evaluation are reported to the Nomination & Compensation Committee.
  - The calculation methods for the standard pay amount and coefficients for each rank and remuneration rank are set forth in the Detailed Rules on Remuneration Regulations for Directors and Executive Officers and the Performance-Based Compensation Regulations for Directors and Executive Officers.
  - Business management indices are disclosed in the Business Report.

Note: Raising the level of profit attained through the steady execution of strategic investments was set as an important management issue, and the Company placed emphasis on how much profit was gained from its total assets including strategic investments leading up to fiscal 2020. Accordingly, the Company adopted "a consolidated ROA of 5% or more" for net income attributable to owners of the parent as stated in the Medium-Term Management Plan as the index. From fiscal 2021, the Company will promote efforts to make efficient use of management resources and strengthen the management foundation with an awareness of capital costs by establishing an evaluation index based on business management indices such as ROIC, etc. which is emphasized in the new Medium-Term Management Plan.

### Calculation method for the portion linked to division performance of performance-based compensation

**Performance-based compensation = Standard pay amount for each rank and remuneration rank × Coefficient based on evaluation index\***

\*Coefficient based on evaluation index: Net income equivalent to ROA of 5% over the given period is the indicator used for the coefficient for calculating performance-based compensation. The coefficient reflects 70% of the portion linked to Companywide performance and 30% of the portion linked to division performance that is determined based on actual duties assigned to each Director/Executive Officer. If the scope of duties assigned to a Director/Executive Officer is the Head Office (including the Technical Development Group) or the electric power business, then said Director's/Executive Officer's performance-based compensation does not include the portion of compensation linked to division performance. In that case, the coefficient reflects 100% of the portion linked to Companywide performance.

### 4. Medium- to Long-Term Incentive Compensation

- For medium- to long-term incentive compensation, a system known as Board Benefit Trust is adopted in order to raise the awareness of contributing to continuous improvements in corporate value. The stock benefit uses a base point number calculated based on the standard pay amount for each rank and remuneration rank, and the number of points determined by multiplying the base point number by 0–100% according to Companywide net income and the state of dividend payment for each fiscal year will be granted. On a fixed date during each trust period of three years, the number of the Company's shares will be provided according to the number of points granted.
- The calculation methods for the base point number for each rank and remuneration rank and coefficients are set forth in the Detailed Rules on Remuneration Regulations for Directors and Executive Officers and the Performance-Based Compensation

Regulations for Directors and Executive Officers.

- As funds for acquisition of shares by the trust, in principle, 1.1 billion yen will be contributed every three years. However, when there are remaining shares of the Company in the trust property as of the last day of the previous trust period, they will be used as funds for the subsequent trust periods, and an amount derived by deducting the amount of the remaining Company shares, etc. from 1.1 billion yen will be contributed.

### Point calculation method for granting medium- to long-term incentive compensation

**Number of points to be provided = Base point number for each rank and remuneration rank × Coefficient based on evaluation index\***

\*The coefficient based on evaluation index is determined according to actual dividends and net income.

### 5. Timing of the Determination and the Payment of Remuneration Amount

- Basic remuneration will be paid every month from the month of appointment to the position in a monthly amount derived by dividing basic remuneration based on rank and remuneration rank by 12 months. If there is a change to the basic remuneration in the middle of the month due to a change in the assigned tasks and other reasons, the revised remuneration will be paid from the month following the change.
- Of performance-based compensation, the amount for the portion linked to division performance will be determined based on the calculation formula after the end of each fiscal year and paid lump-sum by the end of the month following the month when the Ordinary General Meeting of Shareholders is convened. The portion linked to individual evaluation will be paid in an amount derived by dividing the amount determined based on the calculation formula according to the results of individual evaluation after the end of each fiscal year by 12 months, together with monthly basic remuneration.
- In terms of medium- to long-term incentive compensation, the number of points will be determined based on the calculation formula after the end of each fiscal year and granted on June 30 each year. Company shares, etc. will be provided every three years on a fixed date during the trust period.

### 6. Method to Determine Remuneration Standards

Remuneration standards are determined based on the survey data, collected by external specialized agency, concerning the remuneration for directors and executive officers so that the standards are commensurate with the Company's corporate scale and the duties expected of Directors and Executive Officers.

### 7. Method to Determine and Examine Remuneration Policy

- The policy concerning remuneration for Directors (excluding Directors who are Audit & Supervisory Committee Members) is determined by resolution of the Board of Directors, and the policy concerning remuneration for Directors who are Audit & Supervisory Committee Members is determined through discussions among all Audit & Supervisory Committee Members.
- The state of the remuneration system and the necessity for its revision are deliberated by the Nomination & Compensation Committee. If it is necessary to revise the remuneration system, the Company will present a revised remuneration plan at a meeting of the Board of Directors for resolution.

## TOPICS

### Reference Value and Results for Each Remuneration Category

Remuneration Category	Performance-Based Compensation	Medium- to Long-Term Incentive Compensation
Index	Consolidated ROA	Net income attributable to owners of the parent
Reference value for fiscal 2020	5.0%	73 billion yen
Results for fiscal 2020	0.6%	23.2 billion yen

### The Activities of the Board of Directors and the Nomination & Compensation Committee in Recent Fiscal Years

The following items regarding the remuneration for Directors and Executive Officers in fiscal 2020 were deliberated by the Nomination & Compensation Committee and then decided on by the Board of Directors:

Timing	Items deliberated and decided on
February 2020	Reduction of basic remuneration
May 2020	Further reduction of basic remuneration
February 2021	Revision of the remuneration system for Directors and Executive Officers
May 2021	The amounts of performance-based compensation and medium- to long-term incentive compensation for fiscal 2020

Information on the Company's remuneration system for Directors and Executive Officers is available on the following page of our website.

[https://www.kobelco.co.jp/english/about\\_kobelco/kobesteel/governance/index.html](https://www.kobelco.co.jp/english/about_kobelco/kobesteel/governance/index.html)



### (Reference)

### Remuneration of Directors for fiscal 2020

Category	Number of Directors (Persons)	Amount (Millions of Yen)	Breakdown of Total Remuneration (Millions of Yen)			Remarks
			Basic Remuneration	Performance-Based Compensation	Medium- to Long-Term Incentive Compensation	
Directors excluding Audit & Supervisory Committee Members (of whom are Independent Directors)	14 (3)	449 (40)	370 (40)	32 (None)	46 (None)	The number of payees and the amount of payment include three Internal Directors (who are not Audit & Supervisory Committee Members) and two Independent Directors (who are Audit & Supervisory Committee Members) who resigned during fiscal 2020.
Directors who are Audit & Supervisory Committee Members (of whom are Independent Directors)	7 (5)	106 (44)	106 (44)	— (None)	— (None)	
Total	21	556	477	32	46	

Note: Taking seriously the large net loss attributable to owners of the parent and the forgoing of the annual dividend, the Company has reduced the basic remuneration for Directors (excluding Independent Directors and Directors who are Audit & Supervisory Committee Members) by 8–20% from February 2020 to April 2020 and by 13–25% for the time being from May 2020.

### Remuneration for Accounting Auditor

In fiscal 2020, remuneration and other amounts payable to the Accounting Auditor by the Company totaled 153 million yen, and the total amount of money and other financial interests payable by the Company and its subsidiaries was 474 million yen.

### Verification Results regarding Strategic Holdings of Shares

The Board of Directors has reviewed the necessity of all the strategic holdings of listed companies' shares held by the Company as of March 31, 2021. A summary of the results is as follows.

Scope of verification	All the strategic holdings of listed companies' shares held by the Company as of March 31, 2021 (33 companies' shares)
Verification details	<p>We verified whether the holding of each company's shares contributes to strengthening the Company's business foundation and to improving the Company's corporate value over the medium to long term, based on the following evaluation items, and comprehensively judged the reasonableness of each shareholding.</p> <p><b>Evaluation items</b></p> <ul style="list-style-type: none"> <li>(i) Scale and importance as a business partner (volume of transactions, share of transactions, and stable procurement)</li> <li>(ii) Relationship as an alliance partner (economic effect of the alliance)</li> <li>(iii) Dividend yield</li> </ul>

### Verification Results

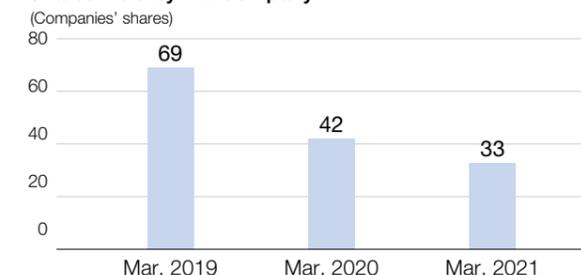
In fiscal 2020, it was confirmed that all of 8 holdings and part of 2 holdings among the holdings of shares in 42 listed companies as of March 31, 2020, had been sold, after reaching a consensus with the counterparty, in reflection of the verification of the reasonableness of these holdings from the perspective of capital and asset efficiency.

As of the end of March 2021, the Company holds 33 companies' shares, one of which was delisted on March 30. The holdings of shares in 32 listed companies, excluding one sold in fiscal 2021, have been judged to be reasonable as they are contributing to strengthening the Company's business foundation and to improving the

Company's corporate value over the medium to long term, based on the scale and importance of the companies as business partners (volume of transactions, share of transactions, and stable procurement) and the relationships as alliance partners.

Going forward, the Company will continue to verify the necessity of strategic holdings of listed companies' shares, and those holdings that are judged to have diminished significance will be reduced through sale or other means.

### Changes in the Strategic Holdings of Listed Companies' Shares Held by the Company



For more information on the verification results regarding strategic holdings of shares, please see the Company's corporate website.

[https://www.kobelco.co.jp/english/about\\_kobelco/kobesteel/governance/index.html](https://www.kobelco.co.jp/english/about_kobelco/kobesteel/governance/index.html)



### Reference

### Breakdown of Remuneration by Position

The pie charts on the right show the breakdown of remuneration by position. The percentages of the performance-based compensation and medium- to long-term incentive compensation are higher for the positions that require a higher level of performance and responsibility.



\*1 The amounts of the portion linked to division performance of performance-based compensation and medium- to long-term incentive compensation granted vary depending on business results. The range of fluctuation is 0–200% of the base amount for the portion linked to division performance of performance-based compensation and 0–100% of the base amount for medium- to long-term incentive compensation. The percentages of the portion linked to division performance of performance-based compensation and medium- to long-term incentive compensation in the above table are based on each amount being 100% of the base amount. In addition to the above table, the amount for the portion linked to individual evaluation is paid in the range of -5% to 5% of basic remuneration.

\*2 Executive Directors and Executive Officers are based on a standard remuneration rank.

Initiatives for Governance

Directors (Including Audit & Supervisory Committee Members) (As of June 23, 2021)

Directors



**President, CEO and Representative Director**  
**Mitsugu Yamaguchi**  
 Compliance Committee Member  
 Nomination & Compensation Committee Member  
 Corporate Governance Committee Member  
 Number of Company shares owned: 44,700  
 Apr. 1981 Joined the Company  
 Apr. 2011 Officer  
 Apr. 2013 Senior Officer  
 Apr. 2015 Executive Officer  
 Jun. 2016 Director, Senior Managing Executive Officer  
 Apr. 2017 Executive Officer  
 Apr. 2018 Executive Vice President and Representative Director  
 Apr. 2018 President, CEO and Representative Director (incumbent)



**Executive Vice President and Representative Director**  
**Fusaki Koshiishi**  
 Quality Management Committee Member  
 Number of Company shares owned: 39,900  
 Apr. 1984 Joined the Company  
 Apr. 2012 Officer  
 Apr. 2014 Senior Officer  
 Jun. 2015 Managing Director  
 Apr. 2016 Director, Senior Managing Executive Officer  
 Apr. 2018 Executive Vice President and Representative Director (incumbent)  
**Duties**  
 Oversees the Environment and Safety Department and the Quality Management Department. Oversees companywide health and safety. Oversees companywide environmental protection and disaster prevention. Oversees companywide quality.



**Executive Vice President and Representative Director**  
**Koichiro Shibata**  
 Number of Company shares owned: 25,200  
 Apr. 1984 Joined the Company  
 Apr. 2012 Officer  
 Apr. 2014 Senior Officer  
 Apr. 2016 Senior Managing Executive Officer  
 Apr. 2018 Executive Vice President  
 Jun. 2018 Executive Vice President and Representative Director (incumbent)  
**Duties**  
 Oversees the Business Development Department, the Intellectual Property Department, and the IT Planning Department. Oversees companywide technical development. Oversees companywide information systems.



**Director, Executive Officer**  
**Yoshiniko Katsukawa**  
 Corporate Governance Committee Member  
 Number of Company shares owned: 25,200  
 Apr. 1985 Joined the Company  
 Apr. 2015 Officer  
 Apr. 2017 Managing Executive Officer  
 Apr. 2018 Senior Managing Executive Officer  
 Jun. 2018 Director, Senior Managing Executive Officer  
 Apr. 2021 Director, Executive Officer (incumbent)  
**Duties**  
 Oversees the Corporate Planning Department, the Finance and Accounting Department, and oversees locations (under the Head Office).



**Director, Executive Officer**  
**Hajime Nagara**  
 Compliance Committee Member  
 Corporate Governance Committee Member  
 Number of Company shares owned: 23,900  
 Apr. 1985 Joined the Company  
 Apr. 2016 Executive Officer  
 Apr. 2018 Managing Executive Officer  
 Apr. 2020 Senior Managing Executive Officer  
 Jun. 2020 Director, Senior Managing Executive Officer  
 Apr. 2021 Director, Executive Officer (incumbent)  
**Duties**  
 Oversees the Internal Control and Audit Department, the Legal Department, the General Administration and CSR Department, the Human Resources Department, the Civil Engineering & Construction Technology Department, the Machinery & Materials Procurement Department, the Rugby Administration Office, domestic branch offices and sales offices, and Takasago Works (departments under its direct supervision). Oversees companywide compliance.



**Independent Director**  
**Takao Kitabata**  
 Chairman of the Board of Directors  
 Nomination & Compensation Committee Member (Committee Chair)  
 Corporate Governance Committee Member  
 Number of Company shares owned: 9,400  
 Apr. 1972 Joined the Ministry of International Trade and Industry  
 Jun. 2004 Director-General, Economic and Industrial Policy Bureau, Ministry of Economy, Trade and Industry (METI)  
 Jul. 2006 Vice-Minister of Economy, Trade and Industry  
 Jul. 2008 Resigned from METI  
 Jun. 2010 Director of the Company (incumbent)  
 Outside Corporate Auditor of Marubeni Corporation  
 Jun. 2013 Chairman of SANDA GAKUEN Junior High School-Senior High School (incumbent)  
 Outside Director of Zoon Corporation (incumbent)  
 Outside Director of Marubeni Corporation (incumbent)  
 Apr. 2014 Principal of SANDA GAKUEN Junior High School-Senior High School  
 Jun. 2014 Outside Director of Saen Co., Ltd. (incumbent)  
 Outside Director of Zoon Corporation (incumbent)  
 Mar. 2019 Resigned as Chairman of SANDA GAKUEN Junior High School-Senior High School  
 Apr. 2020 President of Kaishi Professional University (incumbent)



**Independent Director**  
**Hiroyuki Bamba**  
 Corporate Governance Committee Member (Committee Chair)  
 Number of Company shares owned: 8,300  
 Apr. 1976 Joined Sumitomo Rubber Industries, Ltd.  
 Mar. 2000 Director of Sumitomo Rubber Industries, Ltd.  
 Mar. 2003 Executive Officer of Sumitomo Rubber Industries, Ltd.  
 Jul. 2003 President and Director of SRI Sports Limited (currently Sumitomo Rubber Industries, Ltd.)  
 Mar. 2011 Chairman and Director of SRI Sports Limited  
 Mar. 2015 Counselor to Sumitomo Rubber Industries, Ltd.  
 Jun. 2015 Outside Director of Sekisui Plastics Co., Ltd. (currently Sekisui Kasei Co., Ltd.) (incumbent)  
 Jun. 2017 Director of the Company (incumbent)



**Independent Director**  
**Yumiko Ito**  
 Corporate Governance Committee Member  
 Number of Company shares owned: 4,000  
 Apr. 1984 Legislation Staff (Sanji), The Legislative Bureau of the House of Representatives of Japan  
 Apr. 1989 Admitted to the bar in Japan, Sakawa Law Office  
 Jul. 1991 Yamabe & Partners  
 Apr. 2001 General Counsel, Legal & Patent Operation, GE Yokogawa Medical Systems, Ltd. (currently GE Healthcare Japan Corporation)  
 May 2004 Staff Counsel, Legal & Intellectual Property, IBM Japan, Ltd.  
 Mar. 2007 Executive Officer, Legal & Corporate Affairs, Microsoft Co., Ltd. (currently Microsoft Japan Co., Ltd.)  
 Apr. 2013 Executive Officer and General Counsel, Sharp Corporation  
 Jun. 2013 Director, Executive Officer and General Counsel, Sharp Corporation  
 Apr. 2014 Director, Executive Managing Officer and General Counsel, Sharp Corporation  
 Jun. 2016 Executive Managing Officer and General Counsel, Sharp Corporation  
 Mar. 2019 Resigned as Executive Managing Officer and General Counsel, Sharp Corporation  
 Apr. 2019 Established Ito Law Office; appointed as Representative (incumbent)  
 Jun. 2019 Director of the Company (incumbent)  
 Outside Corporate Auditor of Santen Pharmaceutical Co., Ltd. (incumbent)

Directors, Audit & Supervisory Committee Members



**Director (Audit & Supervisory Committee Member, full time)**  
**Hiroshi Ishikawa**  
 Number of Company shares owned: 16,900  
 Apr. 1982 Joined the Company  
 Apr. 2014 Officer  
 Apr. 2016 Managing Executive Officer  
 Jun. 2018 Director, Audit & Supervisory Committee Member (incumbent)



**Director (Audit & Supervisory Committee Member, full time)**  
**Yasushi Tsushima**  
 Number of Company shares owned: 14,600  
 Apr. 1982 Joined the Company  
 Apr. 2013 Officer  
 Jun. 2015 Director, Managing Executive Officer of Kobelco Construction Machinery Co., Ltd.  
 Apr. 2018 Director of Kobelco Construction Machinery Co., Ltd.  
 Jun. 2018 Director, Audit & Supervisory Committee Member (incumbent)



**Independent Director, Audit & Supervisory Committee Member**  
**Yoshiiku Miyata**  
 Number of Company shares owned: 20,300  
 Apr. 1977 Joined Matsushita Electric Industrial Co., Ltd.  
 Apr. 2007 Executive Officer of Matsushita Electric Industrial Co., Ltd.  
 Apr. 2009 Managing Executive Officer of Panasonic Corporation  
 Apr. 2011 Senior Managing Executive Officer of Panasonic Corporation  
 Jun. 2011 Senior Managing Director & Member of the Board of Panasonic Corporation  
 Jun. 2014 Corporate Advisor of Panasonic Corporation  
 Mar. 2015 Outside Director of TonenGeneral Sekiyu K.K.  
 Dec. 2015 Resigned as Corporate Advisor of Panasonic Corporation  
 Jun. 2016 Director, Audit & Supervisory Committee Member (incumbent)  
 Apr. 2017 Outside Director of JXTG Holdings, Inc. (currently ENEOS Holdings, Inc.) (incumbent)



**Independent Director, Audit & Supervisory Committee Member**  
**Masaaki Kono**  
 Audit & Supervisory Committee Chair  
 Nomination & Compensation Committee Member  
 Corporate Governance Committee Member  
 Number of Company shares owned: 1,400  
 Apr. 1979 Joined The Dai-ichi Kangyo Bank, Limited  
 Mar. 2006 Executive Officer of Mizuho Corporate Bank, Ltd. (currently Mizuho Bank, Ltd.)  
 Apr. 2008 Managing Executive Officer of Mizuho Corporate Bank, Ltd.  
 Apr. 2011 Managing Executive Officer, Head of Risk Management Group, Head of Human Resources Group, and Head of Compliance Group of Mizuho Financial Group, Inc.  
 Jun. 2011 Managing Director and Managing Executive Officer of Mizuho Financial Group, Inc.  
 Apr. 2012 Managing Executive Officer of Mizuho Bank, Ltd.  
 Managing Executive Officer of Mizuho Corporate Bank, Ltd.  
 Managing Executive Officer of Mizuho Trust & Banking Co., Ltd.  
 Apr. 2013 Director of Mizuho Financial Group, Inc. Deputy President and Deputy President-Executive Officer (Representative Director) of Mizuho Bank, Ltd.  
 Deputy President & Executive Officer of Mizuho Corporate Bank, Ltd.  
 Jul. 2013 Deputy President & Executive Officer of Mizuho Financial Group, Inc.  
 Apr. 2016 Resigned as Deputy President and Deputy President-Executive Officer (Representative Director) of Mizuho Bank, Ltd.  
 Resigned as Deputy President & Executive Officer of Mizuho Financial Group, Inc. Advisor of Orient Corporation  
 Jun. 2016 President and Representative Director of Orient Corporation  
 Apr. 2020 Chairman and Representative Director of Orient Corporation  
 Jun. 2020 Director, Audit & Supervisory Committee Member (incumbent)  
 Chairman and Director of Orient Corporation (incumbent)



**Independent Director, Audit & Supervisory Committee Member**  
**Kunio Miura**  
 Compliance Committee Member (Committee Chair)  
 Number of Company shares owned: 1,400  
 Apr. 1979 Appointed as judge  
 Mar. 1988 Resigned as judge  
 Apr. 1988 Admitted to the bar in Japan  
 Apr. 1997 Established Kawamoto and Miura Law Office; appointed as Representative (incumbent)  
 Jun. 2003 Outside Corporate Auditor of YAMAHA CORPORATION  
 Jun. 2008 Outside Audit & Supervisory Board Member of ASAH INTELLIGENCE SERVICE CO., LTD. (incumbent)  
 Jun. 2010 External Corporate Auditor of Sumitomo Seika Chemicals Company, Limited (incumbent)  
 Jun. 2020 Director, Audit & Supervisory Committee Member (incumbent)

# Initiatives for Governance Risk Management

## Basic Policy

In order to respond appropriately to risks that may damage the Group's corporate value, the KOBELCO Group is working on risk management activities in reference to the international guidance issued by COSO. We have identified high-priority risks that are likely to have a significant impact on the entire Group, if risk materializes, and have defined them as Top Risks or Significant Risks. Risk management activities are promoted under the leadership of the Risk

Owners (the Executive Officers in charge). The Board of Directors receives reports on action plans and the implementation status of activities including response to ESG risks associated with the environment, climate change, natural disasters, human rights, health and safety, and quality, etc. The status of these activities is monitored by senior management.

## Management Structure

The President is the person ultimately responsible for the Group's overall risk management, and the Director who oversees the Internal Control and Audit Department is the person responsible for overseeing risk management across the Group. Meanwhile, individual risks are managed by the Risk Owners as the persons responsible for Groupwide management activities of each risk, and the countermeasures to these risks are implemented by the heads of businesses and the Executive Officer responsible for the Head Office under a risk management system that encompasses the entire organization. The Risk Management Committee, which was newly established as an auxiliary body to the Executive Council, undertakes the tasks such as formulating basic policies concerning risk management in general and specific policies concerning important issues in risk management, and evaluating action plans for measures to reduce Top Risks and Significant Risks. The person responsible for overseeing risk management across the Group is appointed as the Committee Chair and all of the Risk Owners are appointed as the Committee Members. Activity results of the Risk Management Committee are periodically reported to the Executive Council and instructions are given to the Risk Owners based on the results of discussions at the Executive Council. The risk management system is operated independently from the Audit & Supervisory Committee.

To ensure the effectiveness of risk management activities, the Board of Directors manages and supervises these activities by receiving reports on action policies of overall risk management, action plans of reducing individual Top Risks and Significant Risks, and the implementation status, and links them to plans for the next fiscal year and beyond. Reports to the Board of Directors include results of discussion about risk management activities at the Executive Council and activity results of the Risk Management Committee.

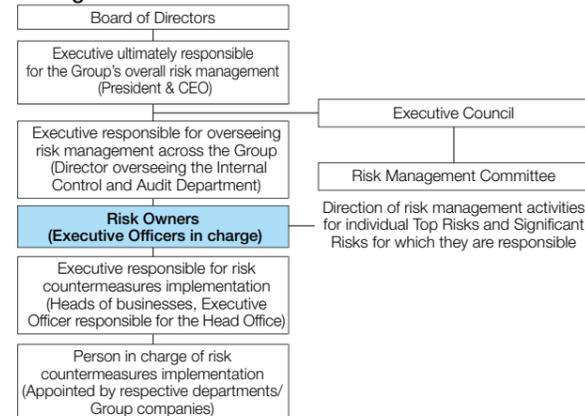
## Implementation of Risk Management Activities

Under the direction of the Risk Owners, the management of individual risks are carried out by the person in charge of risk countermeasures implementation in each division

### Types and Definitions of Risk

Type of Risk	Definition
<b>Top Risks</b>	Of Significant Risks, risks that are likely to have a <b>more serious impact</b> if they materialize
<b>Significant Risks</b>	Risks that have a major impact on the Group and its stakeholders
<b>Departments/ Companies Specific Risks</b>	Risks identified by departments and companies that are not Top Risks or Significant Risks

### Management Structure

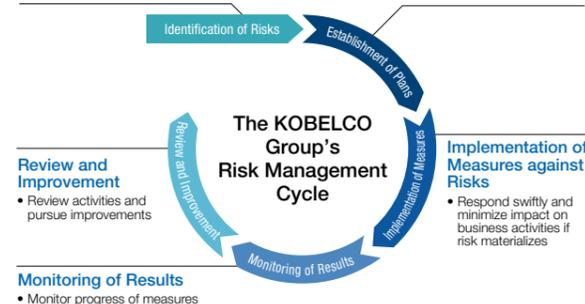


### Identification of Risks

- Identify risks requiring response according to changes in the operating environment and incidents of risk inside and outside the Company
- Select risks to be managed based on potential level of impact

### Establishment of Risk Management Plans

- Establish management plans for individual risks
- Formulate risk measures based on management plans



in the following cycle: identifying risks, formulating risk management plans, implementing these plans, assessing results, and identifying required improvement for the following fiscal years. These activity results are checked by senior management and reflected in the plan for the next fiscal year and beyond. This system is being actively applied to Group companies as well. Since fiscal year 2021, the newly established Risk Management Committee has been working to improve the effectiveness of risk management by undertaking the tasks such as formulating basic policies concerning risk management in general and specific policies concerning important issues in risk management, and evaluating the results.

While implementing risk countermeasures, we have established a Companywide system to respond to serious risks in a timely and appropriate manner, if such risks materialize.

Among risks related to our Group's businesses, those that have the potential to influence investor decisions are described in the Company's annual securities report (Japanese only).

To the right is a list of the risks described in the annual securities report for fiscal 2020.

Changes in the Operating Environment
1) Economic trends in major markets
2) Product supply and demand conditions, and fluctuations in product prices
3) Fluctuations in prices of raw materials, etc.
Factors with Potential to Materially Impact the Group Management
1) Occupational accidents, equipment accidents, etc.
2) Natural disasters, pandemics, wars, and acts of terrorism
3) Quality-related risks
4) Impact of environmental and climate-related regulations, etc.
5) Legal and public regulations
6) Litigation risks
7) Human resources risks
8) Financial risks
9) Factors affecting progress of the current Medium-Term Management Plan
10) Protection of intellectual property rights and violations of rights of third parties
11) Information management issues and information leakage

## TOPICS Actions for Major Risks

Risks	Actions (Examples)	Reference Pages
Environmental regulations	<ul style="list-style-type: none"> <li>Promoting an environmental management system at production sites</li> <li>Implementation of environmental audits by the Head Office (paper and on-site audits)</li> <li>Environmental training and study at overseas and domestic locations</li> </ul>	[Environmental actions] pp. 66–67 [Risk management] The Company's corporate website: <a href="https://www.kobelco.co.jp/english/sustainability/risk.html">https://www.kobelco.co.jp/english/sustainability/risk.html</a>
Natural disasters	<ul style="list-style-type: none"> <li>Refining Business Continuity Plan (BCP) at production sites</li> <li>Reviewing and implementing measures based on latest information on wind and flood damage in recent years and hazard maps issued by the government</li> </ul>	[Strengthening preparedness for natural disasters] The Company's corporate website: <a href="https://www.kobelco.co.jp/english/sustainability/risk.html">https://www.kobelco.co.jp/english/sustainability/risk.html</a>
Safety management	<ul style="list-style-type: none"> <li>Further strengthening basic safety management and the implementation of activities (rebuilding and formulating corporate safety standard practices and providing thorough training)</li> <li>Creating a PDCA framework for spiraling up the safety management through initiatives with full employee participation and individual guidance (encouraging all employees to participate in safety activities proactively and raising their safety awareness through individual guidance)</li> </ul>	[Health and safety] p. 77
Quality	<ul style="list-style-type: none"> <li>Monitoring and advising on activities to strengthen quality management throughout the KOBELCO Group by the Quality Management Committee, with external experts forming a majority of members</li> <li>Eliminating opportunities for mishandling test/inspection data using automated testing and inspection equipment</li> <li>Developing quality assurance personnel, and in-house education programs</li> <li>Implementing quality audits by the Head Office</li> </ul>	[Actions for quality] pp. 102–103

## Initiatives for Governance Compliance

The KOBELCO Group recognizes that a corporation cannot exist without complying with laws and regulations, and social norms. Based on this understanding, we have positioned compliance as one of the key components of the business foundation that supports our business. We are building organizational structures and implementing initiatives outlined below to ensure compliance throughout the Group.

### Compliance Code and Standards

The Corporate Code of Ethics, established in June 2000, sets the standards that must be observed by all Group companies, directors, and employees. It stipulates that we as good corporate citizens have responsibility of complying with laws and regulations, and social norms and contributing to society through the provision of superior products and services while exercising environmental mindfulness. The code has been revised according to changes in the business environment. For the purpose of practicing compliance, we have adopted

as the norms and standards for ensuring the compliance the Corporate Philosophy of the KOBELCO Group that set forth in particular “the Core Value of KOBELCO,” which are the commitments to society and the values shared by the entire group in order to promote the sustainable development of the group, and “the Six Pledges of KOBELCO,” which constitute a concrete code of conduct for all group employees to follow to fulfill the said commitments.

### Compliance Committee

The Compliance Committee has been established as an advisory body to the Board of Directors. The committee drafts plans for Groupwide compliance activities, monitors the progress of these plans, and makes necessary revisions and improvements. The committee is comprised

of the President, two other internal members, and five external members, constituting a majority to provide a fair and impartial position, with one of the external members serving as the Committee Chair. Main Group companies have also established the Compliance Committee.

### The KOBELCO Group's Compliance Program

Compliance activity plans are implemented based on the KOBELCO Group's Compliance Program. The Internal Control and Audit Department carries out the program in coordination with business divisions and Group companies under the supervision of the Executive Officer overseeing Companywide compliance and the Executive Officer responsible for Companywide compliance. The progress

of the compliance activities of Group companies is assessed in the following five areas. These compliance activity plans are implemented considering the characteristics of the respective businesses and regions in order to carry out comprehensive and effective compliance activities throughout the Group.

The KOBELCO Group's Compliance Program
Risk Assessment and Commitment
Setting Rules and Procedures and Securing Resources
Training and Communication
Monitoring and Response to Reports
Review and Improvement

### Status of Compliance Activities

<b>Risk Assessment and Commitment</b>	<ul style="list-style-type: none"> <li>Management's proactive stance toward compliance is communicated internally and externally. In addition, the Corporate Code of Ethics and the KOBELCO Group's Anti-Bribery Policy have been posted on the Company's corporate website.</li> <li>Compliance risks associated with the Group's business and organization are analyzed and assessed regularly based on internal and external trends. Risks pertaining to fair competition laws, anti-bribery, and trade security management have been identified as Top Risks for the Group, and relevant compliance systems have been established.</li> </ul>
<b>Setting Rules and Procedures and Securing Resources</b>	<ul style="list-style-type: none"> <li>The necessary compliance rules and procedures are being developed at domestic and overseas Group companies centered on fair competition laws, anti-bribery, and other Top Risks.</li> <li>Domestic and overseas Group companies are requested to appoint compliance representatives to enhance compliance promotion systems.</li> </ul>
<b>Training and Communication</b>	<ul style="list-style-type: none"> <li>The Company and domestic and overseas Group companies continuously conduct stratified compliance training as well as group training (currently online training) and e-learning programs on fair competition laws, anti-bribery laws, and other specific laws.</li> <li>Awareness regarding the internal reporting system is promoted on an ongoing basis through the distribution of cards and posters, the intranet, and Group newsletters.</li> </ul>
<b>Monitoring and Response to Reports</b>	<ul style="list-style-type: none"> <li>The Company and domestic and overseas Group companies conduct ongoing monitoring and audit pertaining to fair competition laws, anti-bribery, and trade security management. Certain domestic Group companies also introduced this program ahead of other companies and conducted diagnoses of the status of activities related to compliance systems in addition to the above three areas.</li> <li>Systems are put in place to ensure that all domestic and overseas Group employees can use the internal reporting system, and frameworks are being developed to ensure the swift discovery and remediation of compliance issues.</li> </ul> <p>[Number of reports received via the internal reporting system in fiscal 2020: 112 (including domestic and overseas Group companies)]</p>
<b>Review and Improvement</b>	<ul style="list-style-type: none"> <li>The Company has been conducting the Compliance Awareness Survey targeted at employees of the Company and domestic Group companies.</li> <li>The Company has been reviewing compliance activities based on internal and external trends and the results of the Compliance Awareness Survey.</li> </ul>

For details of the Group's compliance activities, please see the Company's corporate website.

[https://www.kobelco.co.jp/english/about\\_kobelco/kobesteel/ethics-compliance/index.html](https://www.kobelco.co.jp/english/about_kobelco/kobesteel/ethics-compliance/index.html)



#### TOPICS

### Anti-Corruption Efforts

The KOBELCO Group's mission is to provide solutions to the needs of society. We are working on anti-corruption efforts based on the KOBELCO Group's Compliance Program. For details, please see the Company's corporate website below.

[https://www.kobelco.co.jp/english/about\\_kobelco/kobesteel/ethics-compliance/index.html#anti-corruption](https://www.kobelco.co.jp/english/about_kobelco/kobesteel/ethics-compliance/index.html#anti-corruption)



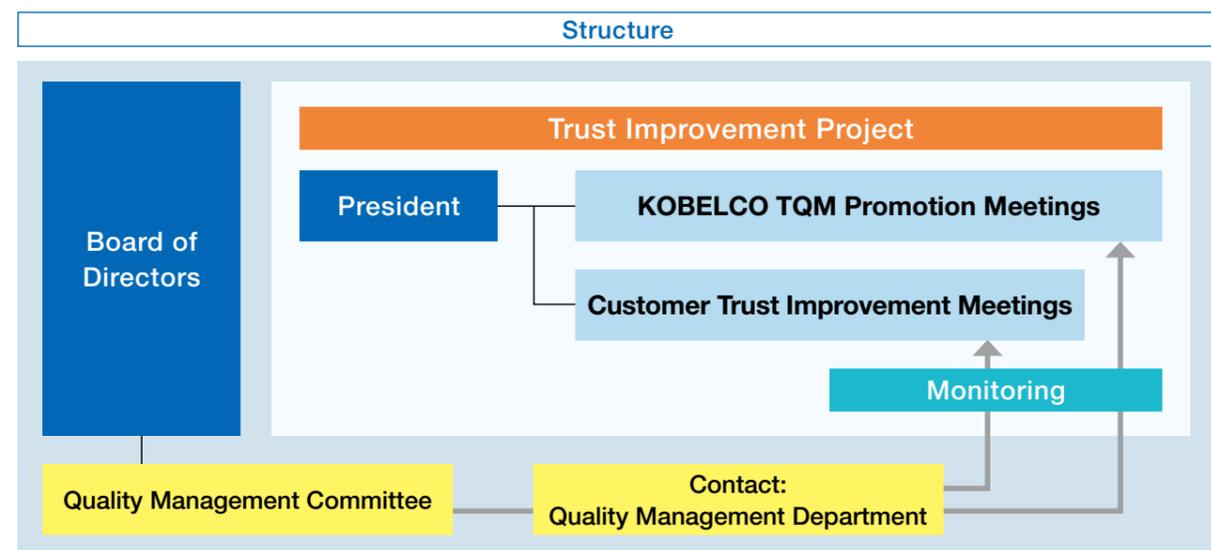
Initiatives for Governance

Quality Initiatives -Trust Improvement Project-

From Restoring Trust to Improving Trust

The Company has implemented measures to prevent recurrence of the quality misconduct since fiscal 2018 and completed planned activities. In addition, in fiscal 2020, our Company launched an initiative for Total Quality Management (TQM\*) to prevent the quality misconduct from fading away, achieve sustainable growth and realize our Group Corporate Philosophy. In April 2021, we reorganized the Project for Restoring Trust into the

Trust Improvement Project led by the President to implement the initiative across the Group on a full scale. The Project is composed of KOBELCO TQM Promotion Meetings and the Customer Trust Improvement Meetings. Under the Trust Improvement Project, the Quality Management Committee, an advisory body to the Board of Director, continues to monitor and make recommendations from an objective perspective.



\*TQM stands for Total Quality Management. As the next step after the completion of measures to prevent recurrence, KOBELCO TQM aims to strengthen the management of each business, while identifying issues that serve the needs of customers and society and addressing them with the participation of all employees.

KOBELCO TQM Promotion Meetings

KOBELCO TQM Promotion Meetings aims to improve not only the quality of product and service quality but also the overall quality of business activities such as business operations, organization, and management. The Meetings is also promoting the Companywide measures through promotion and planning of TQM activities in each business division as well as from the perspective of strengthening quality initiatives and *monozukuri*, which include personnel development, improvement of work quality, strengthening of quality assurance, and cross-divisional support for *monozukuri* to prevent the quality misconduct from being forgotten and achieve sustainable growth.

The action principles of KOBELCO TQM set forth

“customer perspective,” “participation of all members,” and “constant improvement” in accordance with the Core Values of KOBELCO in the Group Corporate Philosophy.

With a renewed recognition that reliable quality is “the starting point of *monozukuri*” and the key to building customer trust, our Company will continue to strengthen the management of each business division and focus on improving quality through KOBELCO TQM activities. In order to become a company indispensable to customers and society, we continue to provide products and services that satisfy our customers, while taking initiatives to identify social issues from the perspective of our customers and other stakeholders and work together to resolve them with all Group employees.

Strengthening Quality Initiatives

We continue to conduct quality audits by the Head Office to check the status of each business site and ensure that the quality assurance system is maintained and continuous improvement efforts are made. We performed audits in all target locations over two years in fiscal 2019 and 2020. We have decided to conduct audits once every three years in principle from fiscal 2021 and the plan is to visit 48 locations for audits in fiscal 2021. The Quality Guidelines took effect in May 2018 from the perspective of preventing misconduct and had been used as evaluation criteria of the Quality Assurance System for quality audits at our business locations, but it was revised in January 2021 with a wider scope of coverage. We plan to confirm the status of implementation at our business locations with the revised Quality Guidelines set as evaluation criteria for the Head Office Quality Audit. We will cooperate with each level of our organization in the Head Office, business divisions and business sites, to achieve an accreditation rate of 70% in compliance

with the Quality Guidelines among all target locations for the Group’s audits in the final fiscal year of the Medium-Term Management Plan. As for weakness in the Group’s quality assurance, we will continue to complement and strengthen the Quality Guidelines with the aim of raising the level of the Groupwide Quality Assurance System. As a measure to eliminate the possibility of any quality misconduct occurring, we have been promoting automation of testing and inspection equipment and have completed automation for approximately 1,500 items. (Automation is defined as a state in which data can be obtained without manual intervention, from the execution of tests and inspections to the preparation of test and inspection results.) Devices we have yet to automate include those which are technically difficult to do so, and we will continue to promote automation, while working on technology development and other measures.

Enhancing *Monozukuri*

We are working to enhance our *monozukuri* capability with a focus on the following items that aim to realize quality that satisfy customers.

- i) The Quality Caravan Team has been visiting each business site to deal with their problems. The Team visited 45 locations in the previous fiscal year and plans to visit 70 locations in fiscal 2021, from the perspective of quality enhancement as well.
- ii) To further revitalize QC activities and 5S activities, we

established the Support Task Force at the Head Office and began its activities.

- iii) We plan and promote exchange meetings for the engineers who engage in the Company’s core production technologies. we have established sub-working groups for specific areas such as rolling technology, analysis technology, production control, facility management, etc. in order to promote technology exchanges and collaboration across the Group.

Customer Trust Improvement Meetings

The Subcommittee for Restoring Customers’ Trust began its activities in April 2018 for preventing recurrence of the quality misconduct in order to promote restoring trust through initiatives undertaken from the perspective of customers. The Subcommittee’s initiatives include putting together customers’ voices received at the time of the misconduct and sharing their feelings with employees through the KOBELCO Core Values Place. In addition, we are working to develop a framework where business divisions, departments and sections

can share information to facilitate business activities of the sales departments that contact customers.

In April 2021, the Subcommittee changed its name to the Customer Trust Improvement Meetings with an objective of not only restoring trust from customers but also gaining even greater trust from them. We aim to enhance trust by continuously listening to customers’ voices and working on activities conducted from the perspective of customers.

Quality Management Committee

As in fiscal 2020, we will continue to operate the Quality Management Committee for the purpose of constantly monitoring the effectiveness of measures to prevent recurrence of the quality misconduct, monitoring

activities to improve quality management, and making recommendations throughout the Group. We plan to hold the Committee approximately four times in fiscal 2021.

## 10-Year Financial and Non-Financial Data

		(Millions of yen)										
Fiscal year		2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	
For the fiscal year	Net sales	¥1,864,691	¥1,685,529	¥1,824,698	¥1,886,894	¥1,822,805	¥1,695,864	¥1,881,158	¥1,971,869	¥1,869,835	¥1,705,566	
	Operating income	60,555	11,234	114,548	119,460	68,445	9,749	88,913	48,282	9,863	30,398	
	Ordinary income (loss)	33,780	(18,146)	85,044	101,688	28,927	(19,103)	71,149	34,629	(8,079)	16,188	
	Net income (loss) attributable to owners of the parent	(14,248)	(26,976)	70,191	86,549	(21,556)	(23,045)	63,188	35,940	(68,008)	23,234	
	Cash flows from operating activities	39,486	45,401	194,294	153,078	97,933	141,716	190,832	67,136	27,040	194,798	
	Cash flows from investing activities	(85,267)	(123,513)	(62,105)	(73,674)	(104,618)	(137,833)	(161,598)	(28,603)	(218,986)	(141,853)	
	Cash flows from financing activities	(40,233)	127,644	(138,501)	(156,027)	93,883	16,545	(66,598)	(9,561)	140,589	118,444	
	Capital expenditures	96,085	114,935	101,402	103,522	109,941	160,297	128,653	133,471	239,816	185,091	
	Depreciation	118,037	106,725	82,936	89,881	94,812	96,281	102,032	102,589	105,346	100,856	
	Research and development expenses	31,436	30,763	28,494	29,920	29,843	30,102	32,014	34,495	35,890	31,008	
	At fiscal year-end	Total assets	2,159,512	2,226,996	2,288,636	2,300,241	2,261,134	2,310,435	2,352,114	2,384,973	2,411,191	2,582,873
Net assets		571,258	569,922	734,679	851,785	745,492	729,404	790,984	803,312	716,369	769,375	
Outside debt		746,471	907,656	748,138	650,991	776,073	789,632	726,013	724,221	784,478	785,761	
Outside debt including IPP project financing		810,172	959,179	787,246	677,447	789,493	796,927	738,865	760,364	906,639	987,808	
Per-share data <sup>1</sup> (yen)	Net income (loss)	(47.4)	(89.8)	226.2	238.1	(59.3)	(63.5)	174.4	99.2	(187.5)	64.0	
	Net assets	1,718.40	1,706.34	1,841.10	2,137.00	1,903.80	1,860.36	2,049.95	2,041.29	1,811.10	1,958.57	
	Cash dividends	10.00	—	40.00	40.00	20.00	—	30.00	20.00	0.00	10.00	
Financial indicators	ROA (%)	1.5	(0.8)	3.8	4.4	1.3	(0.8)	3.1	1.5	(0.3)	0.6	
	ROE (%)	(2.7)	(5.2)	11.9	12.0	(2.9)	(3.4)	8.9	4.8	(9.7)	3.4	
	Return on invested capital (ROIC) (%)	—	—	—	—	—	—	0.8	4.5	2.8	0.9	
	Equity ratio (%)	23.9	23.0	29.2	33.8	30.6	29.2	31.6	31.0	27.2	27.5	
	Debt/equity ratio (times) (Excluding project financing)	1.37	1.75	1.11	0.88	1.10	1.17	0.98	0.98	1.19	1.11	
	Dividend payout ratio (%)	—	—	17.7	16.8	—	—	17.2	20.2	—	15.6	
Number of shares issued (in thousands)	3,115,061	3,115,061	3,643,642	3,643,642	3,643,642	364,364	364,364	364,364	364,364	364,364	364,364	
Non-financial data												
Environment	Reduction rate of CO <sub>2</sub> emissions in production processes (from fiscal 2013) (%) <sup>(Note)</sup>											21
	Contribution to reduction of CO <sub>2</sub> emissions through technologies, products, and services (in million tons) <sup>(Note)</sup>											36.7
	Water recycling rate (%) <sup>(Note)</sup>											96.0
	Waste recycling rate (%) <sup>(Note)</sup>											99.3
Society	Number of employees											40,517
	Consolidated	35,496	36,018	36,019	36,420	36,338	36,951	37,436	39,341	40,831	40,517	
	Non-consolidated	10,370	10,398	10,586	10,609	10,833	11,034	11,191	11,401	11,560	11,837	
	Men	9,725	9,728	9,891	9,881	10,090	10,241	10,304	10,422	10,528	10,750	
	Women	645	670	695	728	743	793	887	979	1,032	1,087	
	Non-Japanese	23	30	34	40	57	60	70	69	85	87	
	Ratio of female managers (non-consolidated) <sup>*2</sup> (%)	0.8	1.0	1.2	1.4	1.5	1.6	1.9	2.4	2.6	2.7	
	Employment rate of people with disabilities (non-consolidated) <sup>*3</sup> (%)	2.07(1.8)	2.11(1.8)	2.02(1.8)	2.28(2.0)	2.31(2.0)	2.38(2.0)	2.30(2.0)	2.35(2.2)	2.37(2.2)	2.34(2.2)	
	Number of new graduates employed (non-consolidated)											349
	Men	278	374	336	294	362	344	421	350	315	349	
	Women	19	24	19	14	26	50	64	50	52	38	
	Number of employees taking childcare leave (non-consolidated) <sup>*4</sup>											48
	Men	3	1	0	1	5	7	8	13	35	48	
	Women	40	40	45	48	38	54	40	40	58	63	
	Ratio of employees returning from childcare leave (non-consolidated) (%)	100.0	100.0	89.5	100.0	94.7	96.0	96.7	98.2	100.0	99.1	
	Turnover of employees with less than 3 years of service (non-consolidated) <sup>*5</sup> (%)	5.7	5.8	9.0	5.2	12.1	12.8	10.7	9.0	10.6	2.1	
	Turnover of employees with less than 10 years of service (non-consolidated) <sup>*6</sup> (%)	17.2	19.1	11.9	13.2	14.5	13.1	13.4	18.9	19.1	15.8	
	Overtime (non-consolidated) (hours per month/person)	20.0	19.6	20.2	22.9	22.7	16.5	18.4	18.4	17.7	16.6	
	Use of annual paid leave (non-consolidated) (days per year/person)	8.9	9.1	8.4	9.1	11.8	14.9	15.5	16.3	17.0	11.0	
	Total hours worked (non-consolidated) <sup>(Note)</sup>											2,080
Employee training											1,978	
Total hours of training (across all employees) <sup>(Note)</sup>											210,948	
Average hours of training per employee <sup>(Note)</sup>											18	
Occupational health and safety	Lost time injury frequency rate <sup>(Note)</sup>	0.18	0.27	0.17	0.36	0.32	0.26	0.31	0.26	0.19	0.24	
	Number of internal reporting (whistleblowing) cases <sup>(Note)</sup>											119
Governance	Compliance											112
	Number of internal reporting (whistleblowing) cases <sup>(Note)</sup>											112

Note: New items are added along with the establishment of indicators and targets for Materiality. For disclosable items, data before fiscal 2019 is retrospectively described.

\*1. The Company carried out a 1-for-10 reverse stock split of its shares on October 1, 2016. Per-share data has been recalculated as if the reverse stock split had been carried out at the beginning of fiscal 2010.

\*2. At Kobe Steel, managers or higher positions are defined as managerial positions.

\*3. Figures in parentheses are the statutory employment rate.

\*4. The period of the Company's childcare leave is up to three years. The number of employees includes those who continue to be on leave from the previous year.

\*5. The figure shows the percentage of those who retired with less than three years of continuous service, among the employees who joined the Company during these fiscal years through the regular hiring process.

\*6. The figure shows the percentage of those who left the company with less than ten years of continuous service, among the employees who joined the Company during these fiscal years through the regular hiring process.

# Results by Operating Segment (Fiscal 2016–Fiscal 2020)

Steel & Aluminum					(Billions of yen)
Fiscal year	2016	2017	2018	2019	2020
Net sales				780.2	696.3
Ordinary income (loss)				(16.5)	(22.6)
Total assets				1,022.4	1,000.3
Depreciation				56.0	57.2
Research and development expenses				7.5	6.4
Capital expenditures				62.4	69.2
Number of employees (consolidated)				—	12,424

Note: From fiscal 2020, the reporting segments have been changed following the rearrangement of the corporate structure and performance management units. For this reason, the figures shown for fiscal 2019 and later have been adjusted in accordance with the new segments. Regarding figures for the former segments from fiscal 2018 and earlier, please refer to the Integrated Report 2020.

Advanced Materials					(Billions of yen)
Fiscal year	2016	2017	2018	2019	2020
Net sales				297.1	238.1
Ordinary income (loss)				(25.2)	(12.1)
Total assets				277.1	256.0
Depreciation				15.7	10.2
Research and development expenses				3.5	2.6
Capital expenditures				27.0	14.2
Number of employees (consolidated)				—	6,080

Note: From fiscal 2020, the reporting segments have been changed following the rearrangement of the corporate structure and performance management units. For this reason, the figures shown for fiscal 2019 and later have been adjusted in accordance with the new segments. Regarding figures for the former segments from fiscal 2018 and earlier, please refer to the Integrated Report 2020.

Welding					(Billions of yen)
Fiscal year	2016	2017	2018	2019	2020
Net sales	82.2	80.5	83.9	83.7	70.0
Ordinary income	6.8	4.9	3.6	2.9	1.7
Total assets	72.9	76.0	78.5	79.6	77.6
Depreciation	2.2	2.1	2.2	2.4	2.4
Research and development expenses	3.5	3.4	3.7	4.0	2.9
Capital expenditures	2.4	2.3	2.3	2.6	2.1
Number of employees (consolidated)	2,532	2,551	2,560	2,587	2,514

Machinery					(Billions of yen)
Fiscal year	2016	2017	2018	2019	2020
Net sales	150.7	161.3	171.4	165.9	175.3
Ordinary income	5.8	2.3	1.2	9.6	11.4
Total assets	148.2	182.1	171.9	184.7	181.3
Depreciation	4.3	5.6	6.1	5.6	5.2
Research and development expenses	3.7	3.3	2.7	3.5	3.8
Capital expenditures	8.1	7.8	4.1	4.8	4.1
Number of employees (consolidated)	3,708	4,010	4,094	4,278	4,661

Engineering					(Billions of yen)
Fiscal year	2016	2017	2018	2019	2020
Net sales	121.1	122.8	151.7	141.5	136.1
Ordinary income	2.8	6.9	6.5	5.7	4.4
Total assets	104.8	109.3	137.3	139.0	123.8
Depreciation	2.0	1.9	2.0	1.8	1.6
Research and development expenses	2.0	1.9	2.3	2.4	2.1
Capital expenditures	1.6	0.9	2.7	1.8	1.6
Number of employees (consolidated)	2,870	2,920	3,523	3,584	3,524

Construction Machinery					(Billions of yen)
Fiscal year	2016	2017	2018	2019	2020
Net sales	310.4	364.5	386.0	360.8	333.1
Ordinary income (loss)	(31.3)	21.9	25.5	7.5	12.7
Total assets	364.6	388.4	358.6	341.0	334.6
Depreciation	12.4	12.3	12.3	12.9	12.8
Research and development expenses	4.7	5.6	6.5	6.9	6.4
Capital expenditures	13.8	11.3	13.5	13.5	10.4
Number of employees (consolidated)	7,060	7,075	7,487	7,765	7,917

Electric Power					(Billions of yen)
Fiscal year	2016	2017	2018	2019	2020
Net sales	70.6	72.1	76.1	75.6	80.4
Ordinary income (loss)	13.0	7.9	(0.3)	8.9	20.6
Total assets	101.7	107.1	123.2	251.6	321.3
Depreciation	7.7	8.8	5.8	7.6	8.4
Research and development expenses	—	—	—	—	—
Capital expenditures	9.1	12.0	20.1	123.5	81.1
Number of employees (consolidated)	164	235	244	255	263

Other Businesses					(Billions of yen)
Fiscal year	2016	2017	2018	2019	2020
Net sales	74.8	68.8	42.0	33.6	27.8
Ordinary income	7.6	5.4	2.3	3.3	4.2
Total assets	157.7	146.1	57.0	54.8	56.1
Depreciation	3.0	2.9	1.6	1.2	0.5
Research and development expenses	0.9	0.9	1.0	0.9	0.7
Capital expenditures	4.1	2.2	3.3	1.4	0.8
Number of employees (consolidated)	2,724	2,350	1,643	1,651	1,637

# Corporate Data (As of March 31, 2021)

## Corporate Profile

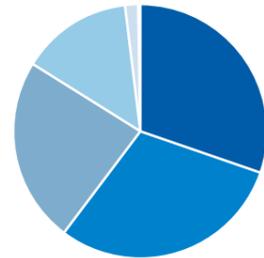
Name:	Kobe Steel, Ltd. (Japanese Name: Kabushiki Gaisha Kobe Seikoshu)
Group Brand:	<b>KOBELCO</b> *
Founded:	September 1, 1905
Incorporated:	June 28, 1911
Capital:	¥250.9 billion
Total assets:	¥2,582.8 billion
Employees:	40,517 (consolidated) 11,837 (non-consolidated)

\*KOBELCO is an international unified trademark established in 1979 to represent the KOBELCO Group with the aim of giving form to the Group Corporate Philosophy, and thereby fostering a sense of solidarity within the Group, while building greater recognition and trust among stakeholders.

## Stock Information

Authorized:	600,000,000 shares
Issued:	364,364,210 shares
Number of Shareholders:	176,886
Record date:	March 31 every year
Share unit number:	100 shares
Listings:	Tokyo Stock Exchange, First Section (Ticker Code: 5406) Nagoya Stock Exchange, First Section (Ticker Code: 54060)
Transfer Agent & Office:	Mitsubishi UFJ Trust and Banking Corporation
Accounting Auditor:	KPMG AZSA LLC

## Breakdown of Shareholders by Investor Type (As of March 31, 2021)



Japanese financial institutions	30.45%
Japanese individuals and others	30.02%
Foreign investors	23.54%
Other Japanese corporations	14.12%
Securities companies	1.80%
Treasury stock	0.07%
Government/local public entities	0.00%

## Major Shareholders (10 largest shareholders) (As of March 31, 2021)

Name of Shareholder	Number of Shares Held (Thousands of shares)	Shareholding Ratio (%)
The Master Trust Bank of Japan, Ltd. (Trust Account)	28,212	7.75
Custody Bank of Japan, Ltd. (Trust Account)	15,208	4.18
Nippon Steel Corporation	10,735	2.95
Nippon Life Insurance Company	10,119	2.78
Custody Bank of Japan, Ltd. (Trust Account 5)	5,545	1.52
Custody Bank of Japan, Ltd. (Trust Account 9)	5,006	1.37
Custody Bank of Japan, Ltd. (Trust Account 6)	4,920	1.35
DFA INTL SMALL CAP VALUE PORTFOLIO	4,417	1.21
SHIMABUN Corporation	4,410	1.21
Custody Bank of Japan, Ltd. (Trust Account 1)	4,410	1.21

\*Kobe Steel holds 250 thousand of its own shares in treasury stock. Treasury stock is excluded in the calculation of the major shareholders' shareholding ratio in the Company.

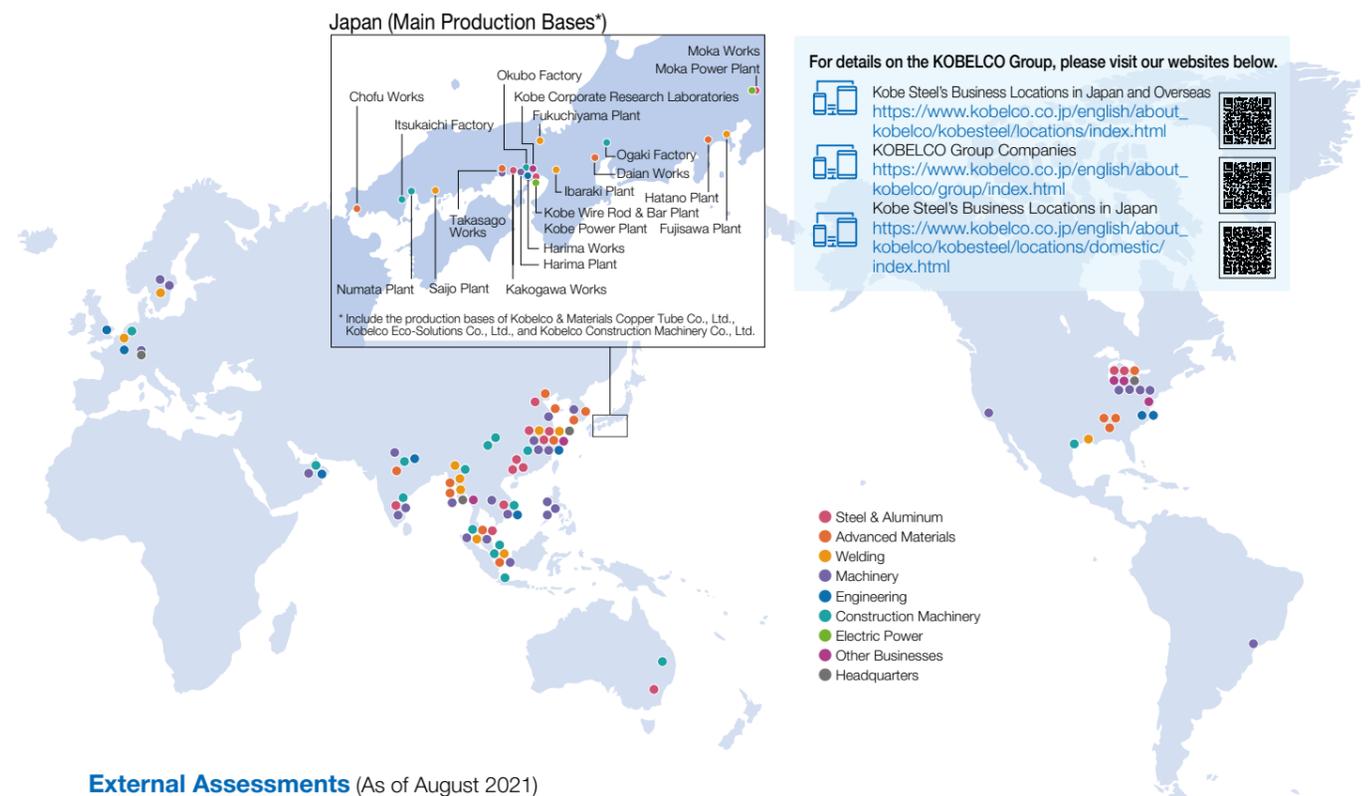
## Trends in Stock Price and Volume



\*1 Kobe Steel's stock price and TOPIX are indexed with closing prices in March 2016 equal to 100.

\*2 The Company carried out a 1-for-10 reverse stock split of its shares on October 1, 2016. Stock price and volume have been recalculated based on the assumption that the reverse stock split was carried out prior to this.

## Global Locations of the KOBELCO Group



For details on the KOBELCO Group, please visit our websites below.

- Kobe Steel's Business Locations in Japan and Overseas  
[https://www.kobelco.co.jp/english/about\\_kobelco/kobesteel/locations/index.html](https://www.kobelco.co.jp/english/about_kobelco/kobesteel/locations/index.html)
- KOBELCO Group Companies  
[https://www.kobelco.co.jp/english/about\\_kobelco/group/index.html](https://www.kobelco.co.jp/english/about_kobelco/group/index.html)
- Kobe Steel's Business Locations in Japan  
[https://www.kobelco.co.jp/english/about\\_kobelco/kobesteel/locations/domestic/index.html](https://www.kobelco.co.jp/english/about_kobelco/kobesteel/locations/domestic/index.html)

## External Assessments (As of August 2021)

### Accreditations and Certifications

#### Health & Productivity Stock Selection

Selected for three consecutive years from fiscal 2015

#### 2021 Certified Health & Productivity Management Organizations Recognition Program (White 500)

Certified in 2017, 2020, and 2021

#### Kurumin

Certified in 2012 and 2015

#### Platinum Kurumin

Certified in 2019

#### Nadeshiko Brand

Selected in 2016

#### Semi-Nadeshiko Brand

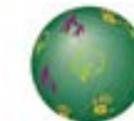
Selected in 2017



### Application to Indices, etc.

FTSE4Good Index Series

FTSE Blossom Japan Index



FTSE4Good



FTSE Blossom Japan

### Assessments

Scored A- by CDP in both the Climate Change and Water Security categories.



## Our Website

Please see the Company's website for supplementary materials for the Integrated Report (data on environmental management, reduction of CO<sub>2</sub> emissions) and more detailed information on sustainability and other matters.

**Investor Relations**  
<https://www.kobelco.co.jp/english/ir/>

**Sustainability Management**  
<https://www.kobelco.co.jp/english/sustainability/index.html>



Please let us hear your comments on this report.

Questionnaire

## Inquiries

General Administration and CSR Department, Kobe Steel, Ltd.

**KOBELCO**