

**KOBELCO Group**

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Integrated Report  
**2022**

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# To Continue to Be Indispensable to Customers and Society

The KOBELCO Group has been providing solutions to the needs of society through its diverse human resources, technologies, and customer base that it has cultivated over the course of its history of 116 years. Based on the Group Corporate Philosophy, we aim to be a corporate group that continues to be indispensable to customers and society, now and in the future.

Group 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</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>

[Quality Charter](#)



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### 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 contents 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

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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 through reporting on its management strategies, business activities, social activities, and environmental activities.

The purpose of this Integrated Report is twofold. The first is to clearly show what the Group aims for through the value creation process by unraveling the KOBELCO Group's corporate story with the keyword of "comprehensive strengths," which have been cultivated over its 116-year history. The second is to foster understanding about the KOBELCO Group's businesses and initiatives by presenting the progress of KOBELCO Group Medium-Term Management Plan (FY2021–2023) announced in May 2021.

We hope that this report will help our stakeholders understand our efforts to achieve sustainable growth through the promotion of sustainability management.

Period Covered	This Integrated Report covers fiscal 2021 (from April 1, 2021 to March 31, 2022). When necessary, this report makes reference to fiscal years before and after the period.
Guidelines Referenced	<ul style="list-style-type: none"> <li>• Sustainability Reporting Standards of the Global Reporting Initiative (GRI)</li> <li>• ISO 26000 (Guidance on social responsibility)</li> <li>• International Integrated Reporting Framework of the International Integrated Reporting Council (IIRC)</li> <li>• Guidance for Integrated Corporate Disclosure and Company-Investor Dialogues for Collaborative Value Creation of the Ministry of Economy, Trade and Industry (METI)</li> </ul>
Initiatives We Value	<ul style="list-style-type: none"> <li>• United Nations Global Compact</li> <li>• Sustainable Development Goals (SDGs)</li> <li>• Recommendations by the Task Force on Climate-related Financial Disclosures (TCFD)</li> </ul>
Production Process	<ol style="list-style-type: none"> <li>1. Since fiscal 2018 the former three reports—the Group Profile, the Annual Report, and the Sustainability Report—have been combined into the Integrated Report.</li> <li>2. After publishing Integrated Report 2021, 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.</li> <li>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.</li> <li>4. The production of Integrated Report 2022 proceeded based on discussions with the management team through the Sustainability Management Committee, etc.</li> </ol>

## KOBELCO Group's Information Disclosure System

The KOBELCO Group disseminates diverse information using various tools in order to communicate with stakeholders. In addition to the information contained in this report, we provide a variety of information in the ESG Data Book and on our corporate website. Going forward, we will continue to actively disclose information so that stakeholders can gain a better understanding of the KOBELCO Group.

ESG Data Book  
[https://www.kobelco.co.jp/english/about\\_kobelco/outline/integrated-reports/index.html](https://www.kobelco.co.jp/english/about_kobelco/outline/integrated-reports/index.html)



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



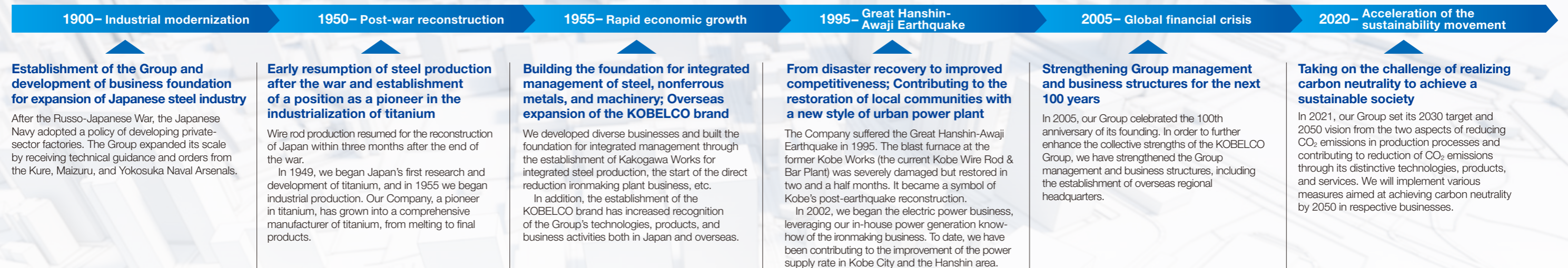
Sustainability  
<https://www.kobelco.co.jp/english/sustainability/index.html>



Information Disclosure Scheme		Type of Information Disclosed (Ticks (●) indicate information disclosed.)	
		Financial Information	Non-Financial Information
Integrated Report	The Integrated Report contains the KOBELCO Group's management strategies, business activities, and ESG-related information to provide a comprehensive understanding of the economic and social value created by the Group.	●	●
ESG Data Book	The ESG Data Book contains detailed ESG-related information.		●
Securities Report	The Securities Report contains not only financial information disclosed in accordance with the Financial Instruments and Exchange Act, such as company overview, business situation, and financial statements, but also non-financial information including corporate governance structure.	●	●
Financial Results	Financial results are disclosed quarterly.	●	
Business Report Consolidated Financial Statements Non-Consolidated Financial Statements	Pursuant to the Companies Act, these documents contain financial information and the status of business operations (non-financial information).	●	●
To Our Shareholders	This biannual publication introduces topics on the KOBELCO Group's business performance as well as its ESG initiatives, in order to deepen shareholders' understanding of the Group.	●	●
Corporate Governance Report	The Corporate Governance Report contains information on Kobe Steel's corporate governance pursuant to the listing regulations of stock exchanges.		●
Kobe Steel Official Website	Our Company's official website provides information that cannot be included in the above information disclosure documents, such as more detailed ESG-related information. For more detailed ESG-related information, please refer to the "Sustainability" page on our corporate website.	●	●

# History of the KOBELCO Group, a Provider of Solutions for Society

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. in Wakinohamacho, Kobe. Over the 116 years since its founding the KOBELCO Group has been responding to the social issues and demands of the times through its materials, machinery, and electric power businesses.



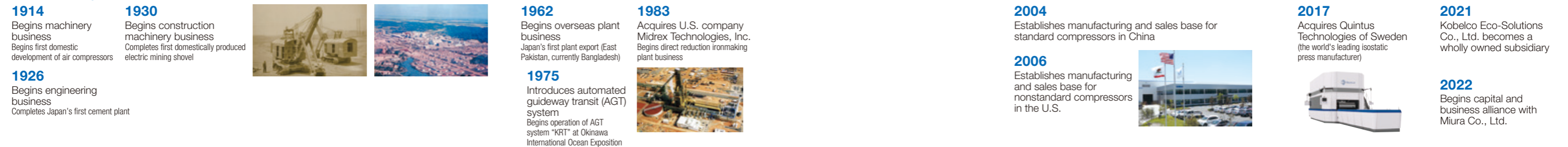
## Groupwide



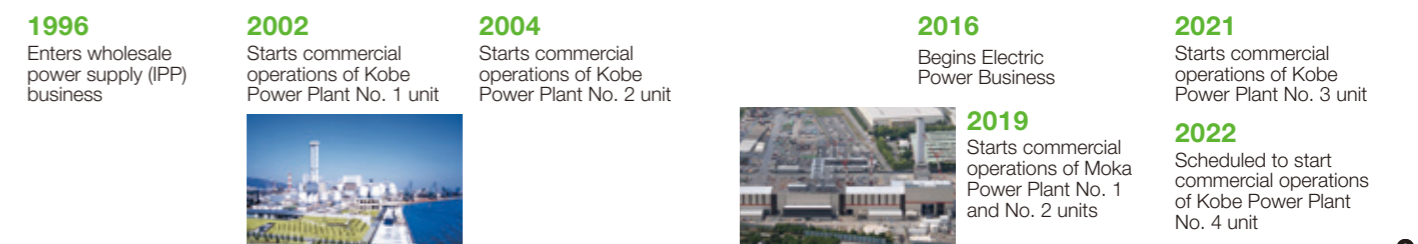
## Materials Businesses



## Machinery Businesses



## Electric Power Business



## At a Glance (Fiscal 2021)

<b>Established</b> 1905	<b>Capital (consolidated)</b> ¥250.9 billion	<b>Total assets (consolidated)</b> ¥2,728.7 billion	<b>Number of employees (consolidated)</b> 38,106	<b>Global operations (consolidated)</b> 23 countries	<b>Group companies</b> 251 Subsidiaries 201 Affiliated companies 50	<b>R&amp;D expenses</b> ¥33.2 billion	<b>Number of intellectual property rights owned</b> 8,319 Japan 3,576 Overseas 4,743
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Business divisions	Main products and services	Net sales	Ordinary income	Total assets	Number of employees
Materials Businesses	Steel & Aluminum	¥914.9 billion	¥37.5 billion	¥1,089.0 billion	11,828
	Advanced Materials	¥333.2 billion	¥5.1 billion	¥244.4 billion	4,469
	Welding	¥76.9 billion	¥2.7 billion	¥79.4 billion	2,445
Machinery Businesses	Machinery	¥166.8 billion	¥12.5 billion	¥190.9 billion	4,716
	Engineering	¥135.6 billion	¥7.7 billion	¥132.5 billion	3,553
	Construction Machinery	¥371.6 billion	¥12.0 billion	¥361.9 billion	7,829
Electric Power Business	Electric Power	¥109.8 billion	¥13.2 billion	¥397.8 billion	272
Other Businesses	Special alloys and other new materials (target materials, etc.), material analysis and testing, high-pressure gas cylinder manufacturing, superconducting products, and general trading company	¥28.8 billion	¥7.0 billion	¥59.8 billion	1,542

## Message from the President and CEO



Harnessing the Group's collective strengths to continuously contribute to future social development

**Mitsugu Yamaguchi**

President, CEO and Representative Director

### Unwavering Mission of the KOBELCO Group

Over the 116 years since its founding in 1905, the KOBELCO Group has provided the world with products and technologies that contribute to the development of society together with its customers.

With the spirit of boldly taking on the challenge of contributing to society and realizing it amid changes in society and world trends, we have contributed to numerous industries and increased our global presence with our advanced technological capabilities, high-quality products, and price competitiveness through our business portfolio that harnesses our Group's unique collective strengths while expanding our business reach. Our stance of boldly tackling new challenges will never change.

The Group Corporate Philosophy states that 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.

Toward the realization of 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 continue to be a corporate group that boldly tackles various challenges and contributes to the development of society. In order to achieve this, we will pursue the ideal of our Group, which is to provide technologies, products, and services faithfully while maximizing our collective strengths.

### Our Seven Business Domains and 21 Core Technologies Continue to Underpin the Industry

The KOBELCO Group has seven business segments: steel & aluminum, advanced materials, and welding in the materials businesses; machinery, engineering, and construction machinery in the machinery businesses; and the electric power business. Through these businesses, we provide technologies, products, and services to a wide range of customers in the fields of Mobility, Life, and Energy & Infrastructure. Underpinning this wide-ranging business development is the 21 core technologies, which constitute an integral part of the Group's strengths that we have developed over the years. By combining these businesses cross-functionally and developing and incorporating novel technologies, we have responded to social changes and the new needs of customers. Looking ahead, I believe the KOBELCO Group, with its diverse business domains and technological base, will continue to fulfill the expectations of customers well into the future.

### First Year of Medium-Term Management Plan Off to Solid Start

In May 2021, the KOBELCO Group announced its Medium-Term Management Plan (FY2021–2023) with the two pillars of establishing a stable earnings base and taking on the challenge of realizing carbon neutrality.

With one year under our belts, we are making steady progress overall. In fiscal 2021, we recorded net sales of more than 2.0 trillion yen for the first time in 13 years, ordinary



income of 93.2 billion yen, and net income attributable to owners of the parent of 60.0 billion yen. In addition, we paid a dividend of 40 yen per share for the fiscal year.

Currently, the business environment is becoming more uncertain due to soaring commodity and energy prices caused by the Russia-Ukraine conflict, supply chain disruptions, yen weakness, etc. Nevertheless, we will continue working toward establishing a stable earnings base that can stably secure a return on invested capital (ROIC) of 5% by steadily addressing the five key issues set forth in the Medium-Term Management Plan.

At the same time, as we work toward our long-term goal of taking on the challenge of realizing carbon neutrality, we will continue to work to reduce CO<sub>2</sub> emissions in our production processes and contribute to the reduction of CO<sub>2</sub> emissions in society.

### Establishing a Stable Earnings Base

We are working on five key initiatives to achieve a ROIC of 5% in fiscal 2023, the final year of the Medium-Term Management Plan, and a ROIC of 8% or more over the long term.

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

We aim to achieve stable earnings with crude steel production of 6.3 million tons and secure profitability even at 6.0 million tons by lowering the break-even point through reducing fixed costs, improving the product mix, and increasing marginal profit through raising product prices.

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

The Kobe Power Plant started commercial operations of the No. 3 unit in February 2022 as scheduled and will start commercial operations of the No. 4 unit in the second half of fiscal 2022. From fiscal 2023, all power plants, including the Kobe Power Plant No. 1 and No. 2 units and the Moka Power Plant No. 1 and No. 2 units, will be fully operational and contribute approximately 40 billion yen to earnings annually.

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

Although the timing of profit contribution has been pushed back from the initial forecast, there is no change in the strong demand for weight reduction in the

automobile industry over the long term. We will continue working to ensure our strategic investment contributes to earnings as soon as possible.

#### 4. Restructuring unprofitable businesses

We are streamlining our business through measures such as withdrawal from unprofitable businesses and reducing workforce. The titanium business returned to profitability in fiscal 2021. We are working to achieve profitability in the forging and crane businesses as soon as possible.

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

The KOBELCO Group's machinery and engineering businesses offer diverse technological capabilities and product lineups. To date, we have demonstrated competitiveness in the fossil fuel and nuclear power fields. From now on, we will strengthen and expand our business in the environment-related fields, including initiatives toward the realization of a carbon-neutral society.

In the construction machinery business, we are working to transform our business model by promoting the departure from dependence on the Chinese market, and expanding the parts and maintenance business and the solutions business.

### Taking on the Challenge of Realizing Carbon Neutrality

The KOBELCO Group is working toward carbon neutrality from two aspects: (1) Reducing CO<sub>2</sub> emissions from the production processes in its steel business, electric power businesses, etc.; and (2) Contributing to reduction of CO<sub>2</sub> emissions in society through the Group's technologies, products, and services.

In particular, the MIDREX<sup>®</sup> Process holds the key to achieving carbon neutrality in the steel industry.

Specifically, we can reduce CO<sub>2</sub> emissions in the ironmaking process by using the iron source produced with the MIDREX<sup>®</sup> Process, thereby enabling steel production with a lower CO<sub>2</sub> footprint. In May 2022, we announced the launch of a low-CO<sub>2</sub> blast furnace steel product Kobenable Steel.

In addition, the MIDREX<sup>®</sup> Process can greatly contribute to the reduction of the world's CO<sub>2</sub> emissions, and it is a vital process for the transition from the blast furnace to electric furnace and for the reduction of CO<sub>2</sub> emissions from blast furnaces. The MIDREX<sup>®</sup> Process is also capable of replacing natural gas with hydrogen as reducing gas in the future.

### The KOBELCO Group's Strength Is Symbolized by Its Comprehensive Capabilities

Our Group is a unique corporate group, one of only a few in the world, that can provide high-value-added products and solutions based on its in-depth knowledge of 21 core technologies and customer base across a broad range of business areas.

In particular, KOBELCO's unique strength is demonstrated in solution proposals that combine steel, aluminum, and welding technologies in the fields of automotive weight reduction and electrification.

In addition to our efforts to reduce CO<sub>2</sub> emissions in the ironmaking process, we are working to achieve carbon neutrality by, for example, promoting the mutual utilization of management resources between the machinery and engineering businesses to conduct a demonstration test of a hybrid-type hydrogen gas supply system at Takasago Works with the aim of contributing to diverse applications for the future hydrogen society. Another example is Kobelco Eco-Solutions Co., Ltd., which turned into a wholly owned subsidiary of Kobe Steel in November 2021. The company is engaged in various environmental businesses, including water treatment, waste treatment, and chemical/food process equipment. In the future, we expect synergy effects from initiatives in the power generation business, such as CO<sub>2</sub> reduction through the use of biomass in the electric power business.

As shown in these examples, our Group's collective strength lies in our ability to provide solutions to the needs of society by integrating the Group's management resources. We will increase our Group's competitive advantages and refine the ability to achieve greater sustainable growth.

Today, with the introduction of artificial intelligence (AI), automation and unmanned operations are progressing in manufacturing sites that were once labor-intensive. In technological development, the trend toward digital transformation (DX) has become more prominent, such as material development using materials informatics (MI). We recognize that the promotion of DX is also essential for enhancing the collective strengths of the Group, which has diverse distinctive assets.

### Implementing Sustainability Management throughout the Group

Based on the lessons learned from the quality misconduct of 2017, our Group has been steadily evolving in terms of its organizational foundation. Since I became president of the Company, I have focused in particular on changing the mindset of executives and employees. First of all, I began by removing barriers between organizations and restructuring organizational structures, systems, and mechanisms, and I have continued to stress the need to transform the way we think. Since 2018, I have actively created opportunities for dialogue with employees, and have already engaged in dialogue with approximately 1,500 employees. In my dialogues with leaders at the manufacturing sites, I underline the importance of reaffirming a sense of compliance, being aware of the role as a leader, and building up good communication.

In terms of governance, I have strong determination to advance and complete governance reforms, which include strengthening the monitoring function of the Board of Directors and establishing various committees that promote cross-organizational discussions, such as the Sustainability Management Committee, Business Portfolio Management Committee, and Investment and Loan Committee.

In May 2020, we established the new Group Corporate Philosophy, under which we identified key management issues and classified them into two categories: (1) a business foundation area that underpins business activities, and (2) a value creation area that drives business growth. As priority issues to be focused in these areas, we identified materiality in 2021.

I believe that the important thing in sustainability management is that sustainability is required not only for the company, but also for its employees. Our Group has been promoting diversity and inclusion (D&I) aimed at creating a flat workplace environment where every employee can openly and frankly express their opinions. In creating an organizational structure and developing human resources strategies to achieve this goal, we must consider how we can provide a mechanism that leads to the revitalization of the workplace and improved career opportunities for employees, rather than simply establishing a new personnel system.

During the 37 years until I became president, I had engaged in various businesses of the Company. From my observation, the steel and machinery business divisions were quite different in cultures and workplace atmosphere. The Head Office was also unique in that sense. I learned that each business division has its own unique characteristics, and I value this experience as it taught me to see things from different angles. I hope this experience will contribute to the Group's future organizational development and human resources strategy. To the members of our Group, I have always been saying that work is the accumulation of human communication. I believe it is essential for sustainable growth of the Group to build relationships that embrace diverse values and different ways of thinking and allow us to help each other.

### Everything We Do Is for Moving Society Forward

There are still many hurdles to overcome in achieving sustainable growth of our Group. Looking at our history, however, we have always taken on challenges without being bound by organizational barriers or conventional frameworks. We believe that the results of these efforts can be seen in our broadly expanded business domains, diverse technologies, and the presence of many customers.

Leveraging our collective strengths, we will continue to provide solutions to the needs of society and aim to maximize corporate value while demonstrating the uniqueness of the KOBELCO Group.





# 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: a business foundation area that underpins business activities, and a value creation area that drives 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.

**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.

### 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.

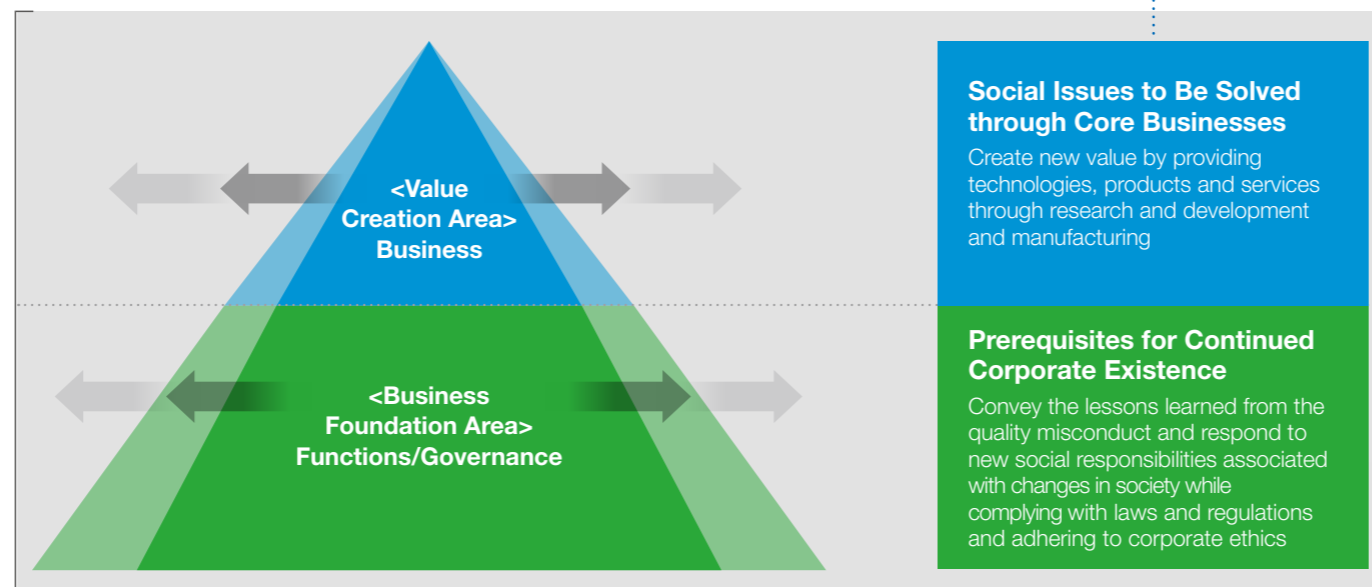
#### KOBELCO's Mission

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

### Key Issues to Address



### Promotion Tools



### Message from the Executive Officer responsible



**Hajime Nagara**  
 Director, Executive Officer

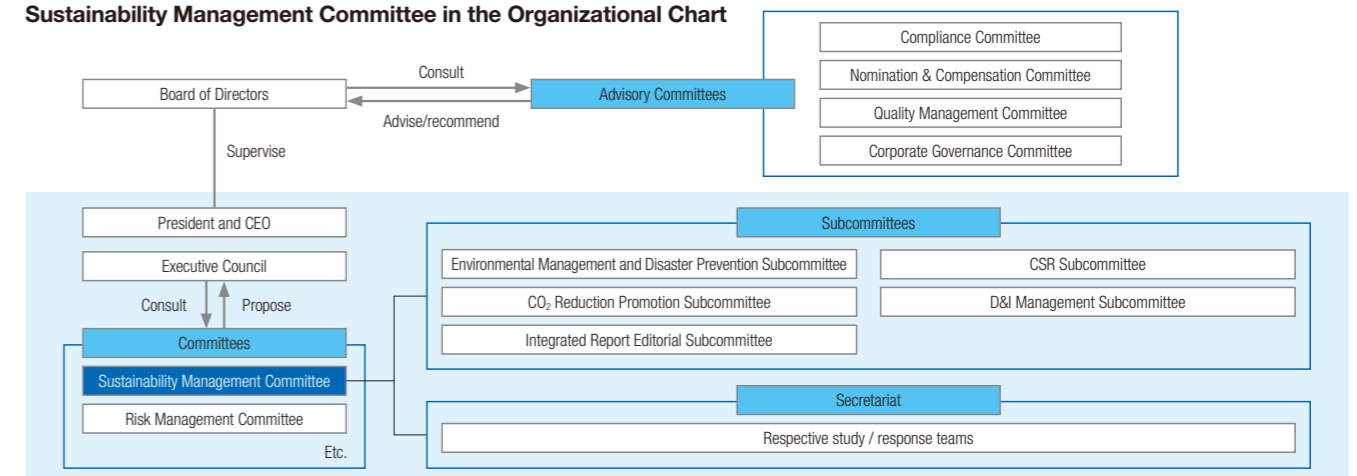
**We will provide solutions to the needs of society while fulfilling various corporate social responsibilities.**

Our Group's sustainability management is promoted under the initiative of the Sustainability Management Committee, an auxiliary body of the Executive Council, which undertakes the implementation of the management cycle for important issues. The Sustainability Management Committee promotes effective operation of activities by setting up subcommittees dedicated to specific issues of importance.

#### Sustainability Management Committee

Chair (Responsible officer): Hajime Nagara, Director, Executive Officer  
 Report to the Board of Directors: Once every quarter  
 Meetings: Once every quarter

### Sustainability Management Committee in the Organizational Chart



# Materiality and Indicators/Targets

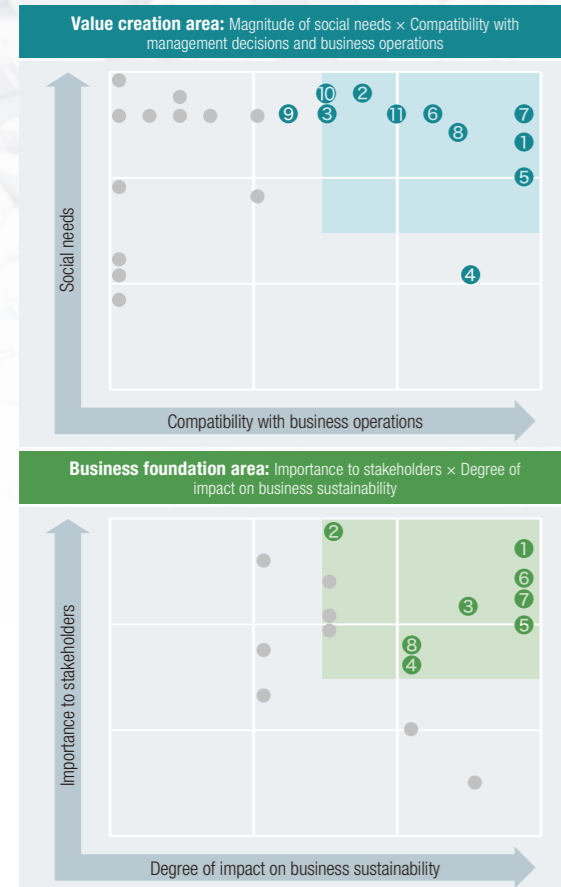
## Process of Identifying Materiality

Under the leadership of the Chair of the CSR Committee (currently the 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.

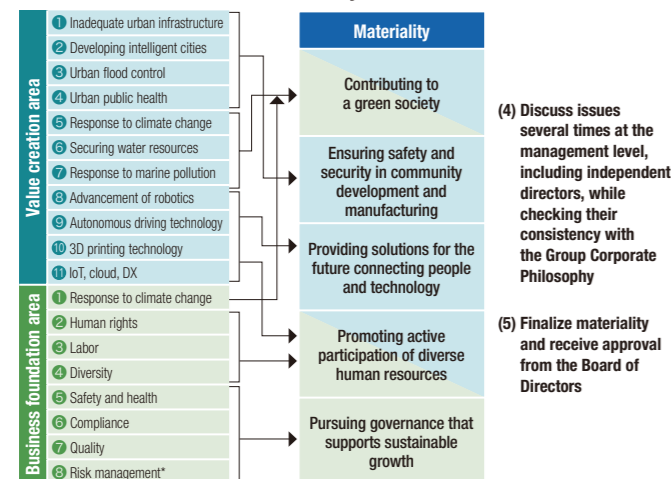
### (1) Comprehensively identify social issues with reference to megatrends and the following international frameworks and guidelines

- 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



(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

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

\*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 Although CO<sub>2</sub> emissions in fiscal 2021 increased compared to fiscal 2020 due to an increase in crude steel production, impacted by the recovery from the COVID-19 pandemic, our initiatives to reduce CO<sub>2</sub> emissions are progressing as planned.  
 \*3 Three main items: Slag, dust, and sludge \*4 S+3E = Safety + Energy Security, Economic Efficiency, and Environment \*5 Indicator was changed to verify initiatives using more detailed quantitative data  
 \*6 Progress rates of the plan to rebuild existing IT systems excluding the mainframe, which was planned at the time of formulation of the Medium-Term Management Plan (FY2021-2023)  
 \*7 a: IT evangelists (DX personnel who utilize IT to plan and implement business reforms in their own divisions), b: Data scientists (DX personnel capable of advanced data analysis)

Materiality of the KOBELCO Group	Indicators	Indicators and targets		Main initiatives in FY2021			
		Targets	Actual (FY2020)	Actual (FY2021)			
<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	2030: Down 30-40% (compared to FY2013 levels) 2050: Taking on the challenge of realizing carbon neutrality	Down 21%	Down 16% <sup>*2</sup>	<ul style="list-style-type: none"> <li>Promote energy-saving activities and implement initiatives in line with the Roadmap toward Carbon Neutrality in the Ironmaking Process.</li> </ul>	
		(2) Contribution to reduction of CO <sub>2</sub> emissions through technologies, products, and services	2030: 61 million tons (including at least 45 million tons through MIDREX <sup>®</sup> Process) 2050: 100 million tons or more	40.77 million tons	44.91 million tons	<ul style="list-style-type: none"> <li>Expand sales of technologies, products, and services that contribute to CO<sub>2</sub> reduction.</li> </ul>	
		(3) Reduction of CO <sub>2</sub> emissions in the electric power business	2030: Increasing efficiency of coal-fired power plants to the USC level or higher 2050: Taking on the challenge of realizing carbon neutrality	—	—	<ul style="list-style-type: none"> <li>Implement initiatives in line with the Roadmap toward Carbon Neutrality in the Electric Power Business, including ammonia co-firing and the use of biomass.</li> </ul>	
	Response to resource recycling	(4) Water recycling rate	Maintaining at 95% or higher	95.9%	95.7%	<ul style="list-style-type: none"> <li>Promote efficient use and thorough recycling of water.</li> </ul>	
		(5) By-product recycling rate	Recycling of three main items <sup>*3</sup> FY2025: 99%	98.9%	99.3%	<ul style="list-style-type: none"> <li>Promote recycling of the three main items and reduce final disposal amounts.</li> </ul>	
<b>Ensuring safety and security in community development and manufacturing</b> 	Supplying energy focused on S+3E <sup>*4</sup>	—	—	—	—		
	Providing materials and machinery that meet needs	(6) Percentages of target products in the product mix	FY2025: Percentage of wire rods/bars and high-strength steel in the steel products: 52%	44%	46%	<ul style="list-style-type: none"> <li>To secure stable earnings at 6.3 million tons of crude steel production, strengthen the earnings base of the steel business and expand the ratio of high-value-added products, such as special steel and high-strength steel.</li> </ul>	
	Improving safety and productivity	—	—	—	—	—	
<b>Providing solutions for the future connecting people and technology</b> 	Reforms in manufacturing and operations through digital transformation (DX)	(7) Hours of office work streamlined by digitization <sup>*5</sup>	FY2023: 125,000 hours/year FY2025: 250,000 hours/year	—	76,000 hours/year	<ul style="list-style-type: none"> <li>Automation of routine work: 40,000 hours</li> <li>Streamlined communication: 10,000 hours</li> <li>Streamlined translation work: 10,000 hours</li> <li>Digitization of business processes through development by users: 5,000 hours</li> <li>Others (simplified approval process, outsourcing, etc.): 11,000 hours</li> </ul>	
		(8) Progress rates of reconstruction of existing systems <sup>*6</sup>	FY2025 100%	—	18.4%	<ul style="list-style-type: none"> <li>Started integration/overhaul of SAP ERP system (finance and accounting in the machinery businesses) and large-scale reconstruction of design system</li> </ul>	
		(9) Number of DX personnel trained	a. IT evangelists <sup>*7</sup> FY2023: Approx. 500 b. Data scientists <sup>*7</sup> FY2023: Approx. 140	a. 35 b. 99	a. 128 b. 113 (cumulative)	<ul style="list-style-type: none"> <li>Enhanced the follow-up after training, shared internal activities on the IT Evangelist Activity Portal Site, conducted in-house publicity activities for distributing training videos, etc.</li> <li>Created training materials for practical training, created machine learning training contents for in-house use, held on-the-job training on data analysis for operators, etc.</li> </ul>	
	Integration 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: 1 billion yen or more per business)	—	—	Two businesses	<ul style="list-style-type: none"> <li>Established the KOBELCO Start-Up Motivation System (KOSMOS), a new business creation management system that supports, accelerates, and monitors new business planning, and commenced its operations.</li> </ul>
		(11) Number of employees with PhD	—	177	175	—	<ul style="list-style-type: none"> <li>Promoted initiatives for encouraging employees to obtain academic degrees and the hiring of students with a doctoral degree.</li> </ul>
<b>Promoting active participation of diverse human resources</b> 	Diversity and Inclusion (D&I)	(12) Percentage of women in new graduate hires	FY2023: a. Career-track administrative positions: 50% or more b. Career-track technical positions: 15% or more c. General technical positions: 15% or more	a. 34% b. 16% c. 9%	a. 35% b. 6% c. 8%	<ul style="list-style-type: none"> <li>Career-track positions: Introduced scout-type service and participated in seminars for female students</li> <li>General technical positions: Increased recruiting at schools</li> </ul>	
		(13) Percentage of female managers	Double the percentage from fiscal 2020	2.7%	2.8%	—	
		(14) Employment rate of people with disabilities	2.3% (statutory employment rate)	2.34%	2.56%	<ul style="list-style-type: none"> <li>Conducted recruiting activities based on the statutory employment rate</li> </ul>	
		(15) Number of non-Japanese employees	—	87	76	<ul style="list-style-type: none"> <li>Conducted recruiting activities at universities in China</li> </ul>	
	Work style reforms	(16) Percentage of male employees taking special leave for childcare	FY2023: 100%	77.8%	78.5%	<ul style="list-style-type: none"> <li>Raised awareness at various D&amp;I seminars, etc.</li> </ul>	
		(17) Turnover of employees with less than 10 years of service	Less than 15%	15.8%	19.5%	<ul style="list-style-type: none"> <li>Conducted various activities to improve work styles and activities to support work-life balance, etc.</li> </ul>	
		(18) Overtime hours	—	16.6 h (per month/employee)	17.2 h (per month/employee)	<ul style="list-style-type: none"> <li>Conducted activities at each business unit, such as finishing work by 7:00 pm and setting a day with no overtime work, etc.</li> <li>Carried out activities for improving business operations to increase operational efficiency</li> </ul>	
Human resources development	(19) Number of annual paid leave days taken	15 (per year/employee)	11 days	13.9 days	<ul style="list-style-type: none"> <li>Encouraged the taking of annual leave based on annual plans created through two-way communication between supervisors and individual employees in a planned manner</li> </ul>		
	(20) Total hours worked	Under 2,000 hours/year	1,978 h	2,057 h	<ul style="list-style-type: none"> <li>Promoted activities at each business unit, such as finishing work by 7:00 pm and setting a day with no overtime work, etc.</li> <li>Carried out activities for improving business operations to increase operational efficiency</li> </ul>		
<b>Pursuing governance that supports sustainable growth</b> 	Compliance and risk management	(21) Continuation of employee awareness survey	—	Ongoing	Ongoing	<ul style="list-style-type: none"> <li>Continued to implement the survey in fiscal 2021</li> </ul>	
		(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	a. 215,667 h b. 19 h	<ul style="list-style-type: none"> <li>In addition to stratified training that is programed according to issues in each division and open training that can be selected by individuals, we conducted leader development training for selected employees. We established training formats that take advantage of face-to-face group training and online training, and also promoted the development of human resources aimed at DX strategy and KOBELCO Total Quality Management (TQM) activities.</li> </ul>	
<b>Pursuing governance that supports sustainable growth</b> 	Compliance and risk management	(23) Number of internal reporting (whistleblowing) cases	—	112	113	—	
		Human rights	(24) Participation rate in employee training <sup>*5</sup>	Implementation of Groupwide human rights training	—	76.4% E-learning participation rate at Kobe Steel	<ul style="list-style-type: none"> <li>Conducted e-learning on harassment at Kobe Steel (for staff, foremen, and managers)</li> <li>Plan to conduct video-based training Groupwide in FY2022 (Implementation overseas is under discussion)</li> </ul>
	Safety and health	(25) Lost time injury frequency rate	0.10 or less	0.24 (calendar year)	0.14 (calendar year)	<ul style="list-style-type: none"> <li>Implemented priority items, which include (1) Improving safety awareness and heightening attention to each other with participation of all members, (2) Monitoring the management status through safety and health diagnosis and conducting activities for improvement, and (3) Conducting test operation and evaluation of machinery safety and human safety support tools.</li> </ul>	
		(26) Improving and expanding supervisor training	—	65	778	<ul style="list-style-type: none"> <li>Implemented new employee training, new supervisor training, and line manager training to help them acquire knowledge and skills related to safety and health</li> </ul>	
	Quality assurance	(27) Accreditation rate in compliance with Quality Guidelines in internal quality audit	70% of internal quality audit target locations in FY2023	—	—	Progress during fiscal 2021: 35% (8 of 23 sites)	<ul style="list-style-type: none"> <li>Under the current Medium-Term Management Plan (FY2021-2023), 126 locations are subject to audit (as of the first quarter of fiscal 2022).</li> <li>In fiscal 2021, due to the COVID-19 pandemic, 23 local locations were designated as locations that require audit for certification (another 23 locations that were remotely audited were not eligible for certification), and eight of these were certified (certification rate: 35%)</li> </ul>
(28) Automation rate of testing and inspection equipment as defined by the Company		—	—	—	—	<ul style="list-style-type: none"> <li>While promoting automation based on our existing automation plan we are discussing a medium- to long-term automation plan that includes partial automation of the process from data acquisition to issuance of inspection results, aimed at improving soundness of testing and inspection data.</li> </ul>	
(29) Continuation of customer satisfaction survey		—	—	Ongoing	Ongoing	<ul style="list-style-type: none"> <li>Conducted surveys with questions tailored to each business division.</li> </ul>	
Corporate governance	(30) Improving the effectiveness of the Board of Directors	—	—	Ongoing	Ongoing	—	

# Value Creation Process

## 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

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.
2. We value, and support the growth of, each employee on an individual basis, while creating a cooperative and harmonious environment.
3. Through continuous and innovative changes, we create new values for the society of which we are a member.

### Six Pledges of KOBELCO

1. Uphold the Highest Sense of Ethics and Professionalism
2. Contribute to the Society by Providing Superior Products and Services [Quality Charter](#)
3. Establish a Comfortable but Challenging Work Environment
4. Live in Harmony with the Local Community
5. Contribute to a Sustainable Environment
6. Respect Each Stakeholder

## Major Operating Capital

### Financial Capital

Stockholders' equity: ¥783.1 billion  
Interest-bearing debt: ¥655.1 billion  
(Excluding project financing)

### Human Capital

Number of employees (consolidated): 38,106  
Diverse human resources

### Production Capital

Capital expenditures: ¥108.1 billion  
Tangible fixed assets: ¥1,060.1 billion  
Depreciation: ¥105.1 billion

### Intellectual Capital

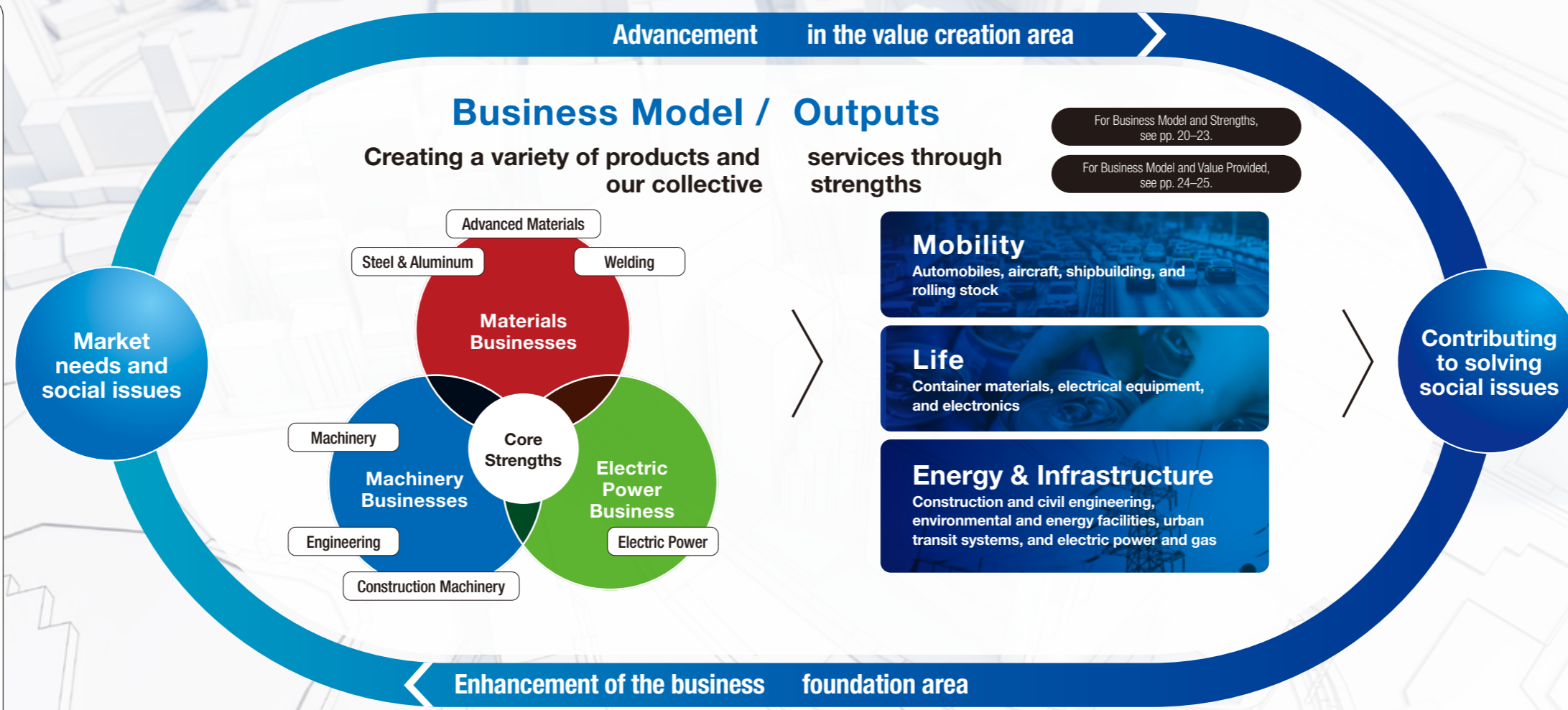
R&D expenses: ¥33.2 billion  
Intellectual property rights owned: 8,319  
(Japan 3,576, Overseas 4,743)  
Know-how and technologies developed through 116 years of business

### Social and Relationship Capital

Global operations: 23 countries and regions  
Group companies: 251  
Communication with stakeholders

### Natural Capital

Taking on the Challenge of Realizing Carbon Neutrality by 2050  
CO<sub>2</sub> reduction: 16% (compared to FY2013)  
Contribution to reduction of CO<sub>2</sub> emissions: 44.91 million tons  
Water recycling rate: 95.7%  
By-product recycling rate 99.3%



## Value Provided

### Economic value

Consolidated net sales: ¥2,082.5 billion  
ROIC: 4.7%  
Dividend payout ratio: 25.0%

### Social value

- Contributing to CO<sub>2</sub> reduction through the KOBELCO Group's technologies, products, and services
- Contributing to sustaining a recycling-oriented society for the world's eight billion people
- Increasing labor productivity with improved efficiency
- Promoting active participation of diverse human resources
- Pursuing global employment and employee training



## Increase Corporate Value and Enhance Capital Assets

### Key Issues to Be Addressed by Management (Materiality)

For Materiality and Indicators/Targets, see pp. 16–17.

#### Contributing to a green society

- Response to climate change
- Response to resource recycling

#### Ensuring safety and security in community development and manufacturing

- Supplying energy focused on "S+3E"
- Providing materials and machinery that meet needs
- Improving safety and productivity

#### Providing solutions for the future connecting people and technology

- Reforms in manufacturing and operations through digital transformation (DX)
- Integration and innovation of diverse intellectual assets

#### Promoting active participation of diverse human resources

- Diversity and inclusion (D&I)
- Work style reforms
- Human resources development

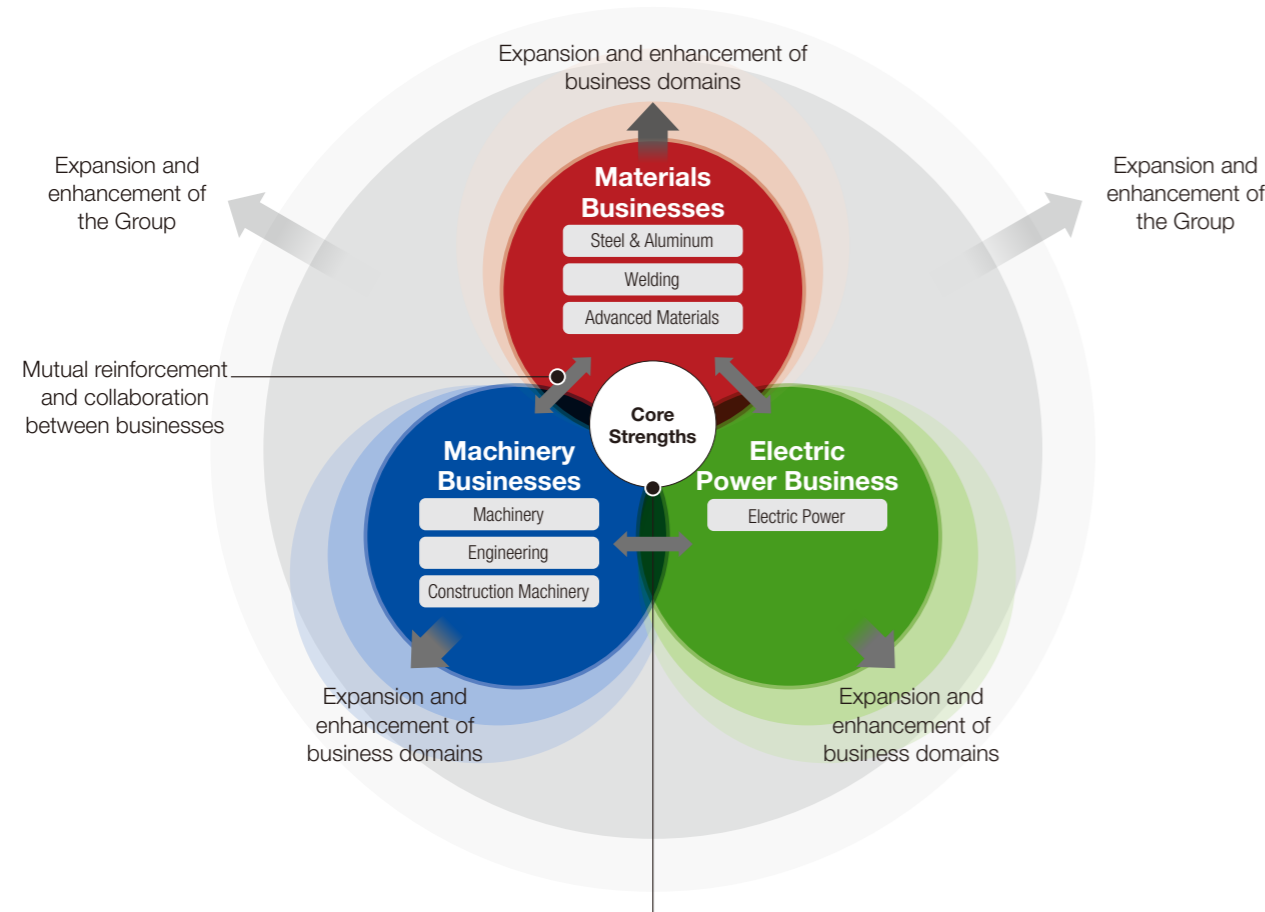
#### Pursuing governance that supports sustainable growth

- Compliance and risk management
- Safety and health
- Quality assurance
- Human rights
- Corporate governance

## Business Model and Strengths

### Creating a Variety of Products and Services through the Collective Strengths of the KOBELCO Group

The KOBELCO Group has engaged in a variety of businesses over the course of its history of 116 years. These businesses have expanded around the globe and are supported by diverse human resources. Leveraging the knowledge and technological capabilities that have been cultivated in a wide range of businesses, we will continue to provide solutions to the needs of our customers and society by creating a variety of products and services through the collective strengths of the KOBELCO Group.



#### Core Strengths to Enhance the Group's Capabilities



#### 01 Diversity in Human Resources

The KOBELCO Group operates businesses in 23 countries and regions around the world and has approximately 38,000 employees on a consolidated basis. In addition, we have a wide range of human resources who have extensive knowledge and skills in a variety of fields because we operate in diverse business domains. The KOBELCO Group will continue to grow with its global human resource base, and we will aim to make further great leaps forward.



#### 02 Research and Development

Leveraging the know-how and technological capabilities that we have developed in a wide range of business fields, the KOBELCO Group will create new value and provide solutions to the needs of its customers and society. We aim to be a provider of products and services that address social issues, including carbon neutrality, together with our customers by working to create new technologies, products, and services that satisfy our customers' needs.



#### 03 Customer Base

The KOBELCO Group has operated in a wide range of business fields. The significant assets we have acquired through many years of business activities include not only technological development capabilities and production technologies across various technology fields, but also the knowledge of trends in each field and customer needs that span a range of business domains. By sharing these assets developed with customers across business divisions, we will continue to provide our Group's unique technologies, products, and services.



Core Strengths to Enhance the Group's Capabilities

### 01 Diversity in Human Resources

The KOBELCO Group operates businesses in 23 countries and regions around the world and has approximately 38,000 employees on a consolidated basis. In addition, we have a wide range of human resources who have extensive knowledge and skills in a variety of fields because we operate in diverse business domains. The KOBELCO Group will continue to grow with its global human resource base, and we will aim to make further great leaps forward.

#### Human Resources with Diverse Skills and Values Acquired through a Wide Range of Businesses

The KOBELCO Group is engaged in businesses across a wide range of fields, including steel & aluminum, advanced materials, welding, machinery, engineering, construction machinery, and electric power. In order to advance these businesses, the Group has human resources who are well versed not only in various materials and machine products but also in various technologies that are required to manufacture these materials and products, such as process technology, control technology, production control, and quality control. The Group also

has professionals with expertise in various areas, such as marketing, sales, accounting, and legal affairs, which are essential in operating a wide range of businesses.

Our businesses are expanding in 23 countries and regions around the world, and people with diverse talents are playing active roles in each business location.

The Group is working to achieve sustainable growth in each business by making the best use of diverse technologies and human resources that we have developed through a wide range of businesses.



To Further Enhance Our Strengths

With the aim of becoming a company in which diverse human resources can demonstrate their individual abilities to the fullest, we will reform our work environment and organizational culture.

To that end, we will provide full support for the growth of all employees so that they can further demonstrate their abilities, while actively promoting work style reforms, including eliminating long working hours and encouraging the taking of paid leave.

#### ① Diversity and Inclusion

- We aim to enable each employee to achieve self-improvement and demonstrate their individuality and strengths, as well as to support the efforts of "KOBELCO One Team" to take on challenges and create new values from diverse ideas and experiences.

#### ② Work Style Reforms

- We aim to realize a work environment in which diverse employees can work with a sense of fulfillment and with high productivity.

#### ③ Human Resources Development

- We aim to support the constant self-improvement of our employees so that each and every individual can carry out their daily work with pride and enthusiasm.

For details, see Human Resources Strategy and Diversity and Inclusion (D&I) on pp. 74 and 76.

# 02 Research and Development

Core Strengths to Enhance the Group's Capabilities

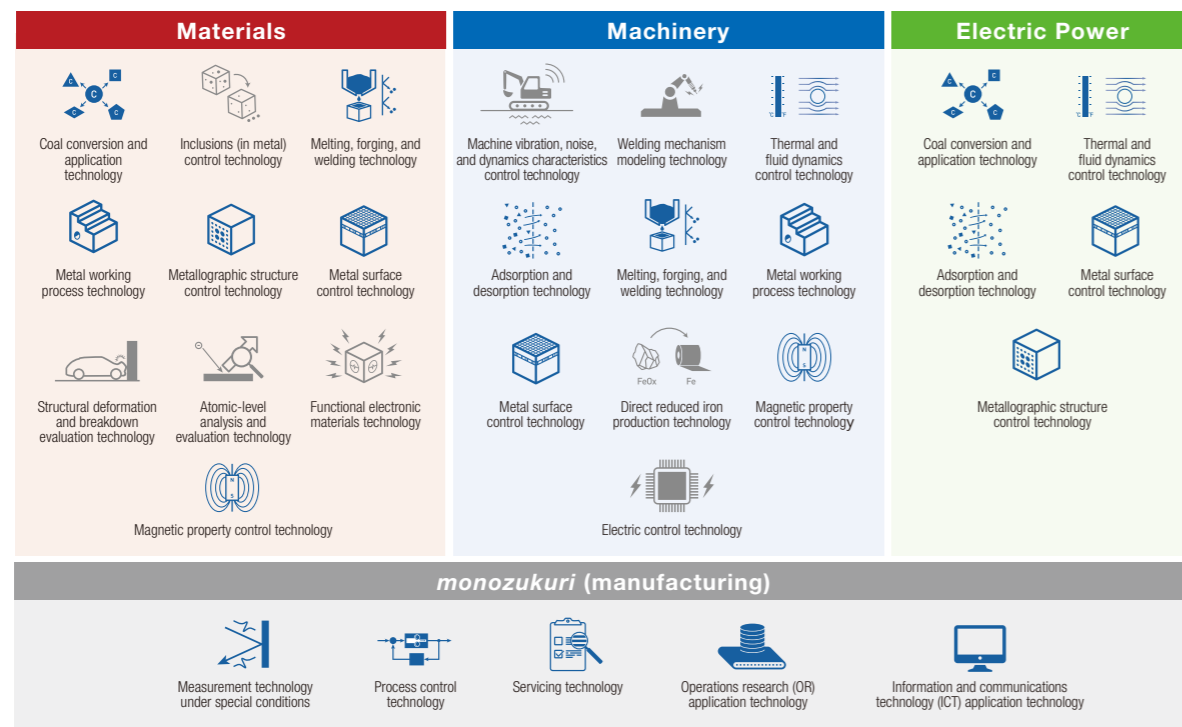
Leveraging the know-how and technological capabilities that we have developed in a wide range of business fields, including steel & aluminum, advanced materials, welding, machinery, engineering, construction machinery, and electric power, the KOBELCO Group will create new value and provide solutions to the needs of its customers and society. We aim to be a provider of products and services that address social issues, including carbon neutrality, together with our customers by working to create new technologies, products, and services that satisfy our customers' needs.

## Creating Synergies through the Fusion of 21 Core Technologies across Business Segments

The Technical Development Group has dedicated many years to building up a broad base of technologies through R&D activities in various business fields, including materials, machinery, and electric power. The technology assets that support the creation of distinctive products and our

advanced *monozukuri* (manufacturing) capabilities can be classified into the following 21 core technologies.

We will strengthen these core technologies and combine them to create new value.

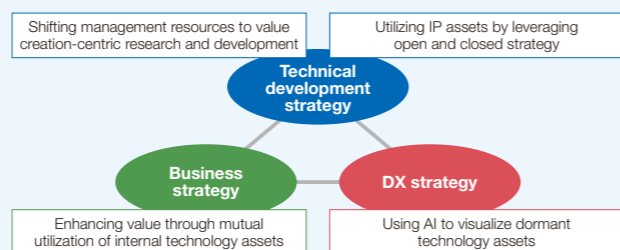


Note: Icons shown in blue represent the core technologies that are utilized across business segments.

### To Further Enhance Our Strengths

We are faced with rapid and major changes such as carbon neutrality and digital transformation (DX). Taking them as business opportunities, we will work on the planning and development of new businesses.

By linking the technical development strategy with the DX strategy and business strategy, we will accelerate mutual utilization of a wide variety of technology assets and intellectual property (IP) and create value unique to KOBELCO.



# 03 Customer Base

Core Strengths to Enhance the Group's Capabilities

The KOBELCO Group has operated in a wide range of business fields, including steel & aluminum, advanced materials, welding, machinery, engineering, construction machinery, and electric power. The significant assets we have acquired through many years of business activities include not only technological development capabilities and production technologies across various technology fields but also the knowledge of trends in each field and customer needs that span a range of business domains.

By sharing these assets developed with customers across business divisions, we will continue to provide our Group's unique technologies, products, and service.

## Our Network Built Up through Diversified Business Operations along with the Demands of the Times

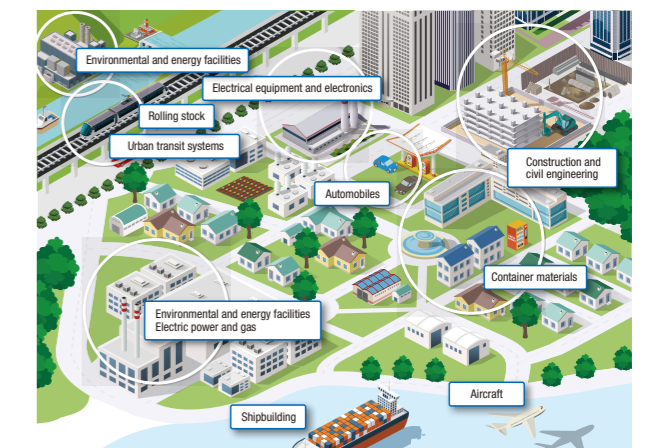
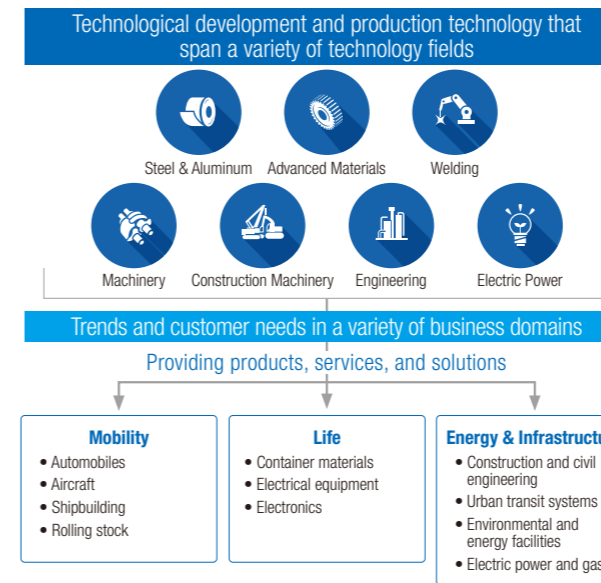
Over the 116 years since its founding in 1905, the KOBELCO Group has worked with its customers to create and provide the products that they need. The KOBELCO Group currently operates businesses in seven segments.

For diverse customers in each segment, the KOBELCO Group is working to provide products, services, and solutions from a wide range of perspectives that take into account the trends and needs of customers in a variety of fields.

In addition, we have many customers who are doing

business with multiple segments of our Group. For such customers, we can offer multiple proposals from the perspective of each segment.

In the materials business, for example, we are one of the few companies in the world that operate both steel and aluminum businesses. We offer various proposals to our customers not only from the standpoint of a provider of steel and aluminum but also from the standpoint of a provider of multi-materials that combine these different materials.



### To Further Enhance Our Strengths

As part of our Companywide DX initiatives, we are promoting "customer experience DX," which aims to strengthen customer contact points and services provided from the customer's perspective in order to enhance the value of the customer experience. We consider the issues and needs obtained from contact points with a variety of customers and stakeholders as important assets. By promptly sharing and utilizing them, we strive to obtain an accurate understanding of customer requirements and utilize them in new products and services that meet their needs.

#### Customer Experience DX initiatives

- Enhancing the value of customer experience by building a customer-specific information database shared across business segments
- Strengthening marketing activities through digital utilization at customer contact points

# Business Model and Value Provided

**Economic Environment by Customer Domain**  
For details, see pp. 54–55.

**Operating segments**  
For details, see pp. 56–65.

21 Core Technologies

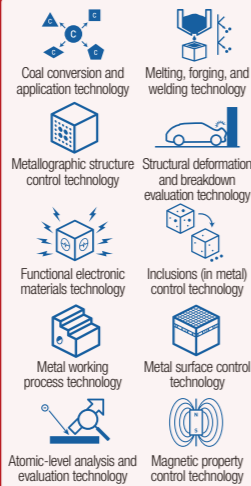
Manufacturing Process

Distinctive Technologies, Products, and Services (Examples)

## Materials Businesses

In the materials businesses, our main customers are in the fields of automobiles, aircraft, shipbuilding, rolling stock, food containers, electronics, and construction and civil engineering.

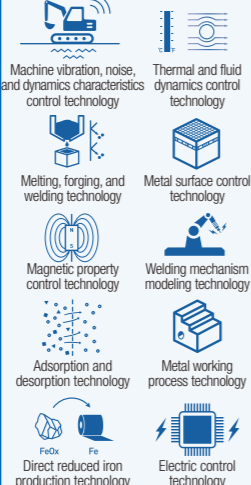
As a distinctive manufacturer with a wide range of materials including steel materials such as special steel wire rods and high-strength steel, nonferrous materials such as aluminum, copper, and titanium, and welding materials, our Group contributes to solving social issues that our customers face.



## Machinery Businesses

In the machinery businesses, our main customers are in the fields of automobiles, aircraft, shipbuilding, construction and civil engineering, social and industrial infrastructure, and environment and energy. Our machinery businesses are operated globally.

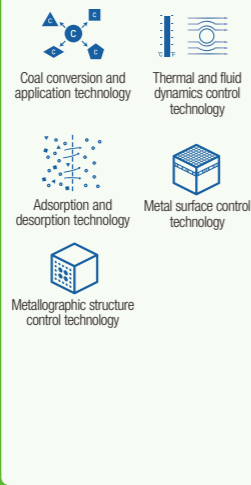
We are contributing to the environment and society by providing technologies, products, and services that address social issues faced by our customers on a global basis.



## Electric Power Business

In the electric power business, we are working to ensure stable operations by implementing thorough measures as a provider of electric power as a key component of social infrastructure.

We will continue to promote low-carbon and decarbonization in accordance with laws and regulations, as well as national policies, in order to supply electric power with safety, economic efficiency, and stability.



### Raw Materials and Parts Procurement

- Iron ore
- Coal
- Aluminum ingot
- Titanium sponge
- Other secondary materials, etc.

### Our Group's products

#### Materials and components required to manufacture products

- Steel products
- Wire rods and bars
- Steel sheets and steel plates
- Aluminum plates
- Copper rolled products
- Steel castings and forgings
- Titanium products
- Steel powder
- Aluminum extrusions
- Aluminum castings and forgings
- Welding materials

Used in production

### Raw Materials and Parts Procurement

- Various parts
- Various equipment
- Various materials
- Various components

### Our Group's products

#### Products and services related to manufacturing facilities

- Industrial machinery
- Compressors
- Various plants
- Construction Machinery

### Raw Materials and Parts Procurement

- Coal, natural gas
- Generators
- Repair parts
- Other materials

- Power generation

Aluminum sheets for automotive panels

High-tensile strength steel sheets

Steel powder

Aluminum forged parts for automotive suspension systems

Non-copper coated solid wires (SE wires)

Aluminum shapes for rolling stock

Aircraft gearboxes

Titanium for aircraft engine components

Compressors for LNG carriers

Crankshafts

Robotic welding systems for hull assembly in shipbuilding

Aluminum bottle can stock

Materials for semiconductor leadframes

Aluminum disks

Printed circuit heat exchanger (PCHE)

Eco-View steel plates® for longer-lasting paint on bridges

Computerized construction work brand "Dig Nav"

Wood biomass power generation

Urban transit systems

MIDREX® Process

Power plants

**Mobility**

- Automobiles
- Aircraft
- Shipbuilding
- Rolling stock

**Life**

- Container materials
- electrical equipment
- Electronics

**Energy & Infrastructure**

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

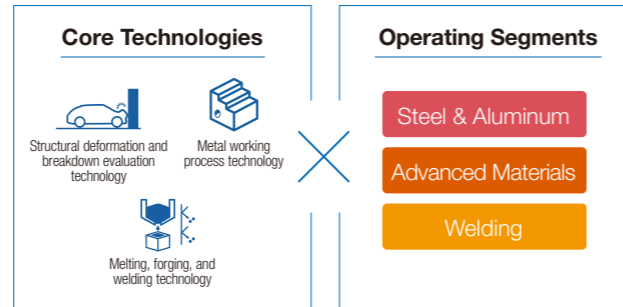
For details, see Research and Development in Business Model and Strengths on p. 22.

# Value Creation Examples

Leveraging the advantages of operating diverse businesses, the KOBELCO Group provides customers with not only the distinctive technologies, products, and services of each business division but also the Group's unique value by promoting the cross-sectoral utilization of products and technologies of other business divisions and segments.

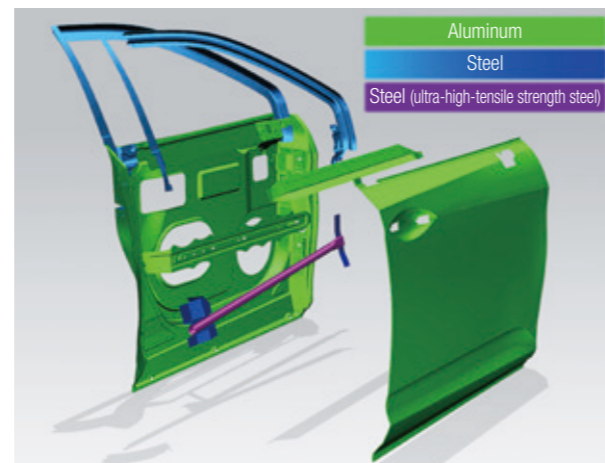
## Value Creation Example 01

### Proposing Multi-Material Solutions that Meet the Need for Automotive Weight Reduction



As a materials manufacturer, our Group has been working to reduce the weight of automobiles and other transportation equipment with the aim of improving fuel efficiency and reducing CO<sub>2</sub> emissions. In recent years, there has been a sharp increase in demand for CO<sub>2</sub> reductions aimed at realizing a carbon-neutral society, and at the same time, collision safety standards have been tightened. Against this background, there is a growing need for making lightweight yet robust vehicles, which requires solutions that balance the contradictory properties of lightness and strength.

Our Group can propose such solutions because it possesses strengths that other companies do not have. We have both steel and aluminum businesses and the technology to join these materials together. We are the only such materials manufacturer in Japan and one of a



Multi-material door structure originally developed by the KOBELCO Group (3D model)

few in the world. Using this as a weapon, we offer our customers multi-material solutions that use our unique joining technology to combine ultra-high-tensile strength steel with lightweight aluminum, which are manufactured by our Company, with the aim of expanding sales of our material products.

Another strength of the Group is its ability to provide cutting-edge solutions. A typical example of this is the technology for joining materials with different properties, such as steel and aluminum. This unique solution is based on the technology that has been developed by our Group over many years. By offering advanced solutions, we will contribute to improving the value of our customers' products and realizing lightweight and robust vehicles.

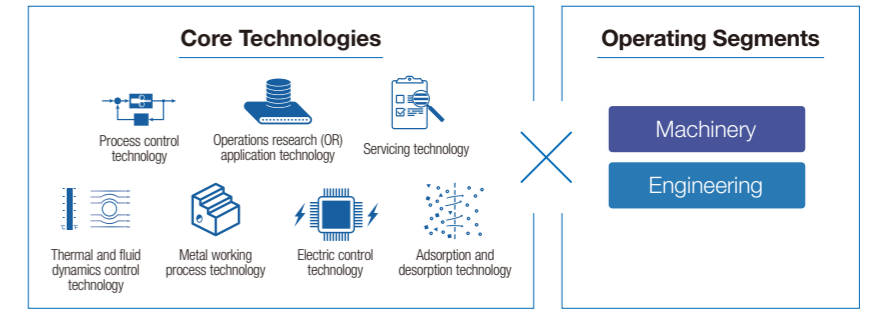
In the future, we will take on the challenge of developing technology to reduce the environmental impact of the entire process, from the manufacture of materials to the manufacture and recycling of products.



Multi-material door structure originally developed by the KOBELCO Group (prototype)

## Value Creation Example 02

### Demonstration of Hybrid-Type Hydrogen Gas Supply System



Our Group plans to start a demonstration test of the hybrid-type hydrogen gas supply system at Kobe Steel's Takasago Works from around March 2023 with a view to achieving carbon neutrality by 2050.

Our hybrid-type hydrogen gas supply system provides solutions to stable and economical hydrogen production for small- to medium-scale hydrogen users. The hybrid system is based on the following three products/technologies of the KOBELCO Group:

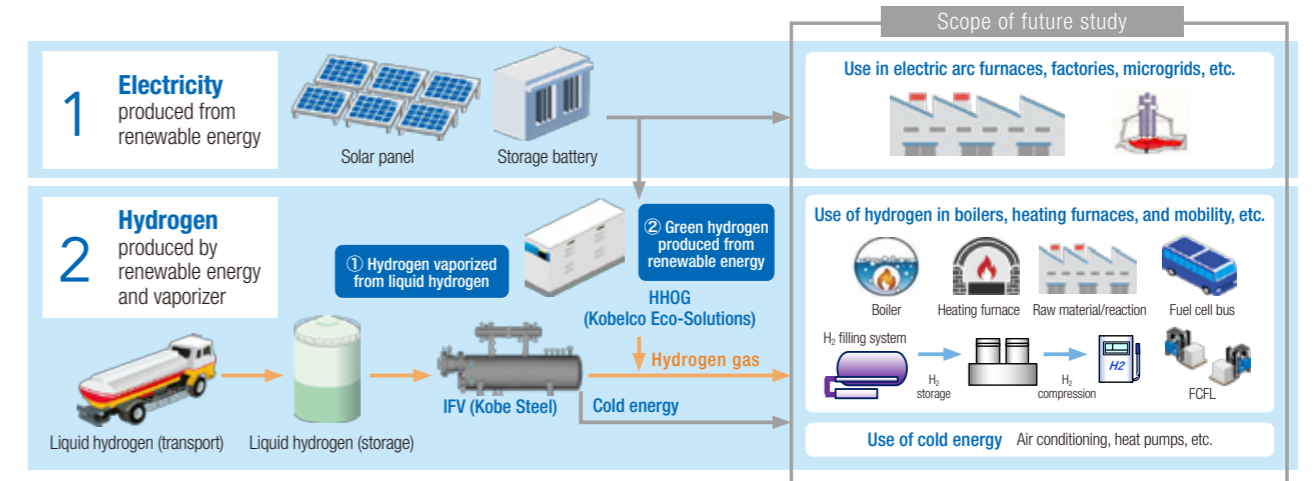
- (1) Cryogenic liquid hydrogen vaporizer under development, utilizing the machinery business' core technology of the Intermediate Fluid Vaporizer (IFV)
- (2) High-purity Hydrogen Oxygen Generator (HHOG), developed by Kobelco Eco-Solutions Co., Ltd.
- (3) Operation management system that monitors and controls hydrogen production and feed, utilizing the technological resources of the engineering business

In order to promote the utilization of hydrogen, the hybrid system is designed to have a liquid hydrogen vaporizer and a water-electrolysis hydrogen generator utilizing renewable energy in parallel, achieving both cost minimization and

elimination of supply instability of renewable energy. It also remotely monitors the amount of hydrogen used in facilities such as industrial furnaces and boilers to control the hydrogen supply system (hydrogen production) optimally for hydrogen demand change over time, so that hydrogen is always supplied stably and efficiently. In addition, the cold energy generated during the vaporization of liquid hydrogen can be used at the customer's factories for cooling manufacturing facilities, air conditioning, heat pumps, etc. It saves energy and improves the energy efficiency of their production processes.

Through these efforts, we will expand the utilization of hydrogen in various industries including our Group companies to contribute to the transition to decarbonization (namely, the transition to a hydrogen society).

The demonstration test of the hybrid-type hydrogen gas supply system will be carried out in collaboration of Kobe Steel and Kobelco Eco-Solutions through the mutual use of the management resources of the machinery business and the engineering business to provide solutions for the realization of a hydrogen society.



## Financial and Non-Financial Highlights (Fiscal 2021)

Net sales  
**¥2,082.5**  
 billion



Operating income  
**¥87.6** billion



Ordinary income  
**¥93.2** billion



Net income attributable to owners of the parent  
**¥60.0** billion



Total assets  
**¥2,728.7** billion



Interest-bearing debt  
 (Excluding project financing)  
**¥655.1** billion



D/E ratio  
**0.8** times



ROIC  
**4.7%**



ROA  
**3.5%**



Dividend payout ratio  
**25.0%**



Free cash flow  
 (Excluding project financing)  
**¥56.6** billion



Operating cash flow  
 (Excluding project financing)  
**¥181.6** billion



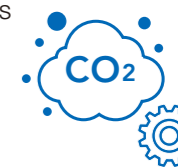
Investing cash flow  
 (Excluding project financing)  
**(¥125.0 billion)**



Reduction of CO<sub>2</sub> emissions in production processes  
**16.0%**



Contribution to reduction of CO<sub>2</sub> emissions through technologies, products, and services  
**44.91** million tons



Water recycling rate  
**95.7%**



By-product\* recycling rate \* Slag, dust, and sludge  
**99.3%**



Percentage of female managers  
 (non-consolidated)  
**2.8%**



Percentage of employees taking special leave for childcare  
 (Male employees, non-consolidated)  
**78.5%**



Percentage of women in new graduate hires  
 (non-consolidated)

Career-track administrative positions **35.0%**  
 Career-track technical positions **6.0%**  
 General technical positions **8.0%**

Employment rate of people with disabilities  
 (non-consolidated)

\* Statutory employment rate: 2.3%

**2.56%**



Lost time injury frequency rate

**0.14**  
 (calendar year)



Overtime hours  
 (non-consolidated)  
**17.2** hours/month



Number of annual paid leave days taken  
 (non-consolidated)

**13.9** days



Turnover of employees with less than 10 years of service  
 (non-consolidated)

**19.5%**





# Progress of the KOBELCO Group Medium-Term Management Plan (FY2021–2023)

In the KOBELCO Group Medium-Term Management Plan (FY2021–2023) announced in May 2021, we have identified two priority issues with the aim of continuing to be a corporate group indispensable to stakeholders through providing solutions to the needs of society by leveraging the Group's collective strengths that integrate our diverse businesses, technologies, and human resources.

We will continue working together as a group to tackle these priority issues while responding to the rapid changes in the business environment that are underway.

## Key Issues of the KOBELCO Group Medium-Term Management Plan

### Establishing a Stable Earnings Base—To Be Fully Achieved during the Current Medium-Term Management Plan

We are steadily implementing five key measures aimed at establishing a stable earnings base.

- 1 Strengthening the earnings base of the steel business
- 2 Smooth startup and stable operation of new electric power projects
- 3 Strategic investment in the materials businesses leading to earnings contribution
- 4 Restructuring unprofitable businesses
- 5 Stabilizing earnings in the machinery businesses and responding to growing markets

### Taking on the Challenge of Realizing Carbon Neutrality—To Be Strategically Carried Out with a Long-Term Perspective

To achieve carbon neutrality in 2050, the KOBELCO Group is making bold efforts to reduce CO<sub>2</sub> emissions by promoting the development of its distinctive technologies and utilizing external innovative technologies.

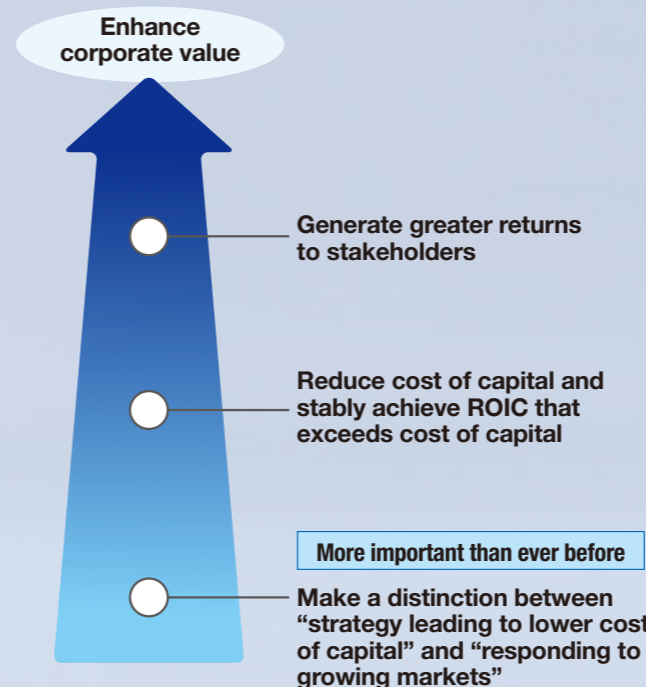
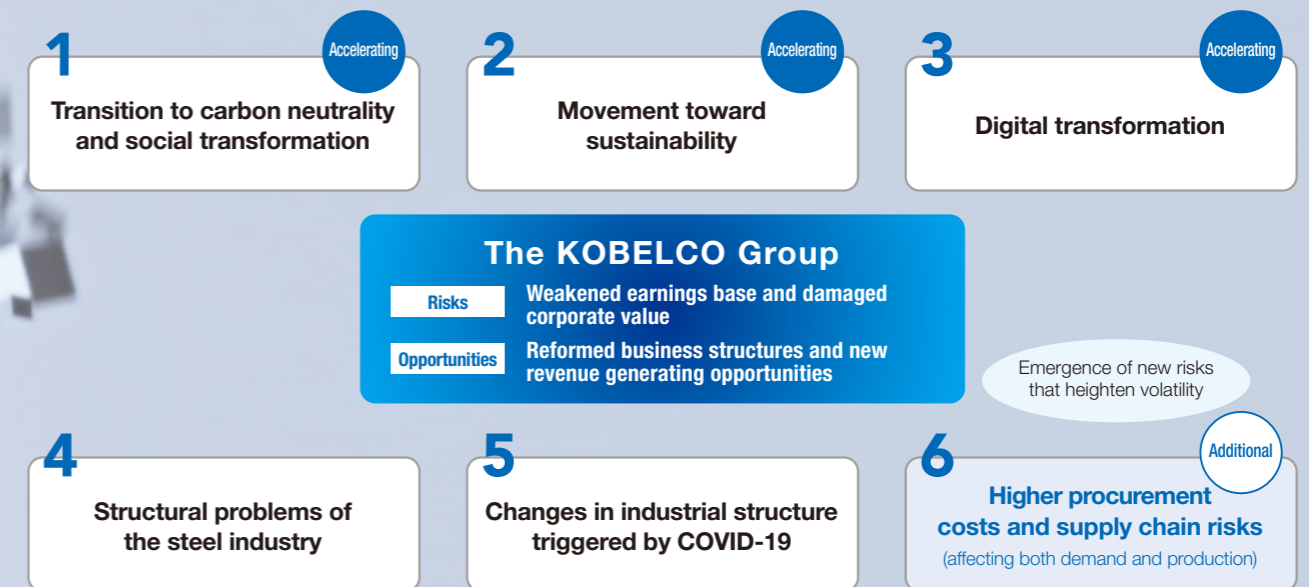
- MIDREX® Process
- Initiatives toward carbon neutrality in the ironmaking process
- Initiatives toward carbon neutrality in the electric power business
- Initiatives to contribute to reduction of CO<sub>2</sub> emissions

In the KOBELCO Group Medium-Term Management Plan announced in May 2021, we have recognized the five elements of the business environment surrounding our Group: (1) Transition to carbon neutrality and social transformation, (2) Movement toward sustainability, (3) Digital transformation, (4) Structural problems of the steel industry, and (5) Changes in industrial structure triggered by COVID-19. There has been no change in our recognition of the current business environment, but the movement is accelerating in some areas.

In addition to these five, we have identified a new element (6) Higher procurement costs and supply chain risks (affecting both demand and production) associated with soaring energy and raw material prices, triggered by the current situation in Ukraine.

Since all of these are changes that cannot be avoided in the business environment, we believe it is necessary for our Group to address them using both “offensive” and “defensive” approaches.

## Recognition of Current Business Environment



In a rapidly changing business environment, companies must pursue sustainable growth and enhance corporate value over the medium to long term. To this end, we recognize that it is more important than ever before to make a clear distinction between “strategy leading to lower cost of capital while controlling volatility (aimed at strengthening the earnings base of existing businesses and shifting to a stable earnings structure, and strengthening our financial base)” and “responding to growing markets (aimed at expanding business along with the movement toward carbon neutrality).”

The KOBELCO Group has a strong determination to generate greater returns to stakeholders including shareholders, investors, and members of the Group, by reducing cost of capital and stably achieve return on invested capital (ROIC) that exceeds cost of capital.

# Establishing a Stable Earnings Base

In order to establish a stable earnings base, we are steadily implementing the five key measures stated in the Medium-Term Management Plan: (1) Strengthening the earnings base of the steel business, (2) Smooth startup and stable operation of new electric power projects, (3) Strategic investment in the materials businesses leading to earnings contribution, (4) Restructuring unprofitable businesses, and (5) Stabilizing earnings in the machinery businesses and responding to growing markets. In addition, faced with soaring prices of raw materials, supplies, and energy, we will quickly and steadily pass on increases in procurement costs to selling prices.

## Five Key Measures toward Establishing a Stable Earnings Base

### Key Measure 1

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

##### Review of Fiscal 2021

In fiscal 2021, the metal spread significantly deteriorated due to a delay in passing on rising raw materials prices to selling prices.

Note: Approximately 75% of orders received by Kobe Steel consist of large projects with fixed destinations, mainly in the automotive, shipbuilding, and construction sectors. The Company focuses on these types of projects with fixed destinations, which are less susceptible to market fluctuations.



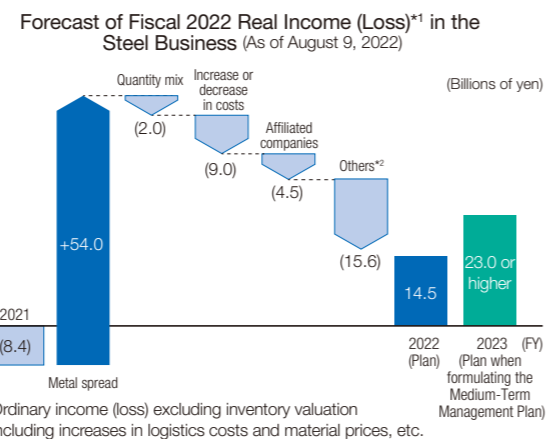
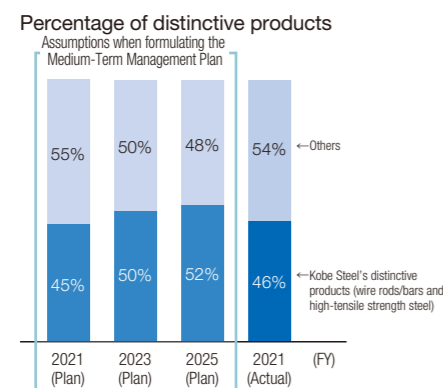
##### Progress in Fiscal 2022 and Beyond

###### 1. Improvement in steel prices

- We will significantly improve metal spreads by working on price improvements and stably maintain an appropriate level.

###### 2. Improvement in product mix

- Among the products planned for sales expansion, we are making progress in improving product mix of wire rods and bars and high-tensile strength steel as planned.
- We are working to further improve product mix by providing products and solutions that meet the social demand for CO<sub>2</sub> reduction and customers' needs for carbon neutrality.



###### 3. Reduction in fixed costs

- Although we have factored into the budget increases in labor costs and maintenance costs as short-term measures, we will continue to work to reduce fixed costs permanently through promoting DX and automation, etc.

\* We are studying large-scale investments in upstream-process facilities with a view to achieving carbon neutrality.

### Key Measure 2

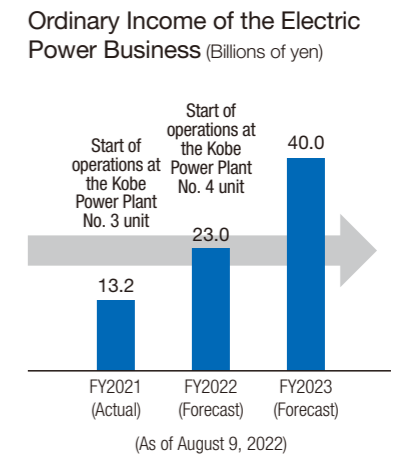
#### Smooth startup and stable operation of new electric power projects

##### Review of Fiscal 2021

The Kobe Power Plant No. 3 unit started commercial operations in February 2022 as scheduled and is operating stably.

##### Progress in Fiscal 2022 and Beyond

- The Kobe Power Plant No. 4 unit is scheduled to begin commercial operations in the second half of fiscal 2022.
- The start of operations of all power plants, including the Kobe Power Plant No. 1 and No. 2 units and the Moka Power Plant No. 1 and No. 2 units, will contribute 40.0 billion yen annually to earnings from fiscal 2023.
- As our medium- to long-term efforts to address climate change, we will promote CO<sub>2</sub> reduction and decarbonization in accordance with laws and regulations and national policies. We will take on the challenge of realizing carbon neutrality by 2050 and continue to supply electric power with safety, economic efficiency, and stability.



### Key Measure 3

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

##### Review of Fiscal 2021

- As part of our strategy aimed at automotive weight reduction, we made strategic investments in high-tensile strength steel, aluminum sheet materials for automotive panels, aluminum suspensions, and aluminum extrusions. Despite the impact of the COVID-19 pandemic, we have been making progress as planned by and large toward obtaining approval for materials and establishing mass production systems with the new continuous galvanizing lines (CGLs) at Kakogawa Works and in North America, as well as heat treatment and surface treatment facilities at Moka Works.
- Due to delays in the timing of the expected demand growth and issues with *monozukuri* (manufacturing) capabilities, etc., the contribution to earnings that was initially expected has not yet been achieved. Nevertheless, medium- to long-term demand for automotive weight reduction has remained high, and we have continued to see brisk business inquiries.

##### Progress in Fiscal 2022 and Beyond

- We will turn a profit in aluminum suspensions and aluminum extrusions in fiscal 2022.
- While time is required before turning a profit in aluminum sheet materials for automotive body panels, we achieved profitability in overall aluminum rolled products in fiscal 2021.
- Since the increase in procurement costs due to soaring raw materials and energy prices is beyond the scope of our Company's own efforts, we are requesting customers to accept the need to pass on the increased prices to selling prices as appropriate. In steel castings and forgings and titanium, we are working to pass on higher procurement costs to selling prices. Along with this, we have a plan to improve margins with the recovery in demand and are working on it.
- We have begun to gain a certain level of understanding from our customers regarding rising procurement costs. We will continue to provide thorough explanations.

Key Measure

4

## Restructuring unprofitable businesses

### Review of Fiscal 2021

Titanium Business

The titanium business returned to profitability in fiscal 2021 by commencing massproduction of nano-carbon composite coat (NC) titanium for automotive fuel cells while promoting measures such as withdrawing from welded pipes, an unprofitable product, carefully selecting orders for large forgings, and reducing fixed cost for upstream processes.

### Progress in Fiscal 2022 and Beyond

Steel Casting and Forging Business

With demand for domestic shipbuilding expected to wane, we will withdraw from unprofitable products (products for assembly and integrated small- and medium-sized products shipped to China) and reduce the workforce with the aim of turning a profit in fiscal 2022.

Crane Business

As total demand for cranes is expected to remain low even after the COVID-19 pandemic and competition is expected to intensify both in Japan and overseas, we aim to turn a profit in fiscal 2022 by reducing fixed costs through the review of business scale.

Key Measure

5

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

Machinery

### Enhancing environmental solutions

**Standard compressors:** The capital and business alliance with Miura Co., Ltd., which was put into effect on January 5, 2022, enables us to provide customers with a system that offers comprehensive solutions for energy savings and CO<sub>2</sub> reduction.

For details on the capital and business alliance, please visit our website below.  
[https://www.kobelco.co.jp/english/releases/1207993\\_15581.html](https://www.kobelco.co.jp/english/releases/1207993_15581.html)

Engineering

### Maximize earnings through environmental solutions

- (1) Expanding the MIDREX® business
- (2) Demonstrating the collective strengths of the Group through collaboration among the steel business, the electric power business, and Kobelco Eco-Solutions Co., Ltd.

For details, please see Initiatives toward Carbon Neutrality in the Ironmaking Process on pp. 50–51.

### Energy conversion Response to growing markets

Efforts toward carbon neutrality, including the utilization of hydrogen

For details, please see pp.27 and 52.

## TOPICS

## Building a Stable Earnings Structure in the Construction Machinery Business

Our excavator business, which is operated globally, has been dependent on strong demand in China, but price competition with emerging Chinese manufacturers has been intensifying over the past several years. As demand is expected to shrink in the future, we anticipate price competition will further intensify.

We will continue to strive to build a stable earnings structure under the three medium- to long-term goals of (1) Departure from dependence on the Chinese market, (2) Turning profits from new value creation business to provide solutions for innovations such as work style reforms in the construction industry, and (3) Commercialization of peripheral businesses related to construction machinery. We will stably achieve a ROIC of 5% or more at an early stage and aim for a higher level.

### Medium- to Long-Term Goals

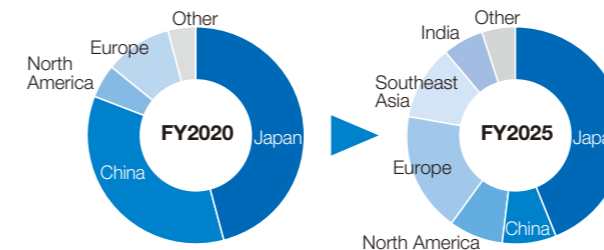
1. Departure from dependence on the Chinese market
2. Turning profits from new value creation businesses to provide solutions for innovations such as work style reforms in the construction industry
3. Commercialization of peripheral businesses\* to provide know-how on the installation of new systems, etc.

\* Sale of BIM software, overseas business related to recycling of scrapped automobiles, etc.

### Building a Stable Earnings Structure

Stably achieve a ROIC of 5% or more at an early stage and aim for a higher level

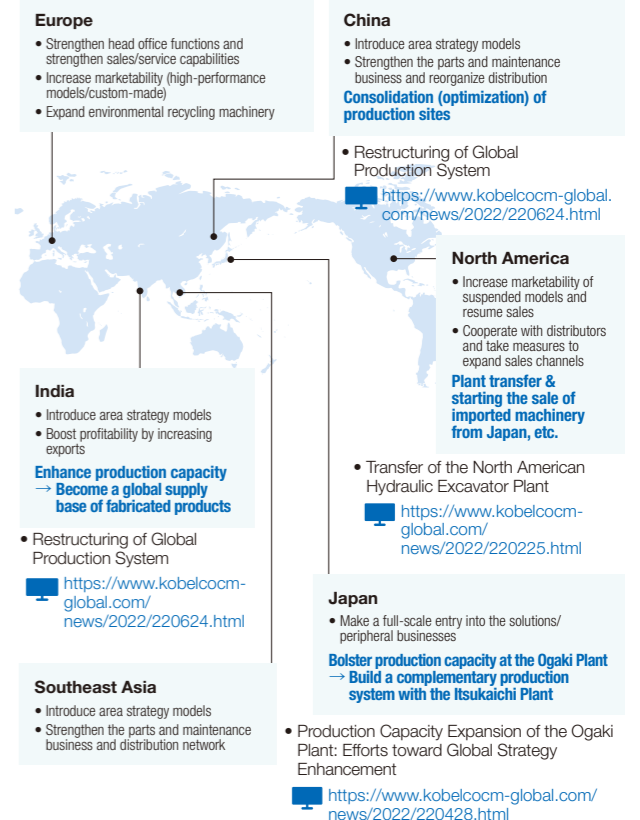
### Area Strategy



Our business in China is expected to shrink from 35% (FY2020) to 8% (FY2025) in total earnings.

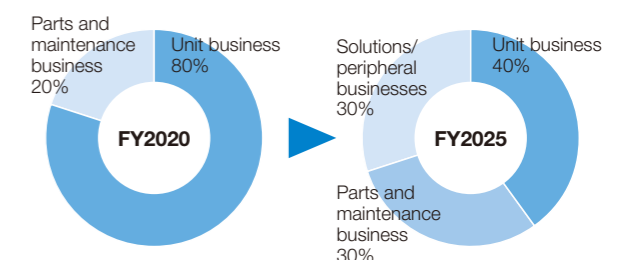
We have positioned Europe, North America, and India, where we have room to increase our market share in the future, as “areas for offense” while we have positioned Japan and Southeast Asia, where we already have a large market share, and China, which we are reducing our dependence on, as “areas for defense.” Under this area strategy, we will develop products and distribution measures that match the characteristics of each area.

In North America, we believe that the global production system would be more optimal if we have a sales base for imported machinery rather than maintaining our own plant. In order to support export sales to North America, we will increase the production capacity at the Ogaki Plant of Kobelco Construction Machinery Co., Ltd., thereby creating a complementary production system with the Itsukaichi Plant in Hiroshima, Japan. Going forward, we will continue to strive to build a flexible and agile global supply system in response to the rapidly changing market environment.



### Changes in Business Model

- We will strengthen our ability to respond to changes in the market environment by building a well-balanced earnings structure in the three areas of the unit business, parts and maintenance business, and solutions/peripheral businesses.
- Specifically, we plan to increase the portion of the parts and maintenance business and the solutions/peripheral businesses to 60% by 2025. We will launch service of the K-DIVE CONCEPT remote operation technology from this fiscal year in stages.



For more information, please visit our website below:  
Restructuring of Global Production System

<https://www.kobelcocm-global.com/news/2022/220624.html>

## Profitability (ROIC)

### Basic Policy

We have positioned the period of the Medium-Term Management Plan (FY2021–2023) as a period to further deepen our efforts to enhance profitability with a focus on the materials businesses and establish a stable earnings base of our Group.

In fiscal 2023, when the startup of new electric power plant projects is completed and their contribution to earnings is made in full, we aim to secure a return on invested capital (ROIC) of 5% or higher and increase this to 8% or higher in the future toward our goal of becoming a corporate group that grows sustainably.

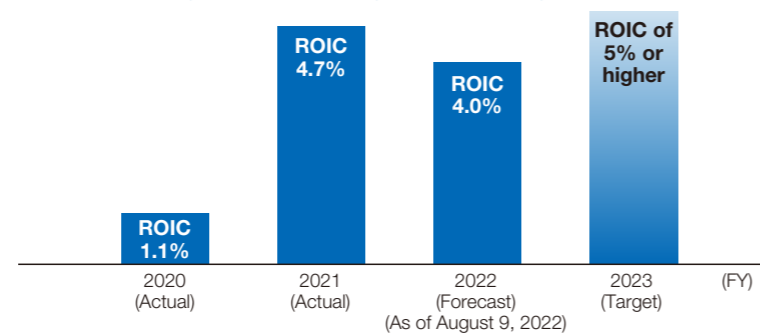
In fiscal 2021, our ROIC stood at 4.7%. Although the outlook for fiscal 2022 remains uncertain due to the conflict in Ukraine and other factors, we expect to achieve a ROIC of 4.0% (as of August 9, 2022) due to improvements in metal spreads of steel products and the electric power business's contributions to earnings.

### Targets Set Forth in the Medium-Term Management Plan

**Vision of KOBELCO**  
Solving social issues and creating economic value through business activities

Toward KOBELCO that stably achieves a ROIC of 8% or higher and grows sustainably

### Targets to Achieve Under the Medium-Term Management Plan ROIC of 5% or higher → Establishing a stable earnings base



## Financial Strategy

### Basic Policy

We aim to keep investing cash flow within the range of operating cash flow and achieve a D/E ratio of 0.7 times or less by the end of fiscal 2023 by carefully selecting capital investments, other investments, and loans. In addition, we will continue to promote activities to improve working capital and similar metrics. Along with this, in order to brace for downside risks in operating cash flow, we will strengthen monitoring systems and study and prepare backup measures.

In terms of fiscal 2021 actual results, we achieved a D/E ratio (excluding early procurement of borrowings) of 0.68 times at the end of fiscal 2021, due to an upturn in business results and a decline in capital investment payments. This means that we achieved our target D/E ratio of 0.7 times or less under the Medium-Term Management Plan two years ahead of schedule. Despite the outlook being unpredictable due to the ongoing conflict in Ukraine and other factors, we will continue to strengthen our financial structure, which is one of our key measures, and continue our financial management with a focus on reducing cost of capital.

### Cumulative Cash Flow Plan as of May 2021 (Excluding project financing) (Billions of yen)

(FY)	2021–2023
Operating cash flow	420
Investing cash flow	(320)
Free cash flow	100
D/E ratio	0.7 times or less

### Progress of Cash Flow Plan as of May 2022 (Excluding project financing) (Billions of yen)

(FY)	2021	2022	2023
Operating cash flow	Approx. 332 (79%)		
Investing cash flow	Approx. (215) (67%)		
Free cash flow	Approx. 117 (117%)		
D/E ratio	0.68 times*	Approx. 0.65 times	

\* Excluding early procurement of borrowings

## Capital Investments, Other Investments, and Loans

### Basic Policy

During the Medium-Term Management Plan, in order to focus on rebuilding our financial base, we aim to keep capital investments within the range of operating cash flow, and we plan to spend approximately 100 billion yen per year on a decision basis. Basically, we will control expenditures, but we have increased our IT strategy-related investment to about 15 billion yen a year.

Capital investments for fiscal 2021 totaled 98.9 billion yen (on a decision basis), which was within depreciation. In fiscal 2022, we plan to increase capital investments temporarily, mainly in maintenance/renewal-related investments, in order to rebuild our stable production system.

Capital Investment Plan as of May 2021 (Billions of yen)				
(FY)		2021	2022	2023
Capital investment	Decision basis	110.0	100.0	100.0
	Accrual basis	140.0	110.0	110.0
Of which, IT strategy-related		Approx. 15.0/year		
Depreciation		105.0	115.0	125.0
R&D expenses		Approx. 30.0/year		

Capital Investment as of May 2022 (Billions of yen)			
(FY)		2021 (Actual)	2022 (Plan)
Capital investment	Decision basis	98.9	126.0
	Accrual basis	108.1	115.0
Of which, IT strategy-related		9.1	16.0
Depreciation		105.1	120.0
R&D expenses		33.2	38.0

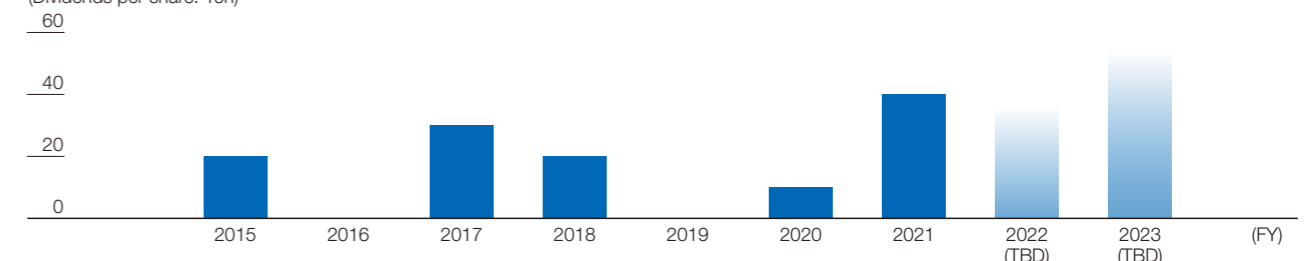
## Returns to Shareholders

### Basic Policy

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.

The dividend payout ratio for fiscal 2021 was 25.0%. 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. From fiscal 2023 and beyond, we will review the ratio, including the possibility of raising it.

(Dividends per share: Yen)



(FY)	2015	2016	2017	2018	2019	2020	2021	2022	2023
Dividends per share (Yen)	20	0	30	20	0	10	40	TBD	TBD
Dividend payout ratio (%)	—	—	17.2	20.2	—	15.6	25.0	15–25	To be reviewed including a raise

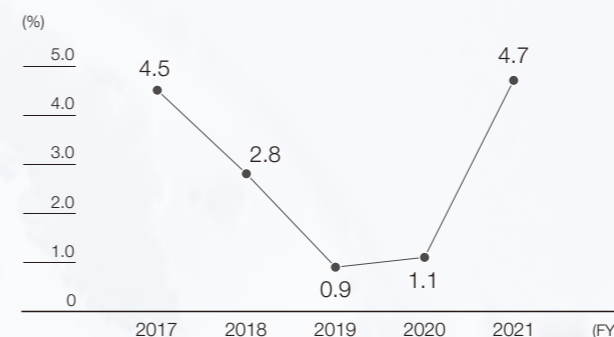
## Message from the CFO



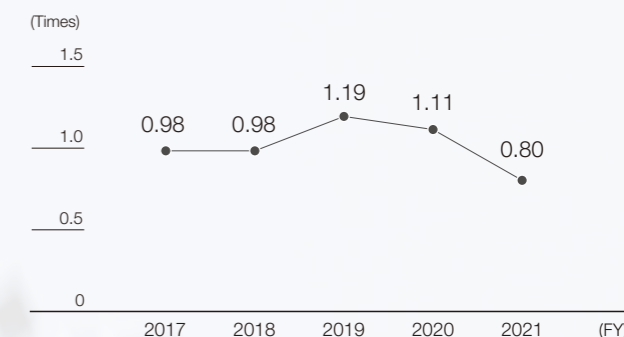
To establish a stable earnings base, we will turn social changes into business opportunities and take bold challenges.

**Yoshihiko Katsukawa**  
Director, Executive Officer

### ROIC



### D/E ratio (Excluding project financing)



### Looking Back over Fiscal 2021

In fiscal 2021, a variety of external factors influenced the earnings of the KOBELCO Group.

#### Supply chain risks

The Asian region accounts for the largest part of our Group's overseas net sales, and in particular we have many production sites in China, which is the country that has the largest demand for our products. Operations at some of these sites were suspended by the lockdowns in urban areas due to the spread of COVID-19, and this affected the supply of products to customers.

At the same time, since the Group supplies many products to automotive manufacturers, it has also been affected by the decline in automobile production due to the global semiconductor shortage that has continued from fiscal 2020. We will continue to closely monitor trends in automobile production and develop a structure that can respond flexibly to changes in demand.

#### Soaring prices of raw materials, etc.

Soaring prices of raw materials and energy, combined with the weaker yen, resulted in a significant increase in procurement costs.

I believe it is essential from the perspective of our Group's business continuity to make steady efforts to pass on increased costs to selling prices while seeking understanding from customers, along with internal cost-cutting efforts.

### War in Ukraine

The war in Ukraine has affected the Group's sales and procurement deals related to Russia. In terms of sales, although there will be an impact on the direct reduced iron (DRI)-related business in the engineering business, the impact is not expected to be significant as the Group's Russia-related transactions accounted for less than 0.5% of the Group's consolidated net sales in fiscal 2021. In terms of procurement, we have Russia-related transactions mainly in the procurement of coking coal for steel and thermal coal for power generation, but we are promoting alternative procurement from non-Russian sources to avoid any impact on our production. We anticipate a certain degree of direct impact on our business performance in the future, but we consider the impact will be minor at this point. Nevertheless, there is a possibility that the macroeconomic environment will deteriorate further than expected due to changes in the situation in Ukraine. We will continue to closely monitor the impact on our business performance.

### Summary

Despite this challenging business environment, we were able to secure higher sales and profits in fiscal 2021 compared to fiscal 2020. Although the main factors for the increase in earnings were the recovery in unit sales and improvements in inventory valuation, we believe it is also significant that we are beginning to see the positive effects of our steady cost reduction efforts, including the efforts to strengthen our financial structure during the COVID-19 pandemic, and efforts to improve earnings of

unprofitable businesses. Many of our Group's businesses are susceptible to the influence of the external environment, but I feel that we are steadily strengthening our resilience and ability to withstand market fluctuations as we work to establish a stable earnings base.

### Improving the Business Portfolio to Enhance Companywide Profitability

#### Business portfolio management policy

With the aim of establishing a stable earnings base, we continue to work on reforming our business portfolio. In the KOBELCO Group Medium-Term Management Plan (FY2021–2023), we set a goal of achieving a return on invested capital (ROIC) of 5% or higher by fiscal 2023. In an effort to attain the goal, we have classified our business units into four quadrants along the axes of ROIC and market growth potential. According to this, we are examining measures tailored to each quadrant and implementing them. For businesses that fall short of the target but are expected to see a certain degree of market growth, such as the excavator and aluminum-related businesses, we will implement measures for improving profitability at an early stage. For example, in the excavator business, which has been heavily dependent on the Chinese market, we will work to stabilize earnings and reduce production cost by reviewing our supply system for optimization from a global perspective, in light of changes in the market environment, such as the fall in selling prices due to the recent decline in demand and intensified

competition. At the same time, we will also work to transform our earnings structure by developing new businesses utilizing DX, including the K-DIVE CONCEPT. In the aluminum-related business, we will strive to improve profitability by improving sales prices and strengthening our monozukuri capabilities through DX and other measures.

For businesses that are expected to achieve a ROIC of 5%, which is the target under the Medium-term Management Plan, such as steel products, non-standard compressors, cranes, etc., we will strive to maintain and improve profitability by continuing to strengthen their financial structures. In addition, since the standard compressor business and the business of Kobelco Eco-Solutions Co., Ltd. are expected to continue to be profitable and grow in the future, we aim to further enhance profitability by demonstrating early effects of the capital and business alliance with Miura Co., Ltd., and of Kobelco Eco-Solutions that has turned into a wholly owned subsidiary of Kobe Steel.

#### Business portfolio management structure

The business portfolio management is conducted by the Business Portfolio Management Committee, which is an auxiliary body to the Executive Council. From the perspective of asset efficiency and cost of capital, the committee formulates companywide business portfolio strategies and monitors the status of each business unit. The results of these activities are reported to the Executive Council and discussed at meetings of the Board of Directors, as appropriate.

The meetings of the Business Portfolio Management

Committee and its subcommittees are held once every three months to continuously monitor key performance indicators (KPIs) and trends in performance of each business unit. The committee decides whether or not to continue the business through multifaceted discussions considering ROIC and other evaluation indicators. These discussions became the basis for the Company's decision to sell the copper tube business in 2021.

Additionally, the Company has established an Investment and Loan Committee as a body to strengthen screening functions when making decisions on important new investment projects and monitor/evaluate approved projects. The committee, an auxiliary body to the Executive Council, collaborates with the Business Portfolio Management Committee, the DX Strategy Committee, etc., and acts as a bridge to deepen discussions at the Executive Council.

#### Instilling ROIC throughout the Group

We believe that it is not enough for management alone to be aware of ROIC. It is also important to instill the ROIC concept into each and every employee in each business division. To this end, we are conducting stratified training for employees. We have also begun initiatives to strengthen *monozukuri* activities and thereby enhance ROIC through KOBELCO Total Quality Management (TQM) activities that we are promoting internally. It will take time for the ROIC concept to be fully instilled in each employee and become part of the culture of the organization, but I believe that if each individual can properly understand the ROIC concept, set their own action targets, and manage their own operation, it will eventually lead to enhanced profitability for the entire Company.



### Turning Social Changes into Business Opportunities

With carbon neutrality initiatives accelerating, the Group, which has steel business and thermal power generation business, has been negatively seen as a corporate group that generates high CO<sub>2</sub> emissions. This has been a factor in the stock discount. However, such a view does not accurately reflect the future vision envisioned by the KOBELCO Group.

With regard to CO<sub>2</sub> emissions in the production processes of the KOBELCO Group, we have drawn up a roadmap for achieving carbon neutrality and are steadily working on it. We see carbon neutrality initiatives as business opportunities for our Group, and we are moving forward with our efforts. One of these efforts has resulted in the launch of Kobenable Steel, a low-CO<sub>2</sub> blast furnace steel product that utilizes the Group's CO<sub>2</sub> reduction solution for blast furnace ironmaking. Kobenable Steel is a product to which CO<sub>2</sub> reduction effects are applied. By overcoming various production issues, we realized the product, which contributes to creating new value and new markets. While specific policies for the utilization of hydrogen have not yet been fully established in Japan, the KOBELCO Group has promptly begun plans for a demonstration test of the hybrid-type hydrogen gas supply system at its Takasago Works. As exemplified by this, our Group is examining new businesses focused not only on selling products, but also on future business development of the entire system. In this way, the KOBELCO Group is laying a foundation for providing solutions to the needs of society. It may be a small bud now, but I believe that it will eventually grow into a big tree that will become a game changer. Of course, in order to realize these efforts,

continuous research and development and a large amount of funding are required. Since we expect specific funding demand to emerge during the period of the next Medium-Term Management Plan or later, we are working to strengthen our financial base so that we can respond flexibly to future investments. At the same time, we are examining a variety of funding methods, including the issuance of sustainability bonds and green bonds, in preparation for the time when we will need to make investments for growth.

### Lowering the Cost of Capital and Widening the Equity Spread

As we believe that it is important not only to improve profitability based on ROIC but also to reduce the cost of capital at the same time, we are working to enhance corporate value by pursuing both of these goals and widening the equity spread.

Specifically, in order to increase profitability, we will strive to improve ROIC through improving the business portfolio as explained above. In addition, to reduce the cost of capital, we are working on (a) establishing a stable earnings base, (b) strengthening our financial base, and (c) proactively disclosing information to the market.

In order to establish a stable earnings base, we are working on the following five key measures: (1) Strengthening the earnings base of the steel business, (2) Smooth startup and stable operation of new electric power projects, (3) Strategic investment in the materials businesses leading to earnings contribution, (4) Restructuring unprofitable businesses, and (5) Stabilizing earnings in the machinery businesses and responding to growing markets. In implementing these five key measures, some items require the understanding of customers with regard to price improvements, but we are making steady progress on those that can be addressed internally, and we are in the process of establishing a structure to ensure stable earnings.

In terms of strengthening the financial base, the target set in the current Medium-Term Management Plan is to achieve a D/E ratio of 0.7 times or less by the end of fiscal 2023 by carefully selecting capital investments, other investments and loans, and keeping investing cash flow within the range of operating cash flow. In the financial results at the end of fiscal 2021, we achieved a D/E ratio of 0.68 times (excluding early procurement of borrowings), thus hitting the target ahead of schedule. We will continue to strengthen our financial structure and implement financial

management with a focus on reducing cost of capital.

With regard to proactive disclosure of information to the market, we recognize that it is important to eliminate the asymmetry of information through enhanced dialogue with investors and analysts in order to close the gap between our view and the stock market's evaluation. As the Group has a variety of businesses, it is often viewed as being subject to a conglomerate discount, but we believe that these diverse businesses will drive the development and launch of products that are unique to our Group aimed at new growth markets, as exemplified by carbon neutrality and DX. For this reason, we strive to proactively and carefully disclose information on business portfolio management, the status of each business unit, and new businesses and products. For non-financial information as well, we will clearly present our Group's initiatives and its future vision.

### Maximizing the Group's Value and Mapping Out Our Growth Strategy

Our Group operates its business with the support of many stakeholders. Recognizing that returning profits to our shareholders is one of our most important themes, we will strive to improve our share price and foster a sense of trust. Currently, we are maintaining a dividend payout ratio of 15–25%, but from fiscal 2023 onward, once we have established a stable earnings base, we will review the ratio, including the possibility of raising it.

The KOBELCO Group has a wide variety of technologies, products, and services that have been developed over its long history, as well as the diverse human resources that have supported them. I am confident that leveraging the collective strengths that integrate all of these will lead to significant growth in the future. It is my sincere hope that our stakeholders will come to understand the true value of the Group.

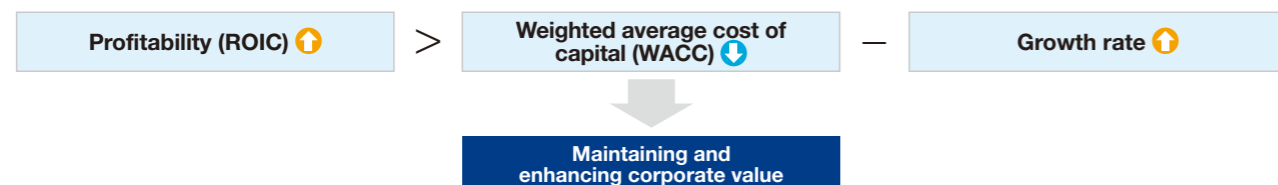
At the same time, it will be necessary for our Group to ensure the implementation of the plan-do-check-act (PDCA) cycle in each unit and to select the best solution as an organization by bringing together various wisdom and have exhaustive discussions, without being stuck in self-righteous thinking.

In order 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 establish a stable earnings base and boldly take on challenges to turn social changes into business opportunities.

# Enhancement of Corporate Value

## Initiatives to Enhance Corporate Value

We believe that the KOBELCO Group's corporate value comes from the various technologies, products, and services that we have cultivated over the past 116 years, the human resources and intellectual property that have supported and developed them, and the relationships of trust that we have nurtured with our stakeholders. We have set out the initiatives being undertaken by the Group to enhance corporate value below. Going forward, we will continue to work to maintain and enhance the corporate value of our Group.



<b>Profitability (ROIC) ↑</b>	Maximizing ROIC	Business portfolio management Business management based on ROIC tree Management of capital investments, and investments and loans Business overview by operating segment	Please see p. 43. Please see p. 44. Please see p. 45. Please see pp. 56-65.
<b>Weighted average cost of capital (WACC) ↓</b>	Reducing volatility Ensuring financial soundness Communication with stakeholders Managing and disclosing non-financial information	Establishing a stable earnings base Communication with stakeholders	Please see pp. 32-37. Please see p. 72.
<b>Growth rate ↑</b>	Medium- to long-term growth and value creation	Materiality Taking on the challenge of realizing carbon neutrality DX strategy	Please see pp. 16-17. Please see pp. 46-53. Please see pp. 70-71.

### Profitability (ROIC)

In the Medium-Term Management Plan, we have set a ROIC target of 5%. To achieve this, it is essential that we not only improve the profitability of each business but also work on the optimization of our business portfolio and select investments carefully. These issues are explained on page 43 and the following pages.

### Weighted average cost of capital (WACC)

In the WACC, the primarily important factor is the optimal capital structure. In the Medium-Term Management Plan, we emphasized financial soundness and set a target of a D/E ratio of 0.7 times or less by the end of fiscal 2023. From fiscal 2024 onward, we believe it is necessary to seriously consider investments for carbon neutrality and review the optimal capital structure. Although there are many issues to be discussed, such as the amount of funds that can be raised, target credit ratings, and trade-offs between improving financial soundness and reducing the WACC, we will proceed with our discussion and make decisions on these matters while flexibly responding to changes in the situation. As a matter of course, the funds raised should be allocated to working capital and investments, and we will continue to work on reducing non-business assets.

On the other hand, reducing the cost of equity is also an important factor. We recognize that our Group's cost of equity is at a relatively high level due to high volatility of our business results. Therefore, we are working to establish a stable earnings base under the Medium-Term Management Plan.

We believe the trend toward sustainability and other factors are also pushing up the cost of capital. Through enhanced information disclosure and dialogue with stakeholders, our Group strives to gain their understanding about its policies and initiatives, and to ensure that the opinions of stakeholders are reflected in management. To this end, we will promote two-way communication between the stakeholders and management and conduct management in a fair, transparent, and effective manner.

### Growth rate

To maintain and enhance corporate value, it is essential to carry out research and development and capital investment for medium- to long-term growth and value creation. Although investing in these areas temporarily reduces profitability (ROIC), we will not hesitate to do so if it is deemed necessary to enhance the corporate value of the Group over the long term.

## Business Portfolio Management

In the Medium-Term Management Plan, we have identified the issues such as insufficient focus on asset efficiency and cost of capital, and inadequate monitoring of the status of each business unit. To improve the situation, our Group is working to make efficient use of cost of capital and management resources and strengthen the business foundation by utilizing ROIC in the management and evaluation of our business units.

### Development of Business Portfolio Strategy

From the perspective of asset efficiency and cost of capital, we formulate Companywide business portfolio strategies and optimal capital structure policies that are consistent with the strategies.

- 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
- Examine investment quotas and prioritization by business unit and division



### Monitoring of Business Units

We conduct performance monitoring and KPI management of each business unit.

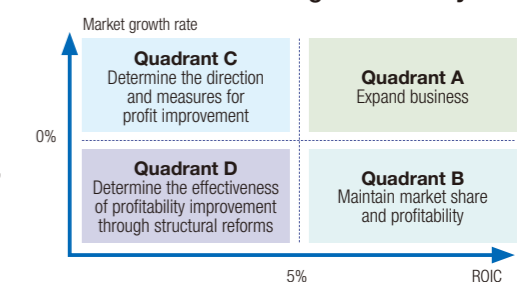
- Carry out ROIC and cash flow management by business unit and Group company
- Direct and monitor the development of improvement plans for unprofitable businesses
- Examine the plan for unprofitable businesses and individual businesses
- Discuss the direction of management resource allocation for new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

### Management Policy and Future Initiatives

In our business portfolio management, we classify our business units into four quadrants (A to D) along the axes of profitability (ROIC) and market growth potential. This allows us to examine measures tailored to each quadrant and implement them while optimizing the allocation of management resources according to the corresponding strategy.

In the business portfolio (forecast for fiscal 2023) updated in May 2022, the steel business, which was located in quadrant D in May 2021, has moved to quadrant B as a result of margin improvements achieved in fiscal 2021. On the other hand, the excavator business, which was located in quadrant B, has shifted to quadrant D due to factors such as the deterioration of profitability caused by soaring raw material and logistics costs, as well as by the intensified price competition from Chinese manufacturers that are increasing their presence.

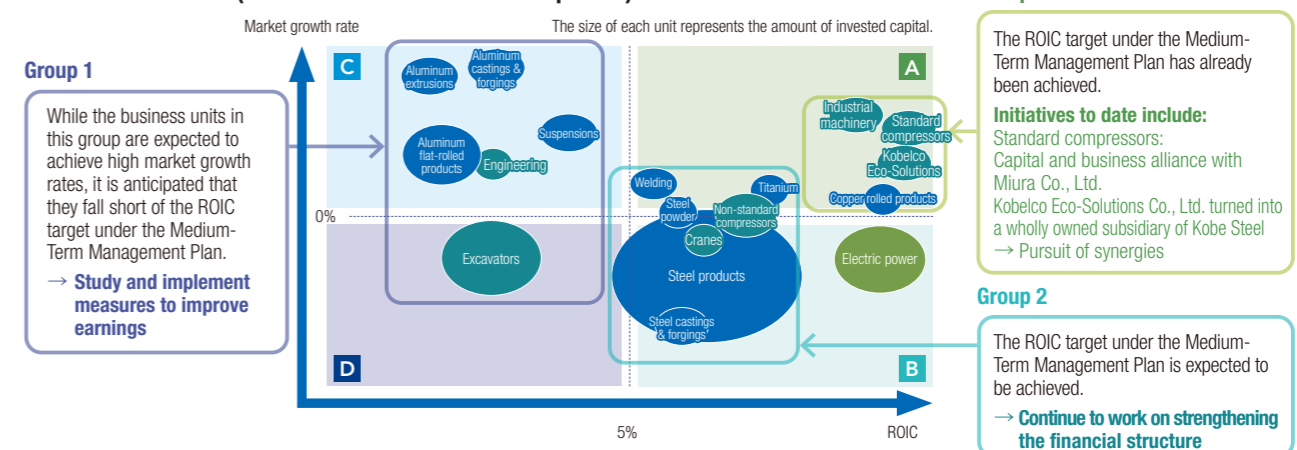
### Business Portfolio Management Policy



### Future Initiatives

- Group 1: We conduct verifications of the status of the study and implementation of measures to improve profitability and determine future direction of the business.
- Group 2: We continue to monitor the status of measures to strengthen the financial structure aimed at achieving ROIC that consistently exceeds the cost of capital.
- Group 3: We plan to study and draw up measures aimed at generating synergies. The measures will be evaluated by the Business Portfolio Management Committee.

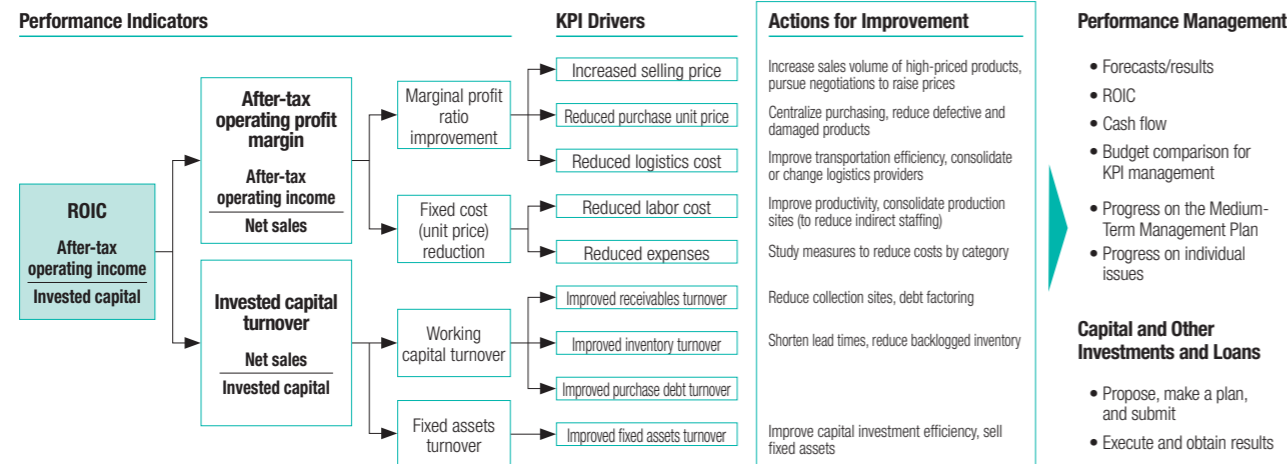
### Business Portfolio (Based on fiscal 2023 assumptions)



## 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

### An Initiative in the Advanced Materials Business—Utilizing the ROIC Tree for the Management of TQM Activities

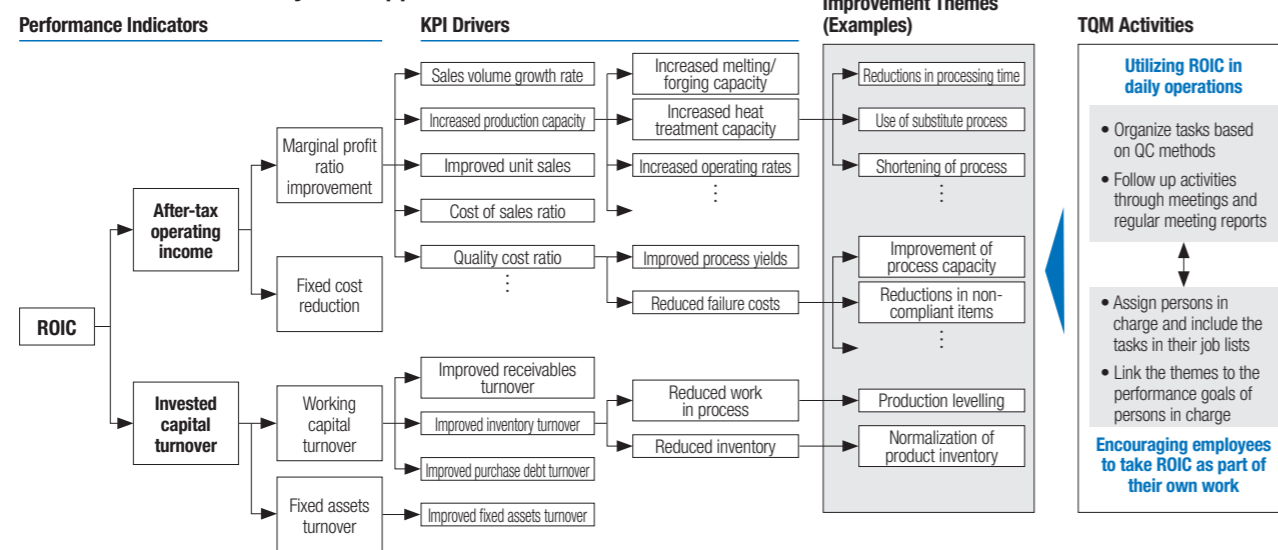
The KOBELCO Group is working on KOBELCO Total Quality Management (TQM) activities\* and has introduced the ROIC tree in the management of KOBELCO TQM.

In order to utilize ROIC in daily operations, the advanced material business has set improvement themes corresponding to KPI drivers in the ROIC tree. Based on the improvement themes, tasks are organized using quality control (QC) methods. We regularly follow up the progress of each theme through department meetings and regular meeting reports. In addition, in order to encourage each and every employee to take ROIC as part of their own work, each department prepares budgets for improvement themes and appoints a person in charge, whose performance goals are linked to the assigned improvement themes.

By linking KOBELCO TQM activities and the ROIC tree in this way, we are working to build a framework in which each employee works with an awareness of improving the quality of their work along with the ROIC.

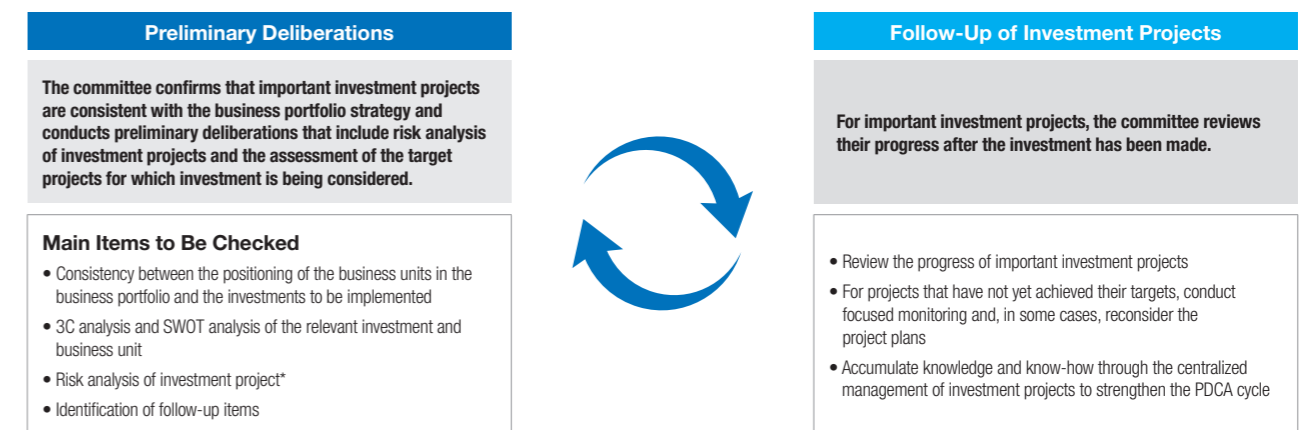
\* KOBELCO TQM activities are systematic activities aimed at achieving the objectives of the organization as a whole through effective and efficient operations of all divisions of the organization, so that we can provide products and services of quality that satisfies customers in a timely manner and at appropriate prices.

### The ROIC Tree Created by the Copper Rolled Products Unit



## Management of Investments and Loans

For important investment projects, the Investment and Loan Committee, which is an advisory body to the Executive Council, works with the Business Portfolio Management Committee to conduct preliminary deliberations that include risks analysis of the investment project and the assessment of the target projects for which investment is being considered. The committee also conducts in-depth discussions on the timing of implementation and whether or not investment should be implemented and submit its opinion to the Executive Council. In addition, regarding the follow-up of investment projects that have already been decided, the committee will report the results of the follow-up with its opinions to the Executive Council after thorough discussions based on the knowledge and know-how obtained through the centralized management of investment projects so that the expected results can be achieved as planned. By strengthening our PDCA cycle for investment projects, we are working on the careful selection of investment projects with the aim of ensuring expected results are fully achieved.



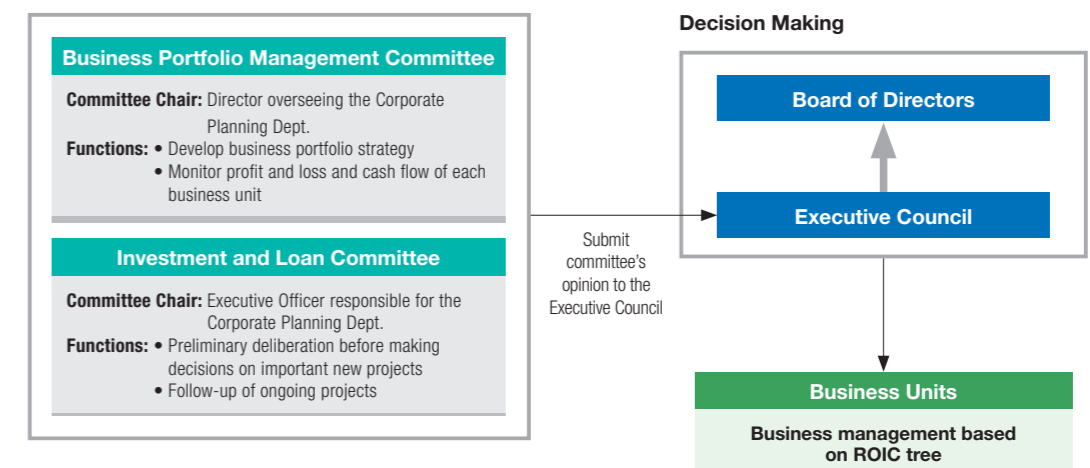
\* Risk analysis is conducted by the relevant departments, including Corporate Planning Department, Finance and Accounting Department, Business Development Department, IT Planning Department, Environment and Safety Department, Legal Department, etc.

### Investment Policy

As we are focusing on rebuilding our financial base during the period of the Medium-Term Management Plan, we have adopted a policy of keeping capital investment within the range of operating cash flow. On a decision basis, we plan to spend approximately 100 billion yen a year for capital investment. Basically, we will control expenditures, but we have increased IT strategy-related investment to roughly 15 billion yen a year.

## Management Structure

(Business portfolio management, capital investment, and investments and loans)





## Taking on the Challenge of Realizing Carbon Neutrality

### Purpose and Background

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

	2030 Targets	2050 Vision
<b>Reduction of CO<sub>2</sub> emissions in production processes</b>	<b>30–40%</b> (compared with fiscal 2013)* <sup>1</sup>	<b>Taking on the challenge of realizing carbon neutrality</b>
<b>Contribution to reduction of CO<sub>2</sub> emissions through technologies, products, and services*<sup>2</sup></b>	<b>61 million tons</b> (including 45 million tons or more through MIDREX® Process* <sup>3</sup> )	<b>100 million tons or more</b>

\*<sup>1</sup> Most of the reduction targets are associated with iron and steelmaking 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

In order to achieve carbon neutrality by 2050, the KOBELCO Group will make bold efforts to reduce CO<sub>2</sub> emissions in production processes by promoting the development of its distinctive technology and utilizing external innovative technology. The Group will also contribute to reduction of CO<sub>2</sub> emissions through a variety of technologies, products, and services, such as the MIDREX® Process in the machinery businesses and materials for automotive weight reduction and electrification in the materials businesses. Leveraging our Group's strengths that integrate diverse technologies and products, we will strive to seize business opportunities created by growing demand along with the progress of carbon neutrality efforts.



## MIDREX® Process



Moving toward carbon neutrality in 2050, the steel industry is rapidly changing and showing increasing interest in DRI as a way of attaining the goal. The MIDREX® Process is a reliable way to achieve carbon neutrality.

### Masahiro Motoyuki

Executive Officer  
Responsible for the Iron Unit Center in the Engineering Business

Driven by the rising need to reduce CO<sub>2</sub> emissions in ironmaking processes, direct reduced iron (DRI) is attracting increased attention globally. The MIDREX® Process, a distinctive technology of the KOBELCO Group, is a direct reduction ironmaking method that utilizes natural gas. It can reduce CO<sub>2</sub> emissions in the ironmaking process by 20–40% compared to the blast furnace method (comparison between the electric arc furnace (EAF) route that uses DRI and the blast furnace-basic oxygen furnace (BF-BOF) route). The MIDREX® Process accounts for approximately 60% of global DRI production (approximately 80% on a natural gas basis).

Inquiries about the MIDREX® Process are currently very active. This shows that, while steelmakers around the world are now seriously studying ways to decarbonize, DRI (manufactured using a direct reduction ironmaking method) is positioned as an important part of their transition plans to carbon neutrality.

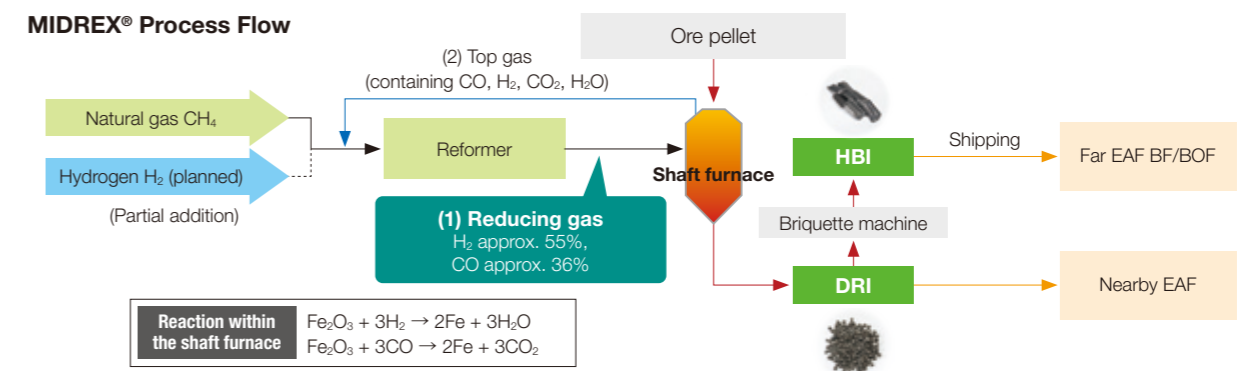
The main components of the MIDREX® Process are the shaft furnace and reformer, both of which are proprietary technologies of Midrex Technologies, Inc. Midrex Technologies has the expertise to design and supply these components, which are internally designed and continuously improved, like many other pieces of equipment in the plant. The strength of the MIDREX® Process is operational stability, backed by state-of-the-art technology, which has been proven over many years.

As a result of such stable operation, the MIDREX® plants often exceed the annual rated production capacity.

Another distinctive feature of the MIDREX® Process is its ability to handle various grades of iron ore and different energy sources (natural gas, hydrogen, and coke oven gas) and simultaneously produce at the same plant both hot DRI for feeding the adjacent melting furnace and hot briquetted iron (HBI) for export. While the market environments are rapidly changing, the MIDREX® Process offers many options in terms of the manufacture of product.

We believe that in order to maintain our technological edge, it will be necessary to launch new products and technologies such as HBI for blast furnaces, use of low-grade iron ore, and MIDREX-H<sub>2</sub>™, which is a 100% hydrogen-based direct reduction process. Some MIDREX® plants have already used low-grade iron ore, and we expect this trend to increase in the future. The MIDREX® Process has the flexibility to use a variety of grades of iron ore, and this is one of its strengths over the competitors. With regard to hydrogen production, the MIDREX® Process has a track record of using reducing gas containing approximately 75% hydrogen in commercial production over many years. Raising the hydrogen ratio from 75% to 100% is not a huge leap, and we believe it is feasible based on our experience and test data.

### MIDREX® Process Flow



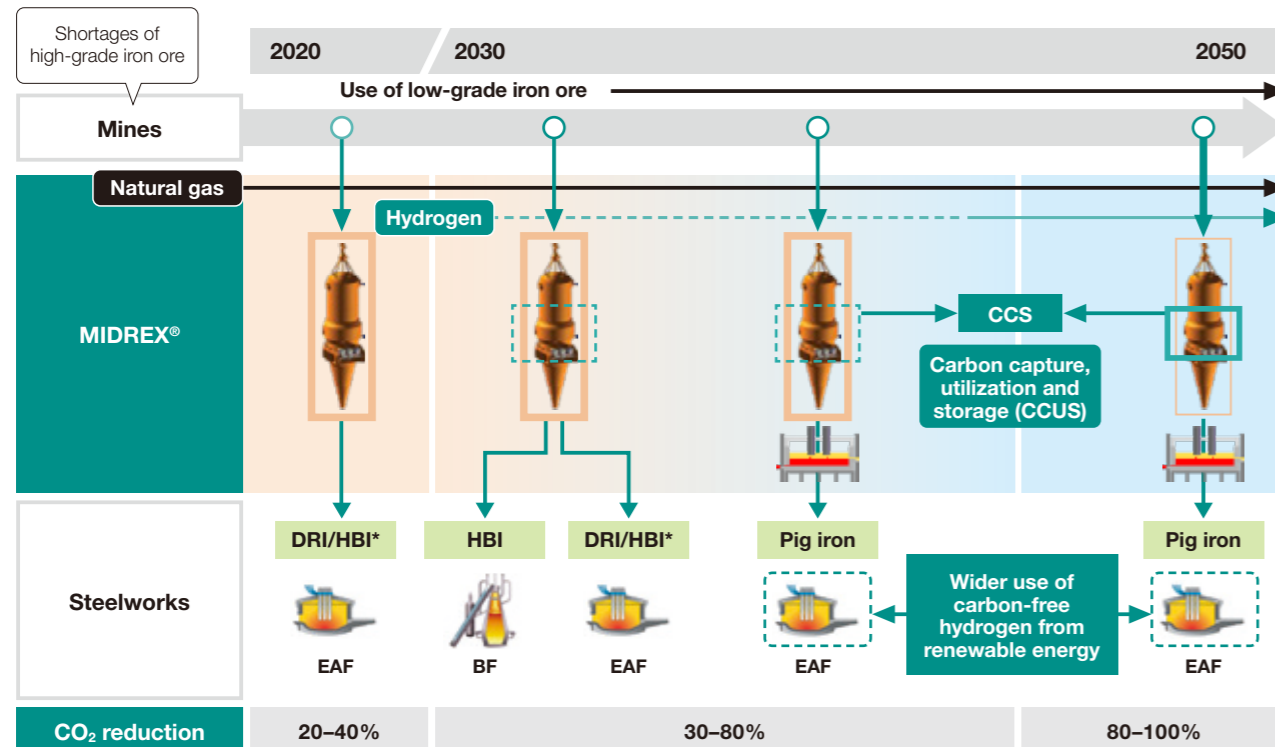
Source: KOBELCO Group's CO<sub>2</sub> Reduction Solution for Blast Furnace Ironmaking (February 16, 2021)

Note: For further details on the MIDREX® Process, please visit the Midrex Technologies website. <https://www.midrex.com/>

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

We are proceeding with initiatives for CO<sub>2</sub> reductions through the MIDREX® Process in accordance with the roadmap announced in the Medium-Term Management Plan. By promoting our Group's distinctive technology MIDREX® Process, we will continue to offer CO<sub>2</sub> reduction

solutions, including initiatives to expand demand for electric arc furnaces, CO<sub>2</sub> reduction solutions for blast furnaces, and the efforts to achieve hydrogen reduction ironmaking. Through these, we will strive to increase earnings and contribute to reduction of CO<sub>2</sub> emissions.



\* The amount of CO<sub>2</sub> reductions may change depending on specific environmental conditions, such as equipment installed and materials used.  
 \* Direct reduced iron: Clean iron source (Fe—approx. 90%, low impurities), widely used as substitute for high-grade scrap and pig iron in electric arc furnace (EAF), blast furnace (BF), and basic oxygen furnace (BOF)  
 \* Hot briquetted iron: DRI that is compressed, while being hot, into a compact solid (briquette) upon being discharged from the reduction furnace for long-distance transport.

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

The MIDREX® Process enables the gradual replacement of natural gas with hydrogen in operation to achieve even greater CO<sub>2</sub> 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 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 DRI using hydrogen, which will be constructed at ArcelorMittal's

Hamburg plant in Germany, utilizing technologies of Midrex Technologies.

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 EAF that uses only hydrogen as reductant.



ArcelorMittal's existing DRI plant in Hamburg, Germany

## TOPICS

### Initiatives for CO<sub>2</sub> Reduction Solution for Blast Furnace Ironmaking

#### MIDREX® Process

**Masahiro Motoyuki**  
Executive Officer  
Responsible for the Iron Unit Center in the Engineering Business



#### Ironmaking Process

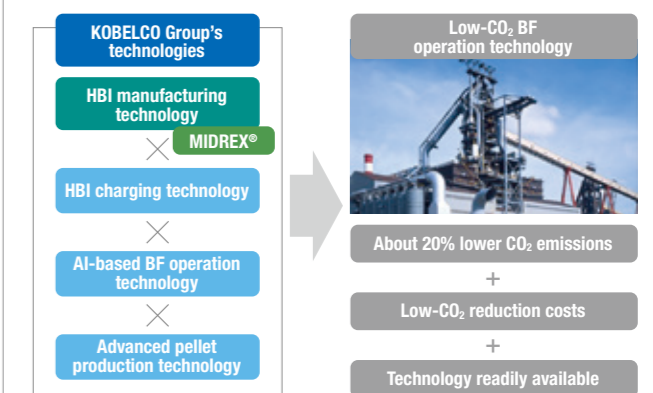
**Kazuhiko Kimoto**  
Executive Officer  
Responsible for the Business Development Department in the Steel & Aluminum Business



The KOBELCO Group has successfully demonstrated the technology that can reduce a significant amount of CO<sub>2</sub> emissions from blast furnace operations, combining the technologies of the engineering business and the steel business. The quantity of CO<sub>2</sub> emissions from the blast furnace is determined by the reducing agent rate (RAR)<sup>\*1</sup>, namely the quantity of carbon fuel used in blast furnace ironmaking. In the demonstration test, it was verified that RAR could be stably reduced by charging a large amount of HBI produced by the MIDREX® 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 has been achieved in the demonstration test of this technology. We see 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. These successful results were produced by two key technologies of the KOBELCO Group.



### Two Key Technologies

1. HBI manufacturing technology using the MIDREX® Process in the engineering business
2. Blast furnace operation technologies in the iron and steel business, such as HBI charging technology for blast furnaces, AI-based blast furnace operation technology, and our Group's distinctive advanced pellet production technology.

Applying the effects obtained from the CO<sub>2</sub> reduction technology to products, we have launched Kobenable Steel as Japan's first provider of low-CO<sub>2</sub> blast furnace steel products with significantly reduced CO<sub>2</sub> emissions in the blast furnace ironmaking process (according to Kobe Steel's survey as of May 17, 2022). This product

uses the mass balance methodology<sup>\*3</sup> whereby CO<sub>2</sub> reduction effects are allocated to specific steel products.

Kobenable Steel is manufactured in the same process as the conventional blast furnace method and has the following two features.

- (1) **Available for all types of steel products**  
Kobenable Steel is available for all types of steel products (steel sheet, steel plate, wire rod and bar products) that are manufactured at Kakogawa Works and the Kobe Wire Rod & Bar Plant of Kobe Steel.
- (2) **Maintaining the same level of high quality as conventional products**  
Customers can continue to use blast furnace steel products that require high quality, such as special steel wire rods and ultra-high-tensile strength steel, which are our Group's strengths.

The KOBELCO Group will contribute to the realization of a green society by providing Kobenable Steel low-CO<sub>2</sub> blast furnace steel as a pioneer in the steel industry. Our Group will continue to provide solutions to the needs of society, by making the best use of the talents of its employees and technologies, in order 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.

\*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, and pulverized coal is coal crushed into powder.  
 \*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.  
 \*3 The mass balance methodology is a method to allocate specific characteristics to a certain portion of products according to the input amount of raw materials with the characteristics when there is a mix of raw materials with and with no such characteristics in the manufacturing process. This approach has been used for products, for which separation of product properties are difficult due to the characteristics of the manufacturing process or the supply chain.

Registered trademark  
(trademark application pending)



## Initiatives toward Carbon Neutrality in the Ironmaking Process



The KOBELCO Group will strive to achieve its CO<sub>2</sub> reduction targets for 2030 and contribute to CO<sub>2</sub> reduction throughout the entire supply chain through the CO<sub>2</sub> reduction solutions for blast furnace ironmaking based on its unique technology.

### Kazuhiko Kimoto

Executive Officer  
Responsible for the Business Development Department in the Steel & Aluminum Business

Reducing CO<sub>2</sub> in the ironmaking process is a major issue for Japanese steelmakers. In Japan, initiatives are underway to reduce CO<sub>2</sub> emissions in the ironmaking process under the national government leadership, such as the "Hydrogen Utilization in Iron and Steelmaking Processes," which was adopted by the New Energy and Industrial Technology Development Organization (NEDO) as one of the Green Innovation Fund Projects.

The KOBELCO Group's CO<sub>2</sub> reduction efforts in the steel business are centered on the utilization of HBI, an iron source produced by the MIDREX<sup>®</sup> Process. We will work to achieve our targets for 2030 by developing

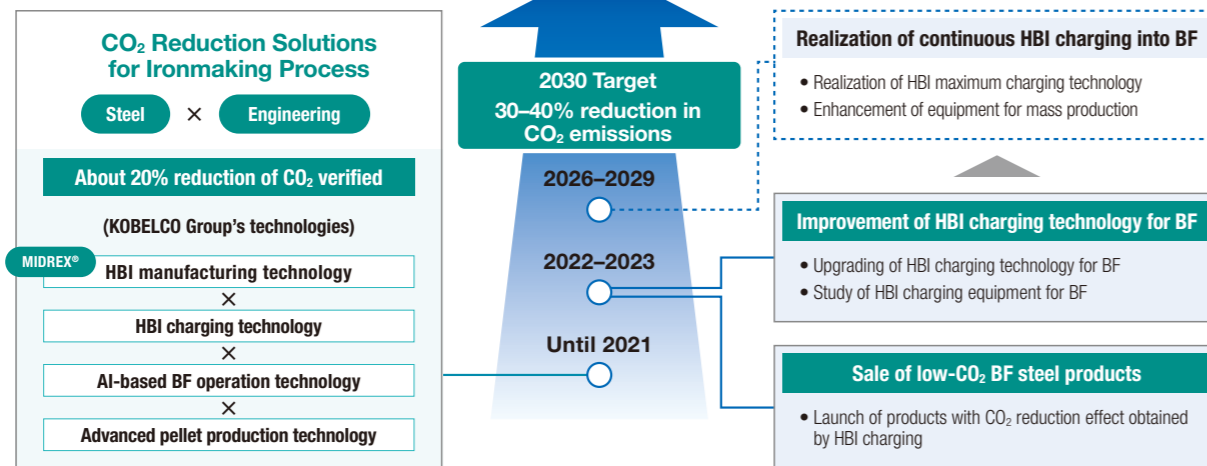
technology focused on CO<sub>2</sub> reduction solutions that use HBI in blast furnaces. Since this technology has already been successfully demonstrated, we believe it is a highly reliable initiative.

Going forward, we will further improve the technology by taking measures such as upgrading the technology and studying the equipment for charging HBI into blast furnaces, with the aim of achieving continuous HBI charging.

By steadily achieving our targets for 2030, we will build a foundation for the next challenge, which is achieving carbon neutrality by 2050.

### 2050 Vision: Taking on the Challenge of Realizing Carbon Neutrality

Announced in February 2021



Meanwhile, customers who use our Group's steel products are promoting efforts to reduce CO<sub>2</sub> emissions throughout their supply chain, and demand for products with low CO<sub>2</sub> emissions is increasing. In May 2022, the KOBELCO Group launched its low CO<sub>2</sub> blast furnace steel product called Kobenable Steel, which has attracted an extraordinary level of interest from customers. The first practical application of Kobenable Steel in Japan was in the automotive sector.\* Toyota Motor Corporation has adopted Kobenable Premier, a steel sheet product with 100% reduction in CO<sub>2</sub> emissions, for the suspension

members of the hydrogen-engine-equipped racing vehicle Corolla. The vehicle that used Kobenable Premier competed in the ENEOS Super Taikyu Series 2022 Powered by Hankook, Round 2 NAPAC Fuji Super TEC 24 Hours Race (Fuji 24 Hours Race) held from June 3 to 5.



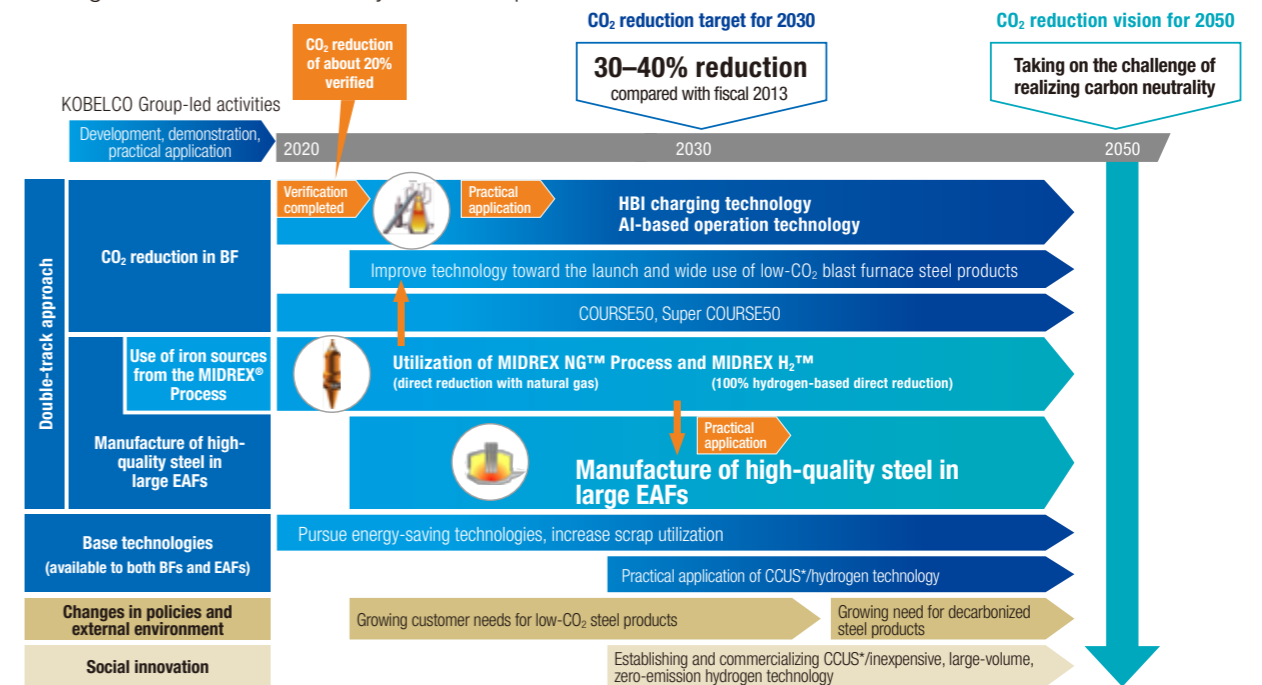
\* According to Kobe Steel's survey as of June 3, 2022

## Roadmap toward Carbon Neutrality in the Ironmaking Process

The roadmap for the ironmaking process was announced in the Medium-Term Management Plan last year, but as the study has progressed over the past year, we have updated the roadmap with more concrete details that reflect our study results.

With regard to the carbon neutrality of our Group's

ironmaking process, our basic strategy is to use iron sources from the MIDREX<sup>®</sup> Process, while working on a double-track approach of reducing CO<sub>2</sub> emissions utilizing existing blast furnaces and manufacturing high-grade steel in large electric arc furnaces.

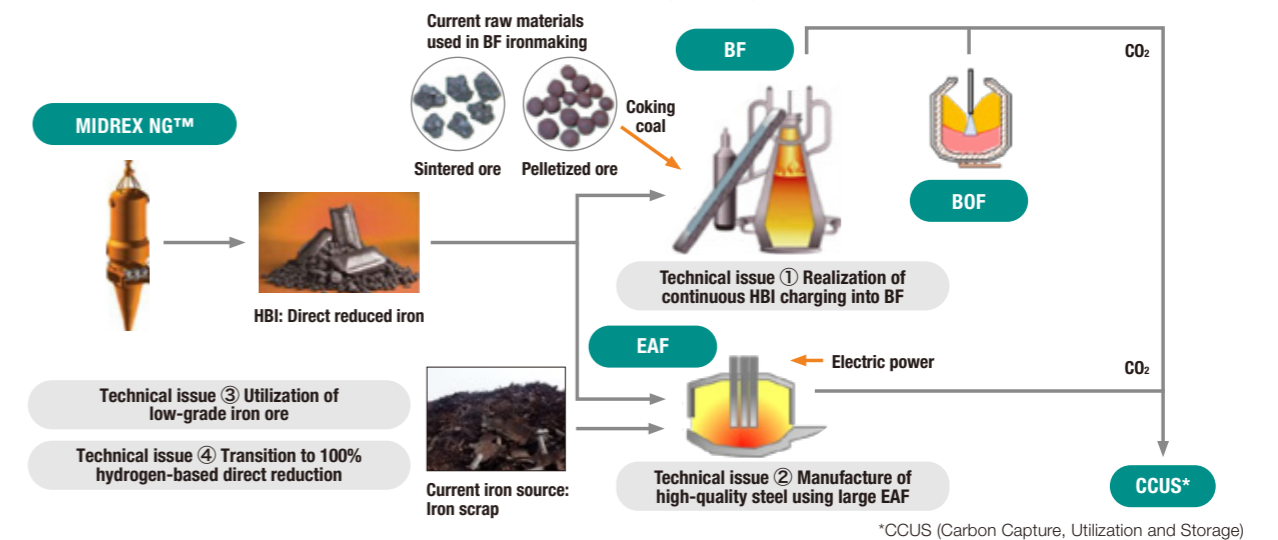


We believe there are four major technical issues that must be addressed in order to achieve the roadmap. Initiatives for technical issues of ① Realization of continuous HBI charging into BF and ② Manufacture of high-quality steel using large EAF are centered on the efforts at Kakogawa Works, while technical issues of ③ Utilization of low-grade iron ore and ④ Transition to 100% hydrogen-based direct reduction are related to the manufacture of DRI.

At Kakogawa Works, we will work on the realization of

HBI continuous charging into BF (technical issue ①) and the manufacture of high-quality steel using large EAF (technical issue ②). For the use of iron sources from the MIDREX<sup>®</sup> Process, we will work on the utilization of low-grade ore (technical issue ③) and the transition to 100% hydrogen-based direct reduction (technical issue ④).

For these initiatives, we aim to achieve our targets by integrating the technologies of the steel business and the engineering business.

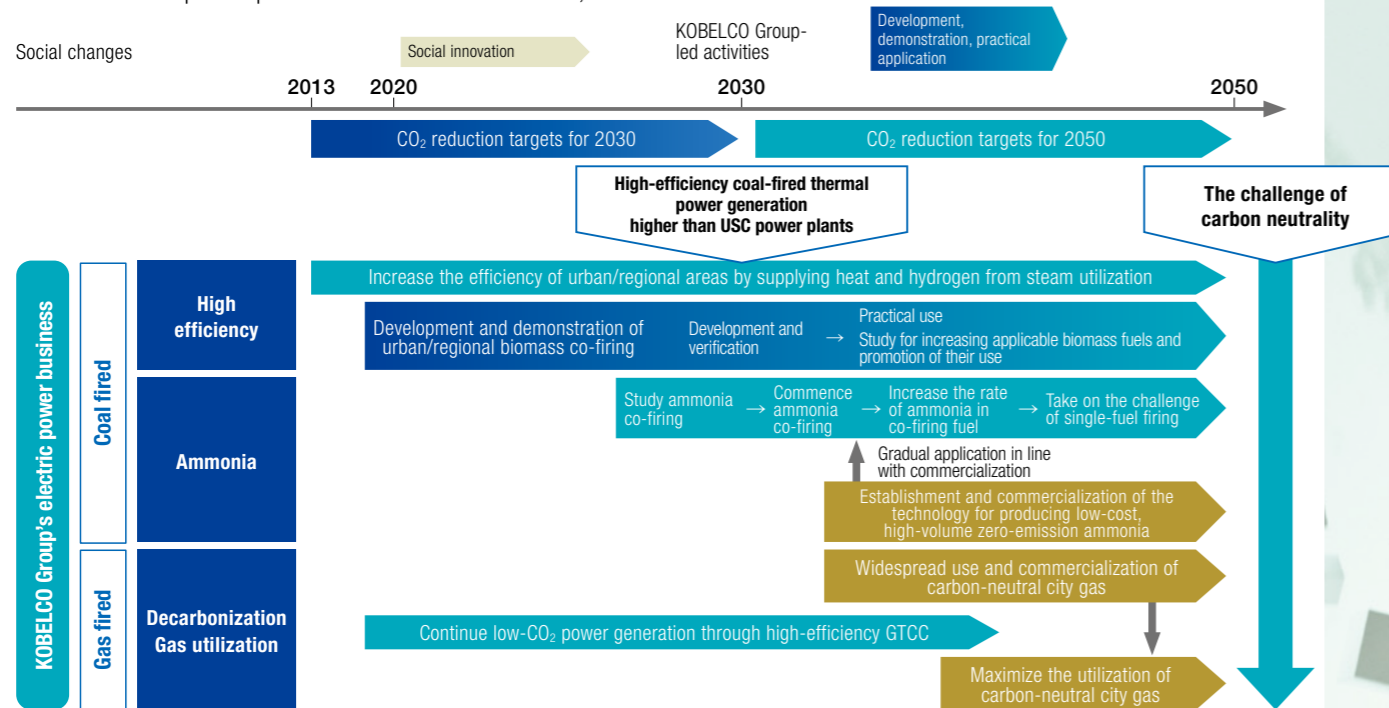


## Initiatives toward Carbon Neutrality in the Electric Power Business

At the Kobe Power Plant, which is a coal-fired power plant, we will continue to supply heat and hydrogen to surrounding areas by utilizing 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. At the Moka Power Plant,

which is a gas-fired power plant, we will continue stable operation of low-CO<sub>2</sub> power generation using high-efficiency Gas Turbine Combined Cycle (GTCC).

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. The Moka Power Plant is working on the study of the maximum use of carbon-neutral city gas, and through these measures, we aim to achieve carbon neutrality by 2050.

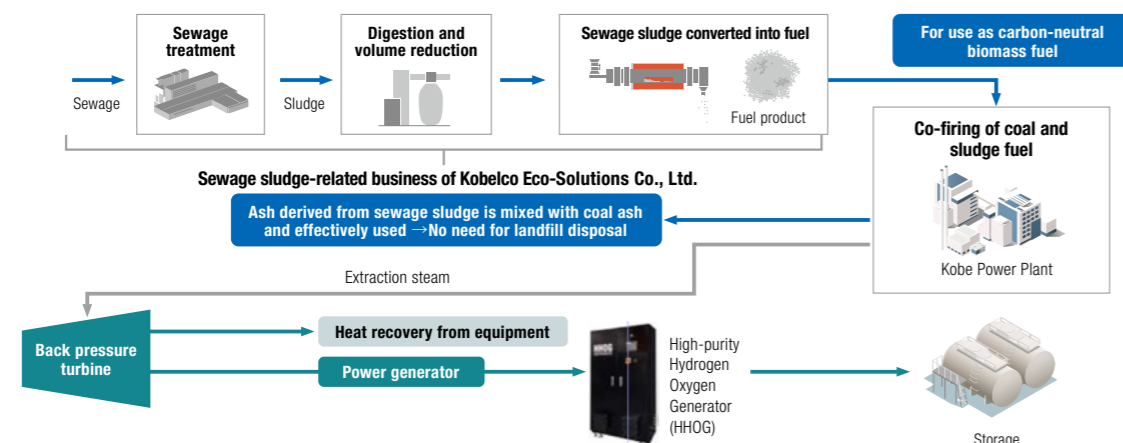


In order to promote initiatives aimed at practical application of ammonia co-firing, including the use of technology under development by NEDO-funded projects, we are moving forward with detailed internal studies, while following up on national policies and trends in technology development promoted by NEDO and other organizations.

In fiscal 2021, Kobelco Eco-Solutions received orders for two projects for converting sewage sludge into fuel. In collaboration with Kobelco Eco-Solutions, we are promoting a project for co-firing of biomass fuel derived from sewage sludge and utilization of extraction steam.

For details on the initiatives by Kobelco Eco-Solutions Co., Ltd., please see p. 62.

### Conversion of Sewage Sludge into Fuel—An Initiative for Hydrogen Production and Supply



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

Our products contribute to CO<sub>2</sub> reductions in various ways. While we offer products that contribute directly to CO<sub>2</sub> reductions at the use stage, many of our products and solutions contribute to reductions of CO<sub>2</sub> emissions in

customers' products. Here, we introduce some of these products and solutions.

For more details on our contribution to CO<sub>2</sub> reduction, please see p. 69.

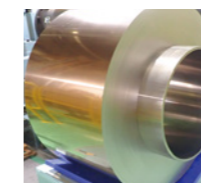
### Initiatives to Contribute to Vehicle Electrification

Various countries around the world have set targets for vehicle electrification, and automakers are accelerating their efforts toward electrification. The KOBELCO Group has been contributing to reductions of CO<sub>2</sub> emissions through the supply of weight-reducing materials and parts that help improve fuel efficiency. In addition, we have many products that contribute to improving the characteristics of electric vehicles (EVs) and full cell electric vehicles (FCEVs), which will continue to increase in the future.

At the 37th Sokeizai Industry Technology Awards, held by the Materials Process Technology Center (SOKEIZAI Center) in 2021, our Group, together with Toyota Motor Corporation, received the METI Minister's Award for the development of nano-carbon composite coat (NC) titanium, which is a rolled titanium material for use in fuel cell separators. The KOBELCO Group and Toyota have jointly achieved the world's first successful mass production of NC

titanium, which was developed by our Group's Technical Development Group and Advanced Materials Business division, integrating the equipment technology of the Machinery Business division. With superior corrosion resistance and surface conductivity, the developed NC titanium will contribute to further downsizing and higher performance of fuel cell stacks without the use of expensive precious metals. In addition, by providing surface treated coils with excellent press formability, we will contribute to dramatic improvement of productivity at the customer's separator manufacturing site.

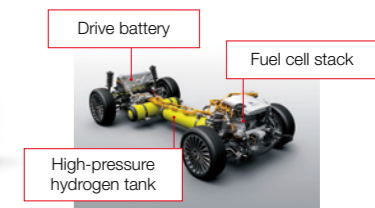
The mass production of NC titanium and its shipment to customers have already started. The mass-produced NC titanium has been adopted by Toyota as a fuel cell separator material for Mirai, a fuel cell electric vehicle, which has been on sale since December 2020.



NC titanium coil



Mirai, a fuel cell electric vehicle



Mirai fuel cell stack

### Initiatives to Contribute to Carbon Neutrality in the Energy Industry

As efforts toward carbon neutrality progress, the industry is anticipating the practical application of CCUS and the expanded use of renewable energy. The KOBELCO Group will contribute to carbon neutrality in the energy industry not only through the machinery businesses but also through its materials businesses, including the welding business.

#### Welding Solutions

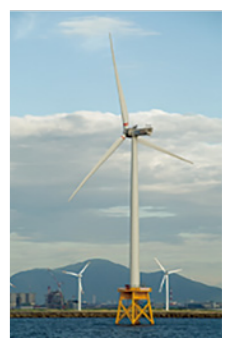
##### (1) Liquefied CO<sub>2</sub> Storage Tanks

For liquefied CO<sub>2</sub> storage tanks, the industry plans to use high-tensile strength steel, but the possibility of using cryogenic steel is increasing in the future. Our Group has been developing high-efficiency electroslag welding materials and methods that employ cryogenic steel for fuel tanks of ships. We believe this technology can be applied to liquefied CO<sub>2</sub> storage tanks in the future.

##### (2) Offshore Wind Power Generation Towers

Special welding processes are used in the welding of offshore wind power generation towers. They require

high-quality, high-efficiency technologies, including narrow groove welding, high-speed weldability, and high rigidity. Our Group has begun developing welding materials and welding processes and is working on their practical applications. In particular, the Japanese market is moving toward the introduction of offshore wind power generation, and higher efficiency welding processes are being required 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 that leverage our strengths. We will thereby continue to support offshore wind power generation from the welding field and contribute to the reduction of CO<sub>2</sub> emissions.



# Economic Environment by Customer Domain

The KOBELCO Group operates businesses centered on seven segments, and its main customer fields can be divided into the 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.

Categories	Economic Environment	Risks and Opportunities	Related Segments
<b>Mobility</b>			
Automobiles	<ul style="list-style-type: none"> <li>While global automobile production is recovering from the impact of the COVID-19 pandemic, there is growing risk of production cutbacks due to supply chain disruptions caused by lockdowns in China, where a zero-COVID policy was promoted, and the worsening situation in Ukraine.</li> <li>The tight supply of semiconductors is anticipated to continue until mid-2023.</li> <li>Over the medium to long term, global automobile production will be affected by a complex mix of factors driving decreases and increases in production.</li> <li>As the global movement toward carbon neutrality accelerates, various countries are strengthening efforts to promote zero-emission vehicles, which will further accelerate electrification.</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 Mobility as a Service (MaaS)</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>Expanded application of connected and self-driving vehicles</li> </ul>	<ul style="list-style-type: none"> <li>Steel &amp; Aluminum</li> <li>Advanced Materials</li> <li>Welding</li> <li>Machinery</li> </ul>
Aircraft	<ul style="list-style-type: none"> <li>With the easing of COVID-19 travel restrictions, air travel demand is recovering gradually. Demand is expected to return to pre-pandemic levels in fiscal 2023 or later.</li> <li>Airline profitability has improved. Along with the recovery in air travel demand, air cargo demand continues to be strong.</li> <li>As the global movement toward carbon neutrality accelerates, airlines are introducing fuel-efficient aircraft and improved engines and considering the adoption of alternative aviation fuels.</li> </ul>	<p><b>Risks</b></p> <ul style="list-style-type: none"> <li>Decrease in air travel demand due to lifestyle changes</li> <li>Sluggish demand for new aircraft due to deteriorating profitability</li> <li>Soaring aviation fuel prices</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Increase in air travel demand with the easing of travel restrictions</li> <li>Increase in cargo demand</li> </ul>	<ul style="list-style-type: none"> <li>Advanced Materials</li> <li>Machinery</li> </ul>
Shipbuilding	<ul style="list-style-type: none"> <li>Orders were steady along with the recovery from weakened demand due to the spread of COVID-19.</li> <li>Despite the steady demand, the situation remains challenging due to factors such as soaring prices of equipment and materials such as steel and delays in delivery of ship components, which are becoming more serious due to supply chain disruptions caused by the deteriorating situation in Ukraine.</li> <li>With the significant tightening of environmental regulations, shipbuilders are accelerating the study for the introduction of zero-emission vessels.</li> <li>Advances in IoT and AI, the logistics revolution, etc. have led to innovations in the concept and value of vessels, including the concept of autonomous shipping.</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> <li>Soaring steel product prices</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Accelerated introduction of zero-emission vessels and additional needs</li> <li>Introduction of IoT and AI for vessels</li> </ul>	<ul style="list-style-type: none"> <li>Steel &amp; Aluminum</li> <li>Advanced Materials</li> <li>Welding</li> </ul>
<b>Life</b>			
Food containers	<ul style="list-style-type: none"> <li>Environmental considerations are driving a worldwide shift from plastic bottles to aluminum cans.</li> <li>Overseas demand is increasing due to the emergence of new types of canned beverages, such as the low-alcohol beverage hard seltzers (alcoholic sparkling water) and wines.</li> <li>Solid demand for aluminum cans is expected to continue.</li> <li>Total demand for aluminum cans in Japan is expected to be flat in 2022.</li> </ul>	<p><b>Risks</b></p> <ul style="list-style-type: none"> <li>Disruption in the food supply chain caused by climate change</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 microplastic problems</li> </ul>	<ul style="list-style-type: none"> <li>Steel &amp; Aluminum</li> </ul>
IT and semiconductors	<ul style="list-style-type: none"> <li>There is a significant increase in demand for semiconductors for game consoles and computers due to the increase in telework and stay-at-home consumption impacted by the spread of COVID-19.</li> <li>Semiconductor shortages occurred worldwide due to the rapid increase in demand for semiconductors driven by the spread of the 5th generation mobile communication (5G), the expansion of data centers, DX, and the moderate economic recovery from the impact of the pandemic, as well as due to further tight supply resulting from the shutdown of factory operations impacted by the pandemic, the tightening of export control regulations, and disruptions caused by natural disasters, etc.</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 DX</li> <li>Expanded application of connected and self-driving cars</li> </ul>	<ul style="list-style-type: none"> <li>Steel &amp; Aluminum</li> <li>Advanced Materials</li> </ul>
<b>Energy &amp; Infrastructure</b>			
Construction and civil engineering	<ul style="list-style-type: none"> <li>While global demand is expected to recover from the decline in demand impacted by the COVID-19 pandemic and grow steadily in the US, Europe, and the ASEAN region, demand will continue to shrink in China due to a decline in infrastructure investment.</li> <li>Demand in Japan is expected to remain largely unchanged over the medium term, supported by large-scale redevelopment in the Tokyo metropolitan area for national resilience projects, linear high-speed train-related construction, and renewable energy projects, which will offset declining demand for private-sector housing due to Japan's declining population.</li> </ul>	<p><b>Risks</b></p> <ul style="list-style-type: none"> <li>Decline in infrastructure investment in various 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>	<ul style="list-style-type: none"> <li>Steel &amp; Aluminum</li> <li>Welding</li> <li>Construction Machinery</li> </ul>
Water treatment and waste treatment	<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 other 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> <li>Initiatives toward carbon neutrality are accelerating under the national policy</li> <li>Material and energy prices are soaring due to the situation in Ukraine and further depreciation of the yen</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 impact of the U.S.-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> <li>Difficulties in sourcing raw materials and higher costs</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Increase in needs driven by economic growth in emerging countries</li> <li>Increase in demand for new environmental businesses that contribute to carbon neutrality</li> </ul>	<ul style="list-style-type: none"> <li>Engineering</li> </ul>



Categories	Economic Environment	Risks and Opportunities	Related Segments
<b>Energy &amp; Infrastructure</b>			
Oil refining and petrochemical	<ul style="list-style-type: none"> <li>Global demand is expected to increase due to growing energy consumption driven by the recovery in the economy and increasing transportation demand with the slowdown of the spread of COVID-19. In particular, Asia, including China and the ASEAN region, is expected to drive the increase in global demand with increased energy consumption along with economic growth and increased demand triggered by the growth of the petrochemical industry.</li> <li>Despite the increase in global demand, the worsening situation in Ukraine has caused the prices of crude oil, natural gas, etc. to soar, which has severely affected the world economy.</li> <li>Demand in Japan is expected to recover as the economy improves, but over the medium term, oil demand will continue to decline due to the improved fuel efficiency of vehicles and the shift to other energy sources. In terms of refinery operations, additional cutbacks in capacity may be necessary.</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> </ul>	<p><b>Risks</b></p> <ul style="list-style-type: none"> <li>Tightening of regulations with a view to 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>	<ul style="list-style-type: none"> <li>Machinery</li> </ul>
Industrial machinery	<ul style="list-style-type: none"> <li>Although capital investment is expected to recover due to the recovery in demand in major industries with the slowdown of the spread of COVID-19, the recovery is slow and the situation remains uncertain.</li> <li>Demand in Japan remains firm mainly in the manufacturing industry, centered on demand for energy-saving and high-efficiency solutions, as well as transportation systems for automation and labor-saving of logistics bases, and preventive measures against flood for national resilience.</li> <li>Global demand is expected to increase particularly in Asia, the Middle East, Europe, and the United States, as the global economy continues to recover along with the acceleration of post-pandemic growth strategies in each country.</li> <li>With the acceleration of carbon-neutral initiatives, demand for CO<sub>2</sub> reduction and energy savings is increasing.</li> </ul>	<p><b>Risks</b></p> <ul style="list-style-type: none"> <li>Decline in corporate investment sentiment due to economic downturn</li> </ul> <p><b>Opportunities</b></p> <ul style="list-style-type: none"> <li>Growing demand for energy savings to achieve carbon neutrality</li> <li>Advancement of labor savings and work style reforms along with the progress of DX</li> </ul>	<ul style="list-style-type: none"> <li>Welding</li> <li>Machinery</li> </ul>
Renewable energy	<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>Although the cost of power generation using renewable energy is steadily declining as it has become a power source that is cost-competitive compared to conventional power sources, it remains high in Japan compared to international levels due to factors such as construction costs and location restrictions.</li> <li>The application of renewable energy is expected to expand with the acceleration of carbon-neutral initiatives, resulting in significant growth over the medium to long term.</li> <li>The application of renewable energy 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 the 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 various countries</li> <li>Expanded use of renewable energy driven by lower cost of energy-saving facilities</li> </ul>	<ul style="list-style-type: none"> <li>Welding</li> <li>Machinery</li> <li>Engineering</li> </ul>
Urban transit	<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 aging population</li> <li>Delays in projects and reduced appetite for investments due to the spread of COVID-19</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>	<ul style="list-style-type: none"> <li>Engineering</li> </ul>
Direct reduced iron (DRI)	<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 green steel production, steel manufacturers are increasing their efforts to switch to DRI plants.</li> </ul>	<p><b>Risks</b></p> <ul style="list-style-type: none"> <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 DRI 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 along with the acceleration of the movement toward carbon neutrality</li> <li>Tighter regulations on CO<sub>2</sub> emissions in various countries</li> </ul>	<ul style="list-style-type: none"> <li>Steel &amp; Aluminum</li> <li>Engineering</li> </ul>
Electric power	<ul style="list-style-type: none"> <li>Demand for electric power increased year over year as economic activities, which had been stagnant during the pandemic, headed toward recovery in fiscal 2021, resulting in the pickup in electricity demand in the industrial and commercial sectors. However, demand is expected to decline again in 2023 and beyond as energy-saving efforts advance.</li> <li>Due to the deteriorating situation in Ukraine, various countries, including Japan, have adopted policies to ban and/or restrict imports of Russian resources such as coal, which led to a tight supply-demand balance for fuel and a surge in prices. In addition, soaring energy prices are causing the rises of electricity prices in the wholesale electricity market.</li> <li>In Japan, competition is intensifying due to changes in the structure of the electric power business along with the expansion of distributed power sources such as solar power and due to electricity system reform.</li> <li>With the trend toward decarbonization, Japan has been promoting investments in new energy sources such as renewable energy as well as effective use of existing power plants, centering on large-scale power generation facilities such as thermal/nuclear power plants, while responding to public requirements such as a stable power supply and economic efficiency.</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 decrease in the short term, but increase in the medium to long term.</li> <li>Increasing needs for 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>	<ul style="list-style-type: none"> <li>Engineering</li> <li>Electric Power</li> </ul>

## Business Overview by Operating Segment

### Materials Businesses



**Makoto Mizuguchi**  
Executive Vice President

In the materials businesses, we are working on establishing a stable earnings base, which is a priority issue under the Medium-Term Management Plan. Along with this, we are also working on reducing CO<sub>2</sub> emissions in the Company's own production processes and contributing to the reduction of CO<sub>2</sub> emissions through our technologies, products, and services as key management issues.

Reducing CO<sub>2</sub> emissions from the ironmaking process is a major challenge in reducing CO<sub>2</sub> emissions in production processes. Our study in this area is proceeding steadily and has resulted in the launch of the low-CO<sub>2</sub> blast furnace steel product Kobenable Steel. We will continue to move forward with our study and take on the challenge of realizing carbon neutrality by 2050.

In terms of contributing to the reduction of CO<sub>2</sub> emissions through our technologies, products, and services, we believe we can contribute to the world through a wide range of products, such as lightweight materials and magnetic materials that support the weight reduction and electrification of automobiles and aircraft, steel products and welding solutions that are used in renewable energy facilities, etc.

In the materials businesses, we will contribute to the reduction of CO<sub>2</sub> emissions throughout society by promoting initiatives from these two approaches.

#### Strategy

##### Establishing a Stable Earnings Base

###### (1) Strengthening the Earnings Base in the Steel Business

On the assumption that demand for steel products in Japan will continue to decline over the long term, we aim to build a structure whereby we can secure stable earnings at 6.3 million tons of annual crude steel production and maintain profitability even at 6.0 million tons. In order to achieve this goal, we will continue to work tenaciously to lower the break-even point by improving steel product prices and product mix as well as by reducing fixed costs.

In terms of improving the product mix, we will continue to work to raise the ratio of special steel wire rods and high-tensile strength steel which was 46% in fiscal 2021, aiming to achieve our fiscal 2025 target of 52%. In terms of reductions of fixed costs, although we have factored into the budget increases in labor costs and in maintenance costs for stable operation, we will continue to proceed with automation and other initiatives by promoting DX.

###### (2) Restructuring Unprofitable Businesses

In the steel casting and forging business and the titanium business, we are streamlining the businesses through measures such as withdrawing from unprofitable products and reducing workforce in order to achieve stable profitability at an early stage. The titanium business returned to profitability in fiscal 2021, while the steel casting and forging business has progressed to the point where we can expect profitability in fiscal 2022. We will continue to work on measures for streamlining.

##### CO<sub>2</sub> Reduction Initiatives

For CO<sub>2</sub> reductions in the ironmaking process, we will promote our initiatives centered on CO<sub>2</sub> reduction solution

for blast furnace ironmaking that utilize hot briquetted iron (HBI) manufactured with the MIDREX® Process. In moving toward taking on the challenge of realizing carbon neutrality by 2050, we will take a multi-track approach. Along with our own internal efforts, we will engage in various projects such as three projects promoted by the NEDO, namely COURSE50, Ferro-Coke, and Super COURSE50, and proceed with initiatives for Hydrogen Utilization in Iron and Steelmaking Processes, which has been selected for funding by Japan's Green Innovation Fund and promoted by a consortium centered on steel manufacturers.

Applying the CO<sub>2</sub> reduction effect obtained by our CO<sub>2</sub> reduction solution for blast furnace ironmaking, we have launched the first low-CO<sub>2</sub> blast furnace steel in Japan, under the brand name Kobenable Steel. Many of our customers have been showing heightened interest in the product.

In addition to Kobenable Steel, the KOBELCO Group has many other technologies, products, and services that help reduce CO<sub>2</sub> emissions. These contribute not only to reducing CO<sub>2</sub> emissions in its own production processes but also to reducing CO<sub>2</sub> emissions in society as a whole. Initiatives aimed at achieving carbon neutrality are already underway around the world, including weight reduction of automobiles and aircraft to improve fuel efficiency, vehicle electrification, and increased use of renewable energy, but there are many technical issues for the widespread use of these items in terms of product characteristics and cost. We believe that our Group's materials (steel & aluminum, advanced materials, and welding materials) and solution technologies that utilize them will be useful in resolving such issues. Through contributing to CO<sub>2</sub> reductions, we will further strengthen our materials businesses.



### Steel & Aluminum

#### Fiscal 2021 Summary

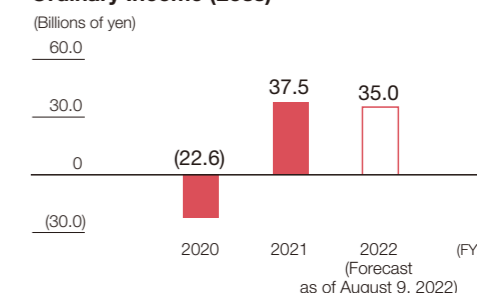
##### Steel products

- Demand increased mainly in the automotive and construction sectors due to an increase in demand driven by the recovery from the impact of COVID-19.
- Selling prices increased due to the rise in steel market prices and the rise in raw material prices, which were passed on to selling prices.
- Ordinary income of 34.6 billion yen was recorded due to positive factors such as an increase in sales volume and an improvement in inventory valuation along with a rise in raw material prices, despite negative factors such as a delay in passing on the rise in raw material prices to selling prices.

##### Aluminum flat-rolled products

- Sales volume rose due to an increase in sales of beverage can stock as well as an increase in demand and sales promotion in the automotive sector.
- Ordinary income of 2.8 billion yen was recorded due to an increase in sales volume and an improvement in inventory valuation gains.

#### Ordinary Income (Loss)



#### Promoting Sustainability Management

- We will provide customers with distinctive technologies, products, and services and provide solutions to the needs of society in various fields.
- Utilizing our HBI charging technology for blast furnaces, we will establish a low-CO<sub>2</sub> ironmaking process and achieve a sustainable supply of steel products.
- We will contribute to the preservation of the marine environment by reducing plastic waste (plastic bottles) through the production of highly recyclable aluminum can stock.
- We will work to reduce CO<sub>2</sub> emissions through measures such as expanding our supply capacity of aluminum sheet materials for automotive panels that contribute to weight reduction of automobiles, improving the recycling rate, and utilizing green aluminum.
- Leveraging synergies in the materials businesses, we will promote our Group's unique automotive weight-reduction proposal activities, which include the global supply of automotive weight-reduction technologies and lightweight materials, in order to contribute to further CO<sub>2</sub> reduction in the automotive sector.

#### Business Strengths

##### Steel products

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

##### Aluminum flat-rolled products

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

#### Social Changes to Impact on Business

- Response to climate change
- Shrinking demand for steel products in Japan
- Shift to EVs
- Trend toward plastic reduction
- Progress of DX

#### Important Issues and Initiatives

##### Steel products

- Establish a structure to secure stable earnings at 6.3 million tons per year of crude steel production and maintain profitability even at 6.0 million tons. → Reduction of fixed costs and variable costs
- Improve the product mix by leveraging the Group's distinctive products (special steel wire rods and high-tensile strength steel)
- Achieve a selling price that matches the value of the product
- Promote initiatives to become a leading company that contributes to reducing CO<sub>2</sub> emissions in the steel industry. → The launch of Kobenable Steel, Japan's first low-CO<sub>2</sub> blast furnace steel product

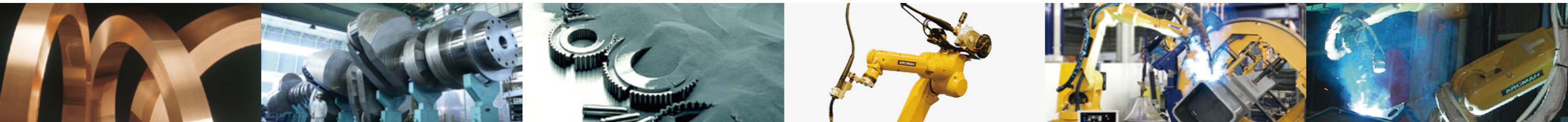
##### Aluminum flat-rolled products

- Respond to growing demand for automotive panels
- Pass on the increase in secondary material and energy prices to selling prices
- Ensure that strategic investment projects (aluminum sheet materials for automotive panels) contribute to earnings
  - Start mass production at Chinese subsidiary
  - Establish a mass production system with a new line of aluminum sheet for automotive panels at Moka Works
- Reduce costs by strengthening *monozukuri* (manufacturing) capabilities

#### TOPICS

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

For details, please refer to p. 49.

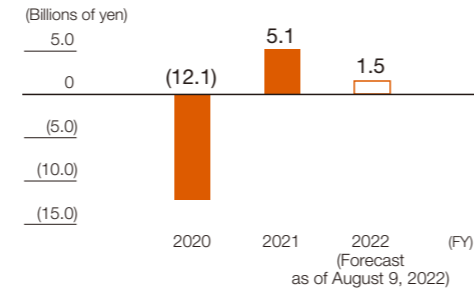


## Advanced Materials

### Fiscal 2021 Summary

- Demand increased mainly in the automotive, IT, and semiconductor sectors.
- Ordinary income of 5.1 billion yen was recorded due to an increase in sales volume and an improvement in inventory valuation driven by the rise in the copper market prices.

#### Ordinary Income (Loss)



### Promoting Sustainability Management

- We will provide trusted products and services that are valued by customers and contribute to the creation of a safe and secure society by leveraging synergies through the integration of diverse business assets (human resources, information, intellectual property, etc.) and technological assets (such as castings, forgings, and fabrication).
- We will contribute to the sustainable development of society and industry and contribute to carbon neutrality by supplying aluminum (extrusions, suspensions, castings and forgings), titanium, steel castings and forgings, copper, and steel powder products globally to address the need for the weight reduction of transportation equipment (automobiles, aircraft, ships, rolling stock, etc.), the electrification of vehicles, and the expansion of the IT and semiconductor fields. We will also work to reduce environmental impacts by improving the product recycling rate and resource recycling rate.



### Business Strengths

- Automobiles**
  - Own materials/parts products, and production bases that contribute to weight reduction and CASE
- Shipbuilding**
  - Japan's only full-lineup manufacturer of material products for ships
- 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 DX
- Changes in industrial structure triggered by COVID-19
- Changes in the supply chain caused by conflicts, disasters, and other factors

### Important Issues and Initiatives

#### Common issue

- The need to pass on increases in raw material and energy prices to selling prices

#### Steel castings and forgings

- Focus on profitability of orders, optimize the composition of the ordered projects, and achieve profitability at an early stage

#### Aluminum castings and forgings

- Expand sales in the IT field, strengthen *monozukuri* (manufacturing) in the sand-casting business

#### Titanium

- Review the strategy for large forgings targeted at aircraft in response to changes in industrial structure caused by COVID-19

#### Aluminum suspensions

- Respond to demand by maximizing production at the three bases of Japan, the U.S. and China (strengthen *monozukuri* capabilities)

#### Aluminum extrusions

- Improve the project mix by increasing the ratio of fabricated automotive components and expand sales in new fields
- Establish a production structure that can address changes in the project mix (making general-purpose facilities with multiple functions)

#### Copper rolled products

- Steadily capture growing demand for automotive terminals and semiconductors and maximize production; secure stable earnings in the leadframe business
- Steadily establish a new business base in Vietnam

#### Steel powder

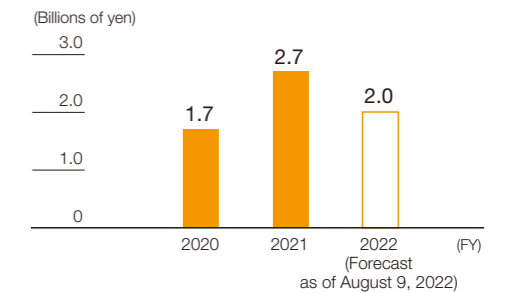
- Develop new products and new fields in response to the electrification of automobiles

## Welding

### Fiscal 2021 Summary

- In Japan, demand rose mainly in the architectural steel frame sector.
- Overseas demand increased in the automotive and construction machinery sectors in Southeast Asia.
- Ordinary income increased by 1.0 billion yen year on year to 2.7 billion yen.

#### Ordinary Income



### 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).
- We will contribute to reducing the weight of transportation equipment through developing, jointly with our customer, 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.
- Using AI to increase the functionality of welding robots, we will achieve the same quality of welding as skilled welders and contribute to customers' *monozukuri* (manufacturing) in terms of both efficiency and quality.
- We will bring our problem-solving assistance closer to the customer through the KOBELCO WELDING smartphone app, which gives customers access to technical information on welding and solutions for welding-related problems.



### Business Strengths

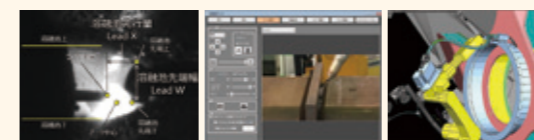
- The only company in Japan offering a total menu of welding materials, robot systems, power sources, and processes
- Ability to propose solutions based on thorough on-site focus and quick responses
- Largest sales organization for welding materials and welding systems in the Japanese welding industry

### Social Changes to Impact on Business

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

### Important Issues and Initiatives

- Strengthen earnings base through structural reforms
  - Review production structure and rightsize 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



(Left) AI molten pool sensor  
(Center) ARCMAN™ View for production support DX  
(Right) ARCMAN™ Offline Teaching System

### TOPICS

#### Promoting DX in Customer *Monozukuri*

By combining advanced IT and AI technology with the know-how and welding technology that we have cultivated over many years, we will broaden the scope of welding robot automation and work to develop products that will resolve labor shortages and liberate people from heavy labor.



**Atsushi Fukunaga**  
Welding System Department, Technical Center, Welding Business

##### (1) AI Molten Pool Sensor

By using AI to analyze molten pool images and optimize the wire aim point, we will automate the abilities of skilled welders.

##### (2) ARCMAN™ View for Production Support DX

By gathering and analyzing production data from robots, we will help enhance customer productivity and reduce downtime. We will also support remote operation of robots through the use of camera images, thus achieving safer work.

##### (3) ARCMAN™ Offline Teaching System

Using 3D-CAD data, robot operations are simulated offline and programs to control robots are created automatically. Even beginners can easily teach the robot using the program creation logic that has incorporated the knowledge of experienced operators.

## Machinery Businesses



**Kazuto Morisaki**  
Executive Vice President

In the machinery businesses, we have global customers in a diverse range of fields, including the automotive, aircraft, shipbuilding, construction and civil engineering, social and industrial infrastructure, and environment and energy sectors. Furthermore, our machinery businesses cover a broad range of technologies, products, and services that help reduce CO<sub>2</sub> emissions and environmental impact. On a global basis, our machinery businesses have the potential to provide solutions to the social issues faced by our customers and contribute to the environment and society.

We are receiving an increasing number of inquiries about hydrogen/renewable energy-related products, the MIDREX<sup>®</sup> Process, and other environmentally friendly options that lead to CO<sub>2</sub> reductions. We are actively working on business development while promoting Groupwide cooperation, as exemplified by the creation of environmentally friendly options that leverage the strengths of Kobelco Eco-Solutions Co., Ltd., which became a wholly owned subsidiary of Kobe Steel in fiscal 2021, and the CO<sub>2</sub> reduction initiative in collaboration with the steel business and the electric power business. In the construction machinery business, we will contribute to work style reforms at construction sites through the use of K-Dive Concept, a remote operation technology for construction machinery. Our Group's machinery businesses are playing an increasingly active role in the efforts to realize a sustainable society. We believe that creating and strengthening value through combining technologies, products, and services in the machinery businesses worldwide will be the driver of the medium- to long-term growth of our machinery businesses.

### Strategy

#### Stabilizing Earnings and Responding to Growing Markets

##### Machinery Business / Engineering Business

In the machinery businesses, we have so far demonstrated our competitiveness in the fields that utilize fossil fuels, but from now on, we will strengthen and enhance our business in the environmental field, which is expected to grow in the future. Through the capital and business alliance with Miura Co., Ltd., we will provide systems that offer customers comprehensive solutions, including saving energy and reducing CO<sub>2</sub> emissions, and conduct research on hydrogen utilization technology.

In the engineering business, we aim to maximize earnings through promoting environmentally friendly options. By expanding the MIDREX<sup>®</sup> business and exerting the collective strengths of the Group through cooperation with the steel business, the electric power business, and Kobelco Eco-Solutions, which became a wholly owned subsidiary of Kobe Steel in November 2021, we will work to create value unique to the KOBELCO Group.

To respond to energy conversion and growth markets, we will begin demonstration tests of a hybrid-type hydrogen gas supply system, utilizing the management resources of the machinery business and the engineering business, in order to provide solutions aimed at the realization of a hydrogen society in the future.

#### Construction Machinery Business

In order to achieve a transformation to a stable earnings structure, we will strengthen and enhance our business operations based on three pillars of unit business, parts and maintenance business and solutions/peripheral business.

The Chinese market has been a major pillar of earnings for the Group's construction machinery business, but we expect the business environment to become more challenging as a result of the decline of the Chinese market and intensified competition from Chinese manufacturers. While ensuring stable earnings by working to optimize the business in China, we will target Europe, North America, and India as "offense areas" where we have room to increase our market share. The areas we have defined as "defense areas" include Japan and Southeast Asia, where we already have a large market share, and China, which we are reducing our dependence on. By developing optimal business structures, products, and logistics approaches for respective areas, we will depart from an earning structure that is dependent on the Chinese market.

In addition, by taking steps to strengthen sales of parts and after-sales service, we will bolster earnings in the parts and maintenance business.

Furthermore, we are working to establish a new business model with the solutions/peripheral business as one of the new pillar of earnings of the construction machinery business by promoting business development in these areas. An example of this is the K-Dive Concept remote operation technology for construction machinery, which will start commercial service in stages from fiscal 2022.

For details on strategies for the machinery business, engineering business, and construction machinery business, please refer to the following materials.

Current Status of Progress on the KOBELCO Group Medium-Term Management Plan (FY2021-2023)

[https://www.kobelco.co.jp/english/ir/library/investor\\_meeting/2022/220603\\_medium-term\\_en.pdf](https://www.kobelco.co.jp/english/ir/library/investor_meeting/2022/220603_medium-term_en.pdf)

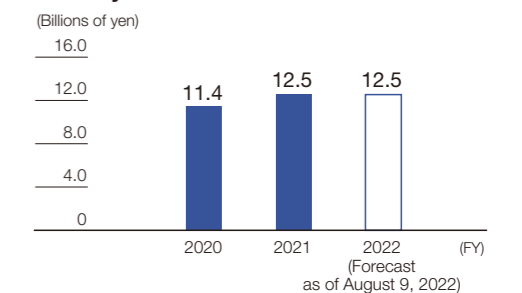


## Machinery

### Fiscal 2021 Summary

- Orders increased due to the recovery in capital investment and other factors.
- Sales declined due to sluggish orders in the previous fiscal year affected by the COVID-19 pandemic
- Ordinary income of 12.5 billion yen was recorded with an increase in service contracts and an improvement in profit margins due to changes in the project composition.

### Ordinary Income



### Promoting Sustainability Management

#### Providing energy-related technologies with low environmental impacts

We will provide energy-related technology with low environmental impacts such as hydrogen by accelerating the transition to a more sophisticated industrial structure through the development of new machinery and manufacturing technologies focused on mixing, compressing, and heat exchange.

#### Promoting comprehensive energy conservation and reduction of CO<sub>2</sub> emissions

Through our capital and business alliance with Miura Co., Ltd., which has strengths in the heat supply business, we will provide new comprehensive solutions to energy savings and CO<sub>2</sub> reductions for a wider range of customers by expanding sales of heat pumps, which are clean heat sources, and recovering waste heat from compressors, etc.

#### Contributing to waste reduction

We will manufacture and sell equipment that contributes to higher efficiency and longer service life of components, with technologies such as surface treatment and IP processing, etc.

#### Providing stable operation by DX

We will achieve stable operation of delivered equipment by deploying the IoT cloud service "Kobelink" for standard compressors

### Business Strengths

- Availability of all types of compressors (screw, turbo, and reciprocating) that allows the provision of 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 coal and oil to LNG, and in the future to renewable energy and hydrogen)
- Waste reduction

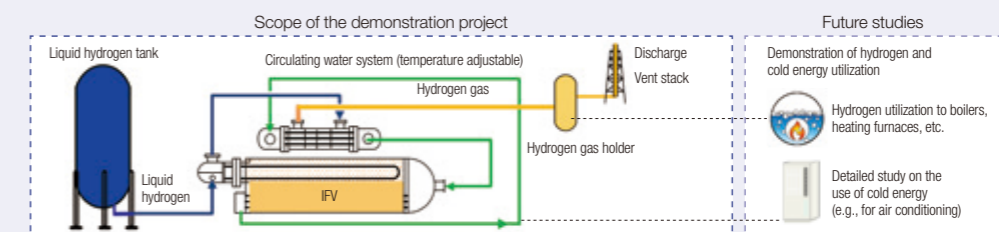
### TOPICS

#### NEDO Entrusts Kobe Steel with Development of Intermediate Fluid Vaporizer for Liquid Hydrogen that Enables Use of Liquid Hydrogen Cold Energy

On March 9, 2022, the NEDO selected the "Development of an intermediate fluid vaporizer for liquid hydrogen that enables the use of liquid hydrogen cold energy" proposed by the KOBELCO Group as the development of large-scale equipment required for the liquid hydrogen receiving terminal under the Technology Development Project for Creating a Hydrogen Society / Technology Development Project for Large-Scale Utilization of Hydrogen.

We will demonstrate a liquid hydrogen vaporizer, which is able to recover liquid hydrogen cold energy, to develop a platform for a large-scale vaporizer by obtaining data of heat transfer and mechanical reliability, utilizing the KOBELCO Group's proven technologies and experience of the Intermediate Fluid Vaporizer (IFV) for LNG. In relation to this project, NEDO also selected our "Study on hydrogen utilization model for decarbonization of factories that mainly consume energy as heat" on December 3, 2021.

Through this project, the KOBELCO Group will contribute to the realization of a hydrogen society, which is a social issue.





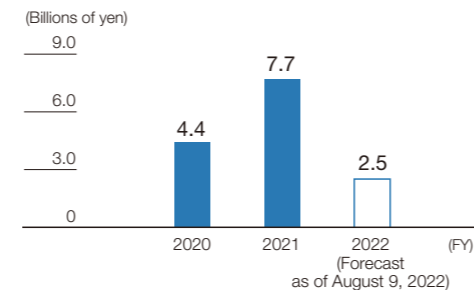


## Engineering

### Fiscal 2021 Summary

- Orders increased due to an increase in orders of large-scale projects in the DRI-related business and the waste treatment-related businesses.
- Ordinary income of 7.7 billion yen was recorded due to improvements in the progress of overseas projects that had been affected by the COVID-19 pandemic in the previous fiscal year, and improvement in profit margins along with changes in the project composition.

#### Ordinary Income



### Promoting Sustainability Management



#### Contributing to CO<sub>2</sub> reduction

In addition to the MIDREX® Process, which contributes to CO<sub>2</sub> reduction, we will 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 will 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 will contribute to the development of transportation infrastructure leveraging self-driving technologies and system integration capabilities that we developed through supplying new transit systems.

### Business Strengths

- Extensive lineup of environmentally friendly options focused on CO<sub>2</sub> reduction, waste treatment, and renewable energy
- Being the owner of the MIDREX® Process, with a high global DRI market share.
- 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 Plant

### Social Changes to Impact on Business

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

### TOPICS

#### Kobelco Eco-Solutions Becomes a Wholly Owned Subsidiary through a Simplified Share Exchange

On November 1, 2021, Kobelco Eco-Solutions Co., Ltd. became a wholly owned subsidiary of Kobe Steel, Ltd. through a simplified share exchange. We will move forward with initiatives that demonstrate greater synergies of the Group and strive to maximize profits from environmentally friendly options and enhance corporate value. To this end, we will take measures such as accelerating Group-wide efforts to create new businesses and achieve carbon neutrality, expanding Kobelco Eco-Solutions' business by utilizing the collective strengths of the Group, improving management efficiency, and speeding up decision-making.

#### Kobelco Eco-Solutions to Undertake Two Projects for Converting Sewage Sludge into Fuel

The special-purpose construction joint venture (Special JV) formed by Kobelco Eco-Solutions and other companies concerned has received successive orders from the Japan Sewage Works Agency. The first one is for the renovation work of the sludge treatment facilities at the wide-area sewage sludge treatment site for the eastern Hyogo area, and the second one is for the installation work of sludge utilization facilities under the Fukuchiyama City sludge treatment facilities rebuilding project. In both projects, the Special JV will undertake the renovation of existing facilities, as well as the construction of new facilities, for the digestion of sludge and for the conversion of sludge into fuel. The sludge digestion facilities and sludge fuelization facilities at the wide-area sewage sludge treatment site for the eastern Hyogo area will be among the largest in Japan. In these projects, the Special JV will work to produce biogas and sludge fuel derived from sewage sludge and utilize them to promote the effective use of sewage sludge energy and the reduction of greenhouse gas emissions.

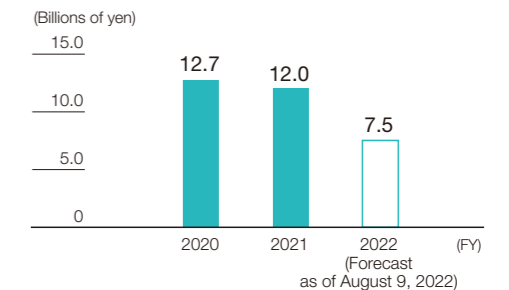


## Construction Machinery

### Fiscal 2021 Summary

- Unit sales of hydraulic excavators increased due to a recovery in demand driven by increased infrastructure investment, particularly in Southeast Asia and Europe, despite a decline in demand in China, where infrastructure investment has dwindled.
- Unit sales of crawler cranes remained at the same level as the previous fiscal year due to a recovery in demand in India and Europe, despite a decline in North America affected by the certification problem of the engine employed in our products.
- Ordinary income decreased by 0.6 billion yen to 12.0 billion yen due to a deterioration in the product mix and an increase in procurement costs despite the impact of a weaker yen against the U.S. dollar and the euro.

#### Ordinary Income



### 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 machinery, 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 machinery, building demolition machinery, and metal-handling machinery

#### Contributing to the reduction of climate change risks

Development and commercialization of construction machinery that employs low-carbon technologies such as electrification and fuel cells

### Business Strengths

- Energy-saving technology for construction machinery and a wide lineup of environmental recycling machinery
- Next-generation technical development capabilities, such as the K-DIVE CONCEPT technology for remote operation of hydraulic excavators




### Social Changes to Impact on Business

- DX
- Diversification of work styles
- Declining and aging population in the construction industry
- Carbon neutrality

### TOPICS

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

Kobelco Construction Machinery Co., Ltd. has promoted research and development for its K-DIVE CONCEPT under the slogan of realizing a teleworking system centered on people who work at construction sites. As a result, preparations for remote operation services at designated yards are being put in place, and the service will be launched in phases in fiscal 2022. This system will enable on-site construction work that is free from constraints such as location and time, helping to eliminate shortages of skilled construction workers and improving productivity through unmanned on-site operation.

Phase 1	Phase 2	Phase 3
<b>Work at a designated yard</b> Remote operation of heavy equipment at designated yards, such as a metal scrapyard, industrial waste treatment yard, or mud pits 	<b>Work at a general civil engineering site</b> Remote operation of heavy equipment at sites with short construction periods, such as general civil engineering sites and sites for land formation 	<b>Matching service</b> Support efficient development of operators, and expand the pool of operators 
Service to launch in fiscal 2022		

## Electric Power Business



**Jiro Kitagawa**  
Executive Officer

In February 2022, we began operation of the Kobe Power Plant No. 3 unit, employing cutting-edge power generation facilities. The power plant contributes to the stability of electric power system with low transmission loss due to its proximity to areas of high electricity demand. We believe that, by providing a stable supply of electric power with high operational and economic efficiency, we can contribute to the further development of local communities. Construction of the Kobe Power Plant No. 4 unit is proceeding as planned, and commercial operations are scheduled to begin in the second half of fiscal 2022.

In recent years, the energy situation in Japan has changed significantly. In March 2022, the Japanese government issued its first power supply warning due to earthquakes and deteriorating weather, which heightened the risk of unexpected large-scale power outages. Subsequently, in June 2022, the government issued an advisory for possible power shortages after the shortest-ever rainy season followed by consecutive days of extreme heat. While renewable energy is becoming one of the main power sources in Japan, the importance of a stable power supply from thermal power sources has been reaffirmed in situations where power supply is tight. Our Group owns disaster-resistant large-scale thermal power plants that can provide a stable supply of high-capacity electricity, which is of great social significance. We will strive to realize safe, secure, and prosperous lives by providing a stable supply of economical electric power through the operation of highly efficient power generation facilities in accordance with the national energy policy, and by working for even higher efficiency and decarbonization toward realizing carbon neutrality by 2050.

### Strategy

#### National Energy Policy

In 2020, Japan declared its aim to achieve carbon neutrality by 2050 and made an international pledge at the G7 summit in June 2021. In October 2021, the Cabinet of Japan decided on the 6th Strategic Energy Plan in October 2021, and, in May 2022, the Act of Partial Revision of the Act on the Rationalization etc. of Energy Use and Other Acts was enacted with the aim of achieving the reduction target for greenhouse gas emissions (46% reduction compared to the 2013 level) by 2030.

In order to achieve these decarbonization goals, the Clean Energy Strategy has been set forth as a growth strategy to show the direction Japan should take. This incorporates two strategies of ensuring energy security and achieving economic, social, and industrial structural reforms toward a carbon-neutral society.

In this strategy, thermal power generation is expected to play a role as a stable supply source of electric power in a tight supply situation. It is also required as a power source that performs functions such as adjusting the

supply-demand balance to compensate for the variability of renewable energy, which is increasingly being used, and providing inertial force to reduce the probability of blackouts.

In addition, Japan aims to proceed with the decarbonization of thermal power plants by gradually reducing inefficient thermal power plants and increasing the use of ammonia and hydrogen as fuels for higher efficiency and lower CO<sub>2</sub> emissions toward realizing a carbon-neutral society.

#### KOBELCO Group's Initiatives

Based on the roadmap set out in the Medium-Term Management Plan, the Group will continue to provide a long-term stable supply of electric power with low environmental impact and high economic efficiency, while strengthening its efforts to achieve even higher efficiency and lower CO<sub>2</sub> emissions with the aim of realizing carbon neutrality by 2050. Through the stable supply of electricity, we will contribute to local communities and the global environment in order to realize a world in which people can enjoy safe, secure, and prosperous lives.

#### Roadmap for 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>Study co-firing of biomass fuel</li> <li>Study co-firing of ammonia</li> <li>Ensure generation efficiency of at least 43% through the above initiatives</li> </ul>
	Gas fired	<ul style="list-style-type: none"> <li>Continue low-CO<sub>2</sub> power generation through high-efficiency GTCC</li> </ul>

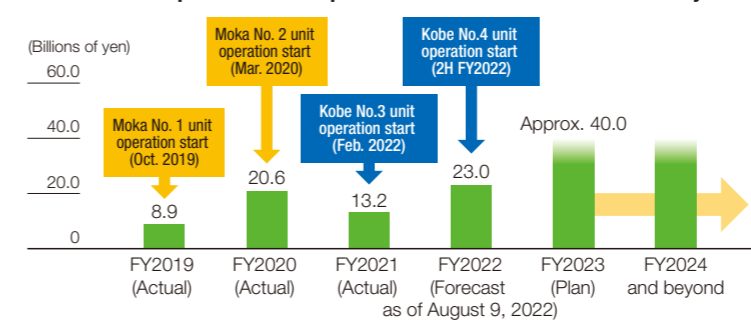
#### Roadmap for 2050

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 and technological innovation: Establishment and commercialization of low-cost, zero-emission ammonia technology</b></p>
	Gas fired	<ul style="list-style-type: none"> <li>Maximize utilization of carbon-neutral city gas</li> </ul> <p><b>Social and technological innovation: Widespread use and commercialization of carbon-neutral city gas</b></p>



### Fiscal 2021 Summary

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



In fiscal 2021, ordinary income decreased by 7.4 billion yen year on year to 13.2 billion yen due to an increase in idle time resulting from periodic inspections of the Moka Power Plant, and a decline in demand from the previous fiscal year that saw a rise in demand in response to temporary power supply-demand tightness in the winter.

Note: Figures are actual results and forecasts of ordinary income in the electric power segment

### Promoting Sustainability Management

The electric power business will lead 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 Groupwide collaborations with the engineering and other businesses.

### Business Strengths

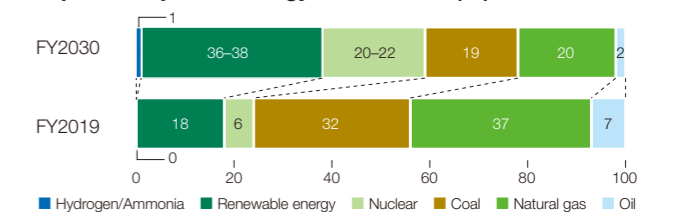
Kobe	Coal fired	<ul style="list-style-type: none"> <li>Contributing to further improvement of electric power self-sufficiency rate in Kobe City and Hanshin area</li> <li>Compliance with toughest environmental standards in Japan</li> <li>Improving overall regional energy efficiency by supplying heat generated from power generation facilities</li> <li>Plans to use sewage sludge from urban areas as biomass fuel</li> <li>Very low transmission losses from power plants due to the proximity to areas of high electricity demand</li> <li>Operating technologies accumulated through 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>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 Gas Turbine Combined Cycle (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 through in-house power generation</li> </ul>

### The 6th Strategic Energy Plan

In October 2021, Japan formulated its 6th Strategic Energy Plan, which sets out new policy targets for 2030 with respect to the energy mix aimed at simultaneously achieving safety, energy security, economic efficiency, and environmental compliance.

For the development of our electric power business in accordance with national policies, we will move ahead with initiatives aimed at higher efficiency and lower CO<sub>2</sub> emissions, while leveraging the strengths of the KOBELCO Group's businesses, in order to achieve energy security, economic efficiency, and environmental compliance.

#### Japan's Projected Energy Mix for 2030 (%)



Note: Prepared by Kobe Steel, based on materials released by the METI

### TOPICS

#### Progress in New Electric Power Projects

Kobe Power Plant No. 3 and No.4 units (artist's impression)



No. 3 unit: Began commercial operations in February 2022  
No. 4 unit: Scheduled to begin commercial operations in the second half of fiscal 2022

Moka Power Plant No. 1 and No. 2 units (panoramic view)



No. 1 unit: Began commercial operations in October 2019  
No. 2 unit: Began commercial operations in March 2020

# Climate-Related Disclosures Based on TCFD Recommendations

## Basic Concept

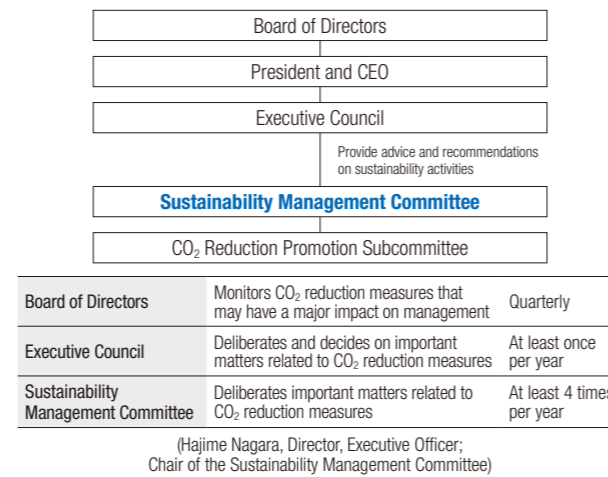
The KOBELCO Group recognizes CO<sub>2</sub> emission reduction as a top management priority. As such, we announced our aim to increase corporate value through a transition to carbon neutrality by 2050 in the KOBELCO Group Medium-Term Management Plan (FY2021–2023) announced in May 2021.

Going forward, the KOBELCO Group will continue to pursue reduction of CO<sub>2</sub> emissions in order to contribute to the realization of “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 established the CO<sub>2</sub> Reduction Promotion Subcommittee under the Sustainability Management Committee (chaired by a director and executive officer) as an organization that specializes in dealing with issues related to the risks and opportunities associated with climate change. The subcommittee, tasked with conducting strategic reviews of climate change, studies and implements Companywide activities to address the risks and opportunities of climate change.

The activities of the CO<sub>2</sub> Reduction Promotion Subcommittee and its study outcomes are reported through the Sustainability Management Committee to the Board of Directors quarterly for supervision and guidance from the Board of Directors. In this manner, we have a system where the Board of Directors has direct governance over risks related to climate change.



## Strategy

The KOBELCO Group analyzes the medium- to long-term risks and opportunities associated with climate change considering various guidelines, including: the social scenarios presented by the International Energy Agency (IEA); the long-term visions formulated and announced by the Japan Iron and Steel Federation (JISF), the Japan Aluminium Association, and other industry organizations; and the energy policies of Japan. Based on the analysis results, we evaluate the appropriateness of our Group’s activities.

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-CO<sub>2</sub> 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® Process over the medium to long term.

### 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

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

	Risks		Opportunities	
	Short to medium term (until FY2030)	Long term (until FY2050)	Short to medium term (until FY2030)	Long term (until 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® Process, etc.)	
Market and technology transitions	Rising capital investments, R&D expenses, and operating costs associated with low-carbon technologies		Differentiation from other companies by establishing a reputation as a frontrunner in combating climate change	
Reputation	Deterioration of corporate reputation due to insufficient or delayed information disclosure		Increase in demand for products due to increased public and capital investments for disaster prevention	
Physical risks (natural disasters, etc.)	Reduction of production volumes and disruptions of supply chains due to increases in floods, typhoons, and other natural disasters	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

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

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

Kobe Steel is collaborating with other steelmakers in the development projects being promoted by NEDO in a bid to further reduce CO<sub>2</sub> emissions in the ironmaking process and to realize practical application of these developments. One of these projects is the Hydrogen Utilization Project in Iron and Steelmaking Processes, which was selected as a project under the Green Innovation Fund established by METI. We are promoting efforts aimed at realizing carbon neutrality by 2050.

### 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/parts 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>™ (100% hydrogen-based direct reduction).

## Scenario Analysis

In order to better understand future climate-related risks and opportunities, we carried out medium-term (2030) and long-term (2050) scenario analysis. Our scenario analysis is based on the International Energy Agency (IEA)’s 2-degree scenario (SDS: Sustainable Development Scenario) and 1.5-degree scenario (Net Zero by 2050) as well as the 4 degree-scenario presented by the Intergovernmental Panel on Climate Change (IPCC) in its Sixth Assessment Report. For our analyses and evaluations, 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. For the electric power business, which is closely related to Japan’s energy policy, we conduct scenario analysis based on the energy policy of the national government. We also regularly review our analysis and evaluation of risks and opportunities based on changes in the external environment.

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> reduction.

## Risks and Opportunities

One of the KOBELCO Group’s 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 2021 totaled 16.1 million tons (Scope 1 and Scope 2), which ranks high even in Japan’s manufacturing industry. Accordingly, we recognize that the trends of future national climate change policies, laws, and regulations, including carbon pricing, are transition risks that may have a significant impact on our business operations.

### Impact on Business

As more than 90% of our Group’s 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 stock per capita. Therefore, the demand for steel is expected to continue to increase along with the world’s economic growth and population growth.

As for physical risks, 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 evident. The KOBELCO Group recognizes that further intensification of typhoons, floods, and other natural disasters caused by climate change poses a risk that could have a significant impact on its operations and lead to suspension of production activities.

Steel production can be broadly divided into production with natural resources (iron ore, mainly using blast furnaces and DRI) and production with reused scrap (mainly using electric arc 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 reused scrap alone. Accordingly, production using natural resources (iron ore) will continue to require the same level of production as at present.

In accordance with our Group’s 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.

Amid growing interest in the response to climate change and the disclosure of 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

As for opportunities, demand for low-CO<sub>2</sub> products and services is increasing amid growing international interest in climate-related issues. We expect demand for products that help reduce CO<sub>2</sub> emissions, such as our automotive weight-reduction materials and the MIDREX® Process, to grow over the medium to long term.

## 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 realizing carbon neutrality by 2050 and aim to increase corporate value through this transition. We have also set 2030 targets as our medium-term goals.

#### Trends in CO<sub>2</sub> Emissions

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 introduced highly efficient gas turbine power plants.

The KOBELCO Group has also maintained a consistent approach in advancing various energy conservation and CO<sub>2</sub> reduction measures through proactive capital investments. For example, we installed highly efficient gas turbine power generation facilities that use gas from blast furnaces at Kakogawa Works over the period from fiscal 2009 to fiscal 2014, resulting in a substantial reduction of CO<sub>2</sub> emissions.

Compared to the previous year, the Group's CO<sub>2</sub> emissions in fiscal 2021 increased as the impact of the COVID-19 pandemic has eased, and production has recovered. As a result, the CO<sub>2</sub> reduction rate was 16% compared to fiscal 2013.

In the ironmaking process, we have completed a technical test and verified that CO<sub>2</sub> emissions in the blast furnace process can be reduced by approximately 20% by charging a large quantity of direct reduced iron (DRI) in the form of hot briquetted iron (HBI) manufactured with the MIDREX<sup>®</sup> Process into the blast furnace. Going forward, we will continue to work to achieve our 2030 targets by further developing the HBI charging technology and AI-based blast furnace operation technology to reduce CO<sub>2</sub> emissions from blast furnaces. With a view to achieving carbon neutrality in 2050, we will proceed with a double-track approach of reducing CO<sub>2</sub> emissions through utilizing existing blast furnaces and manufacturing high-grade steel in large electric arc furnaces.

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

In fiscal 2021, our Group's CO<sub>2</sub> emissions from energy use totaled 16.1 million tons. Of this amount, about 94% was emitted from the steel & aluminum-related business, about 3% from the advanced materials-related businesses, and about 2% from the electric power business.

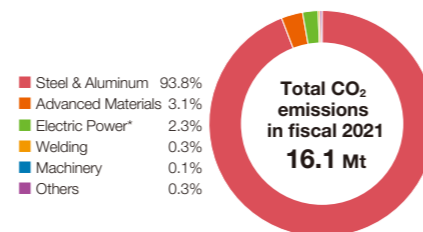
**2050 Vision**  
Taking on the challenge of realizing carbon neutrality

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

**Fiscal 2021 Result**  
**16% reduction** (compared with fiscal 2013)\*1\*2

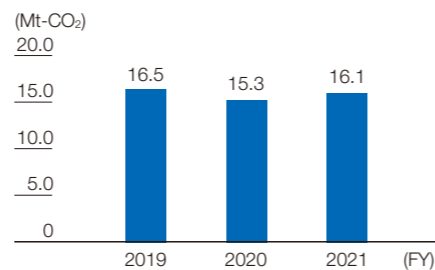
\*1. Total of Scope 1 and Scope 2  
\*2. Covered range for reduction target: Major business locations of Kobe Steel, Ltd. and Kobelco Construction Machinery Co., Ltd., together representing around 95% of CO<sub>2</sub> emissions of the entire Group (Fiscal 2021 actual results)  
Fiscal 2013 emissions in covered range: 18.2 million tons  
Fiscal 2021 emissions in covered range: 15.3 million tons

**CO<sub>2</sub> Emissions from Energy Use**  
Total of Scope 1 and Scope 2, excluding some areas\* (including domestic and overseas Group companies)



\* CO<sub>2</sub> emissions in the electric power business are calculated in accordance with the calculation method for the reporting system under the Act on Promotion of Global Warming Countermeasures. CO<sub>2</sub> emissions from the electricity sold (approximately 7.7 million tons) are not included in the above graph.

**CO<sub>2</sub> Emissions from Energy Use by Year**  
Total of Scope 1 and Scope 2, excluding some areas\* (including 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 the reduction of CO<sub>2</sub> emissions in various areas of society through its distinctive technologies, products, and services. The KOBELCO Group has established a target for 2030 and vision for 2050 in terms of its contribution to reduction of CO<sub>2</sub> emissions.

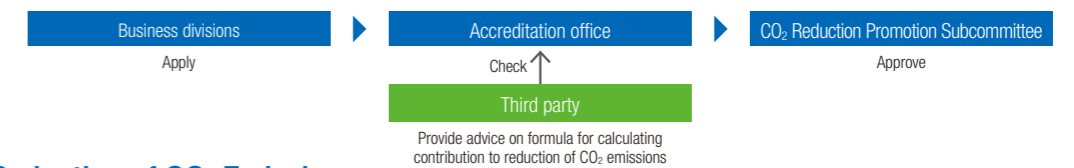
Regarding the contributions to reduction of CO<sub>2</sub> emissions through technologies, products, and services, the Group has instituted an internal accreditation system. For the formulas used in accreditations, we receive advice from Kiyotaka Tahara, the Director of the Research Laboratory for IDEA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

the National Institute of Advanced Industrial Science and Technologies (AIST).

**2050 Vision**  
CO<sub>2</sub> emission reduction contribution: **100 million tons or more**

**2030 Target**  
CO<sub>2</sub> emission reduction contribution: **61 million tons or more**

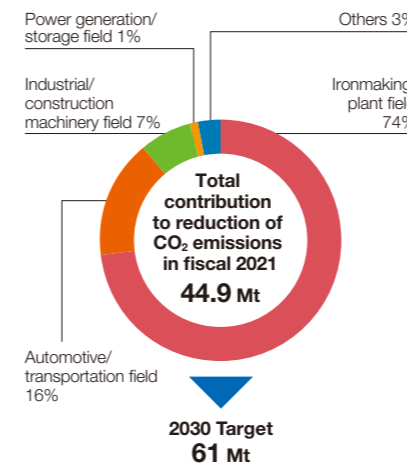
#### Accreditation Flow



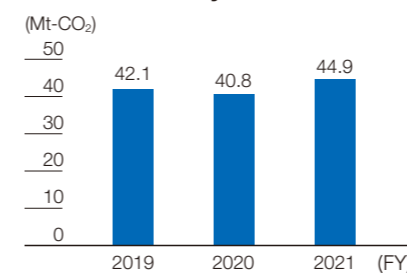
#### Contribution to Reduction of CO<sub>2</sub> Emissions

The CO<sub>2</sub> Reduction Promotion Subcommittee estimates that the KOBELCO Group's technologies, products, and services contributed to the reduction of CO<sub>2</sub> emissions totaling 44.9 million tons in fiscal 2021.

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



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



\* Results for previous years have been revised due to a review of the calculation method.

Technologies, Products, and Services	Contribution to Reduction (10,000 tons/year)	CO <sub>2</sub> Reduction Concept	
Ironmaking plant field	MIDREX <sup>®</sup> Process	3,322	Low-CO <sub>2</sub> DRI production method
Automotive/transportation field	Ultra-high-tensile strength steel for automobiles	608	Improvements in fuel economy by using high-strength, lightweight materials to reduce weight of automobiles and transportation equipment
	Wire rods for suspension springs	18	
	Wire rods for automotive valve springs	56	
	High-tensile strength steel for ships	26	
Industrial/construction machinery field	Aluminum materials for automobiles	17	Benefit of weight reduction in reducing power consumption
	Aluminum materials for rolling stock	7	
Industrial/construction machinery field	Heat pumps, standard compressors, SteamStar, binary generators, Eco-Centri	246	Energy conservation by achieving higher efficiency and utilizing unused energy
Industrial/construction machinery field	Fuel-efficient construction machinery	41	Improvements in fuel economy by using fuel-efficient construction machinery
Power generation/storage field	Wood biomass power generation, waste-to energy (WTE)	22	Reducing fossil resource use through the use of resources that contribute to carbon neutrality
Others	Blast furnace cement Wire rods and steel bars with no need for heat treatment process	128	Energy-reduction effect in customers' manufacturing process through the use of recycled raw materials and products with no need for heat treatment process

#### 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	CO <sub>2</sub> Reduction Concept
Automotive/transportation field	Fuel-cell separator materials, titanium for aircraft components
Hydrogen utilization field	High-purity Hydrogen Oxygen Generator (t-HOG)
Power generation field	Conversion of sludge into fuel and its utilization at coal-fired thermal power plants (planned)

For detailed data, please refer to Response to Climate Change on pp. 14–28 of the ESG Data Book.

# DX Strategy



The KOBELCO Group is committed to creating a sustainable future together with customers to become a provider of products and solutions that help resolve social issues, including achieving carbon neutrality.

To this end, we will promote DX, increase synergies that leverage our Group's diverse businesses, and build a robust management foundation.

As the market environment continues to be uncertain due to rapid changes in society and the progress of digitalization, promoting DX initiatives is one of the important management strategies for the KOBELCO Group.

DX involves more than just revamping legacy systems and transforming IT infrastructure with the latest technologies. Our Group's vision is to have our organization, people, products, and solutions actively adapt to drastic changes in the business environment and markets.

**Koichiro Shibata**  
Executive Vice President and Representative Director  
(Chair of the DX Strategy Committee)

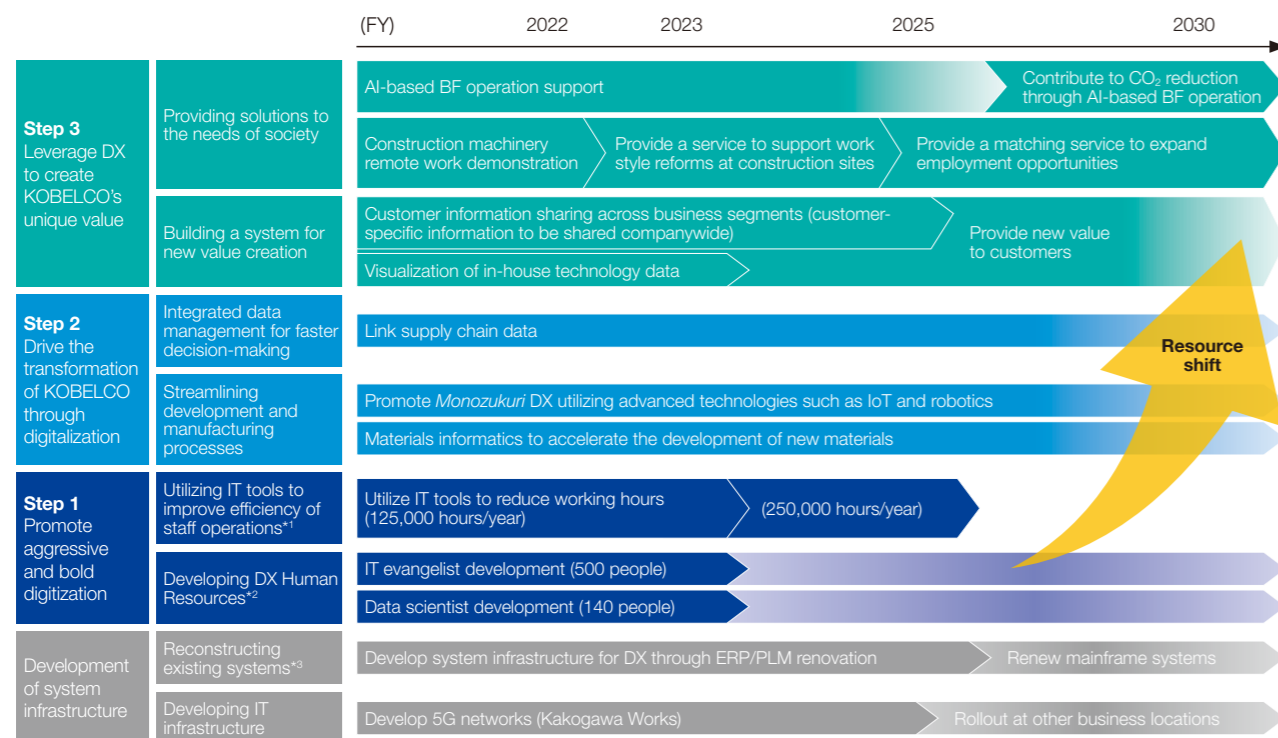
## KOBELCO Group's Basic Policy on DX Strategy

The world is changing at an unprecedented pace and the business environment is becoming uncertain amid the emergence of various new social issues, such as the rapid transition to a carbon-neutral society, changes in the industrial structure triggered by COVID-19, labor shortages due to aging populations, and rising geopolitical risks.

In this business environment, the KOBELCO Group believes it is essential to implement a DX strategy that utilizes its diverse and distinctive assets (technological assets and business assets) in order to enhance corporate value through the promotion of sustainability management. We will promote our initiatives, which are defined as Steps 1 to 3.

Utilizing the resources and assets (data) that have been

created and integrated through the implementation of Steps 1 and 2, we will move forward with Step 3 that pursues KOBELCO's uniqueness through DX. We will promote these initiatives that lead to the resolution of social issues and the creation of new value.



\*1 to \*3: Targets and the results for fiscal 2021 can be found in Materiality and Indicators/Targets on pp. 16-17.

## Examples of Major Initiatives

### Step 1 Promote aggressive and bold digitization

The KOBELCO Group is working to improve production efficiency innovatively by utilizing IT tools and raising the skill levels of its human resources. In particular, we are focusing on the development of IT evangelists in order to encourage users of IT tools (employees) who have firsthand knowledge of work procedures to take the initiative in promoting digitization and achieving operational efficiency.

To accelerate these initiatives, we are working on the development of an environment where all employees can work on DX, which includes the provision of trial licenses for IT tools, the establishment of a help desk, and activities to raise employee awareness.

### Step 2 Drive the transformation of KOBELCO through digitalization

The distribution and service industries in Japan, including logistics, are faced with significant labor shortages. Securing workers is an urgent task that must be addressed to maintain service levels. The KOBELCO Group's manufacturing sites are also facing the same challenge.

The KOBELCO Group and UD Trucks have reached a

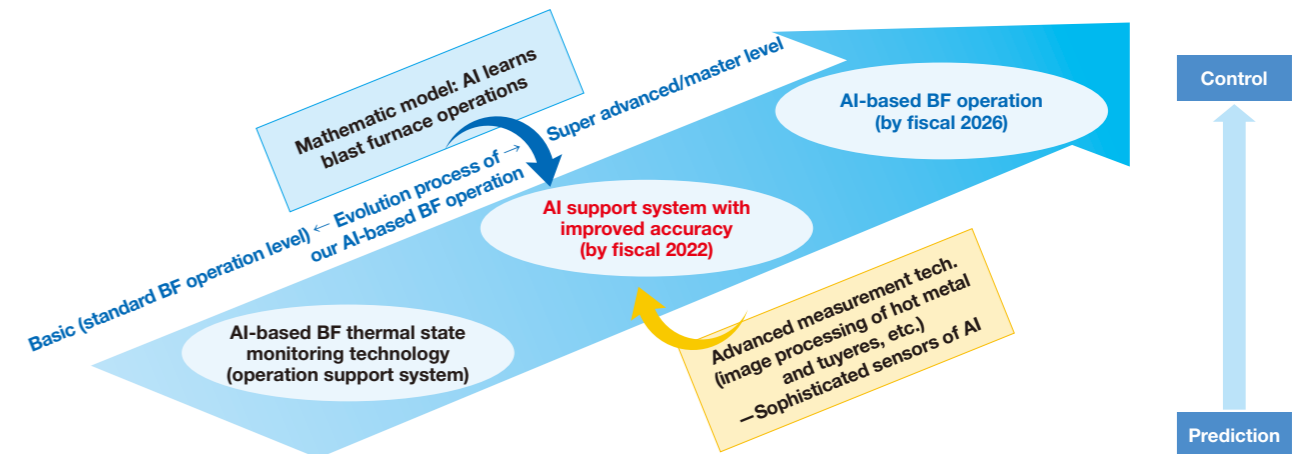
basic agreement to conduct an autonomous driving trial at Kobe Steel's Kakogawa Works, using a UD Trucks Quon equipped with L4 autonomous driving technology. Through this trial, we will promote DX at the KOBELCO Group's manufacturing sites while achieving labor savings and thereby contributing to solving social issues.

### Step 3 Leverage DX to create KOBELCO's unique value

In fiscal 2021, the KOBELCO Group established a technology that significantly reduces CO<sub>2</sub> emissions in the blast furnace process, and in fiscal 2022, we became Japan's first provider of a low-CO<sub>2</sub> blast furnace steel product, called Kobenable Steel. One of the key technologies that supported this achievement is our AI support technology for blast furnace operations utilizing AI-based blast furnace thermal state monitoring technology. We will work on further evolution of our technologies and realize AI-based blast furnace operation in which AI autonomously makes optimal judgments and controls. This will contribute to achieving our CO<sub>2</sub> emission reduction targets for 2030 and carbon neutrality by 2050.

For more details on Kobenable Steel, please refer to Taking on the Challenge of Realizing Carbon Neutrality on p. 49.

## Roadmap for Technical Development of AI-Based Blast Furnace Operation



## Companywide DX Promotion Structure

For the promotion of Companywide DX initiatives, we established the DX Strategy Committee as an auxiliary body to the Executive Council and subcommittees to address individual issues.

Executive Council	DX Strategy Committee	DX Strategy Project Group, IT Planning Department	Subcommittees		Business divisions
			Value Creation	Business Foundation	
			A. <i>Monozukuri</i> DX	Improves <i>monozukuri</i> capabilities through data utilization	Business divisions
			B. Customer Experience DX	Enhances the value of customer experience	
			C. Work Style DX	Improves productivity with digital technologies	
			X. New Business Creation	Creates new businesses that contribute to customer innovation	Technical Development Group
			D. System Reconstruction	Completely reconstruct existing complicated IT systems	
			E. Human Resources Development	Promote early and continuous development of DX human resources	Head Office divisions
			F. Infrastructure and Security	Build infrastructure and ensure security level to support DX initiatives	
			G. IT Architecture	Establish IT technology standards and processes	
					Group companies

## 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 through surveys of our customers and business partners. Recognizing that improving management transparency is a top priority, we are promoting timely, appropriate, and extensive information disclosure.

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, with a focus on supporting the young people of the next generation.

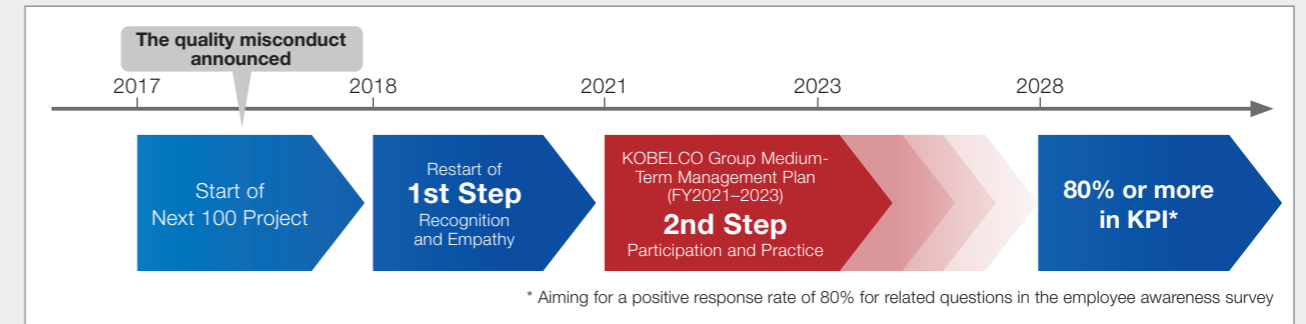
Stakeholders	Objectives	Main engagement activities
<b>Shareholders and Investors</b>	Promote understanding of the KOBELCO Group and enhance corporate value through timely and appropriate information disclosure	<ul style="list-style-type: none"> <li>Active dissemination of information, including timely disclosure of information through integrated reports and convocation notices</li> </ul> <p><b>Domestic and Overseas Institutional Investors</b></p> <ul style="list-style-type: none"> <li>Individual meetings with institutional investors</li> <li>Holding of financial results briefings and explanatory meetings about ESG initiatives, DX strategy, and other themes</li> </ul> <p><b>Individual Investors</b></p> <ul style="list-style-type: none"> <li>Publication of the "To Our Shareholders" booklet for our shareholders twice a year</li> <li>Provision of information on our corporate website</li> </ul> <p>Note: Due to the pandemic, plant tours for shareholders are currently suspended. However, we are considering resuming plant tours if the future situation permits.</p>
<b>Customers</b>	Improve product/service quality	<ul style="list-style-type: none"> <li>Questionnaire surveys that request our customers to answer questions covering a wide range of subjects, including product quality, services, and delivery periods</li> </ul>
<b>Business Partners</b>	Work together to build responsible supply chains with the aim of providing resolutions for various issues, including human rights and the environment	<ul style="list-style-type: none"> <li>Questionnaire surveys that request our major business partners to answer questions about their initiatives for the relevant issues</li> </ul> <p>For details, please refer to Building Responsible Supply Chains on p. 78.</p>
<b>Employees</b>	Encourage each and every employee to work with pride and a sense of fulfillment in their work, and to achieve self-improvement by demonstrating their own individuality and strengths	<ul style="list-style-type: none"> <li>Core Values of KOBELCO Next 100 Project activities</li> <li>Human resources development</li> <li>Initiatives for human rights</li> <li>Initiatives for diversity and inclusion (D&amp;I)</li> <li>Safety and health activities</li> </ul> <p>For details on the Core Values of KOBELCO—Next 100 Project, human resources strategy, human rights, D&amp;I, and safety and health, please refer to pp. 73–77.</p>
<b>Community Members</b>	<ul style="list-style-type: none"> <li>Contribute to society as a member of the local community</li> <li>Invigorate society through sports activities, including the Kobelco Kobe Steelers' activities aimed at ensuring the connection and harmony with the local community and society, and various sports support activities</li> </ul>	<p><b>Social Contribution Activities</b></p> <ul style="list-style-type: none"> <li>KOBELCO Community Contribution Fund Kobe Steel established the KOBELCO Community Contribution Fund in fiscal 2006 that marked the 100th anniversary of the Company's founding and has been carrying out activities to support children through the Fund.</li> <li>KOBELCO World Children Support Program This initiative was begun in fiscal 2021 as a program for making donations to support children living in poverty around the world.</li> <li>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.</li> </ul> <p><b>Contributions to Society through Sports</b></p> <ul style="list-style-type: none"> <li>Conclusion of business cooperation agreement with Kobe City</li> <li>Opened the Kobelco Kobe Steelers Rugby Academy</li> <li>Support for Activities of the Hyogo Guide Dogs Association</li> </ul>  

For details, please refer to Communication with Stakeholders on pp. 89–91 of the ESG Data Book.

## Core Values of KOBELCO—Next 100 Project

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 Group Corporate Philosophy and to prevent us from

forgetting the quality misconduct (namely, passing on the lessons learned to future generations). The project is promoting recognition and empathy among all employees, 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.



### Review of Fiscal 2021 Activities

#### Ongoing Activities Further Deepened Amid the COVID-19 Pandemic

In the first year of the 2nd Step, we used online tools to continue with and add depth to our activities and promoted the participation of Group employees in remote locations, including those overseas. As part of dialogue activities between top management and employees, KOBELCO Gathering was held under the three themes of (1) Medium-Term Management Plan, (2) ESG/SDGs, and (3) DX strategy for better understanding of the various businesses of the KOBELCO Group. In addition, we also used online tools to promote visits to the KOBELCO Core Values Place, which is a facility for preventing us from forgetting the quality misconduct.

### Plan for Fiscal 2022 Activities

#### Improve Existing Measures and Thoroughly Address Issues at the Organizational Unit Level

Based on the results of the fiscal 2021 employee awareness survey, we will work to strengthen the "participation and practice" of employees in the implementation of the Group Corporate Philosophy and address issues specific to each organizational unit (e.g. each business location). Specifically, while improving existing measures, such as making videos of Declaration of Pledges by all directors and executive officers and boosting the KOBELCO Core Values Awards, we will promote the implementation of individual measures to address issues specific to each organizational unit. In addition, in light of the fact that five years have passed since the quality misconduct, we will continue our efforts to prevent ourselves from forgetting the quality misconduct by encouraging all KOBELCO Group employees to visit the KOBELCO Core Values Place and other means.

### Major Activities

	Measures	Description
Participation and practice	Declaration of pledges by top management, general managers, and employees	<ul style="list-style-type: none"> <li>We share the pledges made by top management throughout the Group and the pledges made by department heads in their respective divisions, while having individual employees declare their own pledges on their personnel evaluation sheets and on the Group Corporate Philosophy cards.</li> <li>From fiscal 2022, the video of declaration of pledges by all directors has been made available to the entire Group.</li> </ul>
	Training for department heads who preside over Dialogue Platforms	<ul style="list-style-type: none"> <li>Has been held every year since fiscal 2018 focusing on sharing issues and exchanging opinions, in order to improve the skills of department heads who act as facilitators of Dialogue Platforms.</li> <li>Target trainee: Department heads and heads of business sites in Japan and overseas (approx. 700 people)</li> </ul>
	Dialogue Platforms	<ul style="list-style-type: none"> <li>(1) Instilling the Group Corporate Philosophy</li> <li>(2) Preventing the quality misconduct from being forgotten</li> <li>(3) Has been held every year since fiscal 2018 for all persons engaged in the business of Kobe Steel and its Group companies for promoting two-way communication in the organization.</li> </ul>
Recognition and empathy	KOBELCO Core Values Awards	<ul style="list-style-type: none"> <li>Started in fiscal 2019 as an initiative to commend activities that exemplify the Group Corporate Philosophy and contribute to building a new corporate culture and to promote the practice of the Group Corporate Philosophy. In fiscal 2021, awards were given to 13 activities, including the Grand Prix and Semi Grand Prix awards.</li> </ul>
	Dialogues between top management and employees	<ul style="list-style-type: none"> <li>An activity to proactively demonstrate management's commitment to restoring trust through dialogues in which the president and other senior executives speak directly to employees about their thoughts</li> <li>The president has engaged in dialogues with approximately 1,500 people on a total of roughly 150 occasions, (as of March 31, 2022).</li> <li>Around 4,000 people (a cumulative total in fiscal 2021) attended the KOBELCO Gathering, a large-scale online dialogue.</li> </ul>
	KOBELCO Core Values Place	<ul style="list-style-type: none"> <li>Opened in 2019 within the Group's training center as a facility to share the lessons learned from the quality misconduct and pass them on to future generations</li> <li>Visited by around 12,000 people to date, including visitors to the online version and satellite facilities (as of March 31, 2022)</li> </ul>
Identification of issues	KOBELCO Core Values Day	<ul style="list-style-type: none"> <li>We have designated March 6, the day we announced the Report on Misconduct in Kobe Steel Group as KOBELCO Core Values Day to remind ourselves every year of our promise to society to not permit a recurrence and to ensure that the lessons learned are not forgotten. On this day, we share the president's message.</li> </ul>
	Compliance and employee awareness surveys	<ul style="list-style-type: none"> <li>Started in fiscal 2018 as a mechanism to comprehensively grasp the current status and issues of employee awareness about their work and the Company, as well as the state of the organization. Conducted annually. Necessary measures are taken based on survey results.</li> </ul>

## Human Resources Strategy

The KOBELCO Group believes that in order to fulfill its social responsibilities as a corporate group and create new value, it is important to develop human resources who understand and implement the Group Corporate Philosophy. To achieve this, we are implementing various initiatives, such as “encouraging the growth of future generations and developing a spirit of taking on new challenges,” “further promoting work style reforms,” and “developing diversity & inclusion.”

### Human Resources Development

Our human resources development is centered on on-the-job training, but also includes various other complementary training programs to increase effectiveness. The curriculum is reviewed annually, and we are proceeding toward the goal of “promoting a shift to a selective/autonomous education system” for the period of the current Medium-Term Management Plan.

Group training to complement on-the-job training



### Promoting a Shift to a Selective/Autonomous Education System (Managers and Career-Track Employees)

Amid changes in the external environment, including decarbonization and DX, as well as the diversification of lifestyles and work styles, the KOBELCO Group is reducing conventional standard/stratified programs and promoting a shift to a selective/autonomous educational system under the slogan of “self-directed, self-driven” in order to encourage the transformation and growth of individuals.

From fiscal 2022, we have started supporting the formulation of action plans for the growth of each individual by classifying the skills generally required for each rank and offering relevant training options.

Looking ahead, we plan to introduce video-based curriculum services so that employees can learn anytime/anywhere and support their career planning through expanded career training opportunities. (Video-based curriculum services have been in place since July 2022.)

### Steps for Supporting Selective/Autonomous Education

Step 1 Clarification of individual challenges

Step 2 Identification of required skills

Step 3 Clarification of learning methods



Employees create their training program for themselves

### Work Style Reform Activities

The KOBELCO Group has been promoting various work style reform activities aimed at securing and retaining excellent human resources, creating time to enhance workplace communication, and creating a healthy working environment. Impacted by COVID-19, the work styles and

values of many employees have changed. With a view to how we live in pandemic and post-pandemic times, we will work to develop an environment where employees can choose flexible work styles according to the nature of work and circumstances for improved productivity.

#### Work Styles for the New Normal

Triggered by the spread of COVID-19, telework has become an established practice in our Group. In order to address issues that arise with remote work such as a lack of communication, we have adopted a hybrid work style that allows employees to work remotely as needed for further increased productivity, while requiring them to work in the office in principle.

We are working to increase awareness about new systems, expand their use, and facilitate their implementation, through measures such as the review of our telework system, the formulation of guidelines for tasks that are more appropriately done at the office or remotely, and the release of the video for remote work management.

#### Promoting Operational Improvement

We are promoting initiatives for operational improvement in order to increase the quality of work by reviewing operations and processes. Along with this, we are also working to foster a corporate culture and build mechanisms that boost operational improvement.

- Groupwide awards systems for activities that contribute to improved operations/operational efficiency in each workplace
- Promotion of paperless operations and elimination of stamps for approval
- Introduction of tools for automation and improved efficiency

For details about other initiatives for our human resources strategy, please refer to Human Resources on pp. 73–74 of the ESG Data Book.

## Human Rights

### Initiatives for Human Rights

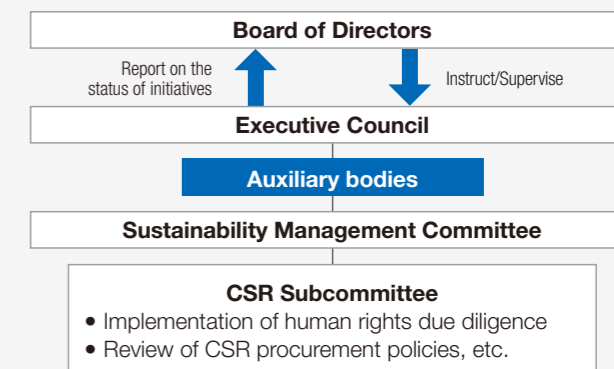
As a corporate group that operates businesses globally, the KOBELCO Group respects the International Bill of Human Rights adopted by the United Nations and pursues its corporate activities based on international standards such as the United Nations' Guiding Principles on Business and Human Rights. In 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.

In March 2021, we became a signatory to the United Nations (UN) Global Compact and we are working on activities as a member company. Going forward, as a company that endorses the principles of protecting human rights and eliminating improper labor practices, we will continue our efforts to achieve them and strengthen our initiatives to prevent human rights violations.

### Structure for Promoting Initiatives for Human Rights

We established the CSR Subcommittee under the Sustainability Management Committee, an auxiliary body to the Executive Council. This structure enables us to steadily carry out initiatives to ensure respect for human rights, including implementation of human rights due diligence.



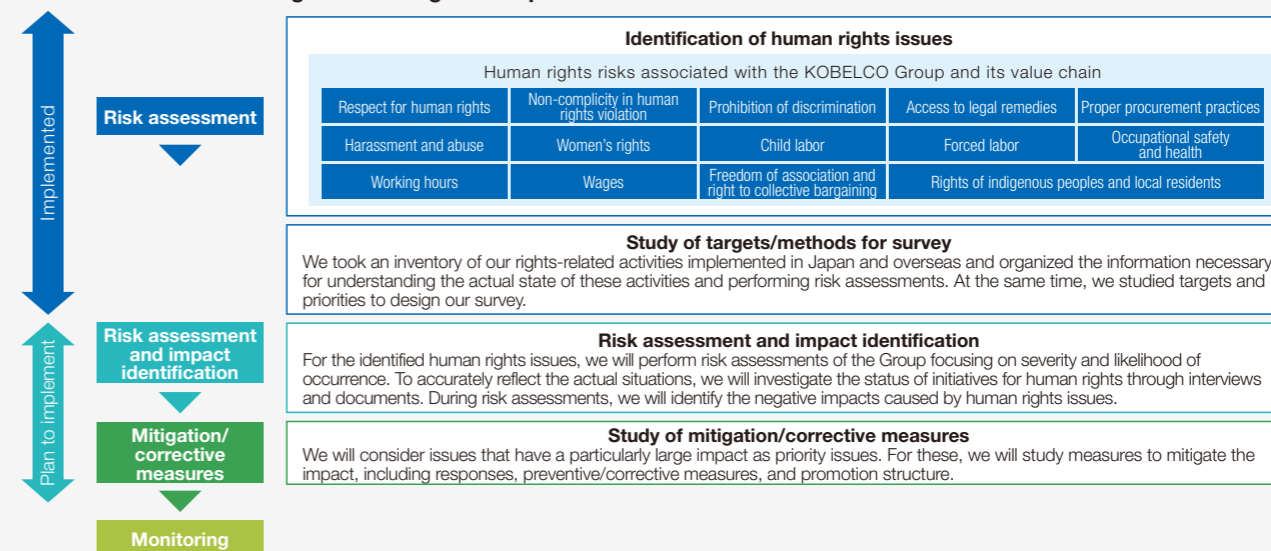
### Human Rights Due Diligence

We will identify and assess any potential adverse impact on human rights that the KOBELCO Group's business activities may cause in society, and take appropriate measures to prevent or mitigate any such impact. In fiscal 2021, we conducted human rights due diligence in accordance with the procedures of the UN's Guiding Principles on Business and Human Rights. Specifically, we referred to international standards and guidelines, such as the International Bill of Human Rights and the ILO Declaration on Fundamental Principles and Rights at Work and identified industry-specific issues from which we

identified the human rights risks associated with the KOBELCO Group and its value chain, such as those related to occupational safety and health, ensuring proper procurement practices, and prohibition of discrimination. In fiscal 2022, we will perform risk assessments, identify impacts, and study mitigation and corrective measures, with a focus on the procurement environment of our Group's business sites in Japan and our primary suppliers.

Within the next several years, we plan to conduct human rights due diligence throughout the entire KOBELCO Group and in its supply chain.

### FY2021–2022 Human Rights Due Diligence Implementation Process



For details about the KOBELCO Group's human rights policies and other initiatives, please refer to Human Rights and Labor on pp. 64–66 of the ESG Data Book.

## Diversity & Inclusion (D&I)

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 and basic policy for diversity and inclusion development.

### D&I Activity Policies

#### Vision for the Future

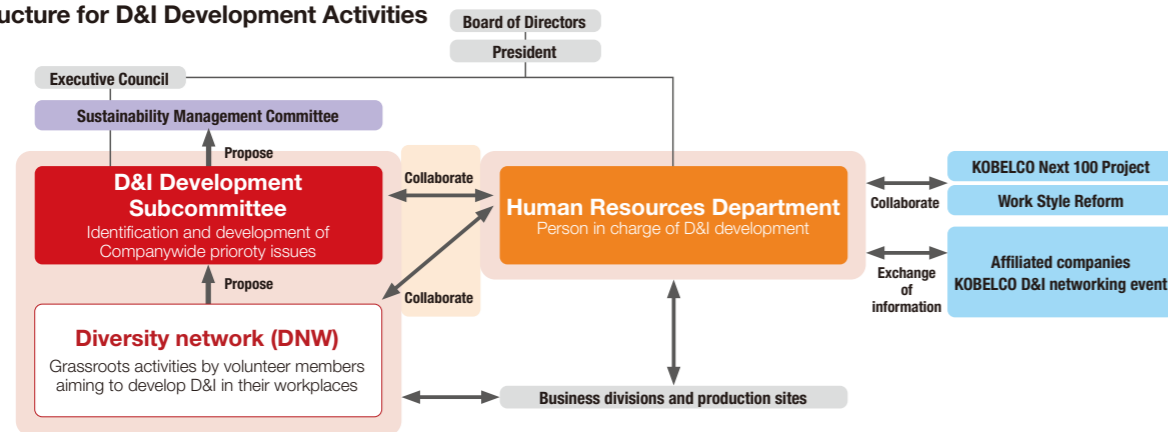
**Creating a work environment where diverse human resources can all play active roles**

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

### Structure for D&I Development Activities



### Lunchtime Sessions

We hold monthly online lunchtime sessions with the aim of providing new perspectives and promoting communication. The sessions serve as a two-way communication forum where leaders talk about their careers and D&I development and answer questions from employees. A total of 5,191 people participated in the event in fiscal 2021.



Lunch time sessions held online

### Support for Balancing Work and Childcare

As people's needs are diversifying, we are promoting a variety of initiatives to help employees balance their work and childcare. The results of our efforts include an increase in the percentage of male employees taking childcare leave. We will continue working to develop systems and corporate culture that make it easier for all eligible employees to take childcare leave.



For other D&I initiatives, please refer to Diversity & Inclusion (D&I) on pp. 75–81 of the ESG Data Book.

### Think about LGBT\*1

We are working to promote understanding of LGBT. We provide training to senior management and managers/supervisors and e-learning to all employees on LGBT topics. We have established the KOBELCO Familyship Program, in which LGBT individuals who are unable to legally marry can use the internal family program in the same way as legally married couples in order to create an environment in which all employees can work with their unique qualities fully demonstrated. We are also working to increase the number of people who become an Ally\*2 within the KOBELCO Group through seminars and stickers with the Ally logo. In November 2021, we received the highest ranking of Gold in the PRIDE Index\*3 in recognition of these initiatives.

\*1 LGBT stands for lesbian, gay, bisexual, and transgender. LGBT is an umbrella term that represents sexual minorities and suggests their self-identities in sexual orientation or in gender.

\*2 An Ally is a person who acts proactively for LGBT issues as one's own matter.

\*3 An index that evaluates companies/organizations for their initiatives for LGBT and other sexual minorities in the workplace. Established by "work with Pride", a voluntary organization that supports the promotion and establishment of diversity management for sexual minorities.



## Safety and Health

We believe that occupational safety and health 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.

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

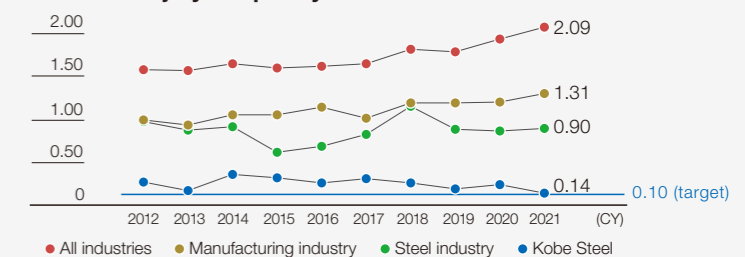
- We follow the rules at the workplace and build trust with families and coworkers.
- We value each and every one of our coworkers and care for each other.
- We aim for higher levels of safety and security through continued improvement of workplace facilities and systems.

### Key Objectives (Fiscal 2022)

- 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

In fiscal 2021, the first year of the Medium-Term Management Plan (FY2021–2023), we implemented the following items: (1) Implementation of all-hands activities for raising safety awareness and watching out for each other (promotion with Safety Card, etc.), (2) Identification of actual safety and health management status through safety and health diagnoses, identification of issues, and efforts for improvement (support activities by the Safety Caravan Team), (3) Test operation and evaluation of machine safety and safety support tools, and (4) Identification of actual safety management status at overseas Group companies and study of support measures. In addition to these, we worked to strengthen our stratified safety and health training.

### Lost Time Injury Frequency Rate\*



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

Issues we have identified include partial weaknesses in basic management and activities (inconsistencies among workplaces), with specific matters as follows.

- Policy management (Insufficient sharing of activity targets and improvement plans/activities for identified issues)
- Skill management (Insufficient clarification and documentation of work procedures, variations due to personalization)
- Risk management (Need to ensure completeness and appropriateness of risk assessments and mitigate risk)

In fiscal 2022, we will promote the creation of a PDCA framework to link various activities with the main goal of steadily implementing the priority items set out in the Medium-Term Management Plan.

For details on our efforts in safety and health, please refer to Safety and Health on pp. 67–69 of the ESG Data Book.

### Creating a Healthy Work Environment

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

#### 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.
- We added sleep-related items to the stress check questionnaire for improvement. We also developed an educational video aimed at improving sleep.

#### Providing Improved Health Checkups (in cooperation with Health Insurance Association)

- Employees receive regular blood tests and endoscopic checkups, and all employees who are infected with Helicobacter pylori receive treatment.
- Employees aged 50 and over receive full compensation for optional checkups at health screening clinics (tumor markers, breast cancer checkups, brain disease checkups, etc.). In addition, employees and their spouses aged 50 and over are partially compensated for medical costs.

#### Activities to Help Employees Maintain and Improve Their Health

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

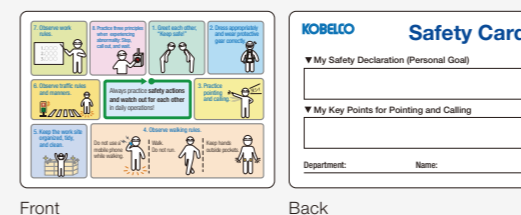
For details on the initiatives, please refer to Health & Productivity Management on pp. 84–85 of the ESG Data Book.

### Implementation Status of Safety and Health Training

Target	Objectives	Number of participants in FY2021
New employees (1–5 years of service)	• Understand basic rules for safety and health management thoroughly	223
Supervisors	• Learn about safety and health management and due attention to safety as a supervisor	539
Line managers	• Learn about how to create a workplace culture that embraces a safe work environment and how to develop a mechanism/systems to foster sustainable manufacturing capabilities	16

### Safety Card

We provide a Safety Card to all employees with the aim of making it a habit to act with awareness of basic rules and manners, and raising safety awareness and increasing the momentum for all employees to participate in activities by encouraging each and every individual to think about safety as their own matter and continuously making safety the highest priority both in awareness and action.



Although the LTIFR in 2021 was 0.14, failing to achieve the target of 0.10, it remains below the national average, and is the lowest level in the past 10 years. However, in August 2021, a fatal accident occurred due to a fall from height in a Group company, and in March 2022, another fatal accident occurred in the Company\*. These accidents took the precious lives of members of our Group. We will thoroughly investigate the cause of these accidents and implement activities to prevent fatal accidents from happening again.

\* Covers all employees in the Company (including seconded employees and temporary or part-time employees)



## Building Responsible Supply Chains

In order for the KOBELCO Group to realize KOBELCO's View of the Future, as a responsible member of the global supply chain, we actively promote initiatives to address issues such as human rights and environmental challenges, not only in our own Group but also throughout its supply chains.

The KOBELCO Group has formulated its basic procurement policy toward building responsible supply chains. We will fulfill our social responsibilities while working to grasp the supply chain issues in the procurement of raw and other materials in order to ensure a stable supply of our products and services.

### Promotion System

The Companywide policy is proposed by the Sustainability Management Committee to the Executive Council for deliberation to build consensus. The approved policy is promoted by operation managers at procurement divisions under respective business divisions. From the viewpoint of risk management, procurement activities are conducted in collaboration with the Risk Management Committee to strengthen the policy implementation.

### Basic Procurement Policy

The KOBELCO Group's procurement divisions act in accordance with the basic procurement policy as provided below.

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

### Requests to Our Business Partners

The KOBELCO Group requests its business partners to understand and practice the following in order to work together to build responsible supply chains.

Compliance	Human rights and labor	Safety and health
Environment	Fair trade and ethics	Quality and safety
Information security	Business continuity plan	Social contribution

### Approaches to Our Business Partners

In fiscal 2021, the KOBELCO Group began activities to promote a deeper understanding of our Group policies among its business partners and initiated surveys on the current status of their initiatives.

Going forward, we will continue to collaborate with our business partners to build responsible supply chains.

### Main Initiatives in Fiscal 2021

#### • Sharing of Explanatory Video

In September 2021, a video explaining the KOBELCO Group's approach for building responsible supply chains was made available to all of our business partners.

The explanatory video is available on our corporate website.

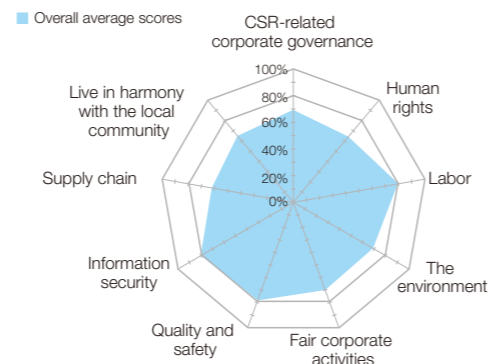
<https://www.kobelco.co.jp/english/sustainability/procurement.html>

#### • Survey by Questionnaire

We conducted a questionnaire survey targeting Tier 1 suppliers in Japan and overseas to investigate the status of their initiatives.

- Period: February–May 2022
- Target: 330 major suppliers of raw and other materials
- Responding companies: 271 (Response rate: Approx. 82%)

→ Scores for "Human rights" and "Supply chain" were relatively low in comparison to "Labor" and "Quality and safety," which are the themes that the manufacturing industry has long been working on. Since there are differences depending on the size of the company, we believe that more detailed study and analysis are required from various perspectives, such as the business scale and business items.



### Initiatives Scheduled for Fiscal 2022 and Beyond

We plan to request the cooperation of our business partners and conduct a questionnaire survey on their compliance status, focusing on important items such as "human rights and labor," and "disputes over minerals."

For details, please refer to Building Responsible Supply Chains on pp. 86–88 of the ESG Data Book.

## Quality

### Trust Improvement Project

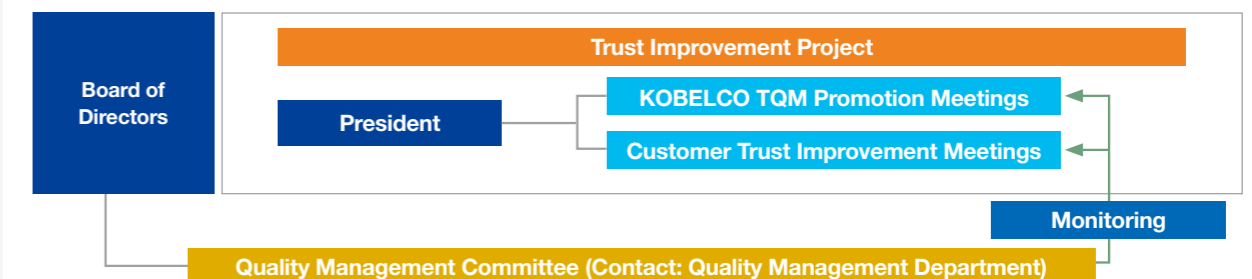
The KOBELCO Group has implemented measures to prevent recurrence of the quality misconduct since fiscal 2018 and completed planned activities. In fiscal 2020, we launched an initiative for KOBELCO Total Quality Management (TQM)\* to prevent the quality misconduct from fading away, achieve sustainable growth, and realize our Group Corporate Philosophy. In fiscal 2021, we reorganized the Project for Restoring Trust into the Trust Improvement Project led by the president to implement TQM activities Groupwide. The project is composed of

KOBELCO TQM Promotion Meetings and Customer Trust Improvement Meetings.

Under the Trust Improvement Project, the Quality Management Committee, an advisory body to the Board of Directors, continues to monitor and make recommendations from an objective perspective.

\* As the next step to prevent recurrence, KOBELCO TQM aims to strengthen the management of each operating segment while identifying issues that serve the needs of customers and society and addressing them with the participation of all employees.

#### Trust Improvement Project Structure



### KOBELCO TQM Promotion Meetings

We promote activities across the entire Group through five task forces dedicated to Planning and Promotion, Human Resources Development and Training, Operational Quality Improvement, Quality Assurance Improvement, and *Monozukuri* (Manufacturing) Support. We also provide TQM training for management and employees as comprehensive training program for all members. As well, we are working to revitalize quality control activities and other improvement activities, and to strengthen our quality assurance structure centered on quality guidelines.

### Customer Trust Improvement Meetings

We are working to achieve and maintain a state where customers recognize that Kobe Steel has changed and where employees also feel that the Company has changed, and we have earned trust from customers. As measures to achieve this goal, we are working in collaboration with relevant departments to promote the sharing of customer information, and customer satisfaction surveys.

### Message from the Director Overseeing Companywide Quality

We started KOBELCO TQM activities in 2020.

The "Q" in TQM, which stands for quality, covers not only the quality of products and services, but also the quality of overall Company activities, which encompass organizations, operations, and people. There are three basic elements of TQM activities: daily management, policy management, and small group improvement activities. Training, which underpins these elements, is also important. The purposes of TQM activities are to conduct management for improving the quality of these three elements, and to make our Group a strong and good corporate body through continuing improvement activities to address problems and issues with the participation of all members of the Group.

The action principles of KOBELCO TQM set forth "customer perspective (trusted quality)," "participation of all members (harmony of the Group)," and "constant improvement" in accordance with the Core Values of KOBELCO in the Group Corporate Philosophy. We will link the TQM activities with other initiatives such as the Core Values of KOBELCO—Next 100 Project, DX strategy, work style reforms, promotion of D&I, and ROIC management with the aim of increasing the effectiveness of our activities. In order to realize a world envisioned in our view of the future through the diverse businesses that characterize the KOBELCO Group, we will pursue solutions leveraging synergies created by the enhancement of collaboration among business divisions, while promoting the contribution of each organization to fulfilling our Group's mission of providing solutions to the needs of society. Under our policies and goals focused on the customer's perspective, our Group will, with a firm resolve for continuous transformation, strive to continue to achieve its management goals through improvement activities with the participation of all members in pursuit of the KOBELCO Group that grows sustainably.



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

For details on our quality initiatives, please refer to Quality on pp. 114–115 of the ESG Data Book.

## Roundtable Talk among Three Independent Directors



**Hiroyuki Bamba**  
Independent Director  
(Chairman of the Board of Directors)

**Yumiko Ito**  
Independent Director  
(Chair of the Corporate Governance Committee)

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

One year has passed since the formulation of the KOBELCO Group Medium-Term Management Plan (FY2021–2023). What are the views of independent directors on the current progress of the plan? With the business environment changing at dizzying speed, what are the challenges ahead? And, how has the discussion at meetings of the Board of Directors changed over the last year after strengthening its monitoring function? Three independent directors, Hiroyuki Bamba (Chairman of the Board of Directors), Yumiko Ito (Chair of the Corporate Governance Committee), and Masaaki Kono (Chair of the Audit & Supervisory Committee), sat down for a candid discussion about these and other issues.

### KOBELCO Group's Transformation with the Establishment of the Group Corporate Philosophy and Materiality

**Bamba:** I think the KOBELCO Group has changed significantly compared to 2017, when I was appointed as an independent director. In 2017, the Group had the quality misconduct. In the efforts to prevent the recurrence, we not only focused on the quality-related issues but also worked on the reforms of the corporate structure itself, including internal organizational structures and communications with the aim of removing barriers between business divisions and promoting their collaboration. Furthermore, through the establishment of the Group Corporate Philosophy that integrated new components in May 2020 and formulation of the Group's materiality in 2021, we have made the direction of the Group's business more concrete, including defining who we are and what we are aiming for. These changes were

not led by the management, but were promoted by employees through bottom-up discussions. This made me feel firsthand the resolve and enthusiasm of the management and employees to work together to overhaul the Group from its core and drive a rebirth of the KOBELCO Group.

**Kono:** The establishment of the Group Corporate Philosophy and of materiality was a major transformation for the Group, further accelerating cross-divisional initiatives throughout the Group. Such Group efforts are reflected in its organizational structure. With the establishment of the Sustainability Management Committee, the Risk Management Committee, the Business Portfolio Management Committee, the Investment and Loan

Committee, and other committees, I believe that the Group has put in place a system that enables us to see the overall picture across business divisions.

**Ito:** Personally, I find it very impressive that President Yamaguchi energetically engages in dialogue with employees, with strong determination to strengthen internal communication. For example, as part of the initiatives in the Core Values of KOBELCO—NEXT 100 Project, the Group has been promoting direct dialogue

between management and employees through various events, such as the KOBELCO Gathering, a session to explain Group activities for all members of the KOBELCO Group. I was surprised to see the president devoting so much time to answering questions from employees during a dialogue session. It felt strongly that the president himself is taking the initiative in practicing improved communication.

### Promoting Sustainability Management

**Ito:** The Medium-Term Management Plan has further clarified the Group's vision for sustainability management. In addition to its "defensive" strategy of reducing CO<sub>2</sub> emissions across the entire Company, the Group has also set out its "offensive (proactive)" strategy of utilizing technologies, products, and services such as the MIDREX® Process to create business opportunities. I think it was a notable achievement. I believe that by strategically integrating the technological capabilities that have been cultivated in the materials businesses, machinery businesses, and the electric power business beyond the boundaries of business divisions, the Group will continue to expand the possibilities for realizing a sustainable society.

**Kono:** The KOBELCO Group has numerous products and technologies with significant competitive edges, such as the low-CO<sub>2</sub> blast furnace steel product Kobenable Steel and the MIDREX® Process. Through these products and technologies, I believe the KOBELCO Group can effectively demonstrate how the Group is contributing to the realization of a sustainable society. It is also important that the Group makes constant efforts so that such measures will not end as one-off initiatives but will continue to be the initiatives that appeal to the public on a continuous basis.

**Bamba:** In promoting the Group's sustainability management, the Sustainability Management Committee, which is an auxiliary body to the Executive Council, plays a central role in implementing the management cycle for important issues.

We believe that a solid framework for sustainability management has been put in place, but it will be important to operate it under the framework and increase the awareness of it throughout the Group. Making the framework easy to understand is the key to spreading it to the workplace. In this regard, the Group Corporate Philosophy is playing a major role in indicating the direction of the Group's business.

As a member of the management team, I will carefully monitor whether the Group's sustainability management will become a living, soulful practice that functions properly. As one of the measures, we use the results of the annual employee awareness survey to understand employees' attitudes toward work and the Company, as well as the current state of the organization and any issues outstanding. We will make sure that policies that are implemented throughout the Group, including the sustainability management framework, do not end in management complacency.

### Assessment of Performance in the First Year of the Medium-Term Management Plan, and Future Issues

**Bamba:** In terms of performance in fiscal 2021, the first year of the Medium-Term Management Plan, the Group got off to a good start. With the introduction of ROIC management, there is a growing awareness among divisions and business units that they must generate

earnings on their own. I think this also has fostered the awareness of stably increasing earnings and paying dividends regardless of the external environment and reviewing the business portfolio for unprofitable businesses.

In fiscal 2022 and 2023, while we need to take



While we need to take defensive measures to secure stable earnings, we will also need to move ahead with offensive (proactive) measures to promote corporate growth toward the next Medium-Term Management Plan. With the business environment becoming increasingly uncertain, I believe the key is to strike a balance between offense and defense.

defensive measures to secure stable earnings, we will also need to forge ahead with offensive (proactive) measures to promote corporate growth toward the next Medium-Term Management Plan. With the business environment becoming increasingly uncertain, I believe the key is to strike a balance between offense and defense.

**Ito:** I also think that the performance in the first year of the Medium-Term Management Plan was generally good. From fiscal 2022 and beyond, the Board of Directors will keep a close eye on issues such as passing on sharp increases in raw material prices to product prices.

Although management that use the ROIC tree has achieved certain results, it may take more time before it fully takes roots in the workplace. Despite this situation, my assessment is that the Company has put in place a system to identify various events that affect its business performance, conduct breakdown analyses, set targets, and work toward them. I think the process is nearing completion.

**Kono:** From the perspective of an Audit & Supervisory Committee member, I would also say that the performance in the first year of the Medium-Term Management Plan was satisfactory. On the other hand, in fiscal 2022 and beyond, I believe it will be necessary to quickly address new risks that were not factored into the plan, such as those related to the supply chain and economic security arising from geopolitical risks.

In terms of establishing a stable earnings base, which is one of the key measures in the Medium-Term Management Plan, my assessment is that the Group has achieved a certain level of results. However, in terms of reforming the business portfolio, I believe it is necessary for the Group to take bold steps to tackle the issues that have been recognized, without using its ongoing good performance as a reason to slow down or put it off. For the challenge of realizing carbon neutrality, I hope the Group will continue to take prompt actions in line with the trends of the times.

## Changes in Discussions at the Board of Directors with Enhanced Monitoring Function

**Bamba:** In fiscal 2021, the Board of Directors changed its structure to place greater emphasis on deciding important management directions and monitoring, including risk management. Now, new measures are being undertaken to further enhance the effectiveness of the Board of Directors.

For example, we have created a system that facilitates

lively discussions among directors by summarizing matters reported to the Board to the essential points and devoting sufficient time to deliberations on important matters. Moreover, for technical matters related to production systems and carbon neutrality, which are difficult to reach a decision through having explanations at the Board of Directors alone, we receive lectures from the respective

business divisions in charge at preliminary briefings and on other occasions. By asking questions and exchanging opinions at preliminary briefings, independent directors can broaden their knowledge of the businesses and technologies of the KOBELCO Group and thereby express opinions from external perspectives on matters that were previously difficult to do so due to a lack of understanding. By devising such measures, the Board of Directors is beginning to develop a foundation to ensure thorough discussion on important matters

As the Chairman of the Board of Directors, I believe that setting the agenda for Board meetings is extremely important. I think it is vital that the Board of Directors focus on deliberations and discussions on important matters that will lead to the enhancement of corporate value. Since last fiscal year, the Group has delegated the decision-making authority to the executive side by raising the criteria for submission of items for the agenda of Board of Directors' meetings, which has increased the speed of execution. Of course, decisions made by the executive side are reported to the Board of Directors, so the Board will never be left out of the loop. I believe the quality of the Group's corporate governance has remarkably enhanced by improving the operating rules of the Board of Directors and by speeding up decision-making on the executive side.

**Ito:** In order to further strengthen the monitoring functions of the Board of Directors, I think it is important to improve the quality of reports from the executive side. Over the past year I feel that the quality of reports has improved, as the importance of each reporting item has become even clearer.

I have been a member of the Corporate Governance Committee since last year and have been Chair of the Committee since June of this year. In order to evaluate the effectiveness of the Board of Directors, the Corporate Governance Committee not only conducts questionnaire surveys but also interviews with directors. In interviews, directors express a variety of opinions that cannot be obtained through questionnaires, and I am proud that these have led to specific measures to enhance the effectiveness of the Board of Directors, including discussions at the Corporate Governance Committee.

I believe that corporate governance should shift from the stage of working to satisfy formal requirements to the stage of earnestly committing ourselves to enhancing corporate value. At Board of Directors' meetings, I try to speak with a focus on what is needed to strengthen the executive structure. From this fiscal year onward, I feel that it will be necessary to deepen discussions at the management level in areas such as human resources development, diversity, and DX.

**Kono:** Speaking from the perspective of an Audit & Supervisory Committee member, seven years have passed since the Company transitioned to a company with an Audit & Supervisory Committee. It is my perception that, while paying attention to the balance between monitoring and auditing of legality, we have been able to demonstrate a certain presence in the Board of Directors.

In conducting audits, the Audit & Supervisory Committee has set priority audit items, which include the effectiveness of the new management structure, and the effectiveness of risk management, as well as initiatives for

I believe that by strategically integrating the technological capabilities that have been cultivated in the materials businesses, machinery businesses, and the electric power business beyond the boundaries of business divisions, the Group will continue to expand the possibilities for realizing a sustainable society.





The KOBELCO Group possesses a wide range of technologies, products, and services that it has developed over the course of its history, as well as diverse human resources and a customer base that support their realization. By organically integrating them, the Group can provide solutions to the needs of society.

establishing a stable earnings base and realizing carbon neutrality. These priority items have been presented to the Board of Directors and are being implemented. In terms of discussions at the Board of Directors' meetings and the Board's monitoring functions, I believe we have made significant progress over the past year. This can be seen, for example, in the speed of the response

from the executive side when the Audit & Supervisory Committee raised a problem from a Groupwide and global perspective with regard to the effectiveness of risk management, and in the prompt reporting to the Board of Directors regarding the response to changes in the business environment.

### Aiming to Be a Company that Creates Excitement

**Bamba:** The recent business environment has remained uncertain, but I believe that the strategy of the next two to three years will be extremely important in determining the future growth of the Group. The KOBELCO Group has continued to provide resolutions to social issues by utilizing its various technologies, products, and services, and the Group has a lot of potential to continue to respond to the demands of society in the future. With the MIDREX® Process, Kobenable Steel, and news releases about others, the Group is drawing the attention of all our stakeholders. I believe the Group will be a company that creates greater excitement and will be evaluated by its stakeholders as a corporate group worthy of a conglomerate premium.

**Ito:** I think that the ideal way to become a company that generates excitement is to make it an autonomous team. Rather than just doing what you are told to do, taking the initiative in doing something that excites yourself will add excitement to your company and society as well. Then, human resources will gather in such a company with a lot

of excitement. I believe this cycle will lead to creating a sustainable company.

**Kono:** Without a doubt, the KOBELCO Group is a corporate group with hidden tremendous potential for providing resolutions to social issues. The KOBELCO Group possesses a wide range of technologies, products, and services that it has developed over the course of its history, as well as diverse human resources and a customer base that support their realization. By organically integrating them, the Group can provide solutions to the needs of society. If the management and employees are all heading toward the same direction under the Group Corporate Philosophy, the KOBELCO Group will be a very exciting corporate group.

## Messages from Newly Appointed Independent Directors

By bringing an objective and neutral point of view, I will contribute to the enhancement of corporate value of the KOBELCO Group.

The KOBELCO Group, with its long history and tradition, is one of Japan's leading companies. Leveraging its highest level of technology, the Group has been operating business with customers and business partners around the world in a wide range of areas. Today, we are facing a number of management challenges, including the growing demand for decarbonization, global inflation trend impacted by Russia's invasion of Ukraine, and rapid changes in the economic structure and international relations.

I was involved in all aspects of economic policy as a government official. For many years, I was engaged particularly in the fields of natural resources and energy, growth strategies, and trade relations. In addition, outside the government, I have been involved in corporate management in the private sector as well. Utilizing this experience, I intend to fulfill my duties as independent director while always striving to bring an objective and neutral point of view to understand the big picture.

Companies today are required to take sustainable actions that respect the interest of many stakeholders and address the global demand for decarbonization. To that end, it is essential for companies to continue to create value with a foresight into the world's future direction by promoting research and development and making business investments in respective business areas, and to implement appropriate risk management along the way. The KOBELCO Group is a large corporate entity that requires adequate discussion and responsible judgment at each decision-making stage. Building an organization capable of fulfilling these requirements will lead to greater trust from customers and business partners. From an independent standpoint, I will contribute to the enhancement of corporate value of the KOBELCO Group.



**Shinsuke Kitagawa**  
Independent Director



**Nobuko Sekiguchi**  
Independent Director

Aiming to enhance the KOBELCO Group's corporate value, I will strive to realize corporate governance that transcends conventional frameworks.

Currently, the KOBELCO Group is facing a number of challenges such as the transition toward carbon neutrality, social changes, and the transformation of the industrial structure triggered by the COVID-19 pandemic. Considering the business environment surrounding the Group, we understand that it is extremely difficult to steer management toward establishing a stable earnings base. In order to promote sustainability management more effectively and efficiently under these circumstances, it is necessary to strengthen our ability to adapt flexibly to new values and rapid changes.

Previously, I engaged in accounting and corporate planning in different sectors than the KOBELCO Group. I also engaged in corporate management as independent director at other listed companies, where I strengthened governance and organized management issues to reach solutions. Looking at the KOBELCO Group based on this knowledge and experience, I feel that untapped value is buried in the achievements and corporate culture that have been cultivated over its 116-year history.

Going forward, I will fulfill my roles as independent director and Audit & Supervisory Committee member while making use of my knowledge and experience in accounting and business administration. Along with this, I aim to contribute to the enhancement of corporate value by strengthening the governance of the Group while delivering my frank opinions at meetings, such as Board of Directors' meetings, without being bound by conventional thinking.

# Directors (Including Audit & Supervisory Committee Members) (As of June 22, 2022)

## Directors



**Mitsugu Yamaguchi**  
President, CEO and Representative Director  
Compliance Committee Member  
Nomination & Compensation Committee Member  
Corporate Governance Committee Member

Number of Company shares owned: 48,300

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 Vice President and Director  
Apr. 2018 President, CEO and 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.



**Fusaki Koshiishi**  
Executive Vice President and Representative Director  
Quality Management Committee Member

Number of Company shares owned: 43,500

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 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.



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

Number of Company shares owned: 40,500

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 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.



**Yoshihiko Katsukawa**  
Director, Executive Officer  
Corporate Governance Committee Member

Number of Company shares owned: 27,900

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 overseas locations (under the Head Office).



**Hajime Nagara**  
Director, Executive Officer  
Compliance Committee Member  
Corporate Governance Committee Member

Number of Company shares owned: 26,600

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 Center, domestic branch offices and sales offices, and Takasago Works (departments under its direct supervision). Oversees companywide compliance.



**Hiroyuki Bamba**  
Independent Director  
Chairman of the Board of Directors  
Nomination & Compensation Committee Member (Committee Chair)  
Corporate Governance Committee Member

Number of Company shares owned: 11,000

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)



**Yumiko Ito**  
Independent Director  
Corporate Governance Committee Member (Committee Chair)

Number of Company shares owned: 5,800

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 Tanabe & 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)



**Shinsuke Kitagawa**  
Independent Director  
Corporate Governance Committee Member

Number of Company shares owned: 0

Apr. 1981 Joined the Ministry of International Trade and Industry  
Sep. 2012 Director-General, Trade and Economic Cooperation Bureau, the Ministry of Economy, Trade and Industry (METI)  
Jun. 2013 Commissioner, Small and Medium Enterprise Agency, METI  
Jul. 2015 Retired from METI  
Nov. 2015 Advisor of MITSUI & CO., LTD.  
Apr. 2016 Executive Managing Officer of MITSUI & CO., LTD.  
Apr. 2019 Senior Executive Managing Officer of MITSUI & CO., LTD. (incumbent)  
Jul. 2020 President & CEO of Mitsui & Co. Global Strategic Studies Institute (incumbent)  
Jun. 2022 Director of the Company (incumbent)

## Directors, Audit & Supervisory Committee Members



**Hiroshi Ishikawa**  
Director  
(Audit & Supervisory Committee Member, full time)

Number of Company shares owned: 17,300

Apr. 1982 Joined the Company  
Apr. 2014 Officer  
Apr. 2016 Managing Executive Officer  
Jun. 2018 Director, Audit & Supervisory Committee Member of the Company (incumbent)



**Yasushi Tsushima**  
Director  
(Audit & Supervisory Committee Member, full time)

Number of Company shares owned: 16,400

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 of the Company (incumbent)



**Masaaki Kono**  
Independent Director, Audit & Supervisory Committee Member  
Audit & Supervisory Committee Chair  
Nomination & Compensation Committee Member  
Corporate Governance Committee Member

Number of Company shares owned: 3,200

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 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 Retired from Mizuho Bank, Ltd. and Mizuho Financial Group, Inc., and appointed as 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 of the Company (incumbent) Chairman and Director of Orient Corporation (incumbent)



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

Number of Company shares owned: 3,200

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 of the Company (incumbent)  
Jun. 2021 External Director (Audit and Supervisory Committee Member) of Sumitomo Seika Chemicals Company, Limited. (incumbent)



**Nobuko Sekiguchi**  
Independent Director, Audit & Supervisory Committee Member

Number of Company shares owned: 0

Nov. 2005 Joined CAPCOM CO., LTD.  
Apr. 2011 Corporate Officer supervising Management Planning, CAPCOM CO., LTD.  
Apr. 2016 Managing Corporate Officer, Head of Management Planning and Human Resources, CAPCOM CO., LTD.  
Mar. 2019 Resigned from CAPCOM CO., LTD.  
Jun. 2019 Outside Director of DUSKIN CO., LTD. (incumbent)  
Jun. 2020 Outside Director, Audit & Supervisory Committee Member of H2O RETAILING CORPORATION (incumbent)  
Jun. 2022 Director, Audit & Supervisory Committee Member of the Company (incumbent)

# Corporate Governance

## Basic Stance on Corporate Governance

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 and investors, customers, business partners, people of local communities, and members of the KOBELCO Group. We believe that working earnestly to improve all of 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 the following: establishing a system that contributes to improving corporate value through appropriate risk-taking, collaborating with stakeholders, promoting appropriate dialogue with investors in the capital market, ensuring the rights of and fairness for shareholders, and ensuring transparency.

Based on this belief, the KOBELCO Group aims to enhance corporate value over the medium to long term by promoting sustainability management with the Group Corporate Philosophy positioned as the foundation of all business activities.

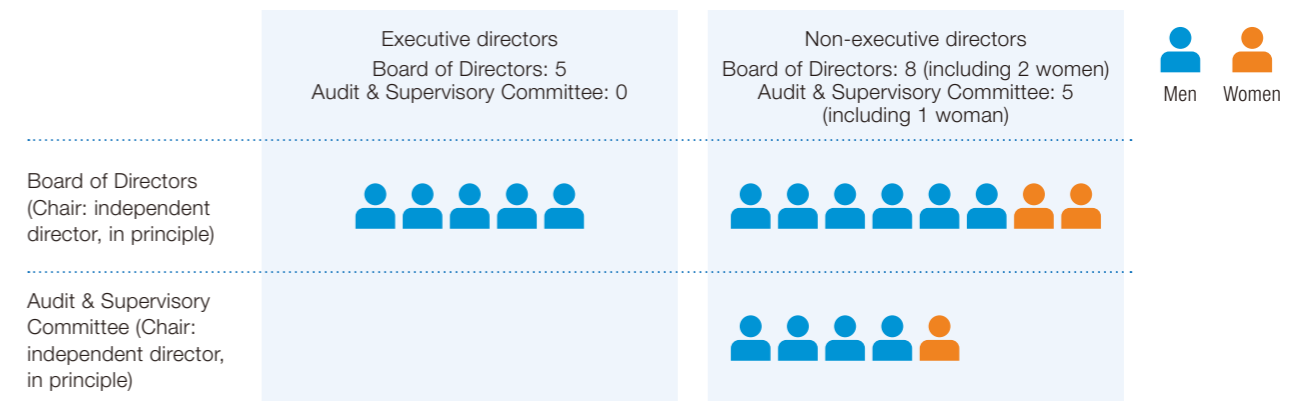
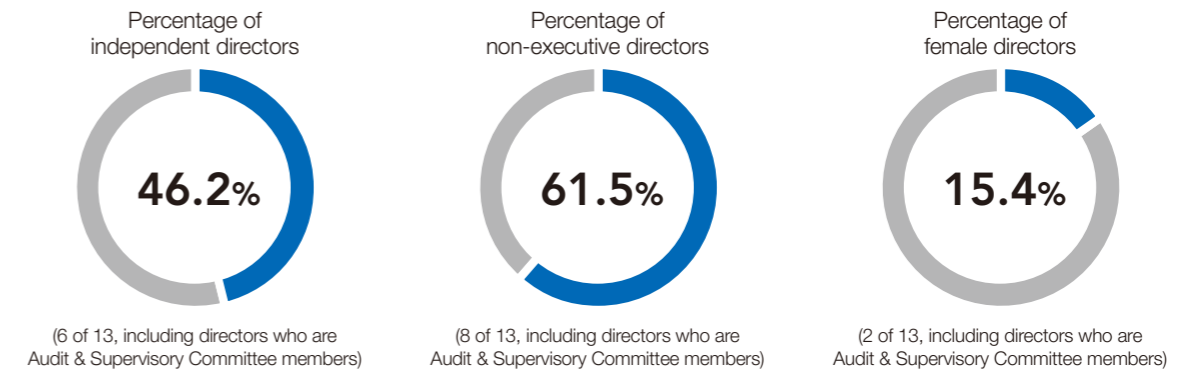
For information about the Company's basic policy and operation policy on corporate governance, please see the Basic Policy and Initiatives on the Corporate Governance of Kobe Steel, Ltd.

[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)

## Initiatives to Strengthen Corporate Governance

	1999	2010	2015	2020	(FY)
<b>Philosophy and Policies</b>		→ • 2006 Establishes corporate philosophy	→ • 2017 Turns corporate philosophy into the Core Values of KOBELCO and establishes the Six Pledges of KOBELCO Men and Women	→ • 2020 Establishes the new Group Corporate Philosophy by integrating the newly formulated KOBELCO's View of the Future and KOBELCO's Mission	
<b>Organizational Structure</b>	• 1999 Introduces an internal company system and adopts an executive officer system	→ • 2010 Abolishes the internal company system and introduces a business unit system	• 2003 Establishes the Compliance Committee as advisory committee to the Board of Directors	• 2015 Establishes the Meetings of Independent Directors • 2016 Becomes a company with an Audit & Supervisory Committee • 2018 Reassesses the role of the Board of Directors from the standpoint of enhancing its oversight functions	→ • 2021 Shifts to a Board of Directors that places greater emphasis on decisions regarding important management directions as well as on monitoring that encompasses risk management Establishes the Corporate Governance Committee as an advisory body to the Board of Directors • 2022 Reduces the maximum number of directors (excluding directors who are Audit & Supervisory Committee members) from 15 to 10
<b>Directors and Executive Officers</b>		• 2007 Appoints two independent directors	• 2015 Establishes principles on appointment of directors/Audit & Supervisory Board members and establishes standards for independent directors/auditors	• 2016 Establishes training policy for directors and executive officers • 2019 Appoints the Company's first female director • 2021 Abolishes the positions of senior managing executive officer and managing executive officer	
<b>Effectiveness Evaluation</b>				• 2016 Introduces evaluation system for the Board of Directors	
<b>Remuneration</b>				• 2016 Revises directors' remuneration system (introduces stock-type remuneration)	→ • 2022 Partially revises the remuneration system for directors and executive officers (including lowering the maximum remuneration)

## Corporate Governance Highlights



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 lies in synergies generated by 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.

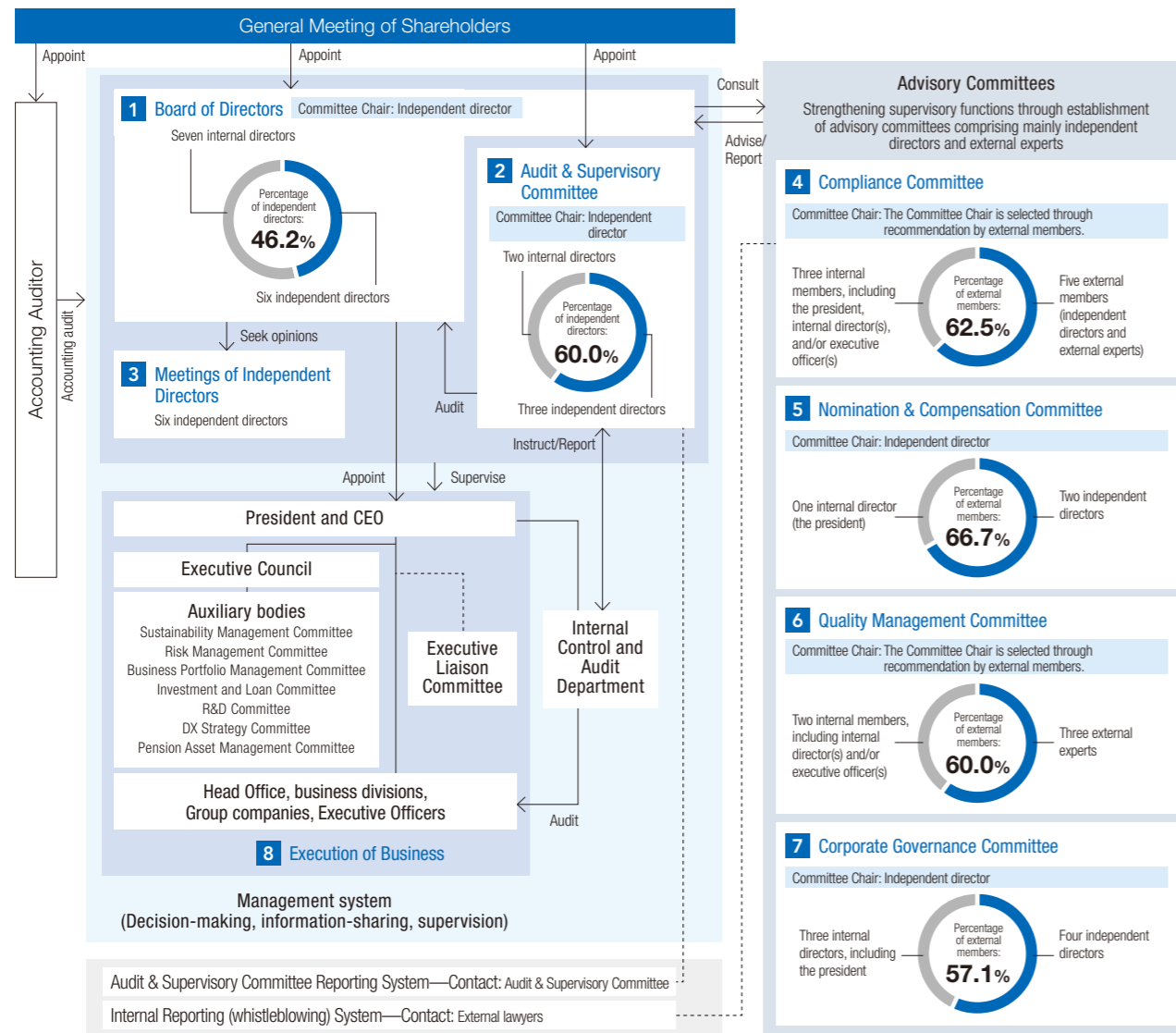
Furthermore, the Company believes it is necessary for the Board of Directors to hold active discussions and make appropriate decisions regarding the risk management and the distribution of management resources for a wide range of businesses, and at the same time, to flexibly supervise business execution. 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 without 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 entire company, such as sustainability and business portfolio management. The activities of these committees are monitored by the Board of Directors.

## Our Corporate Governance System



### 1 Board of Directors

The number of directors (excluding directors who are Audit & Supervisory Committee members) shall be not more than 10 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.

The Company's Board of Directors places emphasis on determining important management directions and monitoring, including risk management. In addition to the president, directors who oversee the specific functions of companywide importance shall be appointed as executive directors. In order to further enhance active discussions, appropriate decision-making, and supervision, it is essential to reflect external fair and neutral viewpoints and the viewpoints of stakeholders including minority shareholders. Therefore, in addition to the independent directors who are Audit & Supervisory Committee members, the Company invites several independent directors who are not Audit & Supervisory Committee members to the Board of Directors. The Chairman of the Board of Directors is elected from among the independent directors.

### 2 Audit & Supervisory Committee

In principle, the Audit & Supervisory Committee of Kobe Steel consists of five directors, including two internal directors and three independent directors. This membership is not only in accordance with the rules of Japan's Companies Act on a company with an Audit & Supervisory Committee, which require at least three non-executive directors (the majority of whom shall be independent directors), but also ensures transparency and fairness and encourages satisfactory auditing for the execution of duties by directors responsible for a wide range of business segments. The Chair of the Audit & Supervisory Committee is selected from among independent directors.

Internal directors who are full-time 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 directors who are 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 shall have a considerable degree of knowledge on finance and accounting in order to improve the effectiveness of audits.

### 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. The committee deliberates matters regarding compliance with laws, regulations, and ethics in the Company's business activities.

The Compliance Committee consists of the president, the director/executive officer overseeing Companywide compliance, the executive officer responsible for Companywide compliance, lawyers (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 committee chair is selected through mutual recommendation among the external members.

The Compliance Committee formulates fundamental policies regarding 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.

### 5 Nomination & Compensation Committee

The Company has established the Nomination & Compensation Committee as a body to report on matters such as the nomination, appointment, and dismissal of candidates for directors and executive officers, including the appointment of the CEO, as well as the remuneration system for directors and executive officers and other matters, with the aim of further increasing the fairness and transparency of the operation 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 reported by the Nomination & Compensation Committee and decides on the matters reported. The committee chair is selected from among the independent directors.

### 6 Quality Management Committee

The Company has established the Quality Management Committee, as an advisory body to the Board of Directors. The committee undertakes the continuous monitoring and makes recommendations regarding quality management enhancement activities within the Group, as well as the monitoring of the effectiveness of measures to prevent recurrence of the quality misconduct. Members of the committee include two internal executives of the Company and three external experts selected

by the Board of Directors who have technical or legal knowledge on quality control. The committee chair is selected through mutual recommendation among the external members.

### 7 Corporate Governance Committee

The Company has established the Corporate Governance Committee as an advisory body to the Board of Directors. The committee deliberates matters regarding corporate governance, including the formulation of basic policies, in order to realize corporate governance that helps to achieve the 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 through mutual recommendation among the independent directors. The Corporate Governance Committee meets at least once every fiscal year and calls a meeting as needed.

### 8 Execution of Business

The Board of Directors places emphasis on determining important management directions and monitoring that encompasses risk management. The executive officers shall be responsible for the execution of business. The Company's executive officers are appointed by the Board of Directors. They do not constitute a statutory body, but they are deemed as an important position for executing business entrusted by the Board of Directors. Under this structure, the Executive Council (which meets twice a month) is convened as a forum for deliberating important matters related to management and matters to be discussed by the Board of Directors. The members of the Executive Council include the president, executive directors, the executive officer responsible for the Corporate Planning Department, executive officers nominated by the president (heads of business divisions), presidents of affiliated companies, standing directors who are full-time Audit & Supervisory Committee members, and members appointed for each project.

The Executive Council is not a decision-making body, but a forum for frank discussion aimed at giving additional consideration to the execution of business by each business division and the Group from various aspects. Matters deliberated by the Executive Council are submitted to the Board of Directors as matters to be resolved or reported.

In order to enhance the effectiveness of deliberations by the Executive Council, various committees will be established as auxiliary bodies for important matters related to business strategy, such as sustainability management, risk management, business portfolio management, and investment and loans.

In addition, the Company will establish the Executive Liaison Committee (which meets quarterly) consisting of directors, executive officers and fellows who execute business, and the presidents and officers of affiliated companies nominated by the president.

The Executive Liaison Committee is a forum to share information on important matters related to management, and it is also considered a venue to conduct training by inviting instructors from inside and outside the Company in order to acquire and update as appropriate various knowledge necessary for the integrated management and business execution of the Group.

### Knowledge, Experience, and Skills That Are Particularly Expected to Be Demonstrated for the Improvement of the Functions of the Board of Directors (Skills Matrix)

In order to address the Group's medium- to long-term material issues (materiality) and to implement the Medium-Term Management Plan (FY2021–2023), which was formulated and announced in May 2021, we have put together a skills matrix of the knowledge, experience, and skills that the Board of Directors particularly expects the directors to demonstrate for the improvement of the functions of the Board of Directors. These areas of knowledge,

experience, and skills will be reviewed as necessary in response to changes in the business environment, the formulation of new management plans, and other changes.

### Views on Knowledge, Experience, and Skills That Are Particularly Expected to Be Demonstrated for the Improvement of the Functions of the Board of Directors

- The KOBELCO Group aims to enhance corporate value over the medium to long term by promoting sustainability management with the Group Corporate Philosophy positioned as the foundation of all business activities. In order for the Board of Directors to appropriately determine important management directions and conduct monitoring that encompasses risk management, aimed at enhancing the KOBELCO Group's corporate value over the medium to long term, we believe it is necessary to have the Board of Directors consisting of directors who have well-balanced knowledge, experience, and skills in the following three key areas:
    - Comprehensive skills in overall management,
    - Skills in resolving social issues and creating new value, and
    - Skills in further strengthening the management foundation.
- In particular, we expect independent directors to demonstrate their knowledge, experience, and skills with regard to insights into other industry sectors.
- Items in the key areas have been determined after discussion at the Corporate Governance Committee and the Nomination & Compensation Committee, taking into account the Company's business strategy and business characteristics as well as the business environment and the Company's management plan.

Name	Length of service as director (years)	Comprehensive skills in overall management		Skills in resolving social issues and creating new value			Skills in further strengthening the management foundation			Insights into other industry sectors	Attendance at Board of Directors' meetings (fiscal 2021)	Attendance at Audit & Supervisory Committee meetings (fiscal 2021)
		Business management and administration	ESG	Sales strategy and marketing	Technical development, intellectual properties, production technologies, and DX	Global business	Finance and accounting	Organization and human resources	Legal and risk management			
Mitsugu Yamaguchi President, CEO and Representative Director	6	●	●	●		●					15 of 15 (100%)	—
Fusaki Koshiishi Executive Vice President and Representative Director	7	●	●	●	●						15 of 15 (100%)	—
Koichiro Shibata Executive Vice President and Representative Director	4	●	●	●	●						15 of 15 (100%)	—
Yoshihiko Katsukawa Director, Executive Officer	4	●				●	●		●		15 of 15 (100%)	—
Hajime Nagara Director, Executive Officer	2	●	●					●	●		15 of 15 (100%)	—
Hiroyuki Bamba Independent Director	5	●	●		●				●	●	15 of 15 (100%)	—
Yumiko Ito Independent Director	3		●			●			●	●	15 of 15 (100%)	—
Shinsuke Kitagawa Independent Director	—		●			●			●	●	—	—
Hiroshi Ishikawa Director, Audit & Supervisory Committee Member	4	●		●		●					15 of 15 (100%)	16 of 16 (100%)
Yasushi Tsushima Director, Audit & Supervisory Committee Member	4	●						●	●		15 of 15 (100%)	16 of 16 (100%)
Masaaki Kono Independent Director, Audit & Supervisory Committee Member	2	●	●					●		●	15 of 15 (100%)	16 of 16 (100%)
Kunio Miura Independent Director, Audit & Supervisory Committee Member	2		●						●	●	15 of 15 (100%)	16 of 16 (100%)
Nobuko Sekiguchi Independent Director, Audit & Supervisory Committee Member	—		●				●	●		●	—	—

Note: This matrix does not present all the knowledge, experience, and skills that each director possesses, but rather maximum four ticks (●) are given for areas that are particularly expected.



## Initiatives to Ensure the Effectiveness of the Board of Directors

The Company carries out the following initiatives in order to ensure that the Board of Directors fulfills its decision-making and supervisory functions appropriately.

- Every year, the Audit & Supervisory Committee interviews each director to verify the decisions on business execution made by the Board of Directors and the implementation of efficient business execution as stipulated in the basic policy of the internal control system.
- In the operation of the Board of Directors, the Company distributes meeting materials at least three days prior to the date of the meeting as necessary in order to enable active and sufficient deliberations at meetings of the Board of Directors. To this end, the Company will promote the use of electromagnetic means with due consideration for the protection of trade secrets, so that meeting materials can be received regardless of the whereabouts of the directors.
- In addition to meeting materials for the Board of Directors, the Company provides the directors with sufficient information and explanation as necessary, upon the request of the directors, etc.
- To revitalize and deepen discussions at meetings of the Board of Directors and further enhance the monitoring function for business activities, the Company has an independent director serve as the Chairman of the Board of Directors, in principle.
- The Company has established a secretariat for the Board of Directors within the Corporate Planning Department.

The Secretariat determines and organizes the annual schedule of meetings of the Board of Directors and anticipates agenda items to the extent possible, in advance of the fiscal year.

- In addition, the Secretariat coordinates with each department to ensure that the number of deliberation items and the frequency of meetings are appropriate, and that sufficient deliberation time is secured.
- The Board of Directors and the Audit & Supervisory Committee strive to improve the effectiveness of the supervisory function of the Board of Directors by seeking advice from external experts and others at the Company's expense when deemed necessary.
  - Through supervision and auditing of the internal control system, the Board of Directors and the Audit & Supervisory Committee ensures the smooth provision of information as requested by each director and Audit & Supervisory Committee member.
  - For the verification of the effectiveness of the Board of Directors, the Corporate Governance Committee requests each director to complete a questionnaire every fiscal year and provides a preliminary evaluation of the survey results. Based on this, the Board of Directors discusses and evaluates its effectiveness and identifies issues at its meetings. The questionnaire items are reviewed by the Board of Directors based on the evaluation results of each fiscal year. A summary of evaluation results is disclosed every fiscal year.

## Evaluation Results for Fiscal 2021

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

Targets	Implementation process	
All 13 directors	Questionnaire survey targeting all directors and individual interviews by the Corporate Governance Committee	
Evaluation items	(1) Structure of the Board of Directors; (2) Agenda of Board of Directors' meetings; (3) Materials for Board of Directors' meetings; (4) Operation of the Board of Directors; (5) Provision of information to independent directors; (6) Monitoring and supervision of directors; (7) Other items (e.g., evaluation and opinions on various initiatives implemented in fiscal 2021)	
Evaluation method	<ul style="list-style-type: none"> <li>• Based on the results of the questionnaire and interviews, the Corporate Governance Committee submits to the Board of Directors the results of the effectiveness evaluation and proposes the future direction for improving the effectiveness.</li> <li>• The Board of Directors reviews the evaluation results and identifies current issues. Based on these, the Board of Directors deliberates future initiatives for improving effectiveness and makes decisions on future measures.</li> </ul>	

### Summary of Analysis and Evaluation Results

- In fiscal 2021, the Company made changes to the number of directors and the composition of the Board of Directors as well as the criteria for matters to be discussed at Board of Directors' meetings. Along with these changes, the Company found it necessary to study and implement measures to address communication issues with the executive side.
- Therefore, since fiscal 2021, the Company has taken steps to (1) review how to report the business execution status, (2) record the points of discussions on the executive side and discussions at meetings of the Board of Directors in the meeting materials, (3) provide

feedback to the executive side after the discussions at Board of Directors' meetings, and (4) hold preliminary discussions with independent directors at the Meetings of Independent Directors, etc. As a result of these efforts, communication with the executive side has been strengthened and the function of the Board of Directors as a monitoring board has been enhanced.

- Based on the above, the Company believes that the effectiveness of the Board of Directors has been continuously improved based on the effectiveness evaluation results so far. We will continue with these initiatives in fiscal 2022 and strive to make further improvements.

- In fiscal 2021, the Company placed a greater emphasis on monitoring of individual business issues, but in fiscal 2022, it will strengthen monitoring of initiatives related to the business foundation area, among other various initiatives to enhance corporate value.

### Future Initiatives for Improving Effectiveness

- Among various initiatives and measures to enhance corporate value, the Company will focus on initiatives concerning the business foundation area and strengthen

monitoring by holding preliminary discussions at the Meetings of Independent Directors, offline meetings, etc.

- The Company will continue to strengthen two-way communication between the Board of Directors and the executive side, with a focus on the following initiatives started in fiscal 2021.
  - Providing feedback to the executive side on the details of discussions at Board of Directors' meetings
  - Reporting to the Board of Directors on the details of discussions at the Executive Council

## Training and Succession Plan for Directors and Executive Officers

### Training for Directors and Executive Officers

In order for directors and executive officers to fulfill their roles and responsibilities, the Company offers the following training programs as opportunities to acquire and appropriately update the necessary knowledge. The Company will support the expenses for training.

- At the time of appointment, directors and executive officers receive sufficient explanation from the relevant departments regarding the Company's business and financial situation, etc. If needed, the Company also provides opportunities for directors and executive officers to acquire knowledge and information through visits to manufacturing sites and other means.
- In particular, for newly appointed directors and executive officers from within the Company, the Company provides opportunities for training on the roles and responsibilities of directors and executive officers, as well as legal affairs and corporate governance.
- The Company holds training sessions several times a year, inviting instructors from inside and outside the Company for the purpose of helping directors and executive officers acquire various knowledge on legal revisions and corporate management, etc., and update it as appropriate.
- The Company holds the Compliance Top Seminar once a year as an opportunity to learn from outside instructors about what is required of top management for compliance.
- In addition, the Company facilitates and encourages directors and executive officers to take external training on management strategy, finance and accounting, and organization, etc., and the Company provides support for it.
- The status of attendance at these training sessions is checked once a year and reported to the Board of Directors.

### Views on the Development of Successors to the CEO

The Company recognizes that the development of successors to the CEO is one of the most important issues for its management. The qualities and human resources required to solve the Company's management issues and enhance corporate value are discussed on a continued basis at the Nomination & Compensation Committee, chaired by an independent director and composed of a majority of independent directors.

- The appointment of the CEO is determined by the Board of Directors after deliberations at the Nomination & Compensation Committee taking into account the Company's business environment and the implementation of management plans, etc., which are reported to the Board of Directors.
- In developing successors to the CEO, the Company selects multiple candidates from among directors and executive officers and appoints them to important management roles after discussion at the Nomination & Compensation Committee.
- The Company provides directors and executive officers with training opportunities to acquire the knowledge and qualities necessary for the management of the Company. The Corporate Governance Committee examines the training menu in light of the Company's business environment and other factors and reports to the Board of Directors every fiscal year.
- The training status of each director and executive officer is checked by the Corporate Governance Committee once a year.

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

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

- The system aims to secure talented human resources who can contribute to the Company's sustainable development, and appropriately compensate for such efforts.
- The system aims to share values widely with stakeholders and promote not only short-term growth, but also medium- to long-term growth.
- In offering the incentive for accomplishing consolidated business result targets, the system shall be devised with due consideration of the characteristics of each business so that directors and executive officers can fully carry out their roles.
- 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.

### 2 Remuneration Framework

- Based on the resolution at the Ordinary General Meeting of Shareholders, the Board of Directors establishes the Remuneration Regulations for Directors and Executive Officers, Detailed Rules on Remuneration Regulations for Directors and Executive Officers, Performance-Based Compensation Regulations for Directors and Executive Officers, and Stock Benefit Regulations for Directors and Executive Officers, which include the remuneration calculation methods for individual director/executive officer.
- Remuneration for the Company's directors and executive officers consists of basic remuneration (fixed compensation) based on the remuneration rank determined according to rank and assigned duties, performance-based compensation consisting of the portion linked to division performance and the portion linked to individual evaluation for each fiscal year, and medium- to long-term incentive compensation based on stock compensation with the aim of sharing interest in corporate value enhancement with shareholders. Taking into consideration their duties, independent directors and directors who are Audit & Supervisory Committee 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.
- 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.
  - Limits of remuneration and other benefits based on the resolution at the Ordinary General Meeting of Shareholders are as follows.
    - Remuneration for directors (excluding directors who are Audit & Supervisory Committee members)
      - The limit of basic remuneration: Within a total of 460 million yen per fiscal year
      - The limit of performance-based compensation: Within a total of 240 million yen per fiscal year
      - Maximum points to be granted for medium- to long-term incentive compensation: Within a total of 424,100 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

- 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 will also set a performance target based on performance management indices for each business division. The amount to be paid is determined by multiplying the 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.

Note: The portion linked to individual evaluation is determined by comprehensively taking into account the status of ESG-related initiatives in the commissioned duties of each director and executive officer.

- 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: From fiscal 2021, ROIC is used as an evaluation indicator to promote the efficiency of management resources and strengthen the business foundation with an awareness of cost of capital. The base value for calculation is set at a ROIC of 5%, based on the targets set forth in the Medium-Term Management Plan.

### Calculation method for the portion linked to division performance of performance-based compensation

**Performance-based compensation (portion linked to division performance) = Standard pay amount for each rank and remuneration rank\*1 × Coefficient based on evaluation index\*2**

\*1 The standard pay amount for each rank and remuneration rank is set forth in the Detailed Rules on Remuneration Regulations for Directors and Executive Officers.

\*2 The ROIC for the evaluation period is used as an evaluation index. Coefficient is calculated based on a certain formula.

For the Coefficient Calculation Formula Based on Evaluation Indicators, please see p. 103 of the ESG Data Book.

### 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 consolidated net income attributable to owners of the parent 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.
- Since the Company considers the return of profits to shareholders as an important issue for management, it uses net income attributable to owners of the parent (hereinafter "net income") as the evaluation indicator. The base value for the calculation is net income of 79.4 billion yen, which is based on the dividend payout ratio set forth in the Company's dividend policy.
- 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 the Company will contribute an amount derived by deducting the amount of the remaining Company shares, etc. from 1.1 billion yen.

### Calculation method of points granted for medium- to long-term incentive compensation

**Number of points to be granted= Base point number for each rank and remuneration rank\*1 × Coefficient based on evaluation index\*2**

\*1 Stipulated in the Detailed Rules on Remuneration Regulations for Directors and Executive Officers.

\*2 Determined based on the results of 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 determined according to the results of individual evaluation based on the calculation formula after the end of each fiscal year, together with the portion linked to division performance.
- 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 an 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 commissioned duties of directors and executive officers.

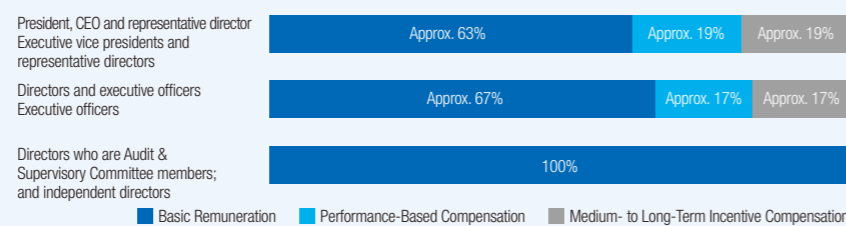
### 7 Method to Determine and Examine Remuneration Policy

- 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 committee will present a revised remuneration plan at a meeting of the Board of Directors for resolution.

### Reference

#### Composition of Remuneration for Directors and Executive Officers

The bar graph on the right shows the composition of remuneration. 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 graph represent the case where each pay amount is 100% of the base amount. In addition to the above amount, 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.

Reference

Base Value and Actual Value for Each Remuneration Category

Remuneration Category	Performance-Based Compensation	Medium- to Long-Term Incentive Compensation
Index	ROIC	Net income attributable to owners of the parent
Base value for fiscal 2021	5.0%	79.4 billion yen
Actual value for fiscal 2021	4.7%	60.0 billion yen

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 2021 have been deliberated by the Nomination & Compensation Committee and then decided on by the Board of Directors.

Timing	Items deliberated and decided on
Aug. 2021	Lifting of reduction to basic remuneration
Feb. 2022	Review of the remuneration system for directors and executive officers (evaluation indicators for performance-based compensation and performance levels for medium- to long-term incentive compensation)
Apr. and May 2022	Review of the officer remuneration system (payment timing of performance-based compensation)
May 2022	Amounts of performance-based compensation and medium- to long-term incentive compensation in fiscal 2021

FY2021 Remuneration for Directors

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)	11 (3)	480 (40)	321 (40)	84 (—)	74 (—)	The number of payees and the amount of payment include three internal directors (who are not Audit & Supervisory Committee members) who resigned during fiscal 2021.
Directors who are Audit & Supervisory Committee members (of whom are independent directors)	5 (3)	109 (44)	109 (44)	— (—)	— (—)	
Total	16	589	430	84	74	

Note: Taking seriously the large net loss attributable to owners of the parent and the forgoing of the annual dividend in fiscal 2019, 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 to April 2020 and by 13–25% from May to August 2021.

Remuneration for Accounting Auditor

In fiscal 2021, remuneration and other amounts payable to the Accounting Auditor by the Company totaled 159 million yen, and the total amount of money and other financial interests payable by the Company and its subsidiaries was 477 million yen.

Strategic Holdings of Shares

Basic Policy on Strategic Holdings of Shares

For the Company's basic policy on strategic holdings of shares, please see p. 105 of the ESG Data Book.

Criteria for Exercising Voting Rights

For the Company's criteria for the exercising of voting rights for strategic holdings of shares, please see p. 105 of the ESG Data Book.

Verification Results Regarding Strategic Holdings of Shares (As of March 31, 2022)

Targets	All the strategic holdings of shares that the Company holds in listed companies as of March 31, 2022 (30 stocks)
Verification details	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. <b>Evaluation items</b> (i) Scale and importance as a business partner (volume of transactions, share of transactions, and stable procurement) (ii) Relationship as an alliance partner (economic effect of the alliance) (iii) Dividend yield

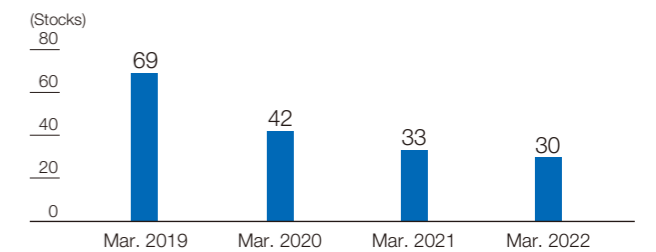
Verification Results

- In fiscal 2021, the Company reviewed the significance of strategic holdings of shares in listed companies from the perspective of improving the capital and asset efficiency. As a result, it was confirmed that, of the 33 stocks that the Company held as of the end of March 2021, all shares in five stocks had been sold under the agreement with the counterparties. On the other hand, the Company confirmed that a total of two stocks have been added to its strategic holdings of shares. One is a stock that was removed from the Company's equity-method affiliates due to the partial sale of the Company's holdings, and another is a stock for which the Company took over the disposal of treasury shares through a third-party allotment in connection with a capital and business alliance.
- As of March 31, 2022, the Company holds 30 stocks. The holdings of these shares have been judged to be reasonable as they are contributing to strengthening the Company's business foundation and to enhancing 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 shares in listed companies, and those holdings that are judged to have diminished significance will be reduced through sale or other means.

Changes in the Company's Strategic Holdings of Shares



Approach to Listed Group Companies

In accordance with the Group Company Management Regulations, the Company obliges its Group companies to consult with the supervisory divisions and the Head Office divisions of Kobe Steel and report on important matters, when they make important decisions. The Company also requires Group companies to obtain prior approval of its Board of Directors and the president for the disposal of assets exceeding a certain amount in value in order to ensure the integrated business operation of the Group. However, since listed companies need to maintain a certain level of managerial independence from the Company, the Company takes care not to bind the independent judgment of the management of Group companies.

The Company pursues the ideal form of capital relations by comprehensively taking into account the various situations of Group companies in terms of the business contents, scale, financial strategies for business development, financing, etc., for the overall enhancement of corporate value as a corporate group. Under this approach, two of the Company's subsidiaries are currently listed. Going forward, the Company will continue to examine how the ideal corporate group should be from the perspective of enhancing corporate value including the corporate governance of the Group.

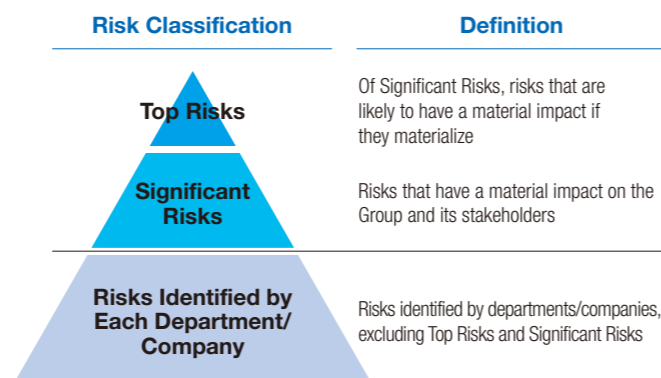
Listed subsidiaries	Benefits of listing	Uniqueness of business	Independent directors
Nippon Koshuha Steel Co., Ltd.	<ul style="list-style-type: none"> <li>Heightened employee motivation</li> <li>Highly skilled human resources</li> <li>Flexible fundraising from capital markets</li> </ul>	<ul style="list-style-type: none"> <li>The company is responsible for part of the Group's special steel business (secondary processing of bearing steel products). The company has no business restrictions from the parent company and conducts its business activities independently.</li> <li>When doing business with the Company, the company shall obtain approval of the Board of Directors of the Company for transactions of high importance in accordance with the Regulations of the Board of Directors and the Guidelines for Handling Matters for Deliberation of the Board of Directors. Terms and conditions of transactions are determined in the same manner as for ordinary business transactions.</li> </ul>	The Company has appointed two independent directors from the perspectives of protecting minority shareholders, improving management fairness, and increasing transparency. These two directors have never belonged to the Company or any Group company that has a capital relationship with the Company.
Kobelco Wire Company, Ltd.	<ul style="list-style-type: none"> <li>Heightened employee motivation</li> <li>Highly skilled human resources</li> <li>Flexible fundraising from capital markets</li> </ul>	<ul style="list-style-type: none"> <li>As a secondary wire rod product manufacturer of the Group, the company undertakes the manufacture and sale of pre-cut steel wire, steel wire, stainless steel wire, wire rope, steel wire processed products, etc. It is a core company in the wire rod and bar business, it has no business restrictions from the parent company and conducts its business activities independently.</li> <li>When doing business with the Company, the terms and conditions of transactions shall be competitive (in price, quality, delivery date, etc.) similar to those for ordinary business transactions. The Company decides on them after comprehensively taking into account the types of projects such as joint technical development, joint ventures, etc.</li> </ul>	The Company has appointed two independent directors from the perspectives of protecting minority shareholders, improving management fairness, and increasing transparency. These two directors have never belonged to the Company or any Group company that has a capital relationship with the Company.

# Risk Management

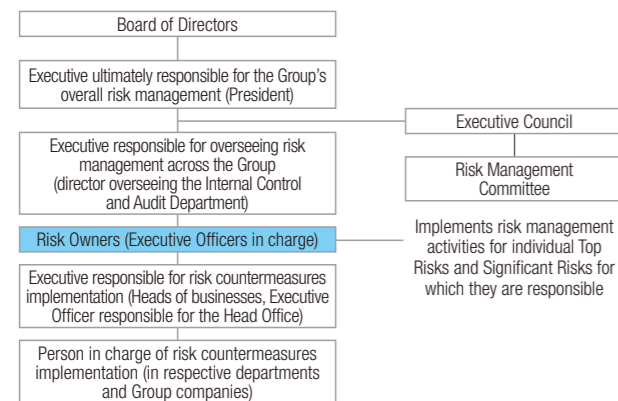
## Basic Policy

In accordance with the Companywide Risk Management Regulations and referring to the guidance issued by Committee of Sponsoring Organizations of the Treadway Commission (COSO) as an international standard, we identify factors that hinder the KOBELCO Group's sustainable development and enhancement of corporate value and take measures to address them. As targets for Companywide risk management, we designate risks that have a material impact on the Group and stakeholders and require a Groupwide response as Top Risks and Significant Risks. These Top Risks and Significant Risks include ESG risks such as human rights, safety management, climate change, and natural disasters.

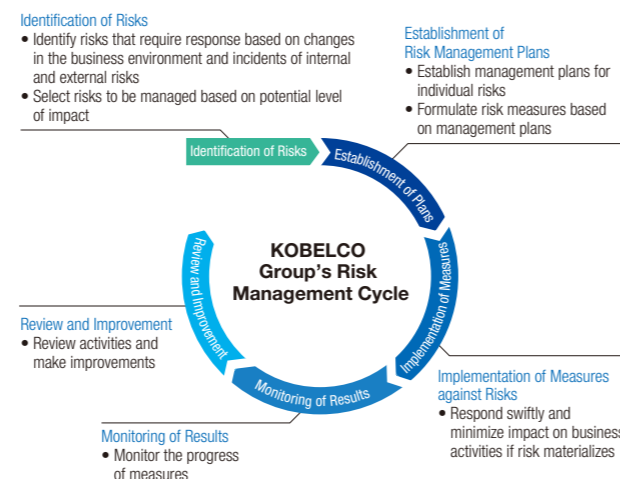
### Classification and Definition of Risks



## Management Structure



Under the direction of the Risk Owners, the management of individual risks is carried out by the person in charge of risk countermeasures implementation in each division in the following cycle: identifying risks, formulating risk management plans, implementing the plans, assessing results, and identifying required improvement for the following fiscal years. To ensure the effectiveness of our activities, the Board of Directors manages and supervises activities to address Top Risks and Significant Risks, including ESG risks. They review the annual results of activities in respective business divisions for the improvement of the plans for subsequent fiscal years. This approach to risk management is also actively employed at Group companies.



In the event of an urgent and serious risk of loss with respect to risks including Top Risks and Significant Risks, we will appropriately communicate information and make decisions according to internal rules based on the Contact System in Case of Risk Occurrence and take appropriate measures to minimize damage.

For our response to major risks, please refer to Risk Management on pp. 112–113 of the ESG Data Book.

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 has been established as an auxiliary body to the Executive Council. The committee undertakes tasks such as formulating and evaluating basic policies concerning risk management in general, planning specific policies concerning important issues in risk management, and approving 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. The status of the activities 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, headed up by the president, is operated independently from the Audit & Supervisory Committee.

# Compliance

Based on the Group Corporate Philosophy, the KOBELCO Group has positioned compliance as one of the key components of the business foundation that supports its business and is working to build organizational structures and implement the initiatives as outlined below.

## Compliance Code and Standards

Under the Group Corporate Philosophy, the KOBELCO Group has established the Six Pledges of KOBELCO that constitute its specific code of conduct to be implemented by all members of the Group in day-to-day operations in order to fulfill the Core Values of KOBELCO, which are the values that should be shared throughout the Group. We have created guidelines to facilitate the correct understanding of applicable laws and regulations as well as social norms relevant to our business operations. Each and every person, regardless of whether they are directors/executive officers or employees, will practice the Six Pledges of KOBELCO in accordance with the guidelines.

The KOBELCO Group's Compliance Program consists of five pillars: (1) Risk Assessment and Commitment, (2) Setting Rules and Procedures and Securing Resources, (3) Training and Communication, (4) Monitoring and Response to Reports, and (5) Review and Improvement. By assessing the progress of the compliance activities of the Company and its Group companies with a focus on these five items and implementing them based on the characteristics of respective businesses and regions, we will carry out comprehensive and effective compliance activities throughout the Group.

## Compliance Structure

Kobe Steel has formulated its Compliance Regulations that set out basic matters related to its compliance system, operations, etc., based on the Group Corporate Philosophy.

### (1) Compliance Committee

The Company has established the Compliance Committee 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. Major Group companies have also established the compliance committees.

### (2) KOBELCO Group's Compliance Program

Compliance activity plans are implemented based on the KOBELCO Group's Compliance Program. The Internal Control and Audit Department of Kobe Steel carries out the program in coordination with its business divisions and Group companies under the supervision of the director/executive officer overseeing companywide compliance and the executive officer responsible for companywide compliance.

### 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

## Compliance-Related Initiatives

Specific activities include regular communication by top management about their commitment to compliance, creation of various manuals, implementation of compliance education, establishment/operation of internal reporting system, and regular implementation of compliance awareness surveys.

For other initiatives, please refer to Compliance on pp. 107–111 of the ESG Data Book.

## 10-Year Financial and Non-Financial Data

		(Millions of yen)									
(FY)		2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
For the fiscal year	Net sales	¥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	¥2,082,582
	Operating income	11,234	114,548	119,460	68,445	9,749	88,913	48,282	9,863	30,398	87,622
	Ordinary income (loss)	(18,146)	85,044	101,688	28,927	(19,103)	71,149	34,629	(8,079)	16,188	93,233
	Net income (loss) attributable to owners of the parent	(26,976)	70,191	86,549	(21,556)	(23,045)	63,188	35,940	(68,008)	23,234	60,083
	Cash flows from operating activities	45,401	194,294	153,078	97,933	141,716	190,832	67,136	27,040	194,798	168,809
	Cash flows from investing activities	(123,513)	(62,105)	(73,674)	(104,618)	(137,833)	(161,598)	(28,603)	(218,986)	(141,853)	(161,510)
	Cash flows from financing activities	127,644	(138,501)	(156,027)	93,883	16,545	(66,598)	(9,561)	140,589	118,444	(69,143)
	Capital expenditures	114,935	101,402	103,522	109,941	160,297	128,653	133,471	239,816	185,091	108,139
	Depreciation	106,725	82,936	89,881	94,812	96,281	102,032	102,589	105,346	100,856	105,147
	R&D expenses	30,763	28,494	29,920	29,843	30,102	32,014	34,495	35,890	31,008	33,244
At fiscal year-end	Total assets	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	2,728,745
	Net assets	569,922	734,679	851,785	745,492	729,404	790,984	803,312	716,369	769,375	872,346
	Interest-bearing debt	907,656	748,138	650,991	776,073	789,632	726,013	724,221	784,478	785,761	655,154
Per share data*1 (yen)	Net income (loss)	(89.8)	226.2	238.1	(59.3)	(63.5)	174.4	99.2	(187.5)	64.0	160.2
	Net assets	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	2,066.48
	Cash dividends	—	40.00	40.00	20.00	—	30.00	20.00	0.00	10.00	40.00
Financial indicators	Return on assets (ROA) (%)	(0.8)	3.8	4.4	1.3	(0.8)	3.1	1.5	(0.3)	0.6	3.5
	Return on equity (ROE) (%)	(5.2)	11.9	12.0	(2.9)	(3.4)	8.9	4.8	(9.7)	3.4	7.9
	Return on invested capital (ROIC) (%)	—	—	—	—	0.8	4.5	2.8	0.9	1.1	4.7
	Equity ratio (%)	23.0	29.2	33.8	30.6	29.2	31.6	31.0	27.2	27.5	29.9
	Debt/equity (D/E) ratio (times) (excluding project financing)	1.75	1.11	0.88	1.10	1.17	0.98	0.98	1.19	1.11	0.80
	Dividend payout ratio (%)	—	17.7	16.8	—	—	17.2	20.2	—	15.6	25.0
Number of shares issued (in thousands)		3,115,061	3,643,642	3,643,642	3,643,642	364,364	364,364	364,364	364,364	364,364	396,346
Non-financial data											
Environmental	Reduction of CO <sub>2</sub> emissions in production processes (from fiscal 2013) (%) <sup>(Note)</sup>									21	16
	Contribution to reduction of CO <sub>2</sub> emissions through technologies, products, and services (in million tons) <sup>(Note)</sup>							36.74	42.14	40.77	44.91
	Water recycling rate (%) <sup>(Note)</sup>							96.0	95.9	95.9	95.7
	By-product recycling rate (%) <sup>(Note)</sup>							99.3	98.5	98.9	99.3
Social	Number of employees										
	Consolidated	36,018	36,019	36,420	36,338	36,951	37,436	39,341	40,831	40,517	38,106
	Non-consolidated	10,398	10,586	10,609	10,833	11,034	11,191	11,401	11,560	11,837	11,296
	Men	9,728	9,891	9,881	10,090	10,241	10,304	10,422	10,528	10,750	10,231
	Women	670	695	728	743	793	887	979	1,032	1,087	1,065
	Non-Japanese	30	34	40	57	60	70	69	85	87	76
	Percentage of female managers (non-consolidated)*2 (%)	1.0	1.2	1.4	1.5	1.6	1.9	2.4	2.6	2.7	2.8
	Employment rate of people with disabilities (non-consolidated)*3 (%)	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)	2.56 (2.3)
	Number of new graduates employed (non-consolidated)										
	Men	374	336	294	362	344	421	350	315	349	254
	Women	24	19	14	26	50	64	50	52	38	39
	Number of employees taking childcare leave (non-consolidated)*4										
	Men	1	0	1	5	7	8	13	35	48	82
	Women	40	45	48	38	54	40	40	58	63	49
	Percentage of employees returning from childcare leave (non-consolidated) (%)	100.0	89.5	100.0	94.7	96.0	96.7	98.2	100.0	99.1	99.0
	Turnover of employees with less than 3 years of service (non-consolidated)*5 (%)	5.8	9.0	5.2	12.1	12.8	10.7	15.3	16.6	5.7	3.4
	Turnover of employees with less than 10 years of service (non-consolidated)*6 (%)	19.1	11.9	13.2	14.5	13.1	13.4	18.9	19.1	15.8	19.5
Overtime (non-consolidated) (hours per month/employee)	19.6	20.2	22.9	22.7	16.5	18.4	18.4	17.7	16.6	17.2	
Number of annual paid leave days taken (non-consolidated) (days per year/person)	9.1	8.4	9.1	11.8	14.9	15.5	16.3	17.0	11.0	13.9	
Total hours worked (non-consolidated) <sup>(Note)</sup>									2,080	1,978	2,057
Employee training											
Total hours of training (across all employees) <sup>(Note)</sup>										210,948	215,667
Average hours of training per employee <sup>(Note)</sup>										18	19
Occupational safety and health											
Lost time injury frequency rate <sup>(Note)</sup>	0.27	0.17	0.36	0.32	0.26	0.31	0.26	0.19	0.24	0.14	
Governance	Compliance										
	Number of internal reporting (whistleblowing) cases <sup>(Note)</sup>								119	112	113

Note: Indicators and targets for materiality. Retrospective items are based on data from fiscal 2019 and earlier.

\*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 2012.

\*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 fiscal 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 10 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 2017–2021)

Steel & Aluminum <small>(Billions of yen)</small>					
Fiscal year	2017	2018	2019	2020	2021
Net sales	—	—	780.2	696.3	914.9
Ordinary income (loss)	—	—	(16.5)	(22.6)	37.5
Total assets	—	—	1,022.4	1,000.3	1,089.0
Depreciation	—	—	56.0	57.2	57.4
R&D expenses	—	—	7.5	6.4	6.2
Capital expenditures	—	—	62.4	69.2	27.1
Number of employees (consolidated)	—	—	—	12,424	11,828

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 Integrated Report 2020.

Advanced Materials <small>(Billions of yen)</small>					
Fiscal year	2017	2018	2019	2020	2021
Net sales	—	—	297.1	238.1	333.2
Ordinary income (loss)	—	—	(25.2)	(12.1)	5.1
Total assets	—	—	277.1	256.0	244.4
Depreciation	—	—	15.7	10.2	11.3
R&D expenses	—	—	3.5	2.6	2.5
Capital expenditures	—	—	27.0	14.2	8.2
Number of employees (consolidated)	—	—	—	6,080	4,469

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 Integrated Report 2020.

Welding <small>(Billions of yen)</small>					
Fiscal year	2017	2018	2019	2020	2021
Net sales	80.5	83.9	83.7	70.0	76.9
Ordinary income	4.9	3.6	2.9	1.7	2.7
Total assets	76.0	78.5	79.6	77.6	79.4
Depreciation	2.1	2.2	2.4	2.4	2.5
R&D expenses	3.4	3.7	4.0	2.9	3.1
Capital expenditures	2.3	2.3	2.6	2.1	1.3
Number of employees (consolidated)	2,551	2,560	2,587	2,514	2,445

Machinery <small>(Billions of yen)</small>					
Fiscal year	2017	2018	2019	2020	2021
Net sales	161.3	171.4	165.9	175.3	166.8
Ordinary income	2.3	1.2	9.6	11.4	12.5
Total assets	182.1	171.9	184.7	181.3	190.9
Depreciation	5.6	6.1	5.6	5.2	5.2
R&D expenses	3.3	2.7	3.5	3.8	3.6
Capital expenditures	7.8	4.1	4.8	4.1	4.0
Number of employees (consolidated)	4,010	4,094	4,278	4,661	4,716

Engineering <small>(Billions of yen)</small>					
Fiscal year	2017	2018	2019	2020	2021
Net sales	122.8	151.7	141.5	136.1	135.6
Ordinary income	6.9	6.5	5.7	4.4	7.7
Total assets	109.3	137.3	139.0	123.8	132.5
Depreciation	1.9	2.0	1.8	1.6	1.6
R&D expenses	1.9	2.3	2.4	2.1	2.3
Capital expenditures	0.9	2.7	1.8	1.6	1.4
Number of employees (consolidated)	2,920	3,523	3,584	3,524	3,553

Construction Machinery <small>(Billions of yen)</small>					
Fiscal year	2017	2018	2019	2020	2021
Net sales	364.5	386.0	360.8	333.1	371.6
Ordinary income	21.9	25.5	7.5	12.7	12.0
Total assets	388.4	358.6	341.0	334.6	361.9
Depreciation	12.3	12.3	12.9	12.8	13.8
R&D expenses	5.6	6.5	6.9	6.4	8.4
Capital expenditures	11.3	13.5	13.5	10.4	9.8
Number of employees (consolidated)	7,075	7,487	7,765	7,917	7,829

Electric Power <small>(Billions of yen)</small>					
Fiscal year	2017	2018	2019	2020	2021
Net sales	72.1	76.1	75.6	80.4	109.8
Ordinary income	7.9	(0.3)	8.9	20.6	13.2
Total assets	107.1	123.2	251.6	321.3	397.8
Depreciation	8.8	5.8	7.6	8.4	10.3
R&D expenses	—	—	—	—	—
Capital expenditures	12.0	20.1	123.5	81.1	52.9
Number of employees (consolidated)	235	244	255	263	272

Other Businesses <small>(Billions of yen)</small>					
Fiscal year	2017	2018	2019	2020	2021
Net sales	68.8	42.0	33.6	27.8	28.8
Ordinary income	5.4	2.3	3.3	4.2	7.0
Total assets	146.1	57.0	54.8	56.1	59.8
Depreciation	2.9	1.6	1.2	0.5	0.5
R&D expenses	0.9	1.0	0.9	0.7	0.9
Capital expenditures	2.2	3.3	1.4	0.8	0.5
Number of employees (consolidated)	2,350	1,643	1,651	1,637	1,542

# Corporate Data and Stock Information (As of March 31, 2022)

## Corporate Profile

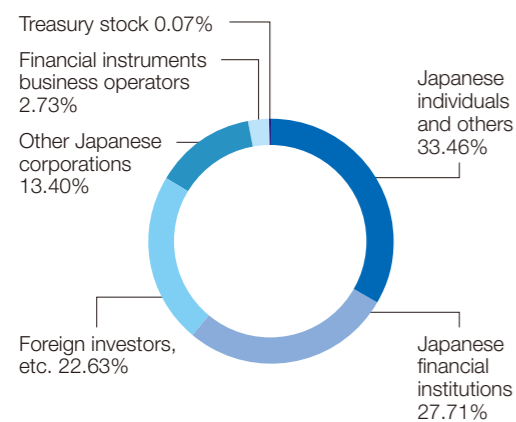
Name:	Kobe Steel, Ltd. (Japanese Name: Kabushiki Gaisha Kobe Seikoshu)
Group brand:	<b>KOBELCO</b>
Founded:	September 1, 1905
Incorporated:	June 28, 1911
Capital:	¥250.9 billion
Total assets:	¥2,728.7 billion
Employees:	38,106 (consolidated) 11,296 (non-consolidated)

\* 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:	396,345,963 shares
Number of shareholders:	189,427
Record date:	March 31 every year
Share unit number:	100 shares
Listings:	Tokyo Stock Exchange, Prime Market (Ticker Code: 5406) Nagoya Stock Exchange, Premier Market (Ticker Code: 54060)
Transfer agent & office:	Mitsubishi UFJ Trust and Banking Corporation
Accounting auditor:	KPMG AZSA LLC

## Breakdown of Shareholders by Investor Type

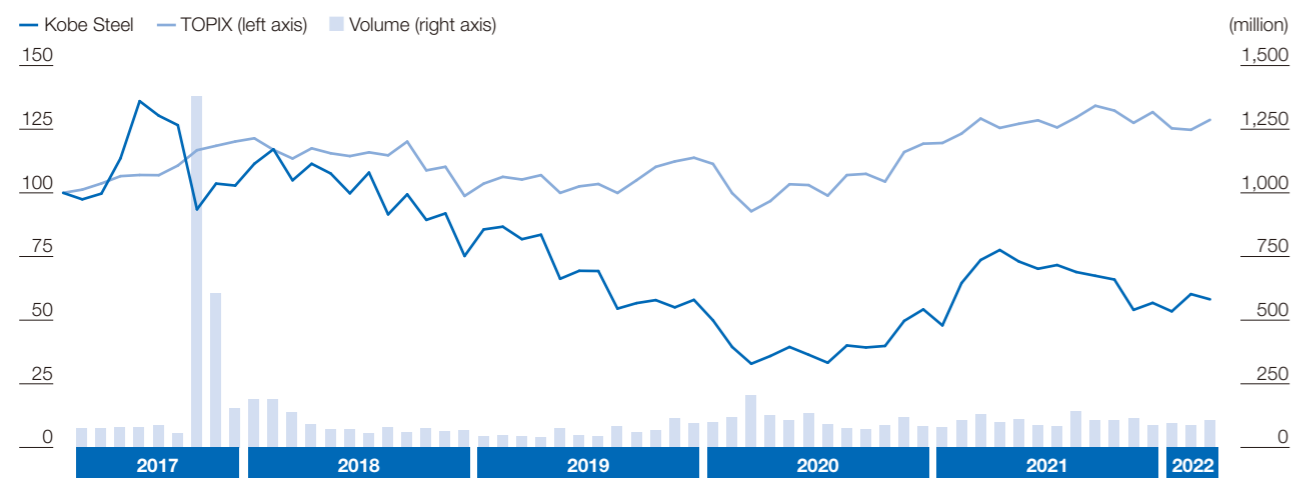


## Major Shareholders (10 largest shareholders)

Name of Shareholder	Number of Shares Held (Thousands of shares)	Shareholding Ratio (%)
The Master Trust Bank of Japan, Ltd. (Trust Account)	56,035	14.15
Custody Bank of Japan, Ltd. (Trust Account)	15,372	3.88
Nippon Steel Corporation	10,735	2.71
Nippon Life Insurance Company	7,471	1.89
HAYAT	7,373	1.86
J.P. MORGAN SECURITIES PLC FOR AND ON BEHALF OF ITS CLIENTS JPMSP RE CLIENT ASSETS-SETT ACCT	5,454	1.38
DFA INTL SMALL CAP VALUE PORTFOLIO	5,156	1.30
STATE STREET BANK WEST CLIENT - TREATY 505234	4,918	1.24
KOBELCO Employee Stock Ownership Plan	4,473	1.13
SHIMABUN Corporation	4,420	1.12

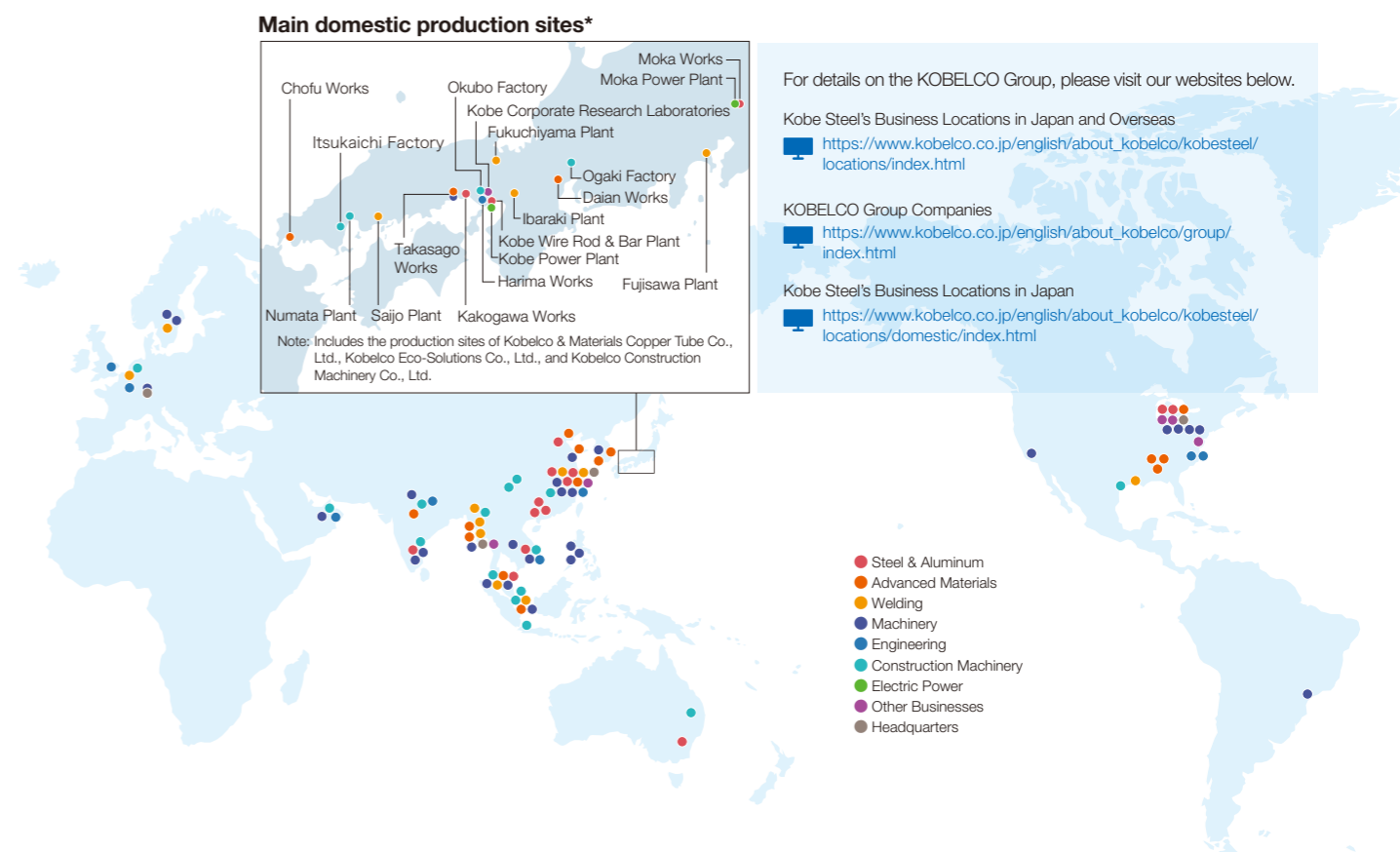
Note: Shareholding ratio is calculated excluding treasury stock (258,159 shares).

## Trends in Stock Price and Volume



Note: Kobe Steel's stock price and TOPIX are indexed with closing prices in March 2017 equal to 100.

## Global Locations (As of March 2022)



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)

- Steel & Aluminum
- Advanced Materials
- Welding
- Machinery
- Engineering
- Construction Machinery
- Electric Power
- Other Businesses
- Headquarters

## External Assessments (As of August 2022)

### Accreditations and Certifications

**Platinum Kurumin**  
Certified in 2019



**Received Gold award in PRIDE Index**  
Certified in 2021

### Assessments

Scored A- by CDP in the Climate Change and Water Security categories.



### Inclusion in Indices, etc.

- FTSE4Good Index Series
- FTSE Blossom Japan Index
- FTSE Blossom Japan Sector Relative Index
- S&P/JPX Carbon Efficient Index
- MSCI Japan ESG Select Leaders



## About Our ESG Data Book

Please see the ESG Data Book for supplementary materials for the integrated report (detailed data on environmental management and CO<sub>2</sub> reduction, etc.) and detailed information on sustainability, etc.

ESG Data Book

[https://www.kobelco.co.jp/english/about\\_kobelco/outline/integrated-reports/index.html](https://www.kobelco.co.jp/english/about_kobelco/outline/integrated-reports/index.html)



Sustainability

<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**