

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

May 18, 2023 Kobe Steel, Ltd.



1. Introduction

2. Establishing a stable earnings base

3. Taking on the challenge of realizing carbon neutrality

Establishing a stable earnings base

Taking on the challenge of realizing carbon neutrality

Assessment of the current business climate





Enhancing corporate value by reducing cost of capital and responding to growing markets



Strategy leading toIower cost of capital

- Strengthen the earnings base of existing businesses and transform to a stable earnings structure
- Strengthen the financial base
- 2. Responding to growing markets
 - Expand businesses in line with efforts toward carbon neutrality



1. Introduction

2. Establishing a stable earnings base

3. Taking on the challenge of realizing carbon neutrality

Status of earnings



Initiatives steadily progressing toward establishing a stable earnings base





Profitability (ROIC)

We expect to achieve a ROIC of 5% or more for fiscal 2023, a target under the Medium-Term Management Plan





Business portfolio (Forecast for fiscal 2023)



KOBELCO

Assumptions for fiscal 2023 when the Medium-



Five Key Measures

Kobe Steel, Ltd. All rights reserved

P10

Five key measures toward establishing a stable earnings base



Strengthening the earnings base of the steel business

Lowering break-even point

➡ Progress in establishing a structure that turns profit with crude steel production of 6 million tons

Improving product mix

 \Rightarrow Still at the halfway point, affected in part by reduced car demand

pp. 12–13



- Ensuring stable operation of existing power plants
- Securing stable earnings with the start of operation of Kobe Power

Plant No. 3 and 4 units Operations started as

planned

p. 14

Strategic investment in the materials businesses leading to earnings contribution

Realizing steady and early contribution to earnings from strategic investment for automotive weight reduction



 Decline in profitability of aluminum businesses

pp. 15–16

Restructuring unprofitable businesses

> Making the steel casting and forging, titanium, and crane businesses return to profitability

Expect to return to profitability



Stabilizing earnings in the machinery businesses and responding to growing markets

- Enhancing environmental contribution lineup and strengthening of collaboration in Group
- Reforming earnings structure of the construction machinery business

➡ Steady progress with solid orders

pp. 17–20

Strengthening the earnings base of the steel business (1)



Despite changes in the business environment, we expect to achieve its fiscal 2023 earnings target under the Medium-Term Management Plan

• Crude steel production and profit (loss)*

	(Actual)	Assumption	Actual / Forecast				
	FY2020	FY2023	FY2021	FY2022	FY2023		
Crude steel production (million tons)	5.7	6.3	6.4	6.0	6.0		
Consolidated profit (loss)* (billions of yen)	(20.8)	23.0 or above	(8.4)	33.5	39.0		

* Ordinary profit (loss) excluding inventory valuation factors

- Decline in quantity along with the decline in Japan's crude steel production, automobile production, and other macroeconomic factors, which fell short of assumptions under the Medium-Term Management Plan.
- Due largely to improvement of the metal spread, profit for fiscal 2023 is expected to exceed the target under the Plan.



Strengthening the earnings base of the steel business (2)



While the break-even point has been lowered by improving the metal spread, improvement in the product mix, etc. is only halfway.



Smooth startup and stable operation of new electric power projects

Kobe Power Plant No. 4 unit started commercial operation in February 2023, contributing to both stable supply of electricity to local communities and the establishment of a stable earnings base.





KOBELCO

Strategic investment in the materials businesses leading to earnings contribution (1)



Profitability has declined in aluminum businesses (flat-rolled products, extrusions, and suspensions)

	Strategic investment		Current status					
			Manufacturing capability		Quantity mix	Price		
Steel products (high-tensile strength steel)	A new continuous galvanizing line (CGL) at PRO-TEC (US)				Decline in automobile		Pass-through to selling prices in	
	Third CGL at Kakogawa Works		Establishment of		production	progress		
Aluminum flat- rolled products	Kobelco Automotive Aluminum Rolled Products (China) Co., Ltd.		mass-production system underway		Decline in	Dising costs in		
	Ulsan Aluminum, Ltd. (South Korea)		as planned		automobile	energy,		
	New aluminum sheet line at Moka Works				and	materials, etc.		
Aluminum extrusions	Additional investment in KPEX (US)				aluminum applications	Delay in cost pass-through to		
Aluminum suspensions	Additional investment in KAAP (US)		Productivity target not achieved			selling prices		
 Each investment is aimed at expanding sales in the automotive sector 								

Decline in profitability of aluminum businesses

aluminum sheets, etc.

• The plan is to gradually expand mass production of high-formability high-tensile strength steel and

Strategic investment in the materials businesses leading to earnings contribution (2)



Efforts to improve profitability of aluminum businesses (flat-rolled products, extrusions, and suspensions)

	FY2022 initiatives	FY2023 issues and initiatives
Improving manufacturing capability	 KAAP promotes equipment failure reduction and industrial engineering (IE) activities, along with the support from engineers in Japan Productivity currently improving 	IssueCompleting efforts to improve KAAP manufacturing capability• Will seek further productivity improvement by continuing current efforts, mainly for reducing equipment failures
Improving quantiry mix	 Focusing on expanding sales amid declining demand for automobiles Mass production to start in fiscal 2023 for orders received (KAAP and KPEX have already secured the assumed volume of orders) 	IssueCapturing demand and expanding sales of aluminum flat-rolled products• Capturing recovering demand for automobiles• Focusing on increasing new customers in the sector of aluminum flat-rolled products
Improving prices	 Discussing with customers about formulating pass-through of soaring costs Formula for the pass-through of secondary materials cost already agreed on 	IssueCost pass-through and margin improvement• Energy cost pass-through to selling prices• Discussions for margin improvement

Aiming to achieve profitability in each business in the second half of fiscal 2023

Stabilizing earnings in the machinery businesses and responding to growing markets: Machinery business



Machinery

Aiming for further growth beyond record-high consolidated orders in fiscal 2022



Stabilizing earnings

- Orders increased in both the energy and industrial sectors
- Through capital and business alliance with Miura Co., Ltd. in standard compressors, the air compressor business has expanded in scale in Japan and overseas

	Orders by sector (billions of yen)	FY2020 (Actual)	FY2023 (Forecast)
-	Energy and chemical sectors	54.3	97.5
	General industrial sector (incl. standard compressors)	69.0	127.7
	New sectors	9.8	29.8

Responding to growing markets

• Work to enhance environmental contribution lineup in growing markets moving toward energy conversion

	Ē	Decarbonization- related	4%	15%
	LNG-related	13%	20%	
		Petroleum-related	36%	27%

Stabilizing earnings in the machinery businesses and responding to growing markets: Engineering business



Engineering

Firm orders for MIDREX and Kobelco Eco-Solutions' environmental conribution lineup

• Consolidated orders and ordinary profit in engineering business (billions of yen)



Stabilizing earnings

• MIDREX

Orders received for the world's first commercial MIDREX H_2^{TM} and MIDREX FlexTM plants

Announced	Supplied to
Oct. 2022	H2 Green Steel (Sweden) Reduction process: MIDREX H_2^{TM}
Mar. 2023	thyssenkrupp Steel (Germany) Reduction process: MIDREX Flex™

• Kobelco Eco-Solutions

Receiving solid orders, including a large project for conversion of sewage sludge (a biomasss resource) to fuel, and multiple large-scale renovation projects in the waste treatment-related business

Responding to growing markets

- Capture demand in growth markets with extensive environmental contribution lineup
 - → Details explained in the section of **Taking on the** challenge of realizing carbon neutrality

Stabilizing earnings in the machinery businesses and responding to growing markets: Construction machinery business (1)



Construction machinery

Progress in establishing a complementary production system between plants in different areas, focusing on commercializing solutions and peripheral businesses

• Consolidated ordinary profit in the construction machinery business (billions of yen)



Responding to growing markets

 Promote commercialization and monetization of solutions and peripheral businesses



Stabilizing earnings

- Crane business achieved profitability
- Earnings declined in the excavator business due mainly to the rise in variable costs, parts shortages, and a slowdown in China business
- Departure from dependence on the Chinese market in progress
- Improve earnings by passing on variable costs to selling price, relaunching models with alternative engines, etc.



Breakdown of net sales by area

Stabilizing earnings in the machinery businesses and responding to growing markets: Construction machinery business (2)



Construction machinery

Initiatives for solutions and peripheral businesses

K-DIVE[®]

A service that continuously supports transformation to a "workplace where anyone can participate" by utilizing a heavy machinery remote operating system and operation data



- Service (Phase 1) started in December 2022
- The number of inquiries is higher than expected.
 - → Continue to focus on increasing contracts and achieving profitability

K-D2 PLANNER®

Simulation software that allows easy creation of a construction plan—Software for developing an installation plan of cranes

✓ Aiming for a workplace where construction proceeds smoothly through the power of the internet of things (IoT), with higher productivity and safety



(Database developed with extensive heavy machinery information)

- Commercialized in November 2022
- Completed registration in the government's New Technology Information System (NETIS)
 - → Accelerate building agency network for further sales expansion



Financial Situation

Kobe Steel, Ltd. All rights reserved

P21

Financial situation

KOBELCO

Basic policy of financial strategy By carefully selecting new capital spending, investments, and loans, we will keep investment cash flow within the scope of operating cash flow, targeting a D/E ratio of 0.7 or below by the end of fiscal 2023



- D/E ratio of 0.7 or below was achieved ahead of schedule. We aim to improve the ratio to around 0.6 by the end of fiscal 2023.
 - Free cash flow declined due to an increase in working capital.





Kobe Steel determines dividends taking its financial condition, future capital needs, financial results, payout ratio and other factors into overall consideration with the aim of paying dividends on a continuous and steady basis in principle.

	FY2019	FY2020	FY2021				FY2022	
			Interim	Year- end	Total	Interim	Year- end	Total
Dividend per share in yen	_	10.0	10.0	30.0	40.0	15.0	25.0	40.0
Dividend payout ratio	-	15.6%			25.0%			21.8%



1. Introduction

2. Establishing a stable earnings base

3. Taking on the challenge of realizing carbon nuetrality

Kobelco Group's initiatives to achieve carbon neutrality

KOBELCO

We provide products and technologies as well as solutions through leveraging our Group's comprehensive strengths.



(*1) The Kobelco Group contributes to the reduction of CO₂ emissions in various areas of society through its distinctive technologies, products, and services.





1. Reduction of CO₂ emissions in production processes

- (1) Ironmaking process
- (2) Electric power business

2. Contribution to reduction of CO₂ emissions

(1) Contribution to ironmaking process(2) Contribution to energy conversion industry(3) Contribution to recycling-oriented society

Initiatives to achieve carbon neutrality in ironmaking process (1)

Engineering

The roadmap for the ironmaking process remains unchanged. While utilizing government-affiliated frameworks, such as NEDO Green Innovation Projects, we are steadily working on technological study.



Initiatives to achieve carbon neutrality in ironmaking process (2)



Engineering

- Technical development (1) : Shift from natural gas-based to hydrogen-based direct reduction technology for iron source production in the MIDREX[®] Process
- Technical development (2): Further reduce CO₂ emissions by combining our MIDREX[®] HBI manufacturing technology and HBI charging technology for BFs
- Technical development (3): Develop high-grade steel manufacturing technology with a large amount of HBI charged, as part of the Green Innovation Fund Project



Initiatives to achieve carbon neutrality in ironmaking process (3)

We conducted tests to improve HBI charging technology for blast furnaces as planned. We continue to work on HBI charging technology improvements and advance the study of HBI charging equipment.



Steel & Aluminum X Engineering

Initiatives to achieve carbon neutrality in ironmaking process (4) Steel & Aluminum X Engineering KOBELCO							
Kobenable Steel, Japan's fir blast furnace steel product launched in May 20	rst low-CO2 t in Japan, 022	extensive attention of customers om various business fields g to raising awareness of green steel					
	AutomobileJun. 2022Toyota Motor Corporation	AutomobileDec. 2022Nissan Motor Co., Ltd.					
	Kobenable Steel used in suspension members of Toyota hydrogen engine- equipped racing vehicle Corolla Kobenable Premier	Kobenable Steel used in Nissan mass-produced vehicles Kobenable Premier					
	Construction Dec. 2022	Shipbuilding Mar. 2023					
Kobenable Steel	Kobenable Steel used in Toyosu 4- 2 Development Project, Building B (Toyosu, Koto-ku, Tokyo)	Kobenable Steel used in a 180,000-ton class bulk carrier built by Imabari Shipbuilding					
	Kobenable Premier	Kobenable Premier					

- The GX (Green Transformation) Implementation Council has set a target of 10 million tons of green steel supply in 2030.
- → Our Company will take the lead in expanding the green steel market. (In order to expand the market, we need to develop an environment that supports the initiative through the standardization of green steel and the system design for its widespread use, etc.)

Initiative to achieve carbon neutrality in the electric power business

- Electric power X Engineering
- To advance efforts toward practical application of ammonia co-firing and single-firing, we monitor national measures and trends in technological development led by NEDO and promote detailed internal study.
- For biomass fuel co-firing, we are working with Kobelco Eco-Solutions to promote projects for co-firing of biomass fuel derived from sewage sludge and utilization of extracted steam^{*1}.

*1 Hydrogen production by water electrolysis hydrogen generator



٠





- **1.** Reduction of CO₂ emissions in production processes
 - (1) Ironmaking process
 - (2) Electric power business

2. Contribution to reduction of CO₂ emissions

(1) Contribution to ironmaking process
 (2) Contribution to energy conversion industry
 (3) Contribution to recycling-oriented society

Ironmaking process—Status of MIDREX[®] business (1)

We provide optimal solutions during the transition period, while flexibly responding to the needs of customers in areas where the introduction of carbon-free hydrogen is progressing.



Engineering

Ironmaking process—Status of MIDREX[®] business (2) (Business development scheme)

To achieve carbon neutrality, we will make our CO₂ reduction solutions available in any stage, from short and medium to long term.



*1 The amount of CO2 reduction may change depending on the situation of installed equipment, raw materials used, etc. *2 DRI: Direct Reduced Iron *3 HBI: Hot Briquetted Iron

Engineering

Steel & Aluminum

Feasibility study of low-CO2 Iron Metallics Project in Oman

Kobe Steel and Mitsui & Co. will jointly conduct the feasibility study of production and sale of HBI (low-CO2 iron metallics) using MIDREX[®] process.



We have made good progress in establishing cooperative framework with local stakeholders through these agreements that enable us to secure land for business in special economic zones at Duqm in Oman and secure natural gas production quota.

Feasibility study of low-CO₂ Iron Metallics Project in Oman

Oman

- Oman is rich in natural gas.
- Under Oman Vision 2040, the country promotes its key policy focused on the supply of renewable energy and green hydrogen.
- → Ideal location for low-CO2 iron metallics business with a view to promoting green steel production.

MIDREX® Process

- MIDREX® Process bridges the transition from natural gas to hydrogen direct reduction ironmaking.
- → Optimal ironmaking process for green steel production in the future, applicable to the transition period

The plan is to produce 5 million tons of DRI per year through the MIDREX[®] process. Kobe Steel and Mitsui & Co. will accelerate the feasibility study of a low-CO2 iron metallics business in Oman.

We will contribute to the decarbonization of the entire steel industry in Japan and overseas by supplying low-CO2 iron source (HBI).

Energy conversion industry: Initiatives in the machinery business

- In the machinery business, compressors, heat exchangers, and vaporizers are expected to be used in every part of the supply chain of the energy conversion industry, contributing to the creation of a carbon neutral society.
- \rightarrow Machinery business initiatives will be explained on another occasion.



Kobe Steel, Ltd. All rights reserved

P37

KOBELCO

Machinery



The demonstration of the system is partly supported by the New Energy and Industrial Technology Development Organization (NEDO) under the Development of Technologies for Realizing a Hydrogen Society.

a. Study on hydrogen utilization model for decarbonization of factories that mainly consume energy as heat

b. Development of an intermediate liquid hydrogen vaporizer that enables the use of liquid hydrogen cold energy



Advanced Machinerv Engineering X X

Our initiatives as a producer and user of hydrogen

- The Kobelco Group is a hydrogen producer with a diverse range of hydrogen-supply-related products and technologies as well as a potential hydrogen user with plants that will use a large amount of hydrogen.
- We will carry out the initatives listed below at Kobe Steel's Takasago Works, as a model case for medium-scale use of hydrogen gas.

1. Scale up facilities & improve and develop products and systems

2. Conduct additional study of hydrogen user variations

Create and provide optimal solutions, taking advantage of Kobelco 3. Group's unique position as a producer and user of hydrogen

★ Some of the above initiatives have been adopted in the survey and verification projects supported by NEDO.

materials

Recycling-oriented society: Kobelco Eco-Solutions' initiatives

- As part of the effort to achieve carbon neutrality, Kobelco Eco-Solutions has been advancing initiatives for creating new technologies and businesses, including the effective use of sewage sludge and food waste and the efficient operation of sewage and waste treatment facilities.
- → For more details about the initiatives of Kobelco Eco-Solutions, see the September 2022 IR meeting materials.



Engineering

KOBELCO



★ : Kobelco Eco-Solutions' original technologies and initiatives

Recycling-oriented society: Converting sewage sludge to fuel

General waste



Kobelco Eco-Solutions (KES)

Undertaking new development in the fields of digestion, and conversion to fuel, of sewage sludge with the aim of realizing carbon neutrality

- (1) Renovation work of the sludge treatment facilities at the wide-area sewage sludge treatment site for the eastern Hyogo area was awarded to a joint venture formed by KES and other companies
 - Construction contract signed in October 2021
 Contract amount (incl. tax): 48,015 million yen
 - One of Japan's largest sewage sludge treatment plants
 - Reduce greenhouse gas emissions by using methane gas and sludge fuel produced from sewage sludge as fuel for power generation



(2) Installation work of sludge utilization facilities as part of the Fukuchiyama City sludge treatment facilities rebuilding project was awarded to a joint venture formed by KES and other companies

Construction contract signed in January 2022
Contract amount (incl. tax): 5,500 million yen

• Study underway to use sludge fuel produced from sewage sludge as an alternative to coal at the Kobe Power Plant

(3) Construction work of sludge digestion and sludge-to-fuel facilities at the Lake Biwa south-central wastewater treatment center was awarded to a joint venture formed by KES and other companies

- Construction contract signed in October 2022
 Contract amount (incl. tax): 10,120 million yen
- The first sludge digestion facility to be installed in a wastewater treatment center in Shiga prefecture.

Sewage treatment

Recycling-oriented society: Conversion of sewage sludge to KOBEL Engineering fuel and biogas generation from food wastes **Kobelco Eco-Solutions** Sewage treatment General waste Industrial waste KES is the first company in Japan to be licensed for industrial waste treatment in a sewage plant and engaged in the facility operation. (1) Project to renovate sludge treatment facilities at the Higashinada sewage treatment plant in Kobe **City** was awarded to a joint venture formed by KES and other companies Master agreement concluded in November 2022 • Contract amount (incl. tax): Construction contract 4,576 million yen; maintenance and management contract 6,261.99 million yen Implement waste-to-energy conversion using existing infrastructure facilities • Create facilities to convert local biomass into energy for local use • Undertake the renovation of the sewage treatment facilities for about 10 years and their maintainance and management for 20 vears Increase digestion gas Local food plants Sewage treatment-plant-Selling electricity generated by food and other under the Feedwastes Sewage **Digestion tanks** in Tariff scheme sludge **Electricity from** Power methane gas company Food and other waste ★ By charging food and other wastes, the current amont of digestion gas generated from sewage amounting to 12,000 m³/day will be

increased by approx. 10%, contributing to an increase in power generation and a reduction in CO_2 emissions.

• Power generation: 8,500 MWh/year or more (equivalent to power consumption by approx. 2,400 households)

• CO₂ reduction: 3,000 t-CO₂/year or more (CO₂ emission coefficient for electricity: 0.37 kg-CO₂/kWh)

For reference, CO₂ emissions of a large-scale sewage treatment facility (100,000 m³/day): 8,864 t-CO₂/year^{*1}

Establishing technologies to efficiently produce hydrogen from methane gas

(2) In the sewage-related innovative technology demonstration project in Fuji City,^{*2} we generated hydrogen from purified gas with highly concentrated methane and used it as fuel in commercial fuel cell vehicles.

*1 Manual on Global Warming Countermeasures in Sewage Works published by the Ministry of the Environment and the Ministry of Land, Infrastructure, Transport and Tourism (MLIT).

*2 Demonstration of Efficient Energy Utilization Technology Using High-Solids Anaerobic Digestion and Energy-Saving Biogas Purification at the Tobu Wastewater Treatment Plant in Fuji City (B-DASG Project), proposed to and adopted by MLIT in FY2018 by a consortium of KES, Japan Sewage Works Agency, and Fuji City.





Initiatives leading to the next medium-term management plan



Reference



Announcements and event schedules



Kobelco Digital Transformation (DX) Strategy

Date : May 22, 2023 Announced on the Company's official website

Contents

- ✓ DX strategy roadmap
- ✓ Examples of initiatives underway

Machinery Business Seminar

Date : July 6, 2023 (To be held online)

Contents

- ✓ Overview of the Machinery Business
- ✓ Business environment
- ✓ Vision of the Machinery Business for the future



(Tentative title) Kobelco ESG Day

Date : September 27, 2023 (all day) (Details to be determined)

Contents

- ✓ ESG seminar
- \checkmark Panel discussion with outside directors
- Initiatives undertaken by business divisions (Kobelco Construction Machinery, Engineering)

Group Corporate Philosophy

	Our view of a society and future to be attained as we carry out KOBELCO's mission
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 mission and the social significance of the KOBELCO Group that we must fulfill
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.
	The commitments of the KOBELCO Group to society and the values shared by the entire KOBELCO Group
Core Values of KOBELCO	 We provide technologies, products and services that win the trust and confidence of our customers we serve and the society in which we live. We value, and support the growth of, each employee on an individual basis, while creating a cooperative and harmonious environment. Through continuous and innovative changes, we create new values for the society of which we are a member.
	Code of Conduct for all Group employees to follow to fulfill the Core Values of KOBELCO and the Quality Charter
Six Pledges of KOBELCO	 Uphold the Highest Sense of Ethics and Professionalism Contribute to the Society by Providing Superior Products and Services Quality Charter Establish a Comfortable but Challenging Work Environment Live in Harmony with the Local Community Contribute to a Sustainable Environment Respect Each Stakeholder

KOBELCO

Cautionary Statement

- Certain statements in this presentation contain forward-looking statements concerning forecasts, assertions, prospects, intentions and strategies. The decisions and assumptions leading to these statements are based on information currently available to Kobe Steel. Due to possible changes in decisions and assumptions, future business operation, and internal and external conditions, actual results may differ materially from the projected forward-looking statements. Kobe Steel is not obligated to revise the forward-looking contents of this presentation.
- Uncertain and variable factors include, but are not limited to:
 - Changes in economic outlook, demand and market conditions
 - Political situation and trade and other regulations
 - Changes in currency exchange rates
 - Availability and market conditions of raw materials
 - Products and services of competing companies, pricing policy, alliances, and business development including M&As
 - Strategy changes of alliance partners



