



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

May 19, 2022  
Kobe Steel, Ltd.

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**01. Introduction**

02. Establishing a stable earnings base

03. The challenge of carbon neutrality

## Priority issues under the KOBELCO Group Medium-Term Management Plan

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Fully achieve during the three-year period of the Plan

**Establishing a stable  
earnings base**



Lay foundations from a long-term view

**The challenge of  
carbon neutrality**

## Assessment of the current business climate

1

Accelerate

Transition to carbon neutrality/  
social transformation

2

Accelerate

Sustainability movement

3

Accelerate

Digital transformation

### The KOBELCO Group

Risk

Damage to corporate value  
Weakening of earnings base

Opportunities

Reforming the business structure and  
gaining new revenue opportunities

Emergence of new risks  
heightening volatility

4

Structural problems of  
the steel industry

5

Changes in industrial  
structure triggered by  
COVID-19

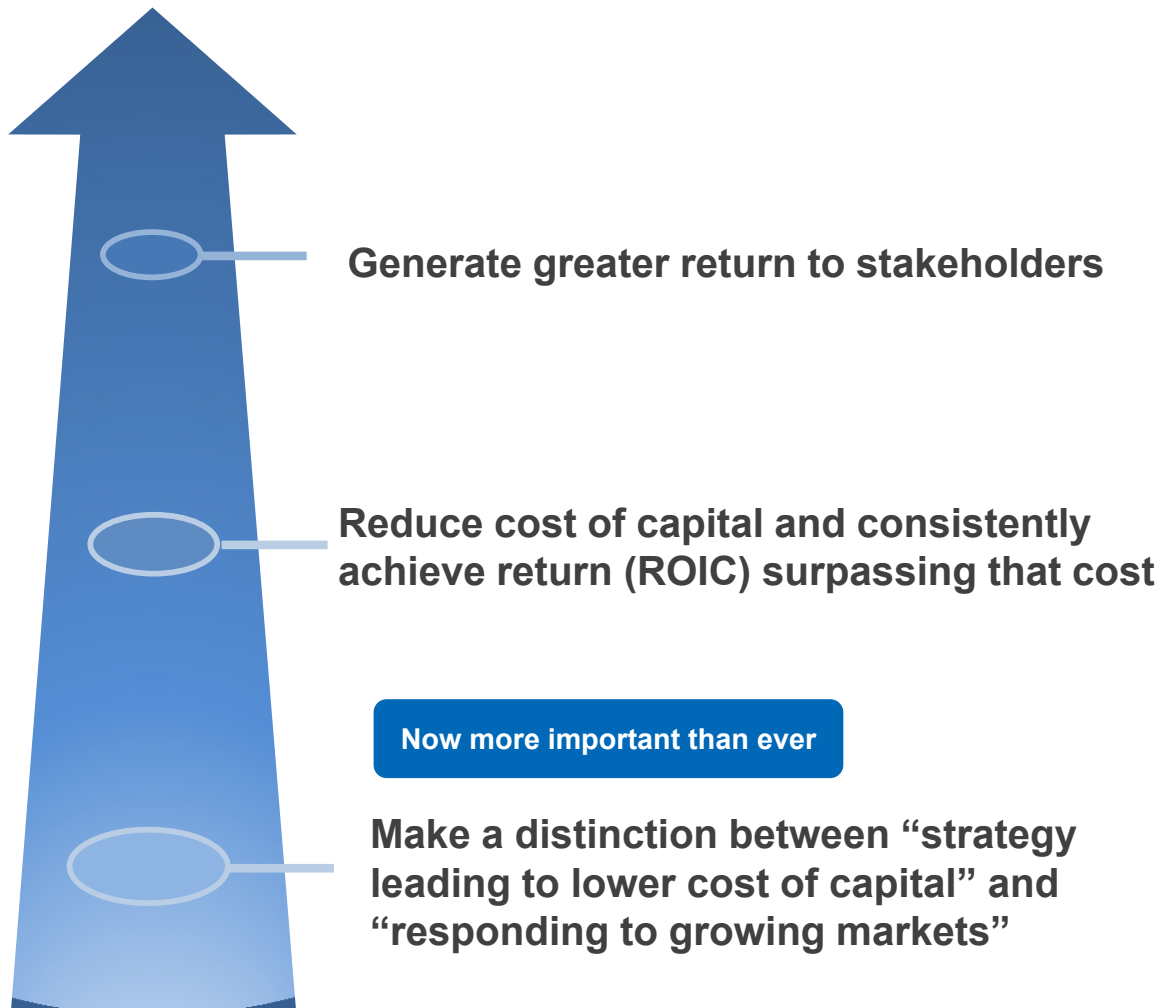
6

Higher procurement costs and  
supply chain risks  
(affecting both demand and production)

Newly  
added

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

### Enhancing corporate value



## 1. Strategy leading to lower cost of capital

- Strengthen the earnings base of existing businesses and transform to a stable earnings structure
- Strengthening of the financial base

## 2. Responding to growing markets

Expand businesses in line with the efforts toward carbon neutrality

01.

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## Status of profitability (ROIC)

### Targets given in the Medium-Term Management Plan

## Vision of KOBELCO

Solving social issues and creating economic value through business activities



Toward KOBELCO that stably achieves

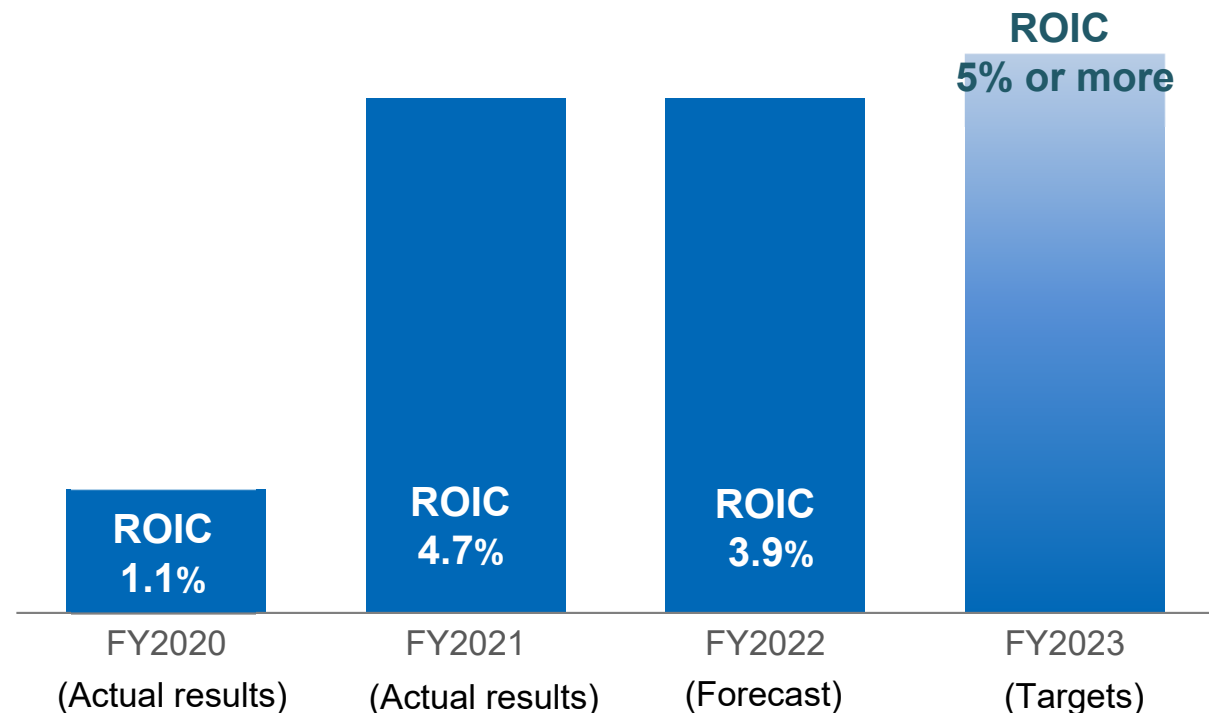
**ROIC of 8% or more**  
and grows sustainably

- FY2021 actual results: ROIC 4.7%, consolidated ordinary income 93.2 billion yen (excluding inventory valuation: 42.2 billion yen)
- FY2022 forecast: ROIC 3.9%, consolidated ordinary income 80 billion yen (excluding inventory valuation: 76.0 billion yen)

\*See the announcement of May 11, 2022

[https://www.kobelco.co.jp/english/ir/library/investor\\_meeting/2021/index.html](https://www.kobelco.co.jp/english/ir/library/investor_meeting/2021/index.html)

**Interim targets: ROIC 5% or more → Establish a stable earnings base**



## Financial situation

### Basic policy of financial strategy

- By carefully selecting new capital spending, investments and loans, 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 FY2023.

### Current financial situation

- Owing to an upturn in business results and a decline in capital investment payments, the Company achieved a D/E ratio of 0.7 two years ahead of schedule. We will continue financial management aimed at strengthening our financial structure and lowering cost of capital.

### Cumulative cash flow plan as of May 2021 (excluding project financing) (billions of yen)

	2021	2022	2023
Operating cash flow		420.0	
Investment cash flow		(320.0)	
Free cash flow		100.0	
D/E ratio			0.7 or below

### Rate of progress in cash flow plan as of May 2022 (excluding project financing) (billions of yen)

	2021	2022	2023
Operating cash flow	Approx. 332.0	(79%)	
Investment cash flow	Approx. (215.0)	(67%)	
Free cash flow	Approx. 117.0	(117%)	
D/E ratio	* 0.68	Approx. 0.65	

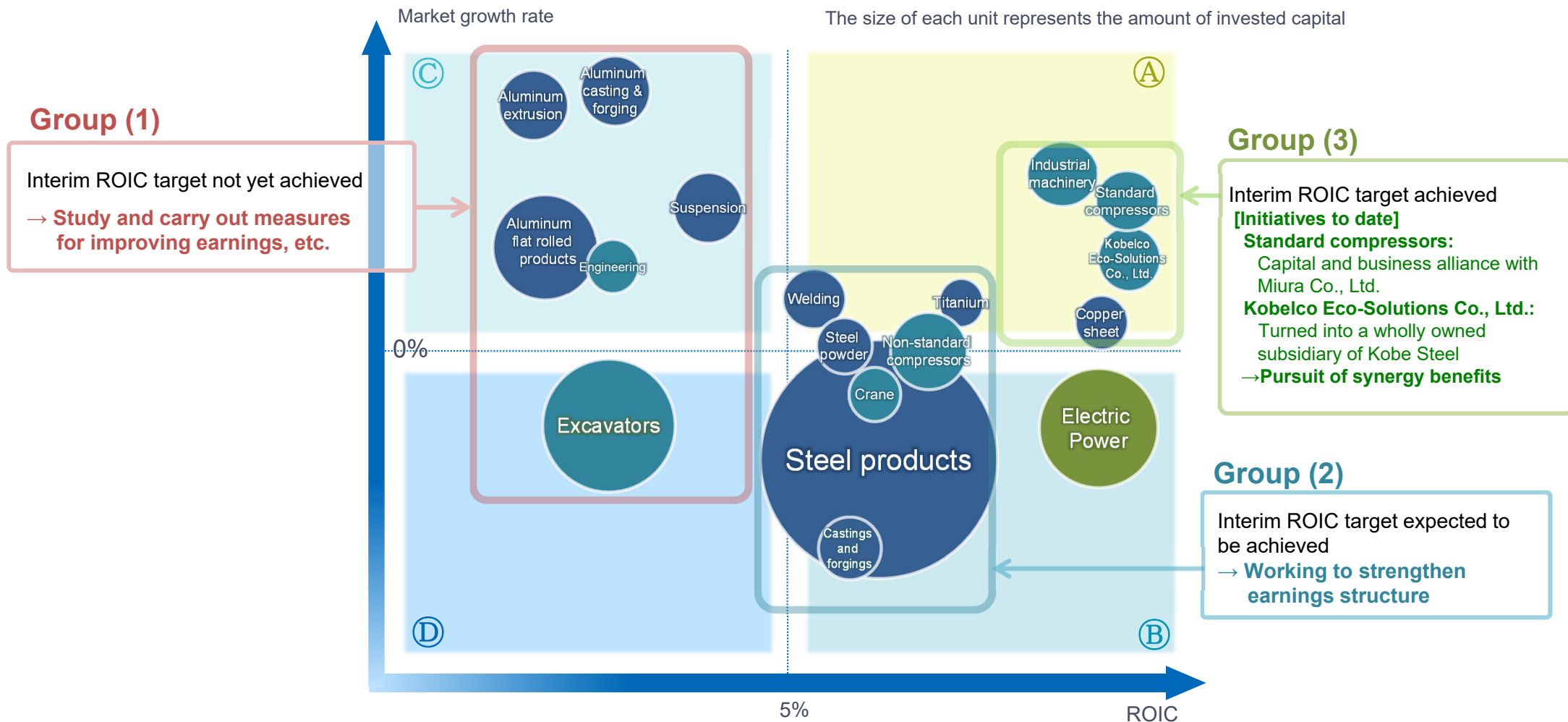
Progress rate over the last two years

\*Excluding early procurement



## Business portfolio (Assumption in FY2023)

- Details are under discussion to make a concrete plan for the restructuring of the business portfolio. We will promote activities based on the category of groups (1), (2), and (3).



## Five key measures toward establishing a stable earnings base

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

- Margin improvement achieved in FY2021 to contribute to FY2022 full-year performance
- Product mix is being improved as planned

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

Today's presentation

### 3. Restructuring unprofitable businesses

- **Titanium**  
Returned to profitability in FY2021
- **Castings and forgings, cranes**  
Expected to return profitability in FY2022

Issue: Raising sales prices according to rising costs of raw materials

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

- **Aluminum flat rolled products**  
Working to improve prices, including the introduction of formulas
- **Aluminum suspensions/extrusions**  
Working to raise sales prices according to rising costs of auxiliary raw materials, etc.

### 5. Smooth startup/stable operation of new electric power projects

- **February 2022**  
**Kobe Power Plant No. 3 Unit** started up on schedule and is in stable operation.
- **FY2022 2H**  
**Kobe Power Plant No. 4 Unit** is scheduled to start operation.

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

### Machinery

#### Enhance the environmental menu

**Standard compressors:** Capital and business alliance with Miura Co., Ltd., enables us to provide customers with a system that comprehensively solve issues for energy savings and CO<sub>2</sub> reduction

→ **Capital and business alliance started from January 5, 2022**

#### Energy conversion Responding to growing markets

Working toward carbon neutrality, including the use of hydrogen

→ **Status of initiatives is described on p. 31 and later pages**

### Engineering

#### Maximizing earnings with environmental contribution menu

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

→ **CO<sub>2</sub> reduction in the ironmaking process is described on p. 16 and later pages**

### Construction machinery

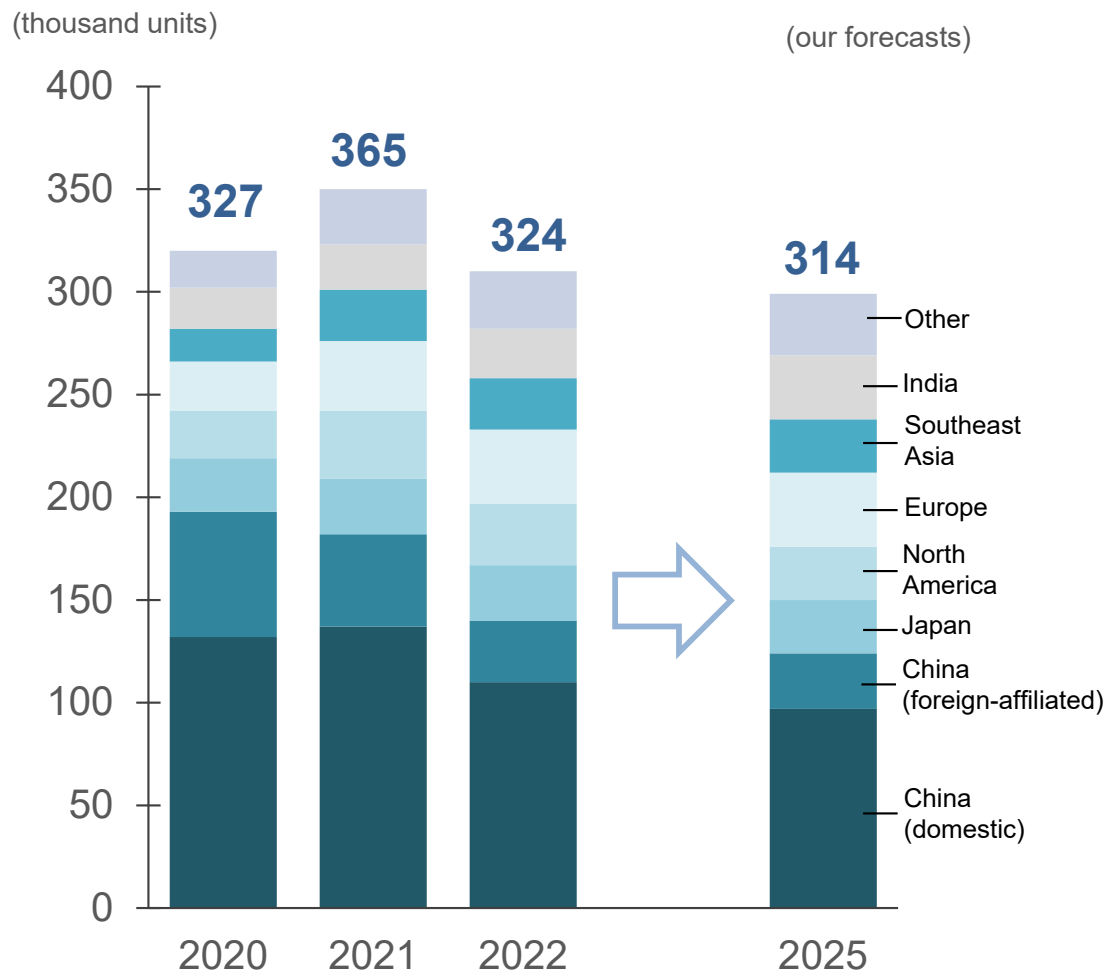
#### Transformation to a stable earnings structure

- (1) Departure from dependence on the Chinese market
- (2) Business model transformation

→ **Details are explained in detail on later pages**

## Excavator Business: Business climate and medium- to long-term goals

[Business climate]  
Demand for heavy-duty excavators



### Medium- to long-term goals

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

\*Sale of BIM software, scrapped automobile recycling-related business overseas, etc.

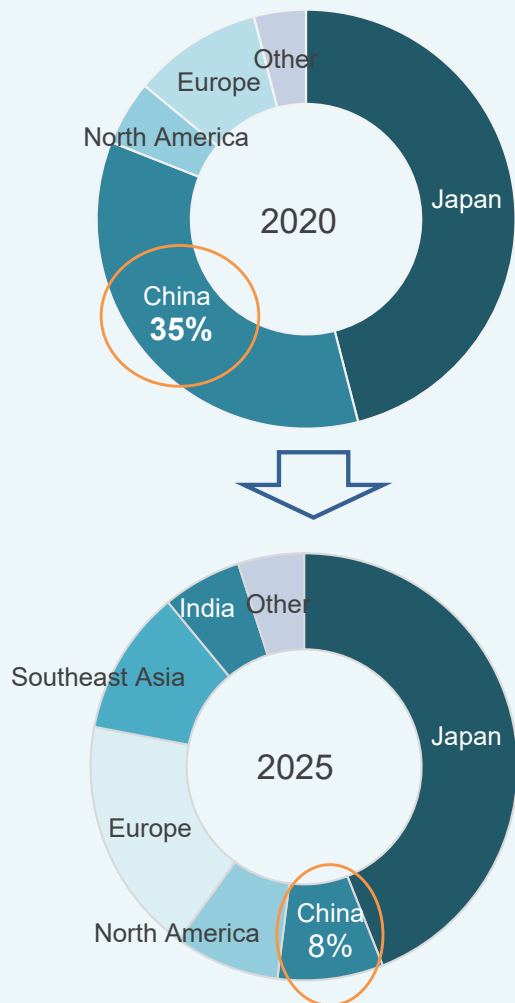
**Transformation to a stable earnings structure**

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

## Area strategy for Excavator Business

### Area strategy and share of national and regional earnings (2020→2025)

#### Change in earnings structure



#### Europe

- Improve sales and service capability by strengthening head office functions

#### China

- Introduce area strategy models
- Strengthen stock business
- Review logistics network

#### North America

- ✓ Transfer of the North American plant & the start of sale of models imported from Japan, etc.

Reference: Press release on February 25, 2022  
 "Transfer of the North American Hydraulic Excavator Plant"

[Transfer of the North American Hydraulic Excavator Plant | News | Kobelco Construction Machinery Global Website \(kobelcocm-global.com\)](#)

#### Japan

- Expand K-DIVE, environmental and peripheral businesses
- ✓ Expansion of Ogaki Plant production capacity → Building a mutually complementary production system with Itsukaichi Factory

Reference: Press release on April 28, 2022  
 "Production Capacity Expansion of the Ogaki Plant"  
[Production Capacity Expansion of the Ogaki Plant | News | Kobelco Construction Machinery Global Website \(kobelcocm-global.com\)](#)

#### India

- Introduce area strategy models
- Improve profitability by expanding exports

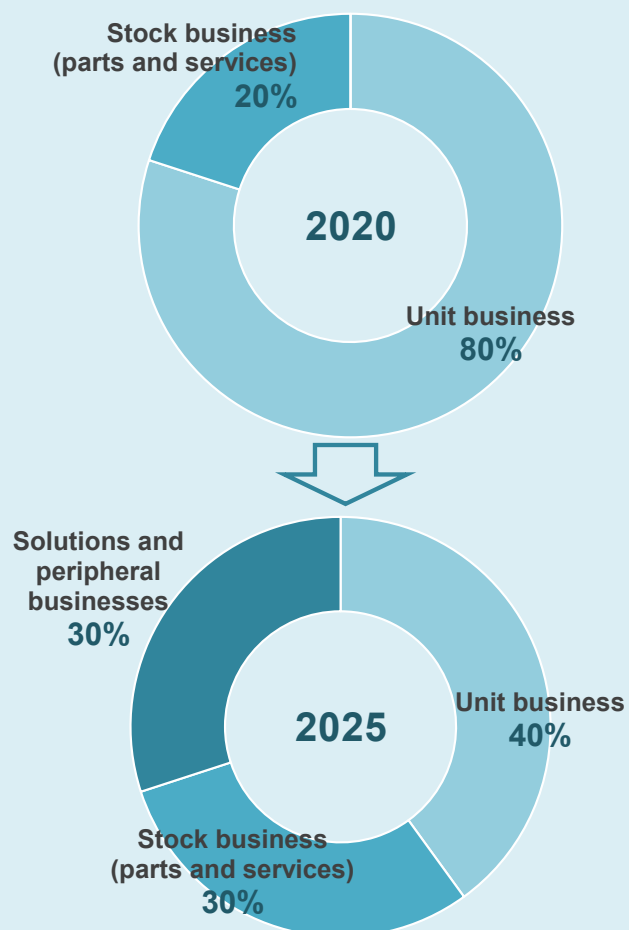
#### Southeast Asia

- Introduce area strategy models
- Strengthen logistics network

## Changes in the business model of excavator business

### Turning profits from solution businesses and peripheral businesses

#### Changes in earnings structure



#### Three Merits Offered by K-DIVE CONCEPT Services



➔ Phased start of service from FY2022

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**The challenge of carbon neutrality**

# **CO<sub>2</sub> reduction in the blast furnace ironmaking process**



## Targets and Vision

The targets and vision announced in the Medium-Term Management Plan (FY2021-2023) are being pursued as planned.

	FY2030 targets	FY2050 vision
<b>Reduction of CO<sub>2</sub></b> emissions in production processes	<b>30 to 40%</b> (from 2013 levels) (*1)	Take on the challenge of achieving <b>carbon neutrality</b>
<b>Contribution to reduction of CO<sub>2</sub></b> emissions through technologies, products, and services (*2)	<b>61,000,000t</b> (of which MIDREX <sup>®</sup> contribution is 45,000,000t or more (*3))	<b>100 Mt or more</b>

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

(\*2) 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.

(\*3) Reviewed calculation formula announced in September 2020

Excerpt from the KOBELCO GROUP Medium-Term Management Plan (FY2021-2023)

## Current status of initiatives to achieve carbon neutrality (CN) in the ironmaking process

- Steel companies around the world have set forth their CO<sub>2</sub> reduction targets and roadmaps, with concrete plans clearly presented.
- **While there are no major changes in market forecasts, issues in the transition period have become evident as the discussion progresses concerning the details of the plans.**

<Our recognition of changes in the business climate in the past year>

### Direct reduction ironmaking

- A growing number of steel companies have announced plans to introduce electric arc furnaces as a CO<sub>2</sub> reduction measure.
- **Demand for direct reduced iron (DRI) is further growing with the need of securing sources of high-quality iron.**

#### Use of hydrogen

- An increasing number of steel companies have started considering the introduction of hydrogen, notably in Europe.
- **Concrete measures are sought to deal with the transition period toward 100% hydrogen direct reduction.**

### Blast furnace

- Concrete initiatives are being called for to achieve the 2030 CO<sub>2</sub> reduction targets.
- **Technology for reducing CO<sub>2</sub> in the blast furnace attracts increasing attention.**

#### Use of hydrogen

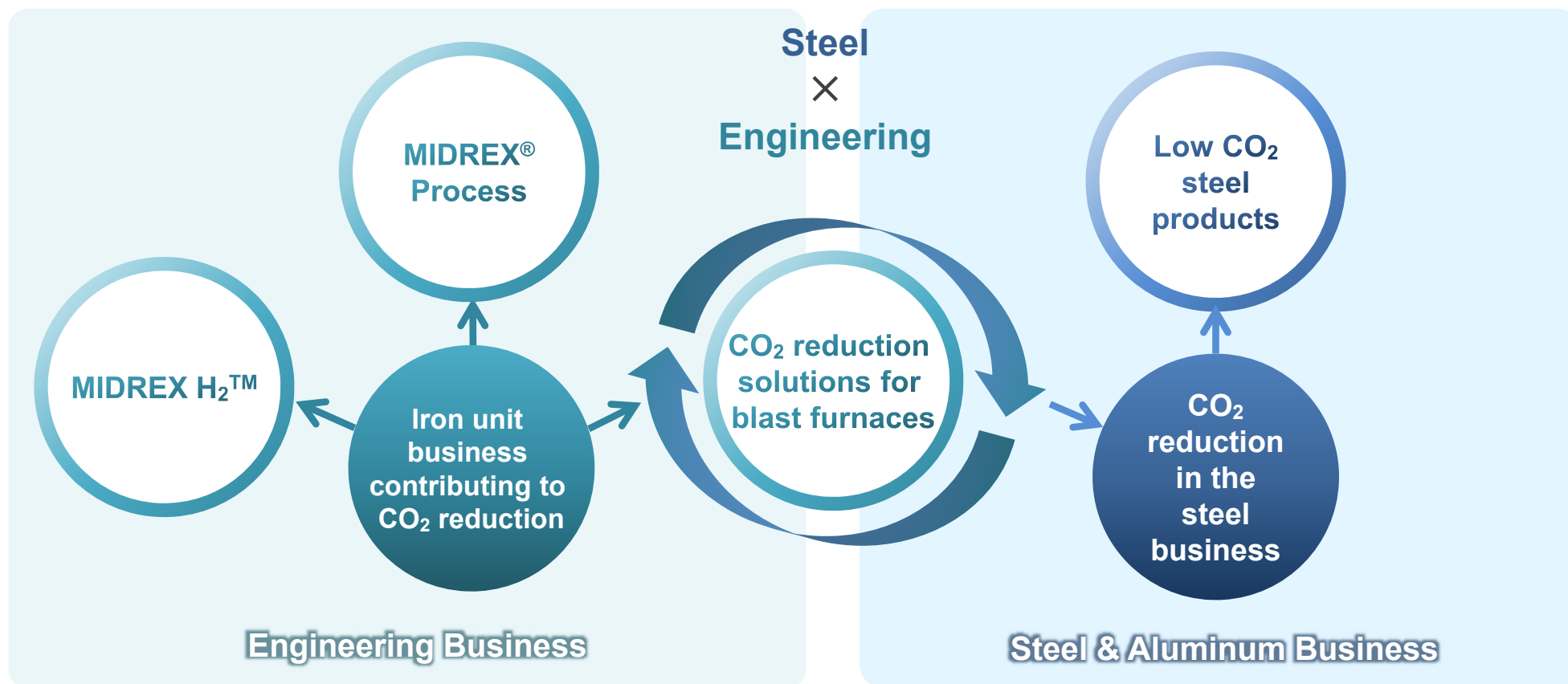
- In Japan, studies are promoted toward practical implementation of COURSE50 and Super COURSE50.
- **Hydrogen use has been promoted as a project supported by the Green Innovation Fund.**

## Our initiatives toward carbon neutrality in the ironmaking process

### Carbon neutrality in the ironmaking process

Expansion of the iron unit business

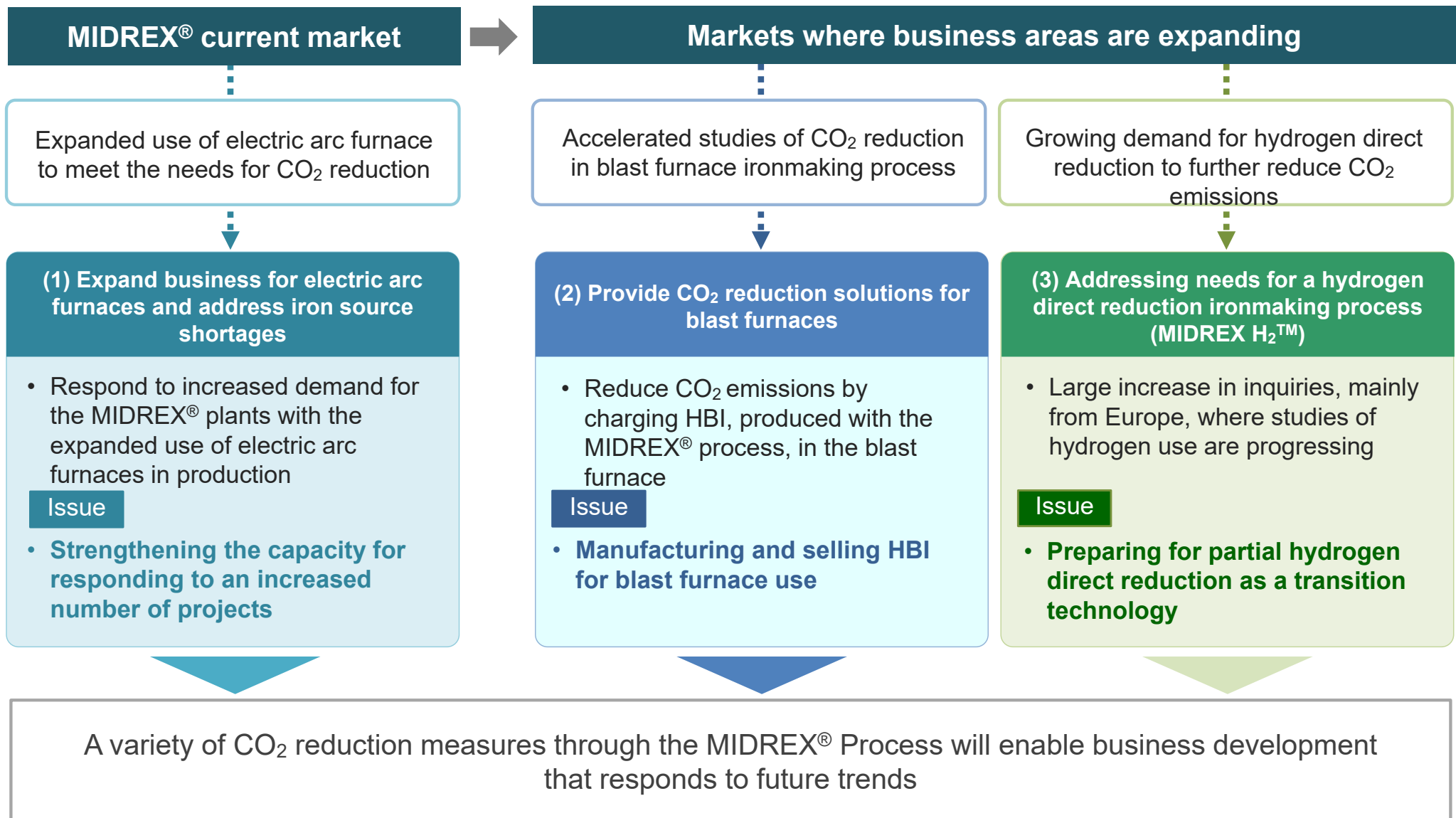
CO<sub>2</sub> reduction in our steel products



# Developing business with the MIDREX<sup>®</sup> Process

# The challenge of carbon neutrality

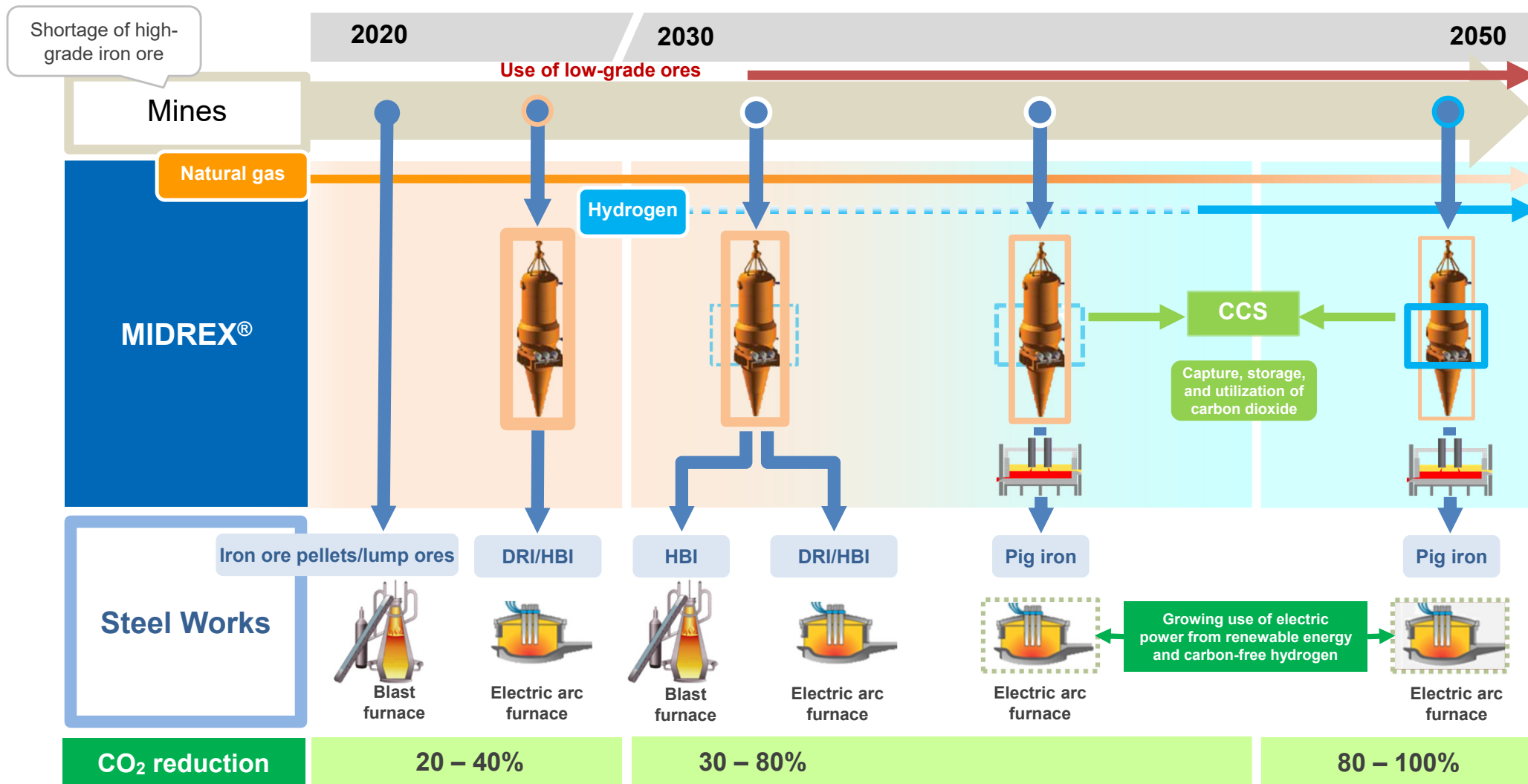
## Expansion of the MIDREX<sup>®</sup> business (business menu responding to changes in trends)



# The challenge of carbon neutrality

## Expansion of the MIDREX<sup>®</sup> business (flow of business development)

Toward carbon neutrality, we are ready to provide CO<sub>2</sub> reduction solutions at any stage from short to medium and long term.



\*1 CO<sub>2</sub> reduction amounts can change depending on the specific environment, such as equipment and raw materials used. \*2 DRI: Direct Reduced Iron \*3 HBI: Hot Briquetted Iron

## Approach to business development of the MIDREX<sup>®</sup> Process

We are working to promote the business development of the MIDREX<sup>®</sup> Process by enhancing the business operation structure of the Engineering Business and optimizing management resources of the entire KOBELCO Group with the Technical Development Group as a hub.

### 1. Enhancement of the business operation structure in the Engineering Business

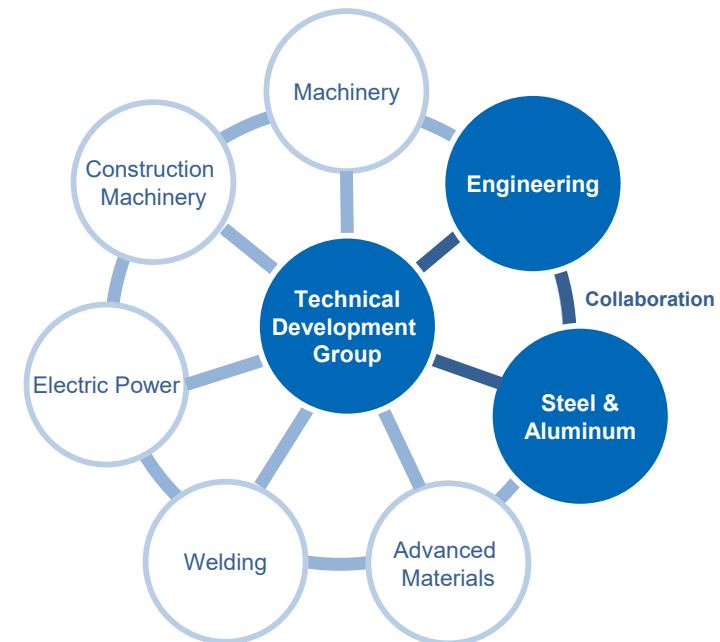
- Hiring new personnel for Midrex Technologies, Inc.
- Maximize the support from the Engineering Business
- Work with construction license partners, etc.



Combine multiple approaches and turn more inquiries into orders

### 2. Optimize management resources in the entire KOBELCO GROUP

Flexibly adapt to changes in the business climate by making the Technical Development Group into a hub for human and technology resources

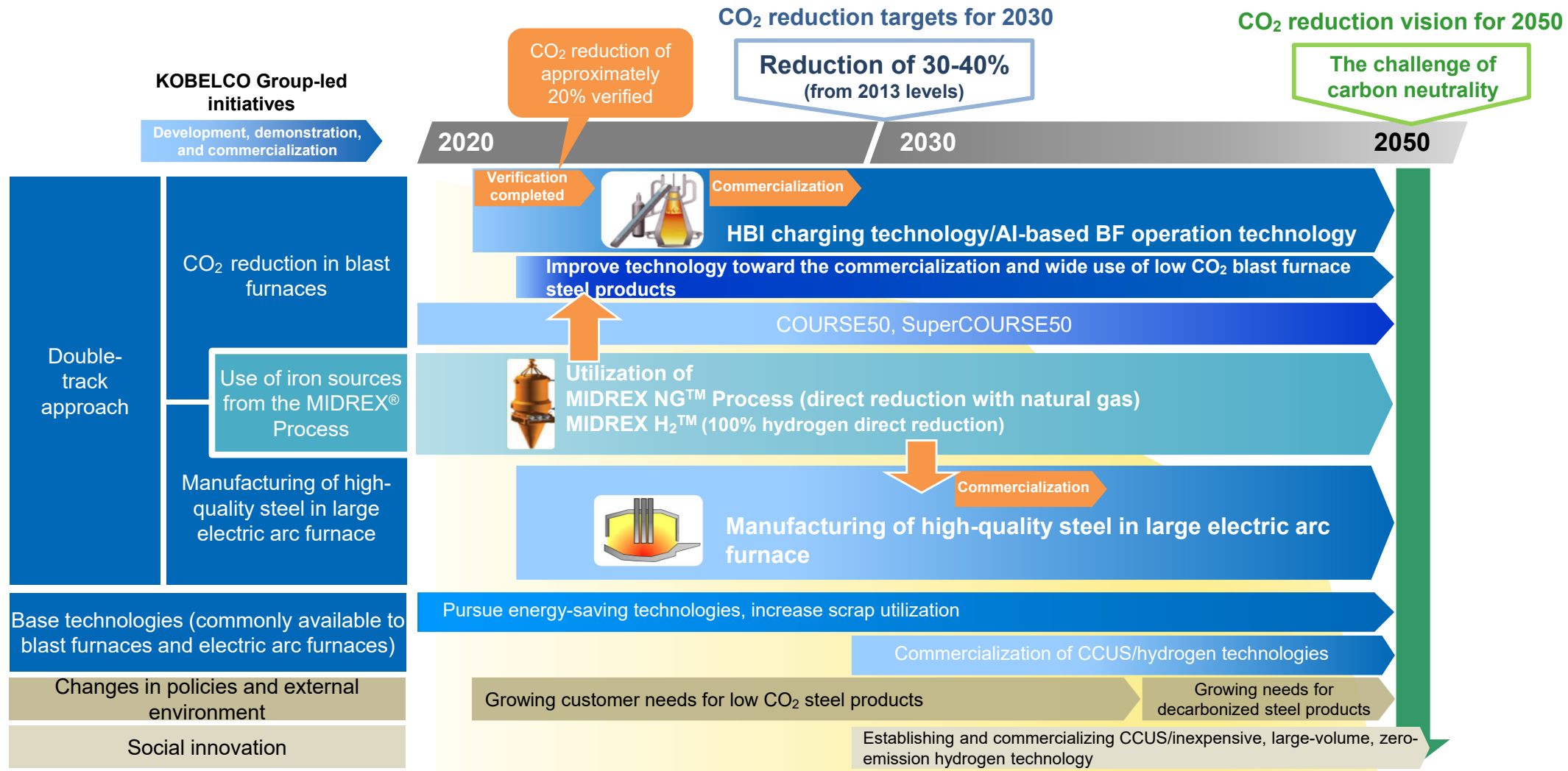


# Initiatives for CO<sub>2</sub> reduction in the Steel Business

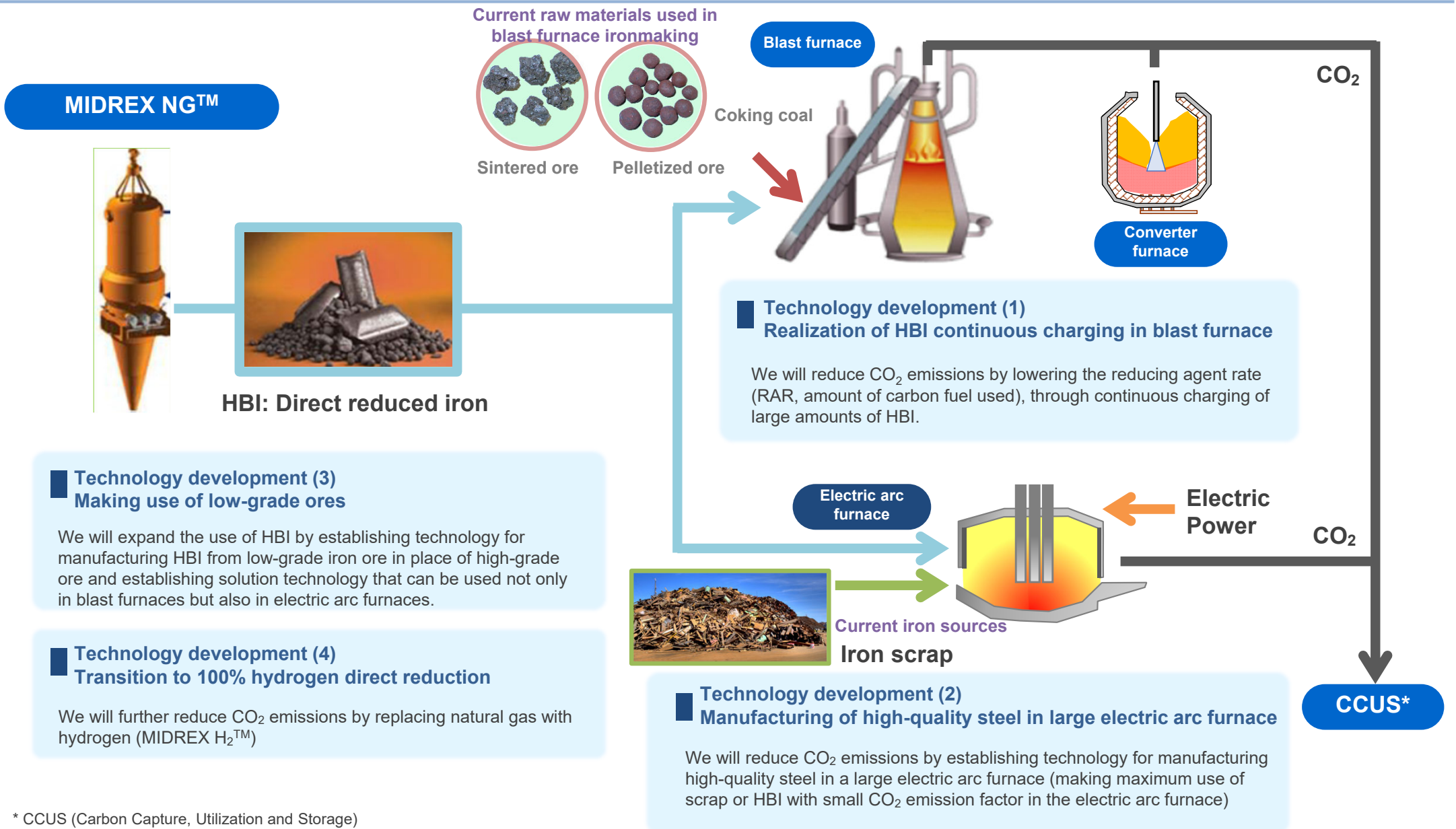


## Ironmaking Process: Roadmap toward Carbon Neutrality

The roadmap, announced in the KOBELCO Group Medium-Term Management Plan (FY2021-2023), has been further elaborated. We will take a double-track approach of reducing CO<sub>2</sub> in existing blast furnaces and manufacturing high-quality steel in large electric arc furnaces, making use of HBI and other iron sources from the MIDREX<sup>®</sup> Process.



## Technology development toward carbon-neutral ironmaking processes



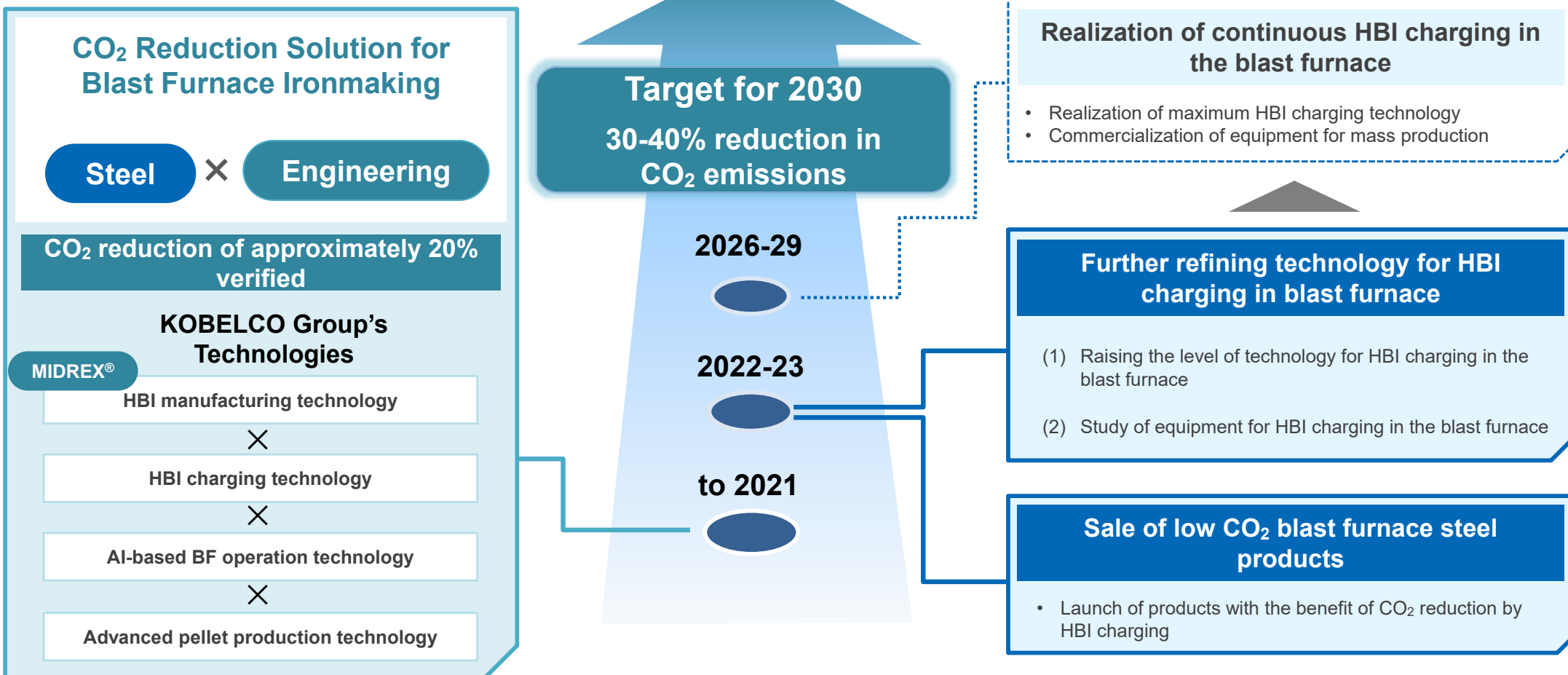
\* CCUS (Carbon Capture, Utilization and Storage)

## Our CO<sub>2</sub> reduction solutions for blast furnace ironmaking

The KOBELCO Group will promote early reduction of CO<sub>2</sub> emissions by further developing its distinctive technologies for CO<sub>2</sub> reduction solutions.

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

Announced in February 2021



# Launch of steel products with the benefits of CO<sub>2</sub> reduction in blast furnaces

## Kobe Steel's low CO<sub>2</sub> blast furnace steel



# Kobenable Steel

**Kobe Steel plans to launch Kobenable Steel in two product categories:  
Kobenable Premier with 100% CO<sub>2</sub> reduction and Kobenable Half with 50% reduction.**

\*"Kobenable," "Kobenable Premier," and "Kobenable Half" have been filed for registration as trademarks of Kobe Steel, Ltd.

## Low CO<sub>2</sub> blast furnace steel products

- Kobenable Steel is available for all types of steel products (steel sheet, steel plate, wire rod & bar products) manufactured at Kakogawa Works and the Kobe Wire Rod & Bar Plant (CO<sub>2</sub> reduction effects are allocated using the mass balance method).

\*1 Third party certification has been obtained from DNV.

Third party certification by an outside organization \*1



Kobenable Steel

Steel sheet products



Kobenable Steel

Steel plate products



Kobenable Steel

Wire rod & bar products



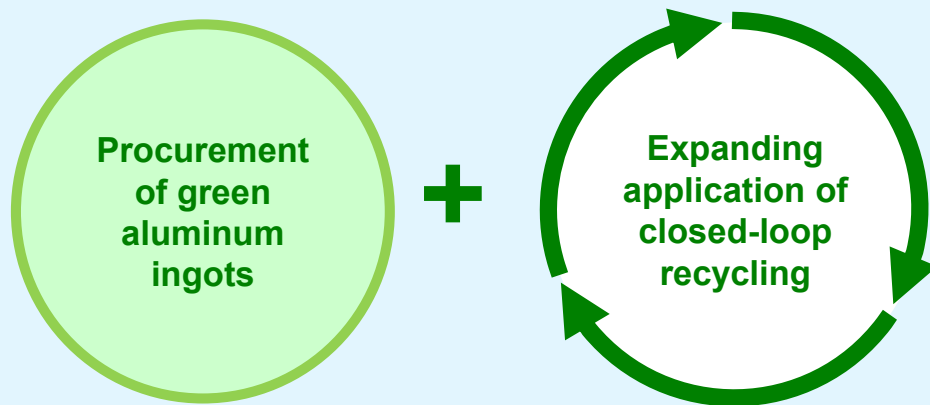
### Kobe Steel plans to start selling in fiscal 2022

Application of these steel materials to Group companies' products is under study (e.g., welding materials)

## Status of carbon neutrality initiatives in other business segments

### Aluminum Business

- The biggest issue for CO<sub>2</sub> emissions reduction in aluminum products is procuring low CO<sub>2</sub> aluminum ingots, used as raw material.
- We will work on the procurement of raw materials, with an awareness of the importance of monitoring the carbon footprint as recycling expands.



- In May 2022, we joined the Aluminium Stewardship Initiative (ASI), a global aluminum industry group.
- As an ASI member, we will seek to contribute to the environment and society through our business while achieving sustainable growth.

### Electric Power Business

Initiatives are being carried out based on the “Electric Power Business: Roadmap toward carbon neutrality” in the Medium-Term Management Plan announced last year.

#### Initiatives (toward technology development)

##### 1. Ammonia co-firing and mono-firing

In order to promote initiatives toward practical use, such as the use of technologies under development in NEDO-funded projects, we are conducting detailed internal studies while monitoring national policies and technology development trends centered on NEDO.

##### 2. Biomass use

In a joint project with Kobelco Eco-Solutions, we are promoting a project to use biomass fuel from sewage sludge for co-firing and to utilize extraction steam\*<sup>1</sup>.

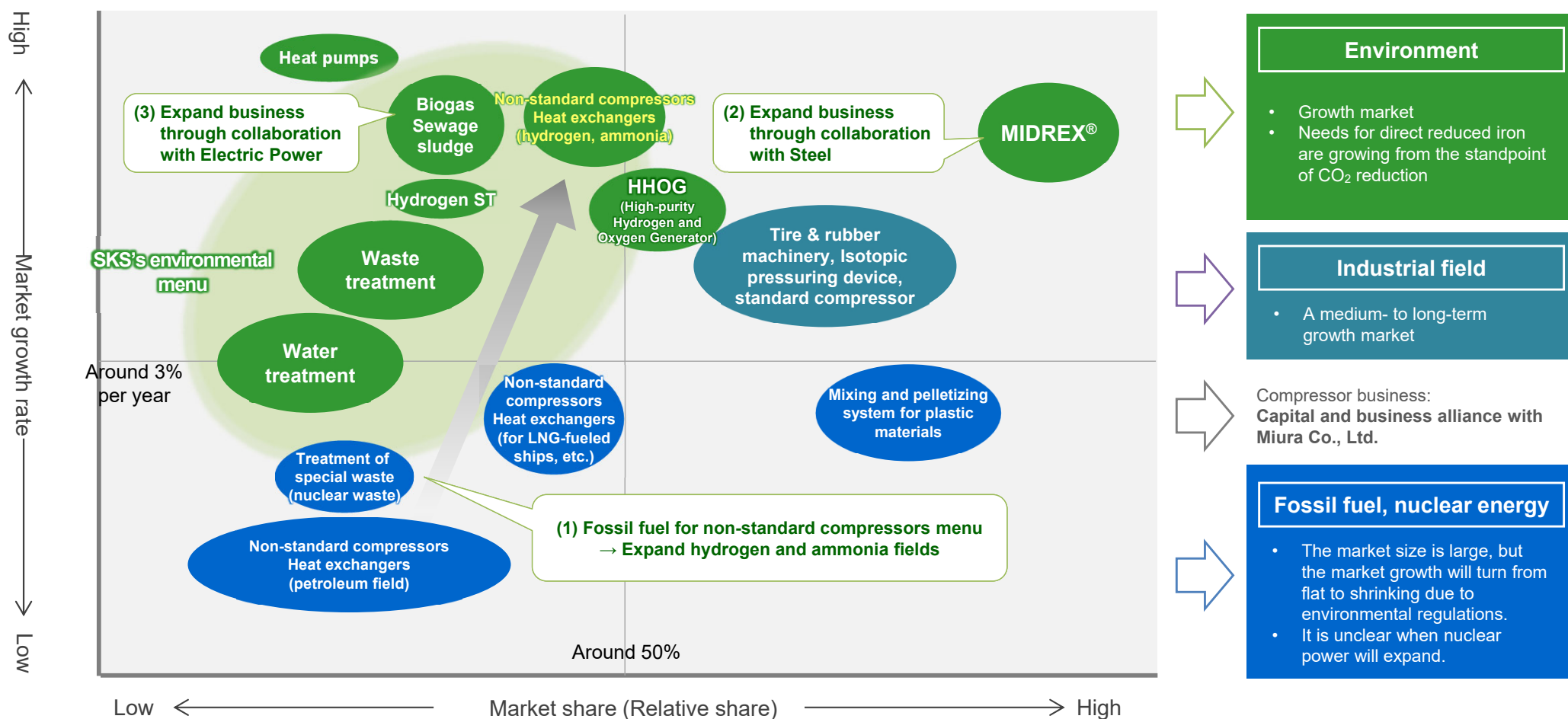
\*<sup>1</sup> Hydrogen production with a water electrolysis hydrogen generator (High-purity Hydrogen and Oxygen Generator: HHO<sup>GM</sup>)

# Responding to Energy Conversion & Growing Markets

## Developing the Machinery and Engineering businesses

we will demonstrate the comprehensive strength and create value unique to the Group by mutually utilizing the management resources of the **Machinery** and **Engineering** businesses and promoting collaboration among the **Steel** and **Electric power** business, and **Kobelco Eco-Solutions**

\*SKS: Kobelco Eco-Solutions Co., Ltd.



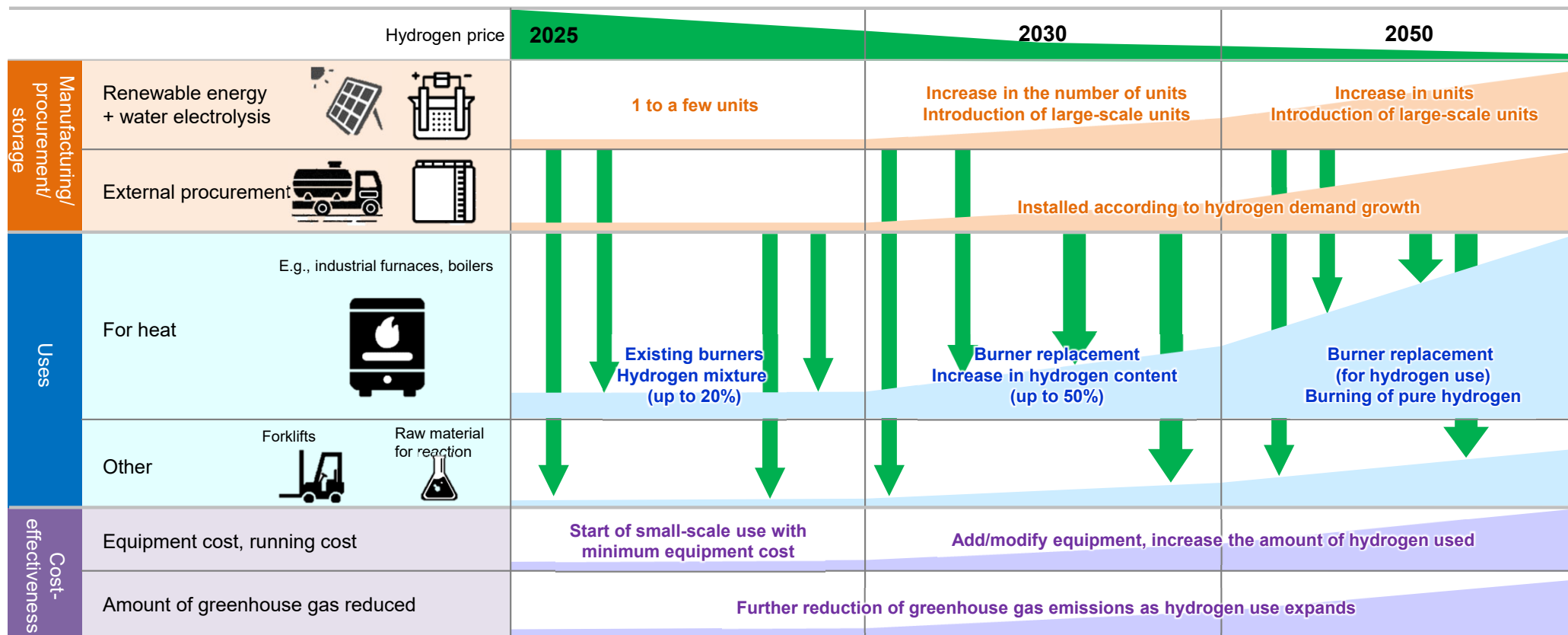


## Medium- to long-term perspectives for hydrogen use in hydrogen-related business

### Medium- to long-term plans geared to staged expansion of hydrogen use

- The plan envisioned here is to build a hydrogen society, allowing our Group and other industry players to **design medium- to long-term decarbonization plans for achieving carbon neutrality in stages**, while continuing existing businesses.

Medium- to long-term perspectives for expanded use of hydrogen



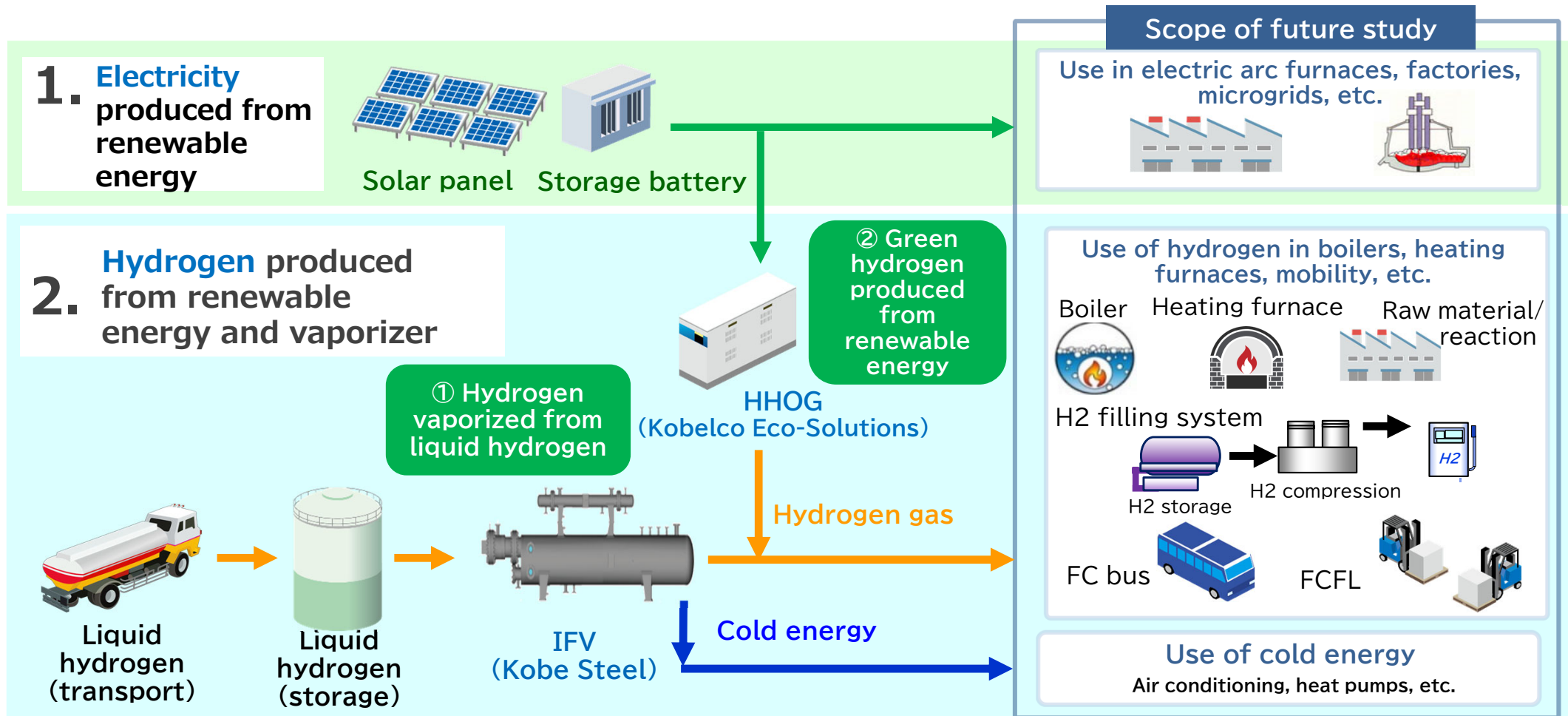
Source of illustration: METI material

# The challenge of carbon neutrality

## Initiatives toward realization of CN (hybrid-type hydrogen gas supply system)

### Demonstration test of hybrid-type hydrogen gas supply system to be conducted at Takasago Works\*1

- We plan to build a **hybrid-type hydrogen gas supply system** that combines the use of liquid hydrogen with water electrolysis hydrogen generation using renewable energy. We aim to contribute to diverse applications for the future hydrogen society.

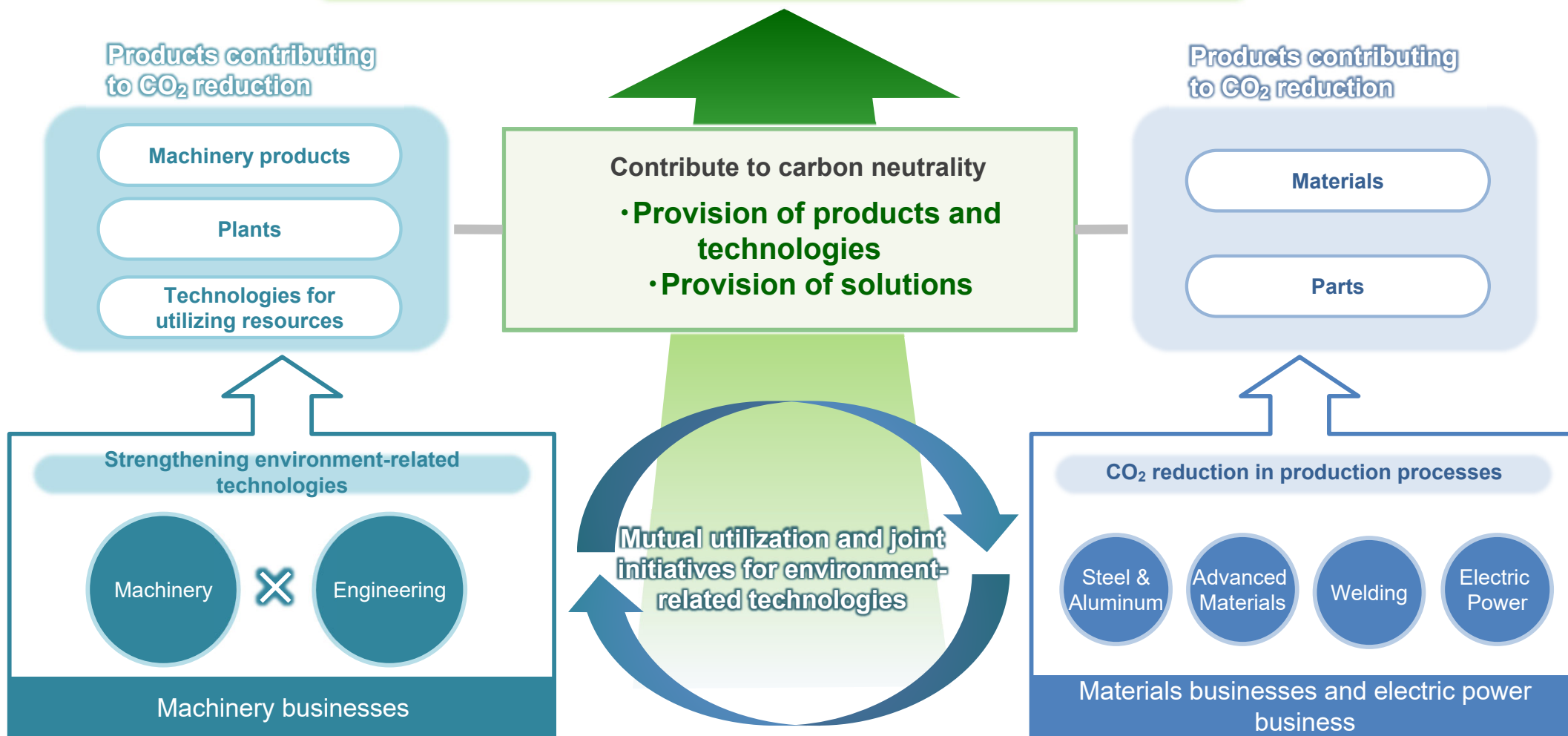


\*1 The demonstration of the system is partly supported by the New Energy and Industrial Technology Development Organization (NEDO) under the Development of Technologies for Realizing a Hydrogen Society:  
a. Study on hydrogen utilization model for decarbonization of factories that mainly consume energy as heat; and  
b. Development of an intermediate liquid hydrogen vaporizer that enables the use of liquid hydrogen cold energy

# **KOBELCO Group initiatives to achieve carbon neutrality**

## KOBELCO Group initiatives to achieve carbon neutrality








2050 Vision: Taking on the challenge of realizing carbon neutrality



# The challenge of carbon neutrality

## Leveraging synergies across our business segments to achieve carbon neutrality

We will continue to take on the challenge of achieving carbon neutrality through enhancing synergies across business segments.

	Steel & Aluminum 	Advanced Materials 	Welding 	Machinery 	Construction machinery 	Engineering 	Electric Power 
CO <sub>2</sub> reduction in the ironmaking process	☆			○		☆	
Use of hydrogen	○	○	○	☆	○	☆	
Use of biomass generated from cities (sewage sludge, food residues, etc.)						☆	☆
Lightweighting and electrification of automotive vehicles	☆	☆	☆	○			

☆ Plays a central role in initiatives ○ Contributes in part to initiatives

The KOBELCO Group promotes sustainability management in a framework based on the Group corporate philosophy.

We will continue to proceed with sustainability management toward the realization of a sustainable society, aimed at continuing to be indispensable to our stakeholders, while pursuing sustainable growth and enhanced corporate value.

# Group Corporate Philosophy

<h2>KOBELCO's View of the Future</h2>	<p>The society and future aimed for through realization of KOBELCO's Mission</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>								
<h2>KOBELCO's Mission</h2>	<p>The KOBELCO Group awareness of its significance to society and mission to be fulfilled</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>								
<h2>Core Values of KOBELCO</h2>	<p>The commitment of the KOBELCO GROUP to society and values common to the Group</p> <ol style="list-style-type: none"> <li>1. Providing trusted products and services</li> <li>2. Drawing on the individual strengths of each employee while valuing Group harmony</li> <li>3. Creating new value through continuous innovation</li> </ol>								
<h2>Six Pledges of KOBELCO</h2>	<p>The Quality Charter as well as the Standards of Conduct to be observed by all employees to meet "KOBELCO's Three Promises"</p> <table border="0"> <tr> <td>1. Uphold the highest sense of ethics and professionalism</td> <td>3. Establish a favorable working environment</td> </tr> <tr> <td>2. Contribute to society by providing superior products and services</td> <td>4. Live in harmony with local communities</td> </tr> <tr> <td></td> <td>5. Contribute to a sustainable environment</td> </tr> <tr> <td></td> <td>6. Respect each stakeholder</td> </tr> </table> <div style="background-color: #0056b3; color: white; padding: 2px; text-align: center; font-size: 0.8em;">Quality Charter</div>	1. Uphold the highest sense of ethics and professionalism	3. Establish a favorable working environment	2. Contribute to society by providing superior products and services	4. Live in harmony with local communities		5. Contribute to a sustainable environment		6. Respect each stakeholder
1. Uphold the highest sense of ethics and professionalism	3. Establish a favorable working environment								
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	6. Respect each stakeholder								

## ■ 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 were 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



**KOBELCO**