## Fiscal Year Ended December 2023

# Consolidated Financial Report

**February 8, 2024** 



TSE Prime Market 5563

# INDEX

- 1 Business Overview
- FY2023 Financial Results
- Medium/Long-Term Business Strategy
  Toward "Our Ideal State" in 2030
- 4 FY2024 Projection
- 5 Appendix

## 1-1. Five Core Businesses (1)

Our Group aims to be a company on a constant quest for a better future by supporting people's lives through "Materials" and "Environment"

From 4 to 5 **Core Businesses**  From January 2024, we divided the "Environment business" into the "Incineration Ash Recycling (formerly, Melting & Solidification of Incineration Ash)" and the "Aqua Solutions business (formerly, Environmental Systems)" and changed the names accordingly

## **Ferroalloys**

Facility: Tokushima Plant, Pertama Ferroalloys Sdn. Bhd. (overseas affiliates)

- Top domestic manganese ferroalloy supplier Consistent supply of high-quality ferroalloys with outstanding global competitiveness
- Green ferroalloy production using hydroelectric power (overseas affiliates)

Main
Products

High-carbon ferromanganese

SLP ferromanganese Silicomanganese, Ferrosilicon

Main Applications Additives for steel to improve its hardness, tensile strength, and other properties

Desulfurization and deoxidation agent in steel



High-carbon ferromanganese

#### **Functional Materials**

Facility: Toyama Plant (Imizu and Takaoka areas), Mvoko Plant, Tokushima Plant

- Providing materials for advanced components supporting a decarbonization and digitalization society
- Distinctive material lineup, such as "No.1" and domestically produced "One-of-a-kind" products in the Japanese market

Main	
Products	

Zirconium oxide / Boron oxide / Ferroboron / Metal hydride alloys / Cathode materials for lithium-ion batteries/ Manganese inorganic chemical products

Main Applications Ceramic capacitors / Glass substrates for displays / Neodymium magnets / Anode materials for HVs' nickel-hydride batteries / Cathode materials for EVs' lithium-ion batteries / Additives for electronic components



Zirconium oxide

## **Incineration Ash Recycling**

Facility: Chuo Denki Kogyo (Kashima City)

- Contributing to a recycling-oriented society by recovering resources
  - To increase the capacity of landfill sites by collecting and treating incineration ash
  - To extract metals containing valuable metals from incineration ash
- · To recycle incineration ash as roadbed material

Main Services & Products

Collection and treatment of

Metals containing valuable metals ECOLAROCK (Roadbed material)

Main

Precious and nonferrous metals for industrial purposes Applications Construction materials such as



Metals containing valuable metals

### **Aqua Solutions**

Facility: Koriyama Plant Contribute to the realization of circular economy and

carbon-neutral society through our wastewater purification and pure water production technology and services

Main **Products** 

Wastewater treatment equipment Pure water production

Main Applications

Treatment of industrial wastewater Production of pure water

for hydrogen stations, etc.



Pure water production

#### **Electric Power**

Facility: Hidaka Office

- Stable sale of electricity by utilizing renewable energy Feed-In Tariff system (FIT)
- Stable supply of green electricity through the largest private-sector owned dams
- Introducing the environmental advantages of green electricity





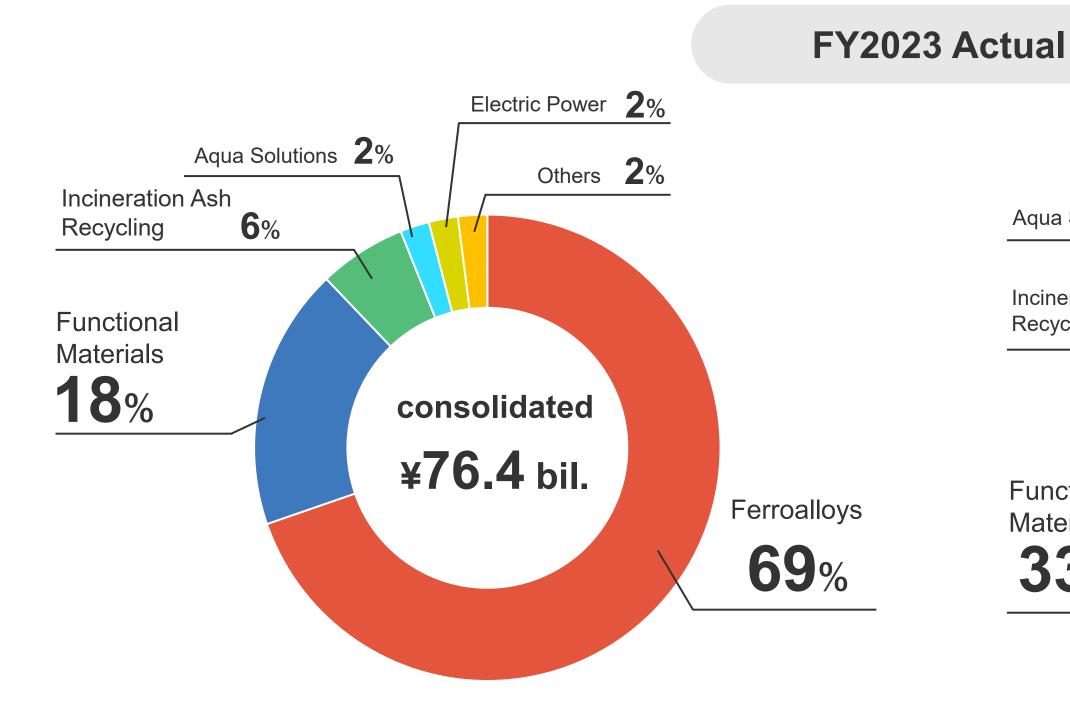
Horomangawa Hydroelectric power

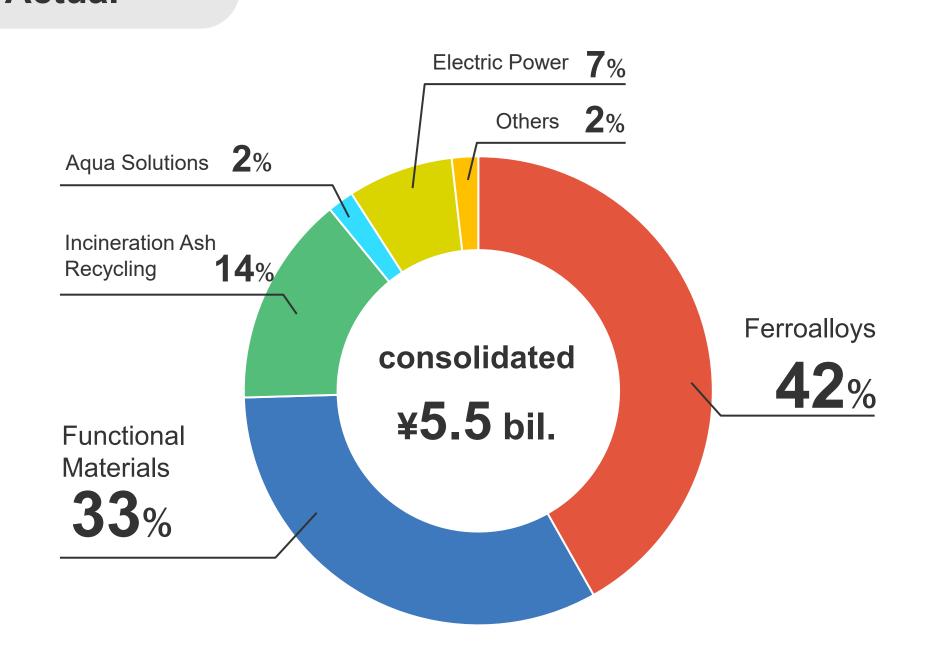
## 1-2. Five Core Businesses (2)



## Ordinary Profit by Segment (Underlying profit basis\*)







# 2-1. FY2023 Financial Results Summary (1)

## **Global Economy**

Russia's invasion of Ukraine continues

Economic slowdown due to continued monetary tightening in the United States and Europe

China's delayed economic recovery due to downside in GDP growth rate

### **Business Environment**

Decline in global ferroalloy market prices

Persistent high prices of electricity

Decline in domestic crude steel demand

## **Our Key Initiatives**

Leverage the capacities of newly invested facilities

Pass on higher electricity prices to selling prices

Continue stable production and promote measures to strengthen the structure

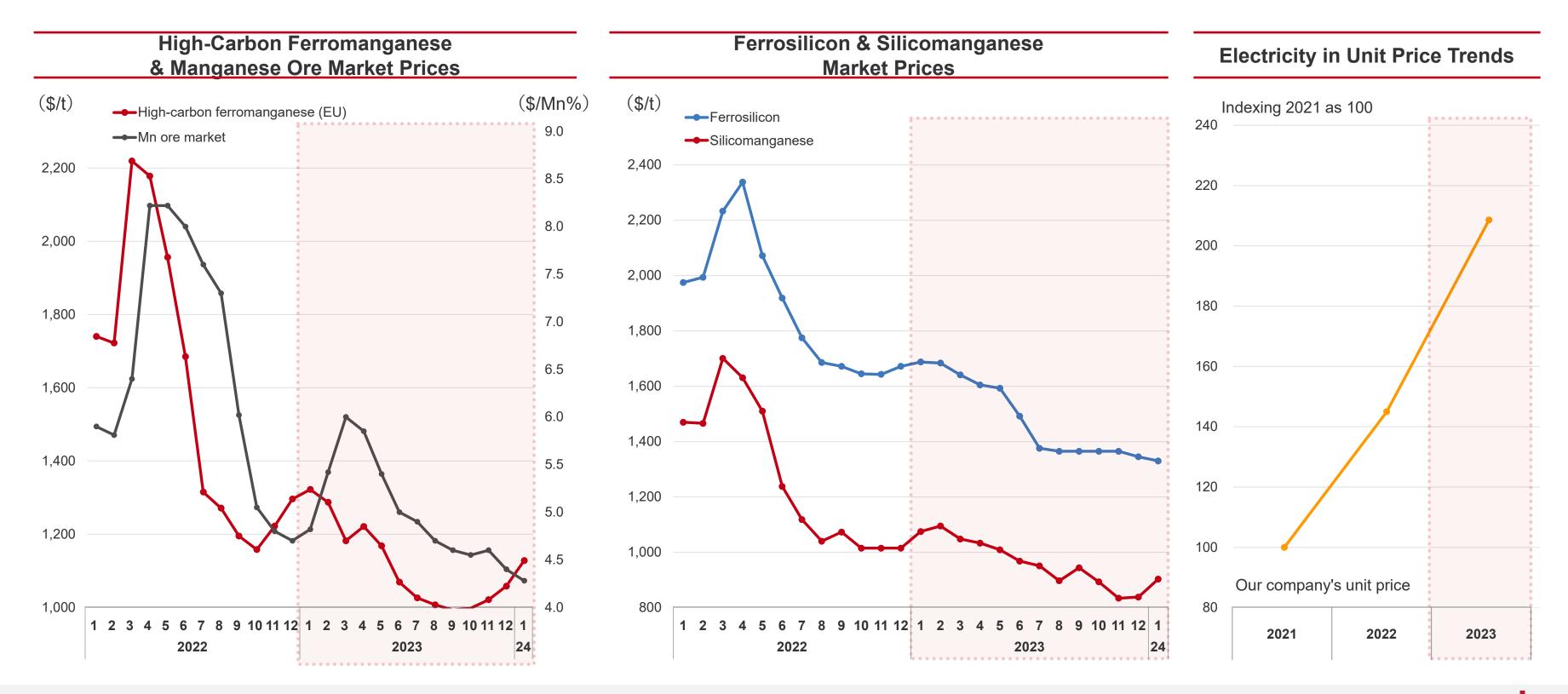
- Substantial decrease in profit due to inventory impact caused by manganese ore market decline
- Secured underlying ordinary profit almost at the same level as those of the previous fiscal year due to efforts to secure profit, in addition to the effects of the price formula
- Due to progress in structural reforms (production integration and price formula revision), the company classification was changed from category 3 to category 2, resulting in the recognition of additional deferred tax assets\*

Profit increased and exceeded the previous forecast (announced in August 2023)

<sup>\*</sup>The company classification was changed from category 2 to category 4 due to the deterioration of business performance in the domestic Ferroalloys business in 2015
This time, the company classification was changed again following FY2021, when the classification was changed from category 4 to category 3

# 2-2. FY2023 Financial Results Summary (2)

- Market conditions for ferroalloys and manganese ore have been on a downward trend throughout FY2023
- Electricity prices remained at a high level compared to FY2022



## 2-3. FY2023 Consolidated Financial Results

# Year-end dividend increased from the forecast of ¥4 to ¥6 and the annual dividend from the forecast of ¥7 to ¥9

- The ordinary profit significantly declined (-¥7.9 bil.) year-on-year, due to the impact of inventory caused by the decline in the manganese ore market (-¥7.8 bil.)
- Underlying ordinary profit (¥5.5 bil.) remained almost at the same level as that of the previous fiscal year, due to efforts to secure profits in addition to the effect of the price formula
- Due to the progress in structural reform (consolidation of production capacity and price formula revision), the company classification has been changed, and deferred tax assets have been additionally recognized. Profit increased and exceeded from the previous forecast announced in August 2023 (+¥1.4 bil.)

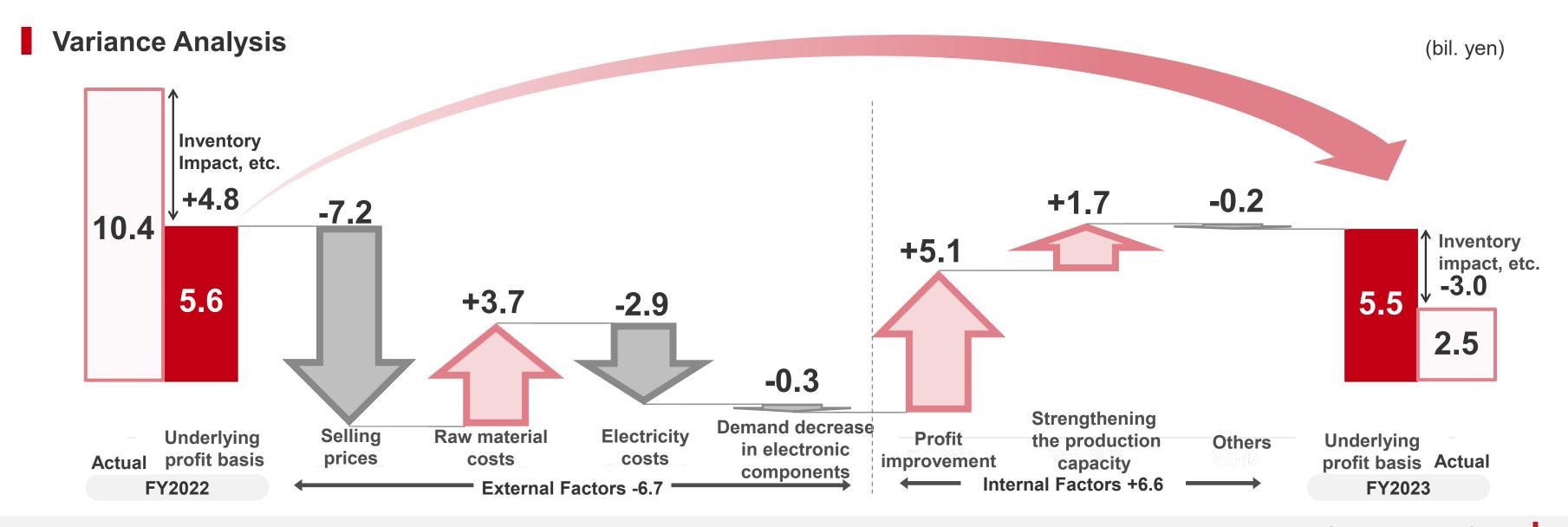
(bil. yen)

	FY2022	Z2022 FY2023		V <sub>2</sub> V	Comparison
	Actual	Forecast (Announced on Aug. 7,2023)	Actual	YoY	with Forecast
Net Sales	79.3	78.0	76.4	-2.9	-1.6
	404	0.5		7.0	0.0
Ordinary Profit	10.4	2.5	2.5	-7.9	-0.0
Underlying ordinary profit*	5.6	5.7	5.5	-0.1	-0.2
Profit attributable to owners of parent	7.9	3.0	4.4	-3.6	1.4
Annual dividend per share (yen)	17	7	9	-8	2
ROE (%)	12	4	6	_	_

<sup>\*</sup> Earnings excluding inventory impact and one-time factors

# 2-4. FY2023 Consolidated Financial Results (Underlying Ordinary Profit Variance)

Negative impacts have occurred due to external factors such as the soaring electricity prices and margin decline caused by a decline in the global market prices in the Ferroalloys business. However, as a result of dedicated efforts such as the price pass-through of higher electricity costs for selling prices, reduction of costs, and capacity enhancement, underlying profit remained almost at the same level as that of the previous fiscal year



# 2-5. FY2023 Consolidated Financial Results by segments (Underlying Profit Basis\*)

\* Ordinary profit excluding inventory impact and one-time factors

(bil. yen)

		FY2	FY2022		2023	Y	oY
		Net Sales	Ordinary Profit (Underlying profit basis)	Net Sales	Ordinary Profit (Underlying profit basis)	Net Sales	Ordinary Profit (Underlying profit basis)
		58.4	3.7	52.9	2.3	-5.5	-1.4
Ferroalloys	Domestic	58.4	2.5	52.9	2.6	-5.5	0.1
	Overseas	_	1.2	-	-0.3	-	-1.5
Functional Ma	aterials	11.3	0.5	13.8	1.8	2.6	1.3
Environment		5.9	0.7	6.6	0.9	0.7	0.2
<b>Electric Powe</b>	r	1.7	0.5	1.4	0.4	-0.3	-0.1
Others		2.1	0.2	1.7	0.1	-0.4	-0.1
Total		79.3	5.6	76.4	5.5	-2.9	-0.1

# 2-6. Overview by Segments (Domestic Ferroalloys Business) (1)

+3.5

Raw material

costs

**External Factors -3.2** 

- High-carbon ferromanganese market and manganese ore market fell sharply
- Inventory impact turned negative from positive from the previous year (-¥6.3 bil.)
- Underlying ordinary profit remained almost at the same level as that of the previous fiscal year due to profit improvement (price pass-through, cost improvement, etc.) which overcame the negative factors such as higher electricity prices and margin decline

-4.7

Selling

prices

**Ordinary Profit Variance Analysis** 

**Inventory** 

+4.7

2.5

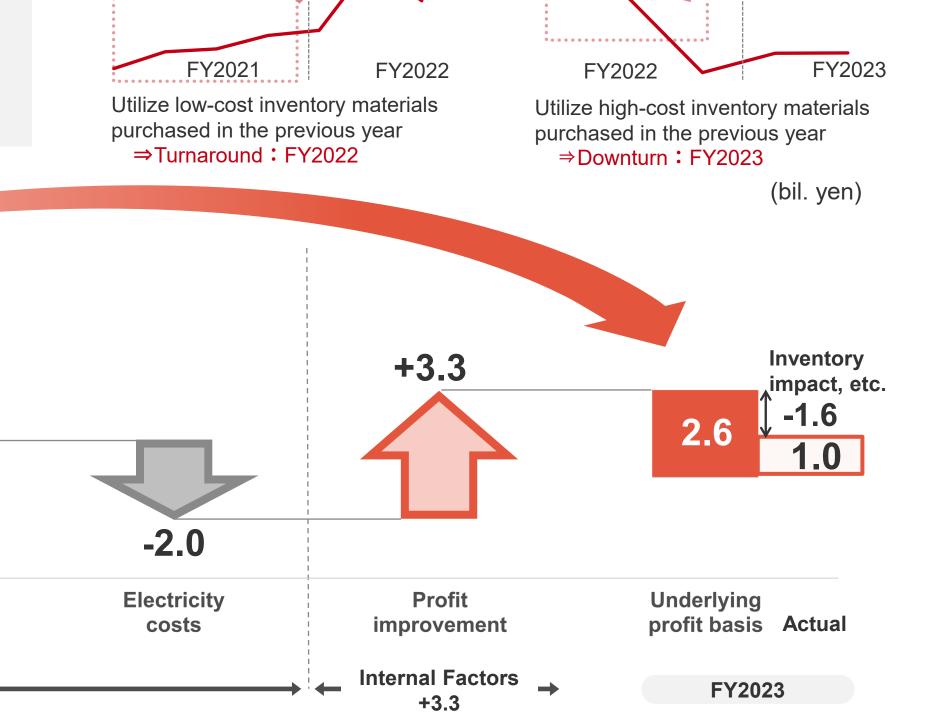
Underlying

profit basis

**FY2022** 

Actual

impact, etc.



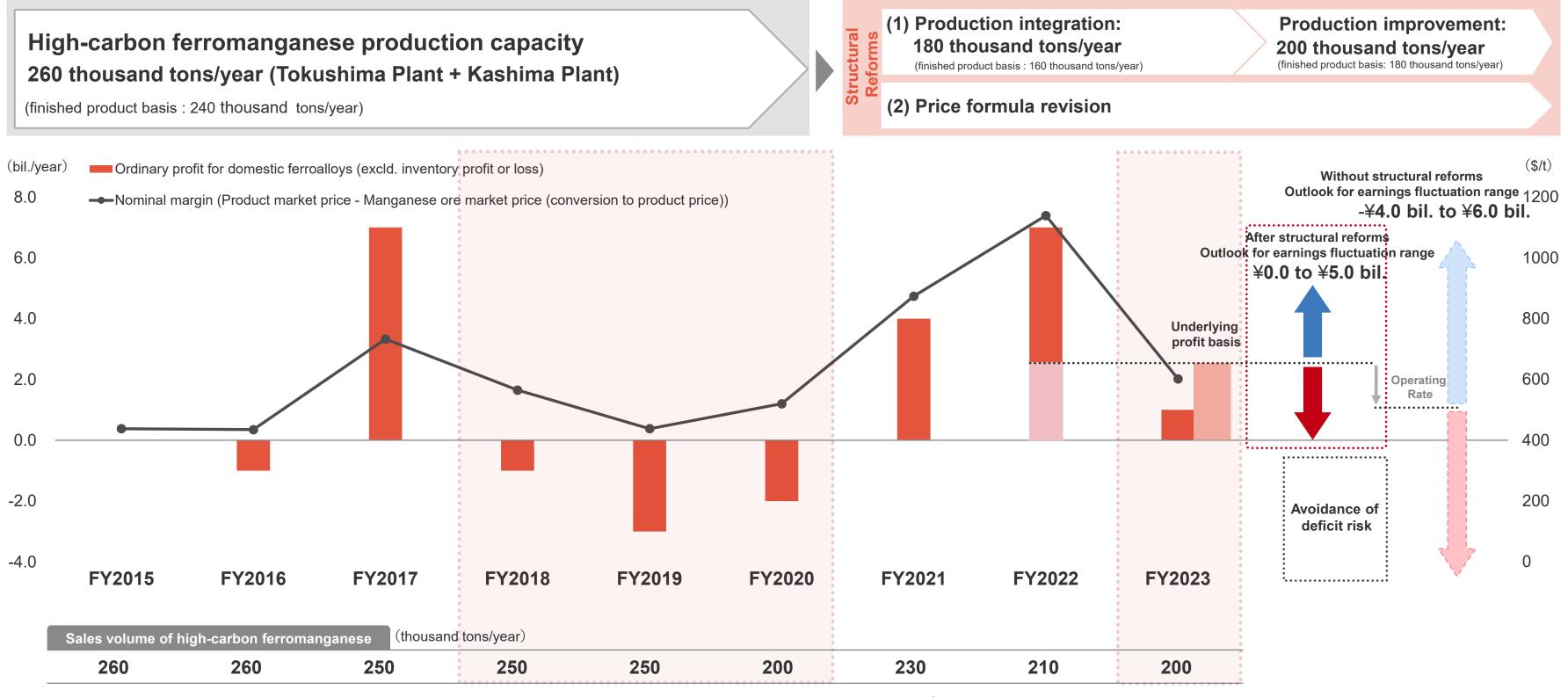
**Inventory Impact** 

**Market Upturn** 

**Market Downturn** 

# 2-7. Overview by Segments (Domestic Ferroalloys Business) (2)

To achieve a stable earning structure that is less susceptible to decreases in domestic crude steel production and market conditions for ferroalloys

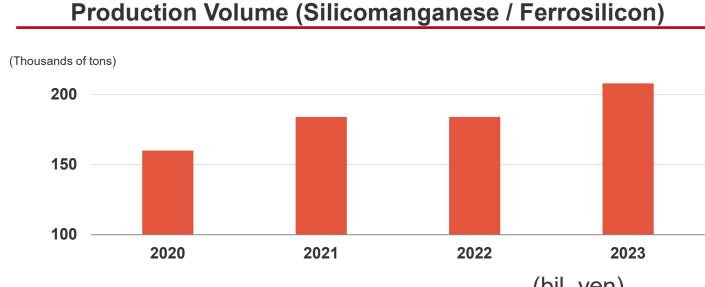


The shortfall will be covered by external procurement

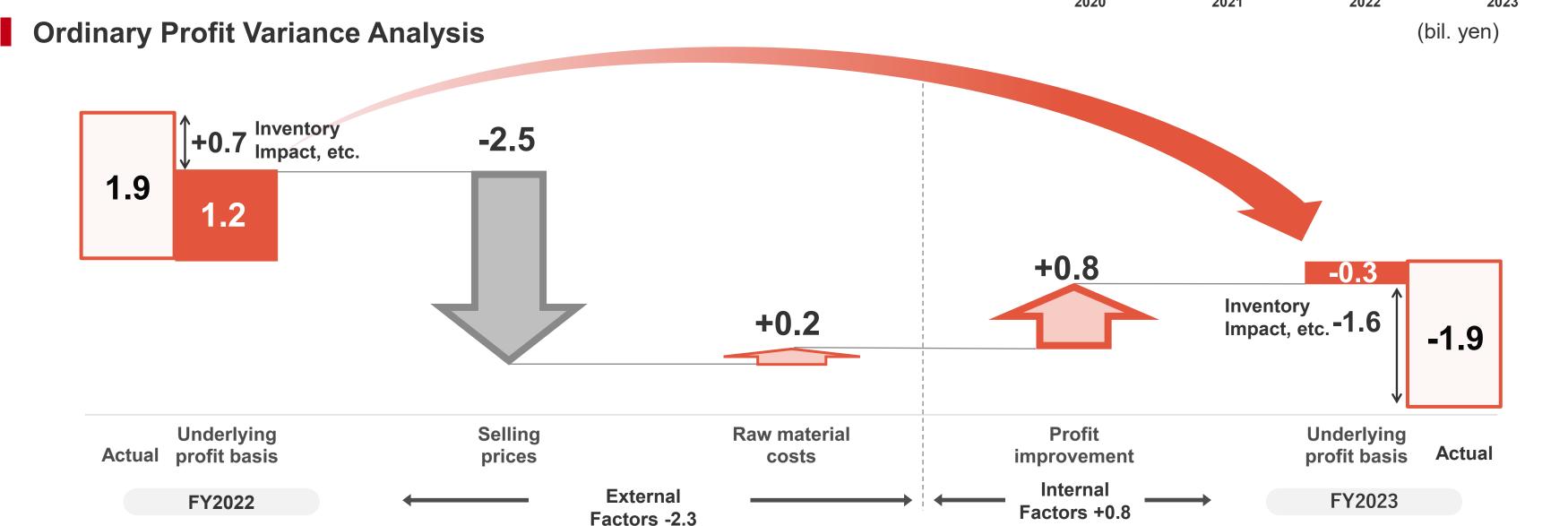
# 2-8. Overview by Segments (Overseas Ferroalloys Business)

(Pertama Ferroalloys: ownership ratio 25% Kudumane: indirect ownership ratio 12%)

- Our engineers are stationed at Pertama Ferroalloys Sdn. Bhd. Focusing on stable production, manufacturing capacity steadily improved, and production results reached a record high level
- Significant year-on-year decline due to lower-than-expected silicomanganese and ferrosilicon prices and inventory impact (-¥2.3 billion)

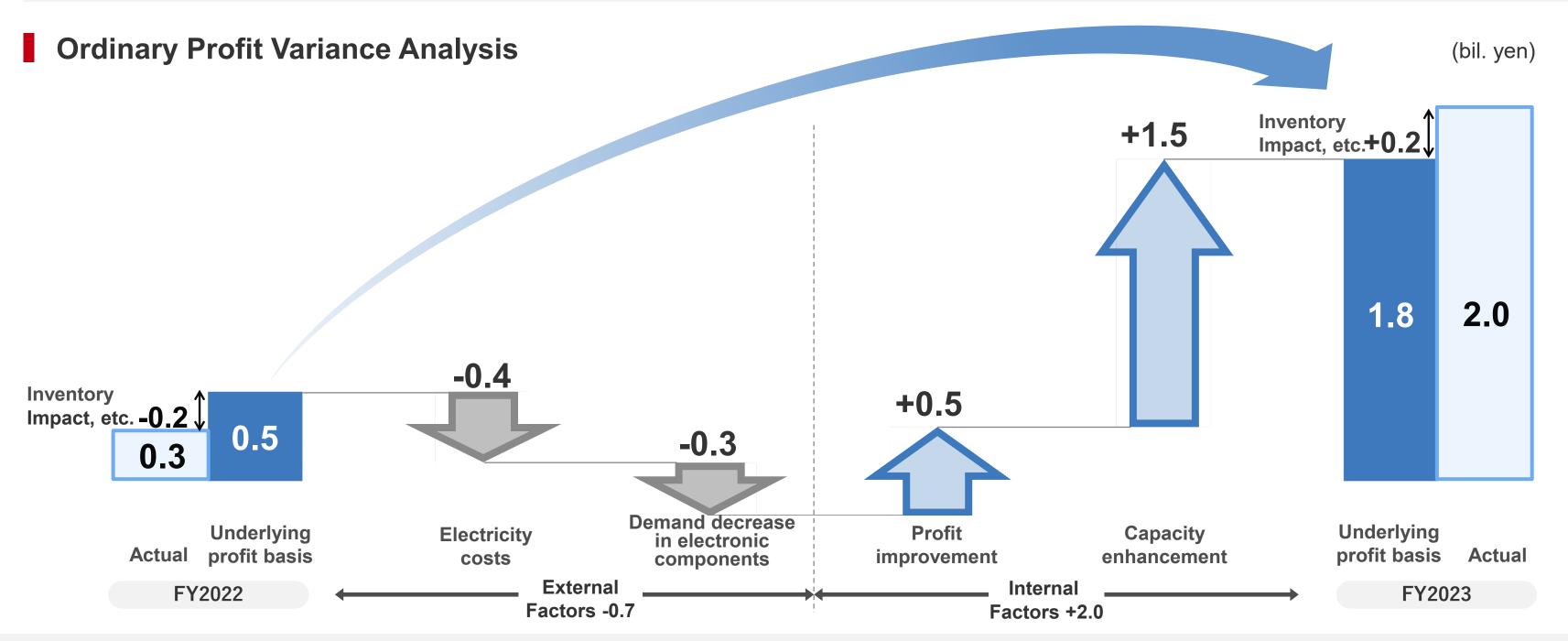


Pertama Ferroalloys Sdn. Bhd.



# 2-9. Overview by Segments (Functional Materials Business)

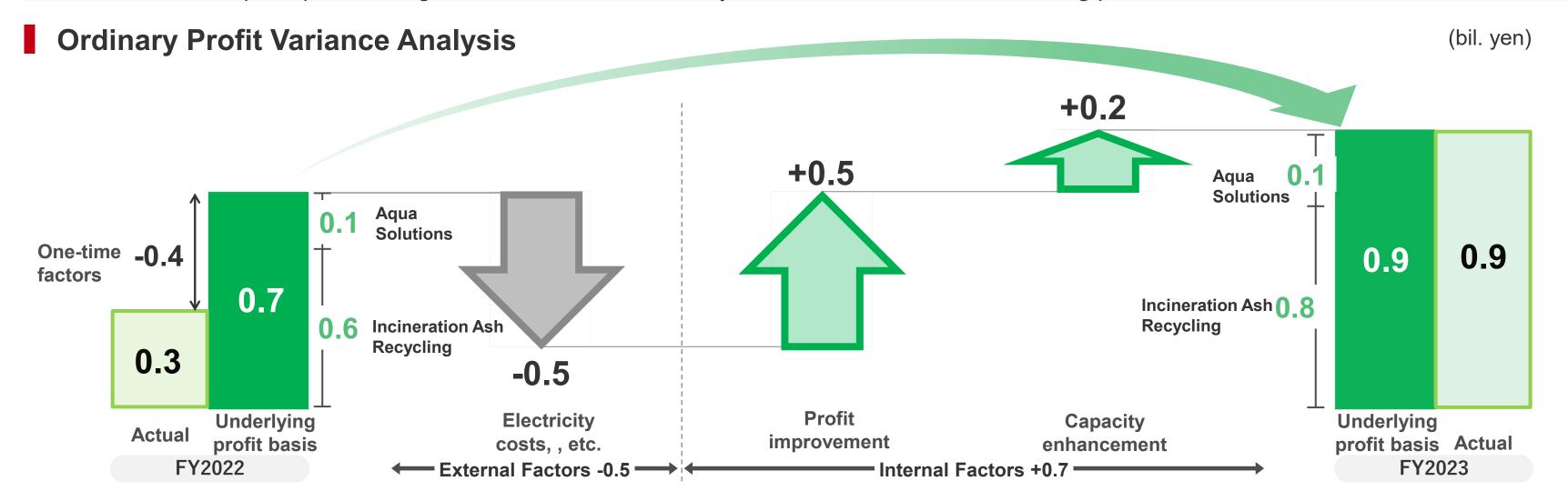
- Profit increased substantially due to the enhancement of manufacturing capacity of cathode materials for lithium-ion batteries and boron oxide, and the resumption of ferroboron production, etc.
- The rise in the electricity costs was delt with by the price pass-through for selling prices
- Sales of zirconium oxide decreased due to a delay in the recovery of demand for automotive electronic components



# 2-10. Overview by Segments (Environment)

The Environment business was divided and renamed into the Incineration Ash Recycling business (formerly, Melting & Solidification of Incineration Ash) and the Aqua Solutions business (formerly, Environmental Systems) in January 2024

- Incineration Ash Recycling Business
- Incineration ash melting furnace No. 4 (EM4) began operations in Q4 of FY2022, demonstrating the benefits of capacity expansion
- On the other hand, due to the financial difficulties of municipalities caused by COVID-19, the collection of incineration ash has been sluggish and the price pass-through of the rise in electricity costs for selling prices is still halfway, underlying ordinary profit only increased by ¥0.2 billion
- Aqua Solutions Business
- Conducted the price pass-through of the rise in the electricity and raw material costs for selling prices



## 2-11. Consolidated Balance Sheets

We will solve balance sheet issues in the period of Medium/Long-term Business Strategy to realize growth strategies and achieve transformation into financial position that can improve profitability

**BS** (bil. yen)

	FY2022	FY2023	Composition Rate (%)
Total current assets	56.9	51.9	51.3
(Inventories) *1	33.6	30.9	30.6
Total non-current assets	48.0	49.2	48.7
Total assets	104.9	101.0	100.0
Total liabilities	35.7	29.3	29.0
(Interest-bearing debt) *2	21.1	18.6	18.4
Total net assets	69.2	71.7	71.0
Total liabilities and net assets	104.9	101.0	100.0
Net D/E Ratio	0.18	0.15	

<sup>\*1</sup> Merchandise and finished goods + work in process + raw materials and supplies

#### Medium/long-term Issues to be Solved

- Inventories
  - Inventory turnover period: 6.0 months

    [Average for the manufacturing industry: 2.2 months]
    - To improve the inventory efficiency through DX
- Non-current assets
  - Fixed ratio: 72.8%

    [Average for the manufacturing industry: 85.7%]
    - Implementation of aggressive strategic investment
- Interest-bearing debt and shareholders' equity
  - Net D/E ratio: 0.15
     [Average for the manufacturing industry: 0.35 0.4 \*3]
    - Changes in financial leverage to the appropriate extent

<sup>\*2</sup> Short-term borrowings + long-term borrowings + lease obligations

<sup>\*3</sup> Average range of rated companies in Japan [BBB to A]

## 2-12. Consolidated Cash Flows

### Consolidated Cash Flows

(bil. yen)

	FY2022	FY2023	FY2021 - FY2023
Profit before income taxes + Depreciation	12.9	5.9	27.0
Share of profit (loss) of entities accounted for using equity method (non-cash items)	-1.9	1.9	0.2
Other (Changes in working capital, etc.)	-4.7	1.0	-6.0
Cash flows from operating activities	6.3	8.8	21.2
Cash flows from investing activities	-4.6	-4.7	-11.5
Free cash flows	1.7	4.1	9.7
Increase (decrease) in borrowings	3.3	-2.6	-0.9
Cash dividends paid	-2.9	-1.7	-5.9
Acquisition of treasury shares	-3.0	-1.0	-4.0
Cash flows from financing activities	-2.7	-5.2	-10.8
Cash and cash equivalents at beginning of period	9.8	8.9	9.6
Cash and cash equivalents at end of period	8.9	7.9	7.9
Net increase (decrease) in cash and cash equivalents	-0.9	-1.0	-1.7

#### **FY2022 Consolidated Cash Flow Summary**

While ordinary profit declined from ¥10.4 billion to ¥2.5 billion, operating CF, the source of earning power, expanded from ¥6.3 billion to ¥8.8 billion

Distribution of CF During the Previous Medium-Term Business Plan

**Operating Csh Flow: ¥21.2 billion** 

Borrowings -¥0.9 billion
Cash on hand ¥1.7 billion
Total ¥22.0 billion



Proactive investment in noncurrent assets, which form the core of profit generation

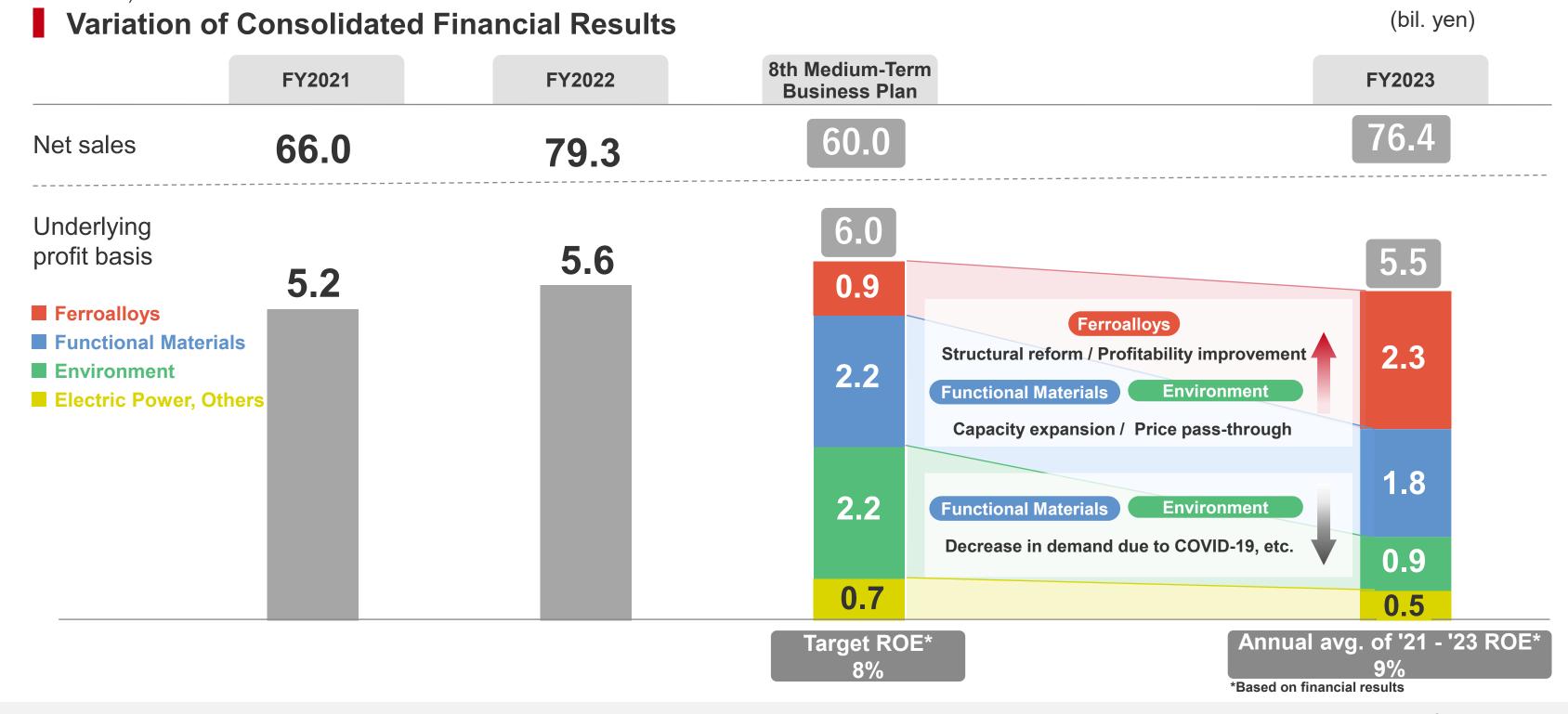
¥12.0 bil.

Acquisitions of ¥4.0 bil. treasury shares in addition to ¥6.0 bil. dividends in accordance by a dividend policy

¥10.0 bil.

## 3-1. Review of the 8th Medium-Term Business Plan

- Contributions include stabilization of earnings through structural reforms in the domestic Ferroalloys business, expansion of production capacity in the Functional Materials business, and the price pass-through of the rise in electricity costs for selling prices
- Meanwhile, the demand in the Functional Materials business declined partially and the collection of incineration ash fell short of forecasts due to COVID-19 in the Environment business
- Underlying ordinary profit is on par with the target level set in the Eighth Medium-Term Business Plan (3-year annual average of ROE\* during the Medium-Term Management Plan is 9%, and the target was achieved)



#### [Management Philosophy]

To help create an affluent future through sustainable growth by developing and providing distinctive products, technologies, and services

#### "Our Ideal State" in 2030

A company on a constant quest for a better future by supporting people's lives through materials and the environment

Providing Value to Diverse Stakeholders

To achieve both

"Solving Social Issues " & "Enhancing Corporate Value"

### **Promoting Sustainability-Oriented Management**

- To solve social issues by providing products, technologies and services
- To address social issues in the course of conducting business astivities
- To enhance the corporate foundation for sustainable growth



## Numerical Targets (consolidated)

Net Sales : ¥110.0 bil. or larger

Ordinary Profit : ¥13.0 bil. or larger

ROE : 10% or higher

(Ref.) FY2023 results

Net Sales : ¥76.4 bil.
Ordinary Profit : ¥5.5 bil.

Ordinary Profit (Underlying profit basis)

Avg. ROE during .

Avg. ROE during
Medium-Term Business Plan : 9%

## **Four Targets**

#### **Growth Strategy**

- To expand business by proactively investing in growing fields
- To restructure our business portfolio

#### **To Improve and Stabilize Profitability**

- ROE 10% or higher
- To establish a stable earning structure

#### **Financial Strategy**

- To reinforce non-current assets as a source of profits
- Appropriate financial leverage
- To proactively return profit to shareholders

#### **Sustainability-Related Measures**

## Implementation of measures aligned with medium/long-term strategy

- · GX
- ·DX
- · Human capital management, DE&I

# 3-3. Outline of Medium/Long-Term Business Strategy (2) (To Improve and Stabilize Profitability)

Aim to achieve ROE of 10% or higher by establishing a more stable and highly profitable system while actively investing in growing fields, based on stabilization of earnings (drastic reduction of impact of market and volume fluctuations) through structural reforms in the domestic Ferroalloys business

# FY2023 Results (consolidated)

Net sales : ¥76.4 bil.

Ordinary profit : ¥5.5 bil.

(underlying profit basis\*)

ROE : 9%

Underlying profit basis in FY2023

Ferroalloys Functional Materials
Incineration Ash Recycling Aqua Solutions

Ferroalloys Functional Materials
Incineration Ash Recycling Aqua Solutions
Electric Power Others

(bil. yen)

0.4

0.4

0.1

1.8

2.3

Ordinary profit

\*Earnings excluding inventory impact and one-time factors

# Ninth Medium-Term Business Plan for FY2027 (consolidated)

Approx. ¥95.0 bil. Net sales Approx. ¥10.0 bil. **Ordinary profit** ROE 10% FY2027 Target Ordinary profit analyses (vs. FY2023) (bil. yen) ■ Ferroalloys
■ Functional Materials 5.0 ■ Incineration Ash Recycling Aqua Solutions ■ Electric Power ■ Others (bil. yen) 10.0 10.0 2.6 0.3 -4.9 0.6 Profit 1.6 2.3 5.7 3.2 increase 3.5 **Ordinary profit** FY2023 FY2027

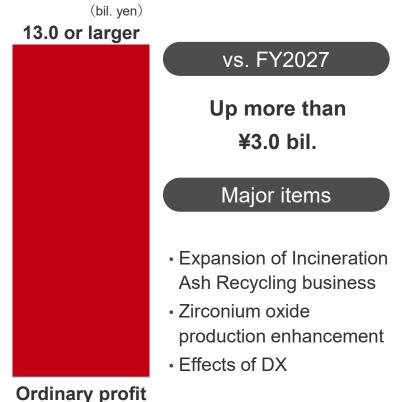
# "Our Ideal State" in 2030 (consolidated)

Net sales : ¥110.0 bil. or larger

Ordinary profit : ¥13.0 bil. or larger

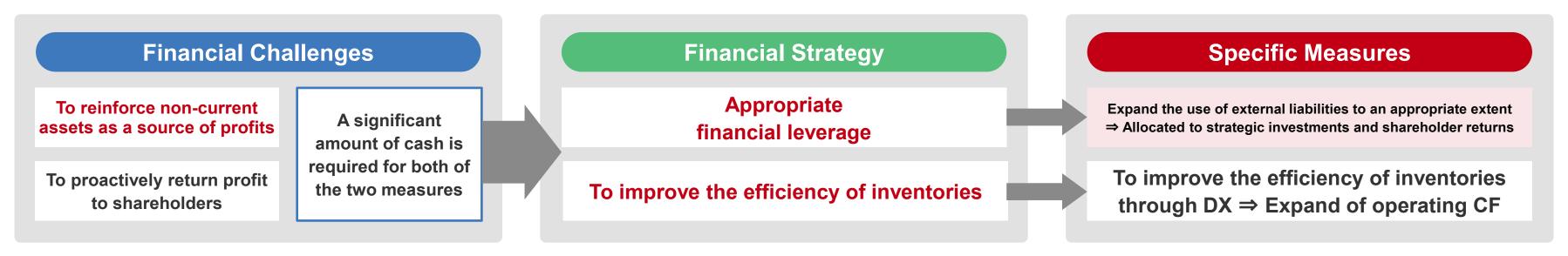
ROE : 10% or higher

## FY2030 Target



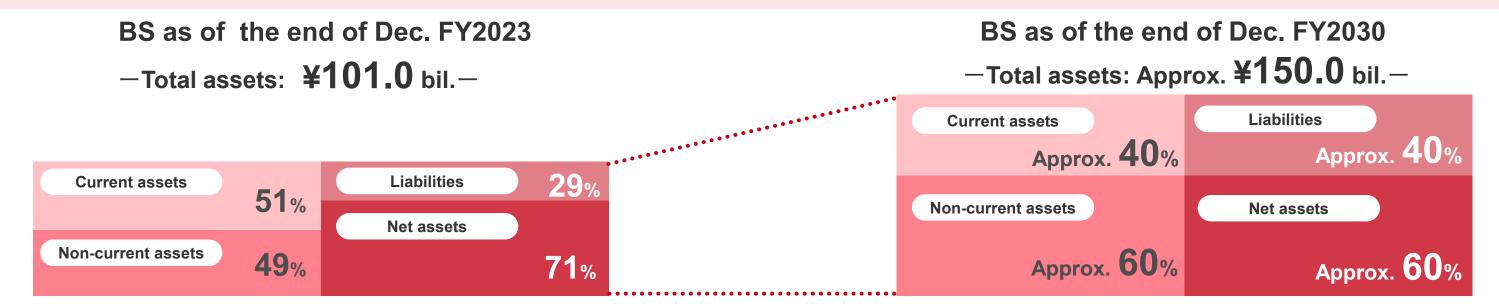
# 3-4. Outline of Medium/Long-Term Business Strategy (3) (Financial Strategy)

Aim to reform our financial structure to realize growth strategies and improve profitability (Resolving balance sheet issues)



As of the end of Dec. 2023 Net D/E ratio: 0.15 [Average for the manufacturing industry: 0.35 - 0.40]

- D/E can be reviewed by effectively utilizing external liabilities.  $[0.15 \Rightarrow 0.30 0.45]$
- In addition to achieving the target ROE, we aim to increase corporate value by changing financial leverage
- We will construct a business portfolio that is less susceptible to the market conditions for ferroalloys through aggressive strategic investments in growth fields



## 4-1. FY2024 Projection

## **External Environment**

Sluggish market for ferroalloys due to weak steel demand

Rise in commodity prices, including high electricity prices and pay hikes

Concerns about a decline in demand for electronic components due to the economic downturn in China

Impact of the Noto Peninsula Earthquake

## **FY2024 Consolidated Earnings Forecast**

Due to the uncertain outlook, it is difficult to make a reasonable forecast for the results in FY2024 at this point

Steady implementation of measures in the Ninth Medium-Term Business Plan as a year of building a foundation for "Our Ideal State" in 2030

Full-year earnings forecasts will be announced at the time of the announcement of financial results for FY 2024 Q1

## 4-2. Measures in FY2024

# Business and Manufacturing Divisions Steady progress in building a foundation for "Our Ideal State" in 2030

#### **Ferroalloys**

- Building a more stable production system
   [Domestic] Response to the increased production demand by extending periodic repairing cycle
  - [Overseas] Expand the use of inexpensive raw materials and demonstrate the benefits of improved productivity (electric furnace renovation in 2023)
- Streamlining of inventories based on DX

#### **Functional Materials**

- Expand the sales of domestically produced one-of-a-kind products (ferroboron, etc.)
- Ensure appropriate profit commensurate with added value (manganese inorganic chemical products, etc.)
- Consider production capacity enhancement in anticipation of changes in the business environment (zirconium oxide, etc.)

#### **Incineration Ash Recycling**

- Steady implementation of the price pass-through of the rise in electricity costs
- Promote sales activities with a focus on the arrival of circular economy
  - •Expand sales areas while assuming a shortage of remaining capacity of landfill sites

#### **Aqua Solutions**

- Establish a production system for meeting growing demand (recovery and recycling of boron-adsorbent resin, etc.)
- Develop new adsorbents (inorganic adsorbents) (Shinshu University / Verne Crystal)

## Research and Function Divisions Support for business divisions and steady promotion of sustainability-related measures

R&D Approx. ¥0.8 billion

- Accelerate R&D for new product development to be finished by 2030
  - Develop high functional products (electronic components and battery materials)
  - Strengthen collaboration with universities and research institutes

GX Approx. ¥1.2 billion

- Steady promotion of R&D towards carbon neutrality in 2050
  - •Test of wood cokes with actual equipment to be used in 2030
  - •Explore innovative high-carbon ferromanganese reduction technologies for 2050
- Promote GX strategic investment (introduction of internal carbon pricing)

#### DX (Production DX, Operation DX, Business DX)

Approx. ¥0.6 billion

- Production: Infrastructure development for smart factories (visualization of production information)
- Operation: Concentrate resources in high value-added services through core system upgrades
- Business: Enhance inventory management by visualizing the supply chain

#### **Human Capital Management**

- Establish a system for diverse working styles (establish a career-track system for a specific area)
- Secure personnel to strengthen each business (expand initiatives to improve regional presence)
- DE&I (enhance training systems for the development of female leaders)

## Aiming to increase corporate value by creating new products and businesses that would help solve social issues

#### **Medium/Long-Term Business Strategy**

- Continuously allocating resources to the development of new products utilizing our proprietary technologies
- High-performance zirconium oxide (response to needs for smaller MLCC)
- Materials for next-generation secondary batteries
- New adsorbents (inorganic adsorbents)
- R&D expenses (Ninth Medium-Term Business Plan)

**Total of about ¥3.2 billion (4 years: 2024-2027)** 

In addition, we consider M&A and collaboration with other companies

#### **External Collaboration**

Information Needs



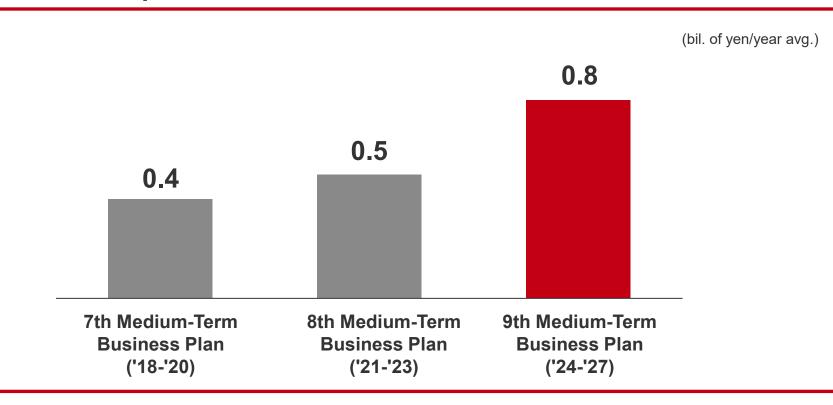
New products Added value

**Existing Customers** 

Results Information Research outsourcing

Universities
Research Institutes

#### **R&D Expenses of the Ninth Medium-Term Business Plan**



#### **R&D in FY2024**

#### R&D expenses in 2024: Approx. ¥0.8 bil.

- Accelerate R&D to surely capture demand for high-performance products in line with the further electrification of automobiles, the acceleration of electrification and GX
- Deepen collaboration with universities and research institutes and make advanced technologies which are newly created our intellectual property

## 5-2. Capital Investment

Conduct aggressive strategic investments in growth fields to realize a business portfolio which is less susceptible to the impact of ferroalloys market conditions (more than 3 times compared with the previous medium-term business plan)

# Business Expansion Through Aggressive Strategic Investment (Medium-to Long-Term Plan)

Amount of strategic investment: ¥45.0-50.0 billion/7 years ('24-'30)

(Ref.) Previous Medium-Term Business Plan: ¥6.0 billion/3 years ('21-'23)

#### ■ Ferroalloys

Overseas: Strengthen overseas business (Pertama, Kudumane)

#### **■** Functional Materials

Invest to increase capacity for the electrification of automobiles

#### ■ Incineration Ash Recycling

 Significant expansion of existing processing capacity (from 130K tons to 220K tons)

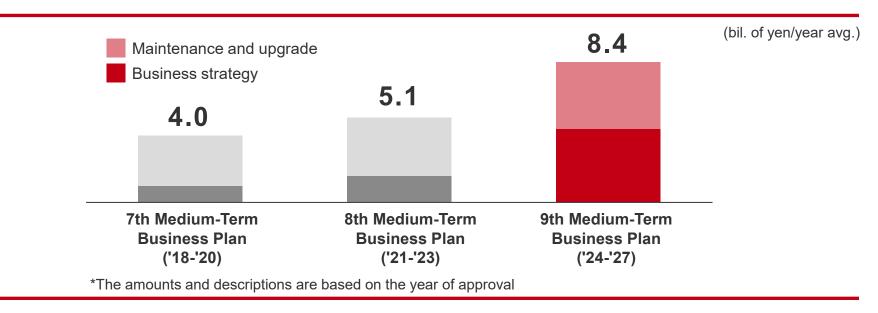
#### ■ Aqua Solutions

Expansion of wastewater treatment business

#### **■ Other Strategic Investments**

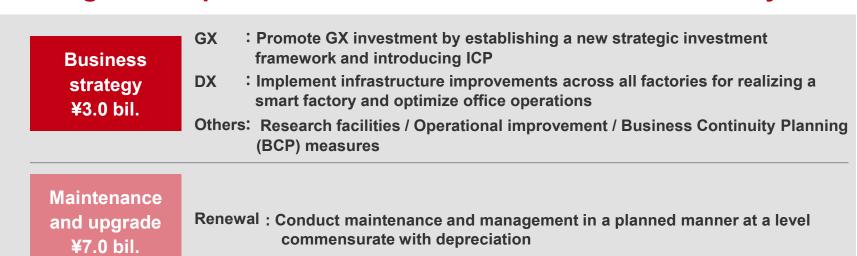
- GX and DX investments
- New businesses (new battery materials and new adsorbents)
- Strengthen existing businesses by acquiring and collaborating with competitors

#### **Capital Expenditures in the Ninth Medium-Term Business Plan**



#### **Capital Investment in FY2024**

#### Budget for capital investment in FY2024: ¥10.0 billion in a year



## 5-3. Sustainability-Related Measures - GX

To implement measures to achieve carbon neutrality and aim to reduce our CO2 emissions by 45% or more\* in FY2030

(\*Scopes 1 and 2, vs. FY2015)

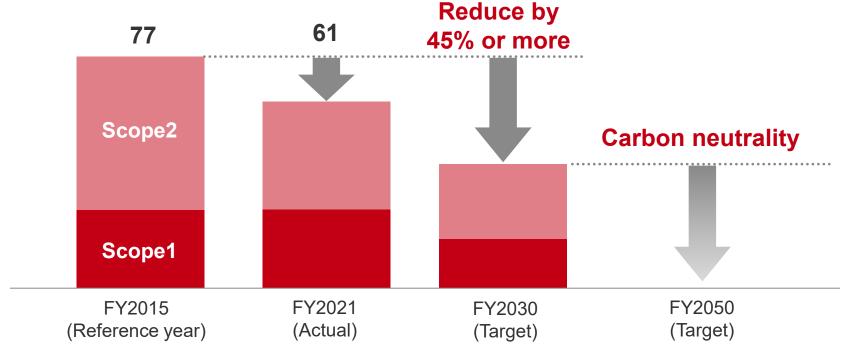
### **CO2 Emission Reduction Target**

**FY2030** 

Reduce by 45% or more (Scopes 1 and 2, vs. FY2015)

**Carbon neutrality** 

#### CO2 Emissions of Nippon Denko Group (10 thousand tons/year)



Scope1

Direct emissions by Nippon Denko Group (mainly derived from the coal cokes reduction process in high-carbon ferromanganese manufacturing)

<Over 90% of Scope1 CO2 emissions derive from ferroalloy manufacturing>

Scope2

Indirect emissions from the use of electricity and heat supplied from external sources

#### **Measures Towards Carbon Neutrality in FY2024**

#### ■ GX investment plan

- Planning to invest around ¥5.0 bil. in GX by FY2030
- Promoting GX investment by adoption of an internal carbon pricing system
- Set an internal carbon price at ¥10,000/tons-CO2 (Scopes 1 and 2) (From January 1, 2024)

#### Manufacturing technology

• Explore innovative high-carbon ferromanganese reduction technologies

Collaborate with universities and external research institutes to promote fundamental research on reducing agents such as wood cokes and hydrogen, as an alternative to coal cokes, while utilizing the electric furnace at the Tokushima plant

As a NEDO R&D project, accelerate research for practical application by utilizing the FS business related to the new reduction technology of high-carbon ferromanganese

• Improve the in-house consumption rate of renewable energy

#### **■** Information disclosure

- Participation in GX League (Phase 1: '23-'25)
- Acquired third-party assurance for our CO2 emissions (2022 emission, Scopes 1 and 2)



Scope1 234Kt-CO2

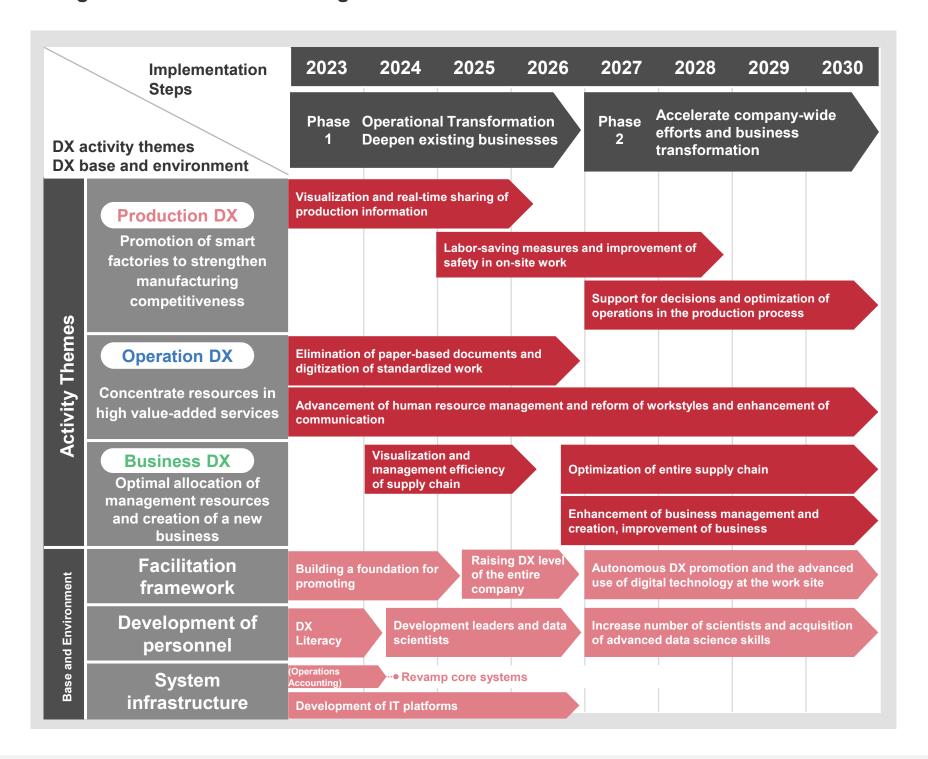
Scope2

284Kt-CO2

## 5-4. Sustainability-Related Measures - DX

#### **DX Roadmap (FY2023 - FY2030)**

■ Promote companywide introduction of IoT foundation and software to support the digitization of manufacturing sites in line with the DX vision for FY2030



#### **DX Human Resources Development**

# All staff members aim to become individuals who can promote data-driven work improvement and advancement

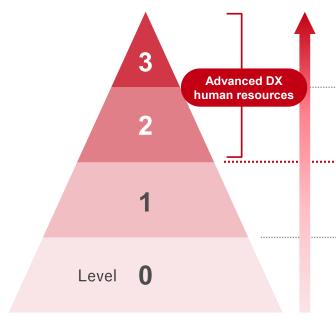
- By 2030, 30% of staff members will be trained as advanced DX human resources (DX promotion leaders and data scientists) who use data and tools to sophisticate and reform operations
- Promote education for staff members in accordance with the status of DX investment By the end of 2024, 20% of staff members are scheduled to undergo advanced DX education

#### **DX Promotion Leaders**

Introduce digital technologies, evaluate data analysis results, and consider subsequent actions

#### Data Scientists

Identify data to collect and acquire based on the specific challenges, and examine improvements based on the data



#### ■ Expert data scientists

• Conduct advanced data analysis such as AI development

#### ■ Data scientists

Consider improvements while utilizing analytical software

#### ■ Basic data scientists

· Conduct basic data-analysis utilizing Excel, etc.

**Completion of DX literacy training for all employees** 

# 5-5. Sustainability-Related Measures - Human Capital Management

We are promoting various measures based on the human resources strategy linked to the medium-to long-term business strategy

(1) Conceptual Diagram of Our Human Resource Strategy

## **Medium/long-term business strategy** corporate culture Linkage **Human resource strategy targets** Talent acquisition and creation of added value **Measures for human Establishment as** resource strategy Recruitment Investment in human capital DX promotion Strengthening the foundation of human capital management DE&I Respect for human To enhance rights engagement • Diverse work-style Well-being

#### (2) Targets (Visualization) and Measures for Human Resource Strategy

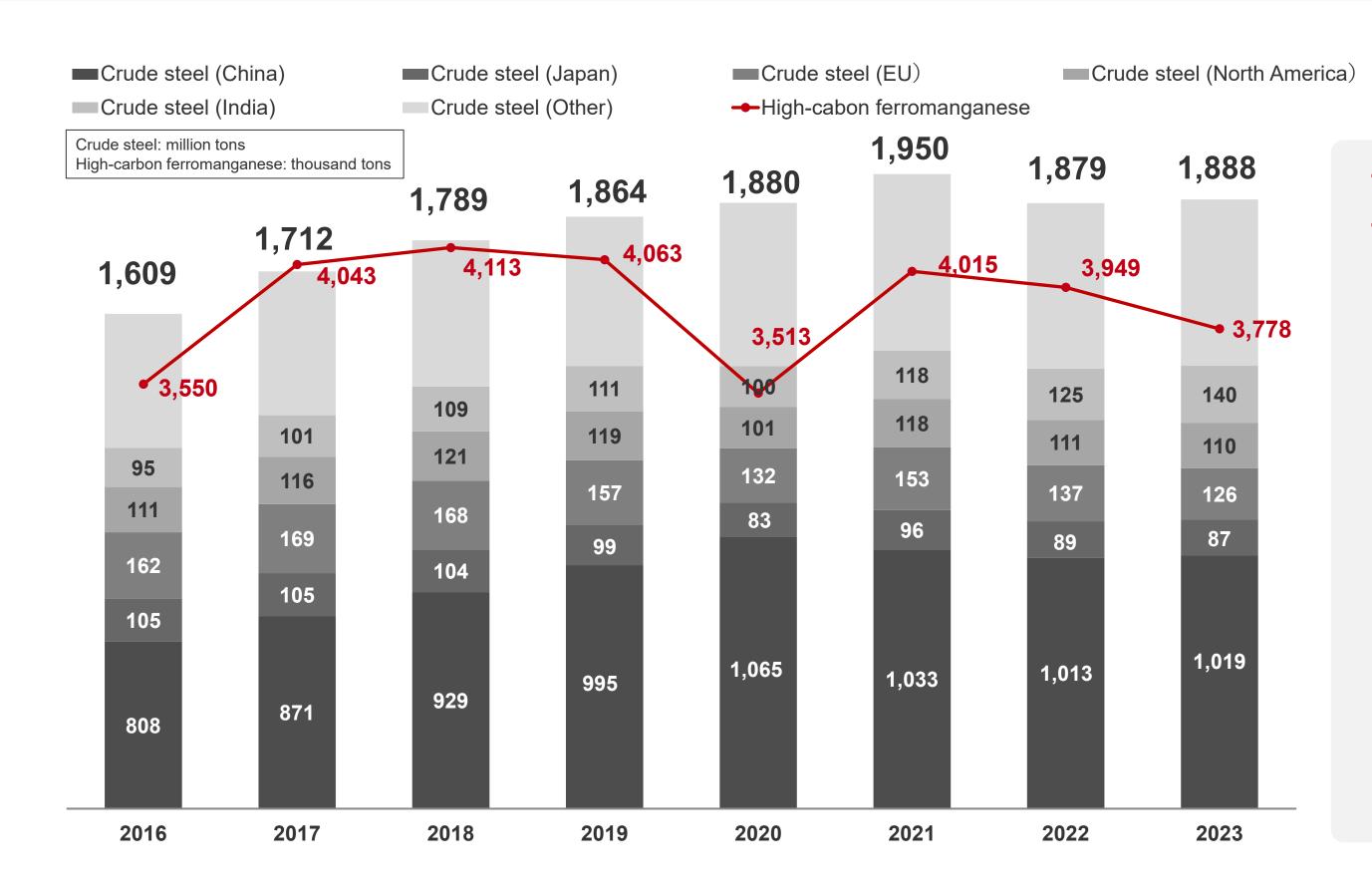
Target			Major measures in FY2024		
Talent	Securing additional	Enhance recruitment capabilities	<ul> <li>Establishment of a career-track system for a specific area (promotion of diverse ways of working)</li> <li>Improve regional presence (implement measures to improve our recognition)</li> </ul>		
acquisition	personnel in response to growth strategies	Expansion of hiring methods	<ul> <li>Establishment of referral hiring system (recruitment of skilled workers)</li> <li>Mid-career recruitment (recruitment of mid-career workers with specialized skills)</li> </ul>		
	Qualities to carry out growth strategies	Fostering	<ul> <li>Executive leader development (training and dialogue with President)</li> <li>Dialogue between all managers and President to realize "Our Ideal State" in 2030</li> </ul>		
Creation of added value for employees	Specialized capabilities for growth strategies	Education and training	<ul> <li>Enrich education for division specialists (education for facility-related professionals, etc.)</li> <li>DX talent development required for more efficient and advanced business operations</li> </ul>		
	Skills to adapt to business transformation	Creation of growth opportunities	Participation of young employees in the venture collaboration study team		
Strengthening		DE&I	<ul> <li>Responses to raise the ratio of female managers (training for female leaders)</li> <li>Securing human resources with diversity and expertise</li> </ul>		
of human engagem	To enhance engagement	Work-style reform	Improve the rate of paid holidays taken (creation of annual plans and management of results)		
management 5 5		Engagement	<ul> <li>Engagement improvement measures (promotion of internal dialogue)</li> <li>Improvement of treatment (securing human resources and promotion of active participation)</li> </ul>		

# 5-6. Management Indicators

(mil. yen)

_								(mil. yer
	2016	2017	2018	2019	2020	2021	2022	2023
Net sales	58,486	71,346	73,944	70,477	54,004	65,978	79,341	76,406
Operating profit	1,717	9,639	1,701	-5,572	5,434	8,436	8,815	4,741
Ordinary profit	1,614	9,239	1,947	-6,426	3,063	6,870	10,367	2,465
Profit attributable to owners of parent	-116	7,988	2,352	-14,240	2,615	7,768	7,949	4,375
Total assets (end of FY)	84,563	98,447	99,786	85,224	86,171	95,888	104,943	101,015
Shareholder equity (end of FY)	61,232	70,702	69,009	54,206	56,367	64,256	69,187	71,701
Interest-bearing debt (end of FY)	7,891	7,230	12,749	18,704	19,354	17,759	21,052	18,554
Equity-to-asset ratio (end of FY)	72.4%	71.8%	69.2%	63.6%	65.4%	67.0%	65.9%	71.0%
Total number of issued shares (thousands of shares)	146,741	146,741	146,741	146,568	146,776	146,853	146,931	137,217
Treasury shares (thousands of shares)	306	308	309	1	2	8	7,092	2
Net assets per share (yen)	418.16	482.83	471.28	369.84	384.04	437.58	494.76	522.55
Basic earnings per share (yen)	-0.80	54.55	16.06	-97.20	17.83	52.91	54.45	31.83
Dividends per share (yen)	5.00	13.00	5.00	-	5.00	16.00	17.00	9.00
Return on equity (ROE)	-0.2%	12.1%	3.4%	-23.1%	4.7%	12.9%	11.9%	6.2%
Return on assets (ROA)	-0.1%	8.1%	2.4%	-16.7%	3.0%	8.1%	7.6%	4.3%
Return on sales (ROS)	2.8%	13.0%	2.6%	-9.1%	6.5%	10.4%	13.1%	3.2%
Highest share price during the period (yen)	266	545	528	249	320	410	459	394
Lowest share price during the period (yen)	145	242	193	148	108	263	272	259

# 5-7. Crude Steel & High-Carbon Ferromanganese Production Trend



#### **FY2023 Overview**

#### ■ Global crude steel

- Global crude steel production remained flat year-on-year
- Sales in India exceeded the results yearon-year, but they were stagnant in other countries

#### **■** Domestic crude steel

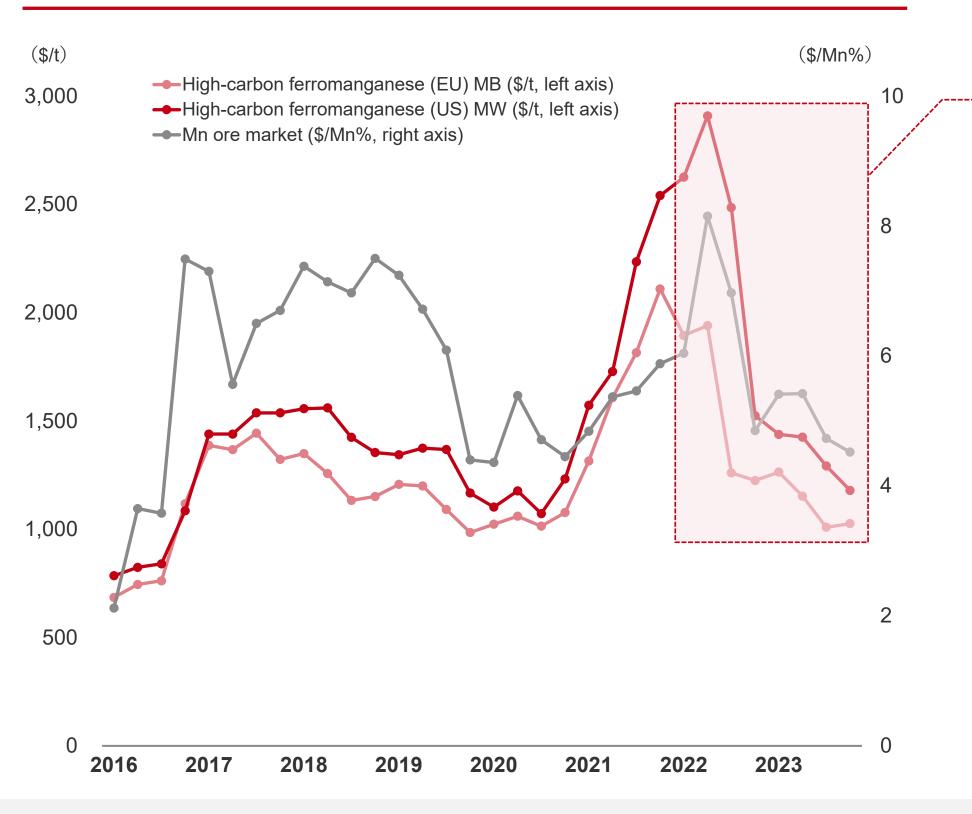
 Demand for automobiles showed signs of recovery, while the construction sector experienced a sluggish demand, so the results were down 2.5% year-onyear

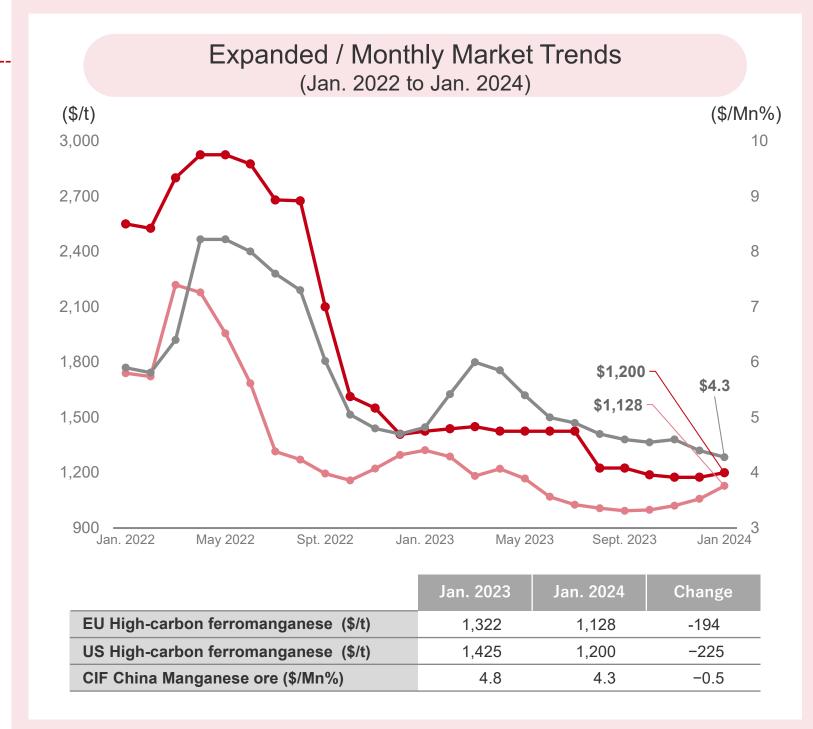
#### Global high-carbon ferromanganese production

 Due to a market downturn caused by the relaxation of demand and supply and increased production costs, producers decreased their production amount, resulting in a 5% decrease year-on-year

## 5-8. Ferroalloy / Manganese Ore Market Prices

## **Quarterly Market Trends**







#### General Affairs Department, Nippon Denko Co., Ltd.

TEL	03-6860-6800
Website	https://www.nippondenko.co.jp/en/

#### Disclaimer

This material is provided solely for informational purposes and does not constitute an offer to buy or sell our shares. Forecasts of performance and other information published in this material are based on current information. No guarantee is presented or implied as to the accuracy of the information, which may contain various uncertainties. Actual performance results may differ from those projected in this document. We will not be held liable for any losses incurred as a result of using this material.

This document has been translated from the Japanese original solely for the purpose of reference. If there is a discrepancy between this translated document and the Japanese original, the original shall take precedence.