

# FY2024 2nd Quarter Progress of Business Strategy

November 19, 2024

President and Representative Director  
Nobuhiro Matsumoto



**MINING THE FUTURE**

# Greetings from the New President

I will leverage the commitment to *monozukuri* (manufacturing and operation), nurtured on manufacturing floors, and aim to achieve the long-term vision through improvement of earning power of core businesses and expansion of growth businesses.



President and  
Representative Director  
Nobuhiro Matsumoto

We need to work on new businesses and measures to achieve the goal of becoming the world leader in the non-ferrous metals industry set forth in the long-term vision.

At the same time, it is also essential to boost the earning power of existing businesses, which make up the core, based on the saying that eliminating harm takes precedence over making profit.

We will strengthen our manufacturing and operational capability by implementing initiatives in both these domains and pursue improvement in corporate value of SMM Group.

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# I. Safety Initiatives

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# I. Safety Initiatives

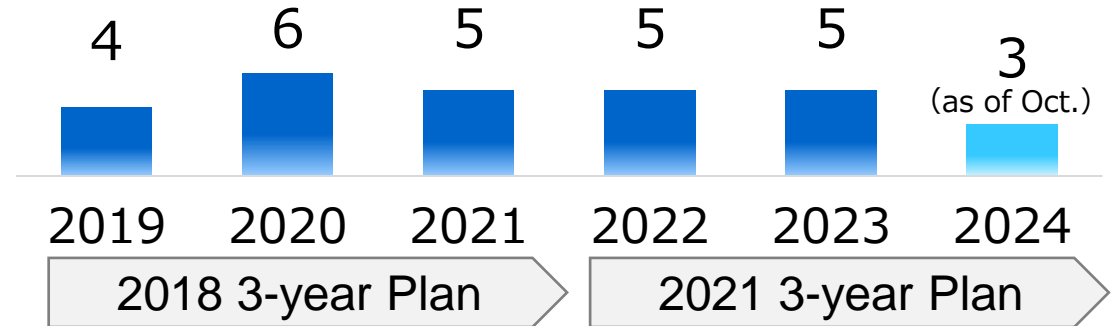
## 《Serious accidents\*》 2021 3-year Plan Target: Zero

### [Results for 2024]

**3 cases**  
(as of October)

\*Serious accidents: Accidents resulting in absence from work for 50 days or longer; total of all sites globally

Trend in serious accidents during the 2018 and 2021 3-year Plans (number of cases)



### [Key initiatives]

Risks	Countermeasures
Contact with heavy machinery or self-driving equipment	◆ Implement equipment-related measures including introduction of new technologies
Caught in between when approaching heavy objects	◆ Make improvements in assignments that are difficult to carry out or employees shy away from ◆ Nurture workers who can act safely by leveraging advance technologies such as VR ◆ Improve skills of supervisors and safety staff (improve management capability) to eliminate unsafe actions
Aging of employees	◆ Maintain and improve safe physical functions and give consideration to equipment specifications

## II. Environment Surrounding SMM

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# 1. Global Economy

- ◆ Rising geopolitical risks (Ukraine, Middle East)
- ◆ U.S. economy is solid, but necessary to keep a close eye on the policies of the new administration
- ◆ Slow down in growth of Chinese economy; European economy bottomed out, but growth rate is low
- ◆ Formation of economic blocs (fragmentation) continues unabated

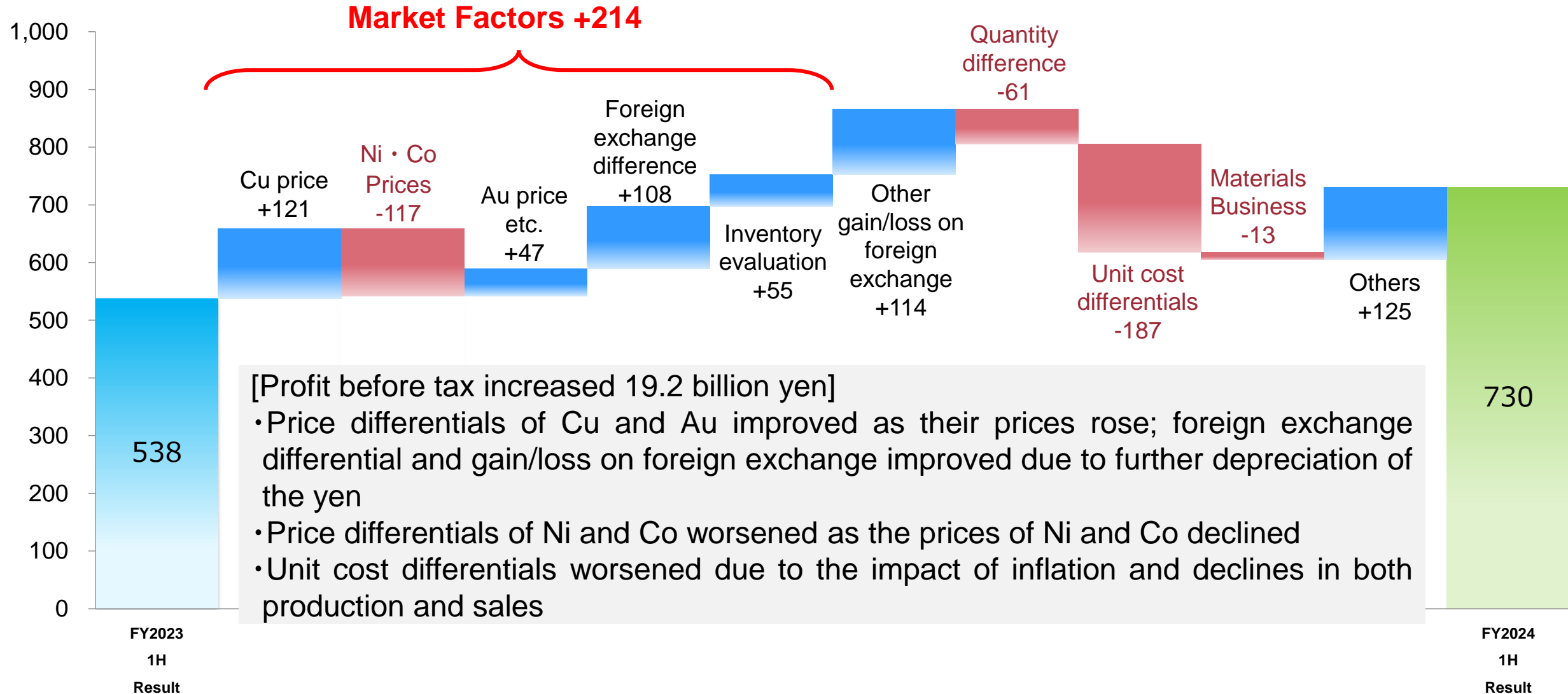
**Medium- to long-term growth prospect remains at a low level**  
**Outlook continues to be unclear**

IMF's forecast on global economic growth  
 (July and October forecasts; arrows denote comparison with the July forecast)

	2023		2024		2025	
	(July forecast)	(Oct. forecast)	(July forecast)	(Oct. forecast)	(July forecast)	(Oct. forecast)
Global	3.3%	→ 3.3%	3.2%	→ 3.2%	3.3%	↘ 3.2%
U.S.	2.5%	↗ 2.9%	2.6%	↗ 2.8%	1.9%	↗ 2.2%
Europe	0.5%	↘ 0.4%	0.9%	↘ 0.8%	1.5%	↘ 1.2%
Japan	1.9%	↘ 1.7%	0.7%	↘ 0.3%	1.0%	↗ 1.1%
China	5.2%	→ 5.2%	5.0%	↘ 4.8%	4.5%	→ 4.5%

## 2. Profit before Tax Analysis (FY2024 1H Results vs. FY2023 1H Results)

(in ¥100 million)





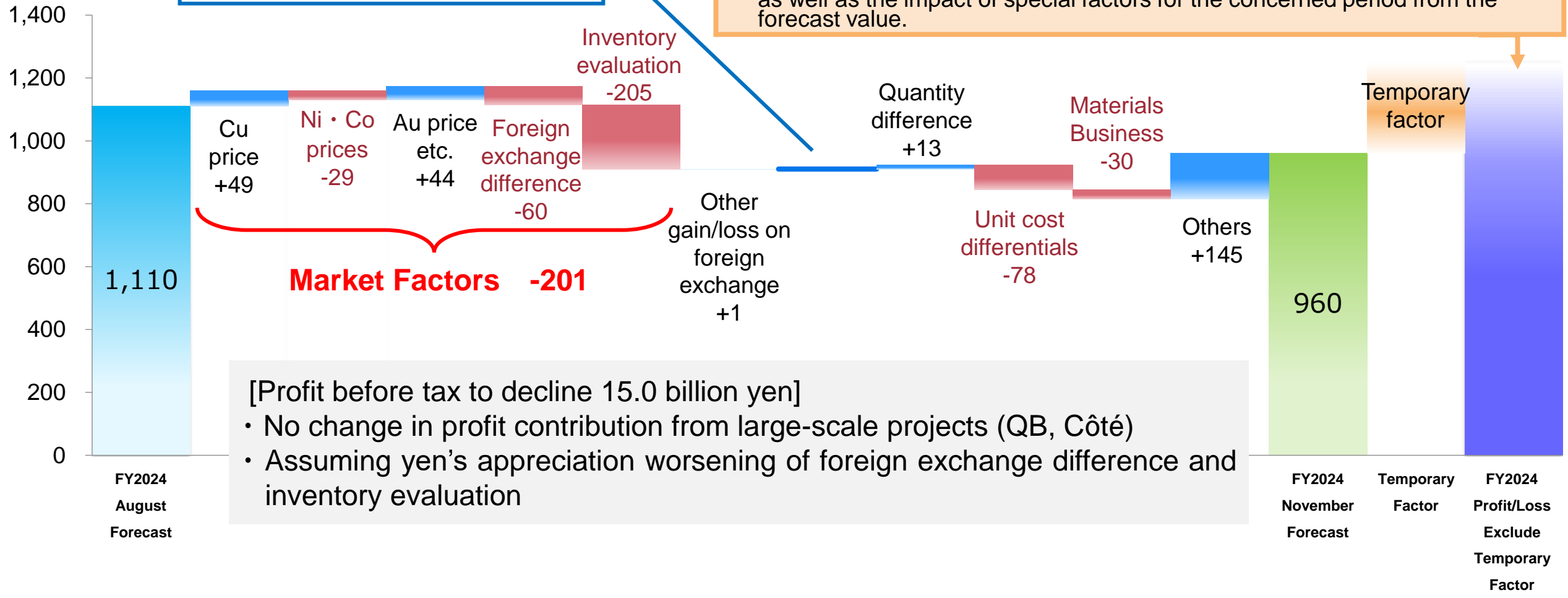
# 3. Profit before Tax Analysis (FY2024 Nov. Forecast vs. Aug. Forecast)

**Impact of large-scale projects (QB + Côte)**  
±0

**Profit/Loss Excluding Temporary Factor \*:**  
¥120.0bn – ¥110.0bn

\*Profit/loss excluding temporary factor: Calculated by excluding the impact of temporary gains/losses from fluctuations in metal prices or foreign exchange, as well as the impact of special factors for the concerned period from the forecast value.

(in ¥100 million)



[Profit before tax to decline 15.0 billion yen]

- No change in profit contribution from large-scale projects (QB, Côte)
- Assuming yen's appreciation worsening of foreign exchange difference and inventory evaluation

## 4. Metal Supply and Demand Outlook

### 《Copper》 Supply-demand balance of copper metal expected to be roughly balanced

- ◆ Fundamentals are helping copper demand. (global spread of decarbonization, clean energy, EV shift, etc.)
- ◆ While copper metal supply capacity has increased given new construction and expansion of smelters, the increase in copper concentrate supply capacity has been limited
- ◆ Supply of both of copper metal and concentrate to tighten in the latter half of 2020s as the number of new projects decreases

Cu (kt)	ICSG forecast (Sep. 2024)		
	2023	2024	2025
Production	26,503	27,619	28,068
Usage	26,556	27,150	27,875
Balance	-53	+469	+194

### 《Nickel》 Assuming growth to continue

- ◆ Demand for stainless steel and nickel-based lithium-ion batteries for EVs will continue to grow
- ◆ While production is increasing in Indonesia and China, some smelters and refineries smelting plants have started production adjustment given the downturn in price
- ◆ There are growth risks for both demand and supply, but the nickel market is expected to grow after accounting for these risks

Ni (kt)	INSG forecast (Sep. 2024)		
	2023	2024	2025
Production	3,360	3,516	3,649
Usage	3,193	3,346	3,514
Balance	+167	+170	+135

## 5. Metal Price Estimation for FY2024 2nd Half

《Copper》 \$9,300/t (FY2024 1H ave.: \$9,477/t Oct. 2024 ave.: \$9,539/t)

- ◆ For 2024, supply of copper metal is expected to be in over-supply (ICSG September forecast) due to new construction and expansion of smelters, while the price will be propped up by the long-term tightness in supply-demand balance of copper metal.
- ◆ There is a risk of the downturn in the Chinese economy pushing down the price.

《Nickel》 \$7.50/lb (FY2024 1H ave.: \$7.86/lb Oct. 2024 ave.: \$7.62/lb)

- ◆ Supply-demand balance of nickel in 2024 is expected to be in over-supply (ICSG September forecast).
- ◆ Strong impact of supply increases in Indonesia and China as well as slowing demand for automotive batteries.

《Gold》 \$2,400/toz (FY2024 1H ave.: \$2,407/toz Oct. 2024 ave.: \$2,690/toz)

- ◆ Price has been at high levels given the expectations on monetary easing in the U.S., demand for physical gold by central banks of emerging countries and wealthy class, and heightening geopolitical tensions.

## 6. Dividends, Cash Flows & Financial Position

### Cash flows and financial position

- ◆ We continue to make high levels of capital investment as well as investments and financing in 2024 to execute the growth strategy. We will focus on harvesting the fruits early on as large-scale projects QB2 and Côté move on to the production stage.
- ◆ We will continue to promote measures to improve capital efficiency such as strengthening cost management and inventory management.
- ◆ We will maintain financial standings that would enable us to make swift moves when a large-scale investment becomes necessary by maintaining competitiveness through cost reduction and improvement in productivity.

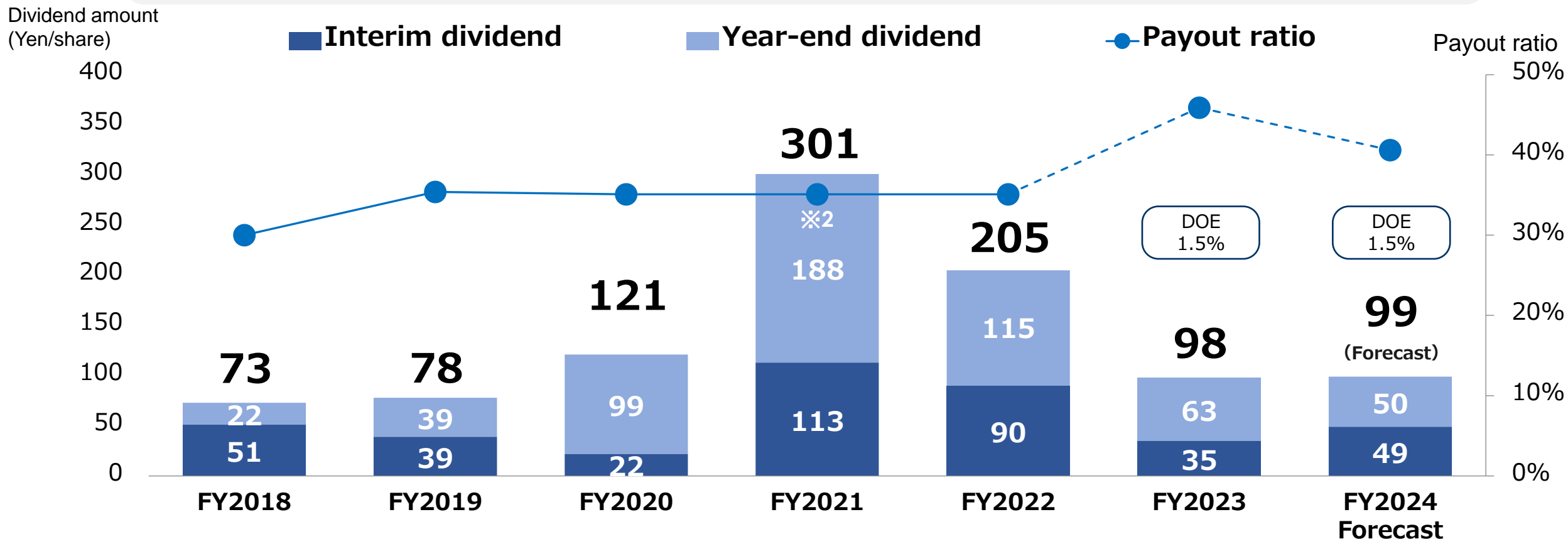
### Shareholder return policy and dividends

Shareholder return policy: The consolidated payout ratio of **35% or higher in principle** and the **minimum indicator is DOE of 1.5%**.

- ◆ Annual dividend (forecast): **99 yen/share (applying DOE 1.5%; interim dividend forecast: 49 yen, year-end dividend forecast: 50 yen)**
- ◆ Our basic shareholder return policy is to link it with financial results but we will continue to discuss it by taking into consideration cash flows, financial standing, and the balance with the growth strategy.

# 7. Shareholder Returns (Dividend Forecast)

**<Period under 2021 3-year Plan>**  
**Annual dividend payout ratio: 35% or higher (in principle)**  
**Minimum Indicator is DOE of 1.5%\*1**



\*1 DOE of 1.5% as minimum indicator take effect from the year-end dividend for the fiscal year ended March 31, 2024.

\*2 The dividend payout ratio for FY2021 is calculated, excluding adjustments related to the transfer of Sierra Gorda.

## 8. Comparison of Financial Results and Forecast

(in ¥100 million)		FY2024 1H Result	FY2024 2H Forecast(Nov.)	FY2024 Forecast(Nov.) (A)	FY2024 Forecast(Aug.) (B)	Change (A)-(B)	21 3-Year Plan FY2024 (C)	Change (A) - (C)
Net sales		8,001	7,549	15,550	15,530	+20	11,160	+4,390
Gross profit		825	315	1,140	1,530	-390	-	-
Profit / loss before tax		730	230	960	1,110	-150	1,570	-610
Equity method profit/loss		58	172	230	220	+10	620	-390
Segment profit	Mineral Resources	437	623	1,060	920	+140	990	+70
	Smelting & Refining	276	-206	70	330	-260	480	-410
	Materials	15	-35	-20	10	-30	150	-170
	Other	3	-23	-20	-20	±0	-30	+10
	Diff. adjustment	-1	-129	-130	-130	±0	-20	-110
Net income attributable to owners of parent		465	205	670	730	-60	1,180	-510
Copper (USD/t)		9,477	9,300	9,389	9,338	+51	8,000	+1,389
Nickel (USD/lb)		7.86	7.50	7.68	7.71	-0.03	7.50	+0.18
Gold (USD/toz)		2,407	2,400	2,404	2,160	+244	1,600	+804
Cobalt (USD/lb)		11.26	9.75	10.51	11.59	-1.08	-	-
Exchange (JPY/\$)		152.63	140.00	146.32	151.47	-5.15	115.00	+31.32

# III. Progress in Implementing Key Strategies under 2021 3-Year Plan

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# 1. Four Challenges under 2021 3-year Plan

## Four challenges

### Challenge 1. Increasing corporate value - Promotion of large-scale projects

- [Expanding production capacity for battery cathode materials](#)
- [Quebrada Blanca 2 project](#)
- [Côté gold mine development project](#)

### Challenge 2. Improving core business sustainability

- [3-biz collaboration to strengthen the value chain for Ni-batteries](#)
- Shifting Hishikari Mine to sustainability-oriented operation
- Enhancing competitiveness of copper-smelting business
- [Strategy for advanced materials business expansion](#)

### Challenge 3. Adapting to changes in the social environment

- Reducing greenhouse gas (GHG) emissions
- [Promoting the development of products, technologies and processes that can help achieve carbon neutrality](#)
- Adaptation to digital transformation (DX)
- Initiatives for securing, fostering and utilizing human capital

### Challenge 4. Strengthening the foundation of business management

- Strengthening safety initiatives
- Reorganizing and enhancing sustainability promotion framework
- Corporate governance



## 2. Quebrada Blanca 2 (QB2) Project (1)

### Completed construction in August; to achieve full-scale operation by the year end

#### [Progress in construction]

- ◆ Completed demobilization of construction workers (August 2024)
- ◆ Held a ceremony to commemorate the first acceptance of copper concentrate bound for our Toyo Smelter & Refinery (Ehime prefecture) in May 2024

#### [Ramping up status]

- ◆ The maximum copper ore processing volume per day at the processing site has roughly reached the designed capacity
- ◆ Focusing on stabilization of processing volume and improvement of recovery rate

#### [Copper production outlook (100%)]

- ◆ Expecting production of 207 thousand tons in 2024
- ◆ Plan to raise copper production in steps to 280 thousand tons from 2025 through debottlenecking activities



Overall picture of plant



First copper concentrate acceptance ceremony at Toyo Smelter & Refinery

## 2. Quebrada Blanca 2 (QB2) Project (2)

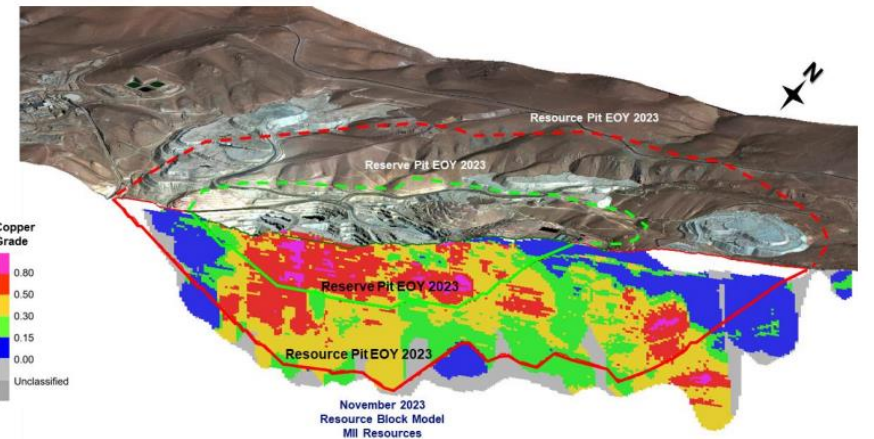
### Promising competitiveness and future potential

#### [QB2's competitive advantages]

- ◆ Low strip ratio and superior cost competitiveness
- ◆ Production of high grade, low impurity concentrate
- ◆ The equipment can be monitored and operated remotely from the integrated operation center in Santiago. It enables good labor environment that does not require long distance commuting or camping, thus enabling us to secure good operators.
- ◆ Highly sustainable operation
  - It uses desalinated water supplied by the desalination facility owned by the project for all water other than rain water
  - Plan to use renewable energy for all electricity needs in 2025
- ◆ Teck, the JV operator, has experience in operation in Chile

#### [Potential]

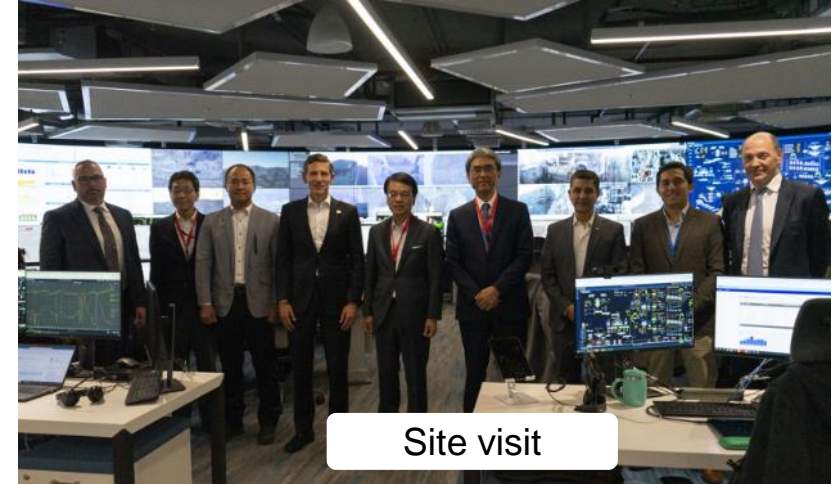
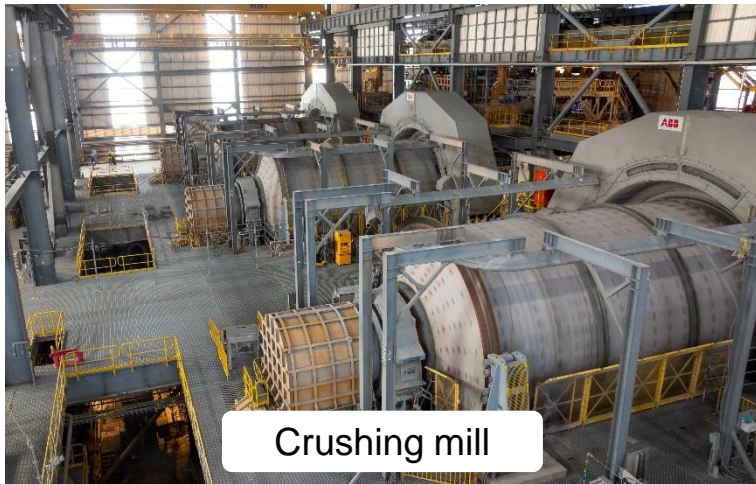
- ◆ Given the vast volume of resources, there is room for expansion. We are currently considering future expansion.



Resource potential



## 2. Quebrada Blanca 2 (QB2) Project (3)



**As uncertainties over copper concentrates acquisition increase rapidly around the world, start of operations of QB2 adds significant stability to our ability to secure copper concentrates**



### 3. Côte Gold Project (1)

## Commercial production began in August. Operating level to reach 90% of planned capacity by the year end

### [Ramping up status]

- ◆ Operations started smoothly, with commercial production\* achieved on August 2, 2024.  
Began depreciation and amortization of construction costs
- ◆ Aim to achieve 90% of planned capacity at 2024-end

\*Commercial production: 30-day moving average of ore processing volume is greater than 60% of design value



### [Outlook for gold production (100%)]

- ◆ Expecting gold production of 6.9 tons in 2024
- ◆ Plan to raise production to the maximum of 15 tons per year from 2025 on

### [Change in interest]

- ◆ Following exercise of repurchase option\* of interest by IAMGOLD, SMM's JV interest will decline from 39.7% to 30%, which was the initial level, at the end of November 2024

\*See press release dated December 20, 2022



### 3. Côte Gold Project (2)

## Ramping up steadily for early stabilization of production



**We will make all out efforts to promote ramping up of operations in cooperation with our partner IAMGOLD for early stabilization of production so as to maximize the benefits from the rising gold price**



### 3. Côte Gold Project (3)

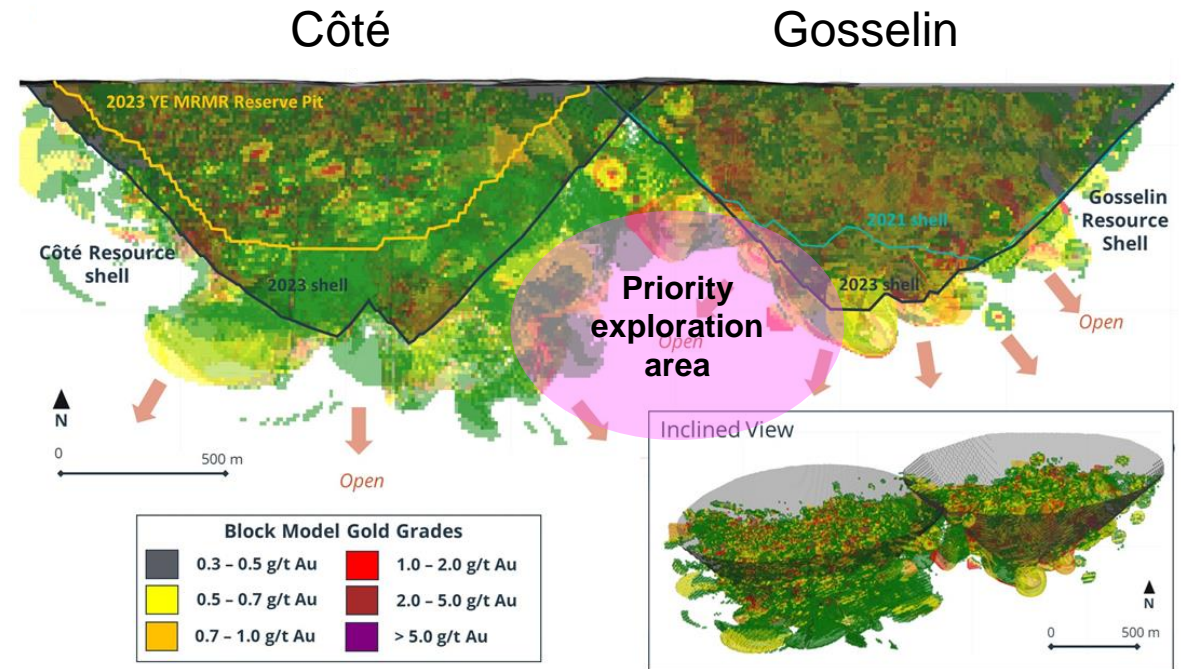
## Continue exploration of adjacent areas and work on improving project value

#### [Gosselin deposit resource volume (100% JV)]\*

- ◆ Indicated mineral resources:  
Ore 161.3 Mt@0.85 g/t Au, **Gold 137 t**
- ◆ Inferred mineral resources:  
Ore 123.9 Mt@0.75 g/t Au, **Gold 93 t**

#### [Potential]

- ◆ Promote exploration and assessment including possibility of development together with Côte deposit  
→ Processing tests being conducted also by SMM
- ◆ Exploration of 35,000 m has been planned for 2024, which is being steadily implemented



Information on Côte gold mine development project and Gosselin area exploration (\*The IAMGOLD announcement of February 15, 2024, with some additions)

## 4. Initiatives to Secure New Nickel Ore Sources

### The feasibility study for the Kalgoorlie Nickel Project - Goongarrie Hub in Australia has been going as planned

Drilling, metallurgical testing, and schematic facility design are in progress at the project site

#### ◆ Project overview

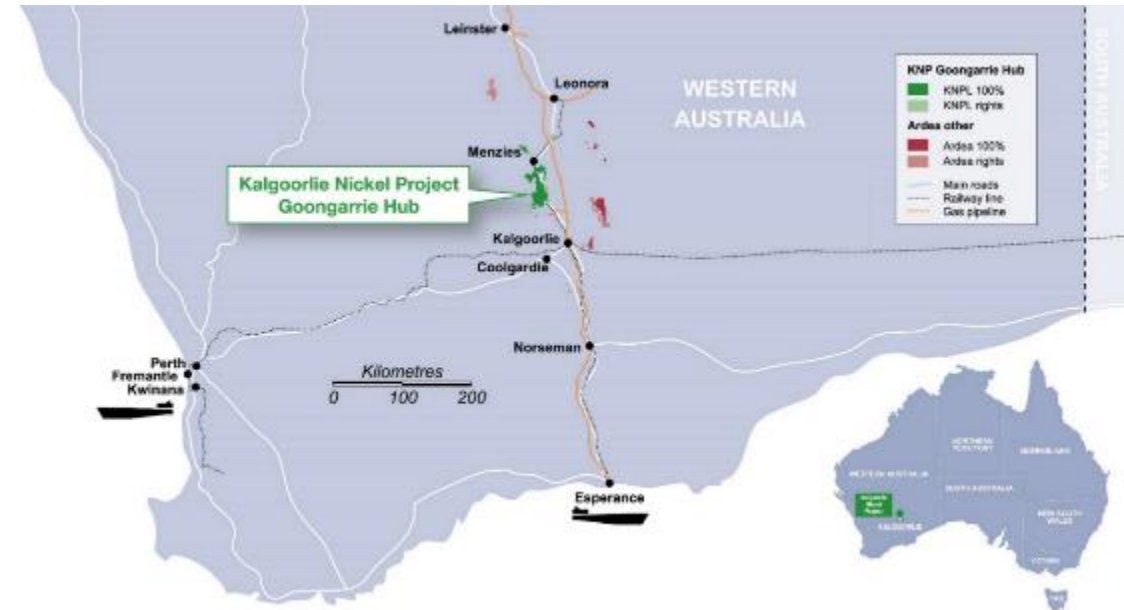
- ✓ Location: Western Australia, Australia
- ✓ Process: Extract ore from mine and produce mixed sulfide (MS) using High Pressure Acid Leach (HPAL) process
- ✓ Ore reserves: 194 Mt (about 40 years)\*

#### ◆ Feasibility study

- ✓ Budget: 98.5 million AUD
- ✓ Period: First half of 2024 to second half of 2025

#### ◆ SMM and Mitsubishi Corporation to acquire a maximum of 50% share

#### ◆ Certified as the Critical Minerals Supply Security Plan of Ministry of Economy, Trade and Industry (2023 Critical Mineral No. 2-1)



Geographic location of the project

\*Based on Pre-Feasibility Study announced by Ardea Resources Limited in July 2023

# 5. 3-Business Collaboration (Nickel-Battery) to Strengthen Value Chain

## Began building a lithium ion secondary battery recycling plant

- ◆ Using a unique technology that combines pyrometallurgical smelting and hydrometallurgical refining, the plant efficiently separates and processes used LIB that contain many impure substances to collect copper, nickel, and cobalt.  
Lithium is also collected by incorporating the process of Kanto Denka Kogyo Co., Ltd.
- ◆ Ground work was launched in September 2024 (the plant is scheduled to be complete in June 2026).
- ◆ Performance assessment
  - ✓ A performance assessment by a customer has confirmed that the performance of the cathode materials using the nickel and cobalt collected through this process is equal to that of cathode materials produced from natural resources.
  - ✓ A performance assessment by SMM has confirmed that the performance of the LIB cathode materials using recycled lithium from this process is equal to that of cathode materials from natural resources.
  - ✓ We plan to work with customers in assessing cathode materials made from recycled nickel, cobalt, and lithium.
- ◆ Creation of supply chains for recycling used LIB
  - ✓ In collaboration with leading recycling businesses with whom we have a partnership agreement, we are currently organizing business flows for collection and assessing samples of raw materials in preparation for the full operation of the plant.

Plant under construction



In-process recycled material (used LIB after neutralization)





# 6. Battery Material Business (1): Progress in Expanding Production Capacity

## Expansion of battery (cathode) materials production capacity

[Raising annual production capacity by 24,000 t (nickel-based materials)]

- ◆ The major part of the construction of the new Niihama Plant is complete, and **test operation is in progress**.
- ◆ The launch of mass production is planned for FY2024 Q4(January 2025 (tentative)).

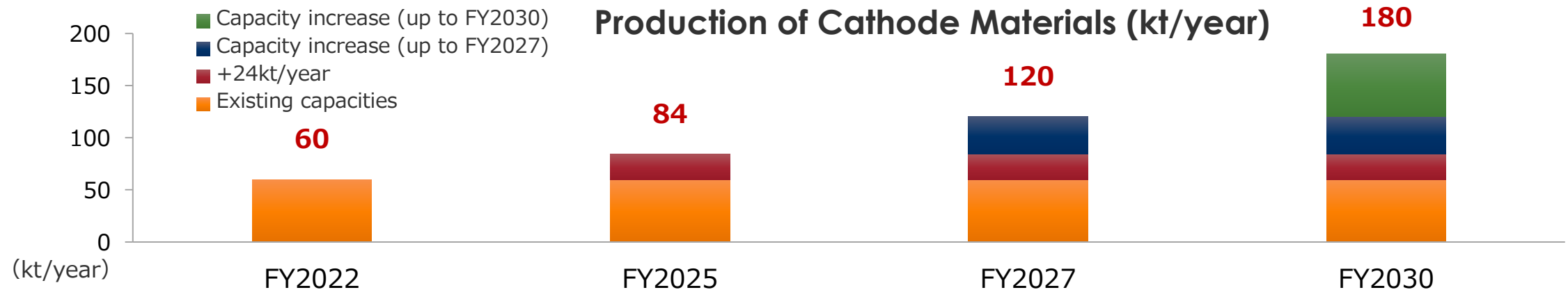
[Deliberation toward an increase in next-phase production]

- ◆ We continue to explore the possibility of increasing the production of nickel-based materials.
- ◆ We continue our R&D to create a mass production process for LFP (lithium ferrous phosphate) cathode materials. With multiple inquiries received, we are discussing introduction.

**We are currently working on the test production of LFP samples using the new process, assessments by customers, and tests to select mass production facilities.**

- ◆ We continue the R&D for cathode materials used to produce all solid batteries to start exploring the choice of facilities with a view to mass production.

Heating furnace at the Niihama Plant  
(photo taken in October 2024)



## 6. Battery Material Business (2): Commemorative Ceremony for the 10th Anniversary of Sumiko Energy Materials

### Sumiko Energy Materials Co., Ltd.

- ◆ Location: Naraha town, Futaba, Fukushima Prefecture
- ◆ Number of employees: About 100 (as of end of September 2024)
- ◆ Business: Manufacture of battery (cathode) materials

The company aims to help create a sustainable society by steadily providing materials for high-performing lithium-ion batteries

#### Sumiko Energy Materials' path alongside post-Great East Japan Earthquake reconstruction

- 2011 Whole of Naraha town designated as an evacuation zone
- 2014 Sumiko Energy Materials established
- 2015 Evacuation directive for Naraha town fully lifted
- 2016 Battery material production launched
- October 2024 Ceremony held to mark the 10th anniversary of the company's founding

→ The company actively works collaboratively with local businesses in offering employment opportunities, procuring materials, and hiring contractors

Sumiko Energy Materials is privileged to enjoy support from the local community as it takes its steps into the next decade to symbolize post-earthquake reconstruction of the Hamadori district in Fukushima



Sumiko Energy Materials Co., Ltd.



Shinto ritual at the ceremony to mark the 10th anniversary

# 7. Expansion of Advanced Materials Business (1)

## Demand is gradually recovering, while the future remains uncertain

- ◆ Inventory adjustment continued as demand for smartphones, PCs, etc., had slowed since FY2022, and hit bottom in FY2023. Demand is expected to pick up again, albeit gradually, during FY2024
- ◆ Products used for generative AI and automobiles, among others, remained strong during FY2024 1H
- ◆ Some businesses in the product market made a move to adjust inventory again, which has prompted many players to take a careful stance on whether a full recovery is around the corner. Nevertheless, a steady recovery is expected over a long term

We will continue cutting costs, strengthening productivity, and developing products to proactively capture the recovery in demand to improve our income

- 
- Develop and increase sales of advanced materials that help reduce GHG emissions to strengthen our earnings power and contribute to carbon neutrality in our supply chains
  - Promote production improvement activities to raise competitiveness

# 7. Expansion of Advanced Materials Business (2)

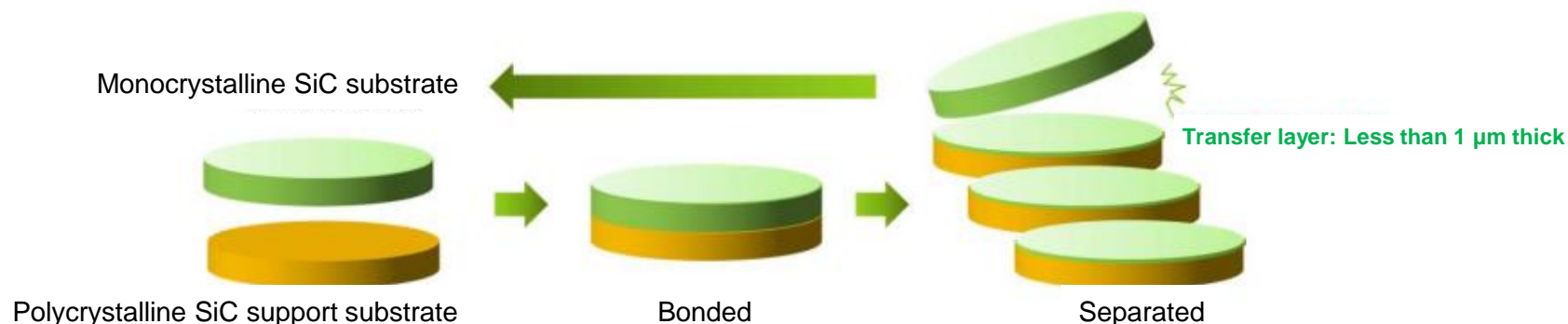
## Development of products contributing to lower carbon emissions

[Bonded SiC substrate SiCkrest by Sicoxs Corporation]

- ◆ More than 50 direct bonded substrates are manufactured out of a single monocrystalline SiC substrate that consumes considerable energy in the production process. This allows us to increase supplies while cutting per-unit energy consumption for manufacturing
- ◆ **Bonded SiC substrates offer lower resistance and more effectively curb degradation caused by electricity** than monocrystalline SiC substrates
- ◆ Some of the 6-inch substrates are on sale. Samples of the 8-inch substrates have also been shipped out since September 2024
- ◆ We have decided to strengthen the line of 8-inch substrates. **The monthly production capacity will be more than 10,000 substrates during FY2025 2H**
- ◆ **We will also move ahead in supplying polycrystalline SiC support substrates** to our technical licensees



Bonded substrate  
SiCkrest



Summary of the bonding technology: More than 50 direct bonded substrates can be manufactured out of a single monocrystalline SiC substrate



# 7. Expansion of Advanced Materials Business (3)

## Development of products contributing to lower carbon emissions

[CWO® (near-infrared light absorbing material)]

- ◆ CWO® is an inorganic material that powerfully absorbs light with certain wavelength that makes up nearly 40% of the energy of solar rays.  
→ **It keeps pleasant temperature inside buildings, vehicles, etc., thereby reducing the use of air conditioning and helping create a low-carbon society.**
- ◆ **To improve the recognition of CWO® and increase competitiveness,** we aggressively pursue our differentiation strategy through branding. We also launched the materials technology brand SOLAMENT™.
- ◆ In October 2024, the prototype of DOWN-LESS DOWN JACKET, won the Red Dot Design Award 2024, a prestigious international competition, and the Good Design Award.  
**The prototype of DOWN-LESS DOWN JACKET, among other products, will be displayed** at the ISPO (the world's largest sports and outdoor clothing trade show held in Munich, Germany) from December 3 to 5, 2024.



**In addition to the automotive/building materials markets where CWO® is already used to shield sunlight, we promote entries into the apparel, agriculture, and beauty industries (in collaboration with Mizuno Corp., etc.)**

# 8. Initiatives to Realize Management Conscious of Capital Cost and Share Price (1)

## Promotion of growth strategy, pursuit of efficient management

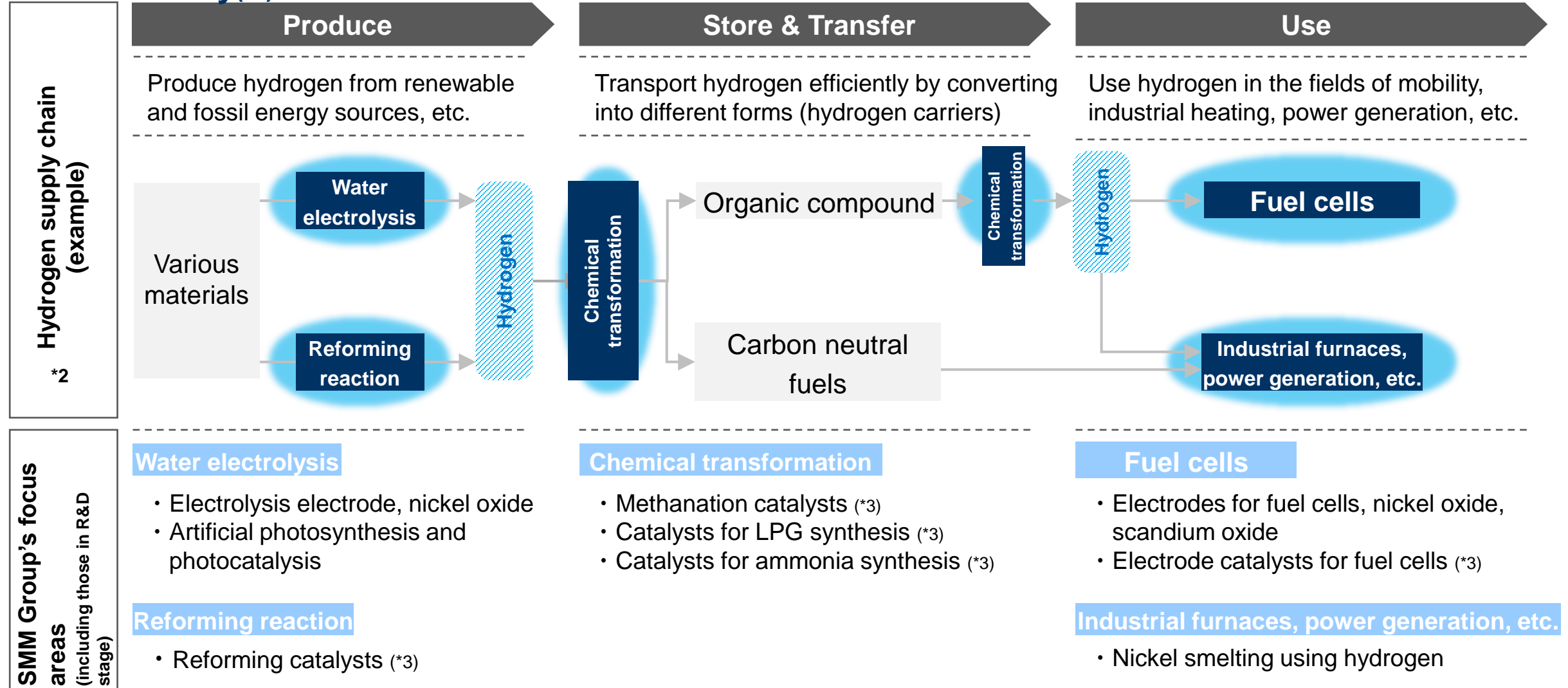
- ◆ Pursuit of ROCE management (strengthening of investment return criteria, improvement of capital efficiency)
  - Introduce and advance TPS (Toyota production system) in the Materials Business (reduce inventory, improve production efficiency)
  - Transfer businesses to partners capable of achieving synergy
  - Develop and implement business improvement plans, including fundamental measures for businesses requiring a decision on whether to continue
- ◆ Steady launch of large-scale projects (QB2, Côté, increase in the production of battery materials)
- ◆ Steady implementation of the 2021 3-year Plan (battery recycling, SiC, etc.)
- ◆ Business portfolio with prospects for realizing a long-term growth story
  - Decision to build a mass production line for 8-inch SiC substrates\*
  - Expansion of CWO<sup>®</sup> applications to new uses
  - Development of new products, technologies, and processes that contribute to carbon neutrality

Examples of our products contributing to lower carbon emissions

	Contribution of SMM materials within the final product		
	Small←		→ Large
in process for mass-produced	Ni powder Magnet Copper polyimide film	CWO Low-carbon contribution product (current)	Cathode materials for batteries
preparing for mass production		SiC	LFP
R&D stage	Low-carbon contribution product (candidate)		Hydrogen-related • Nickel oxide • Scandium oxide • Catalyst

# 8. Initiatives to Realize Management Conscious of Capital Cost and Share Price (2) (Hydrogen-Related)

## Material and catalytic technologies to help create a hydrogen-based society(\*1)



## 8. Initiatives to Realize Management Conscious of Capital Cost and Share Price (3)

### More actions to ensure sustainability

- ◆ Establishing the new personnel system, implementation of human resources management that bolsters the business
- ◆ Taking on more challenges of tackling sustainability issues
  - ✓ Revisit “Vision for 2030,” priority issues, and KPIs, based on changes in society

### Enhancing non-financial information disclosure, engagement with stakeholders

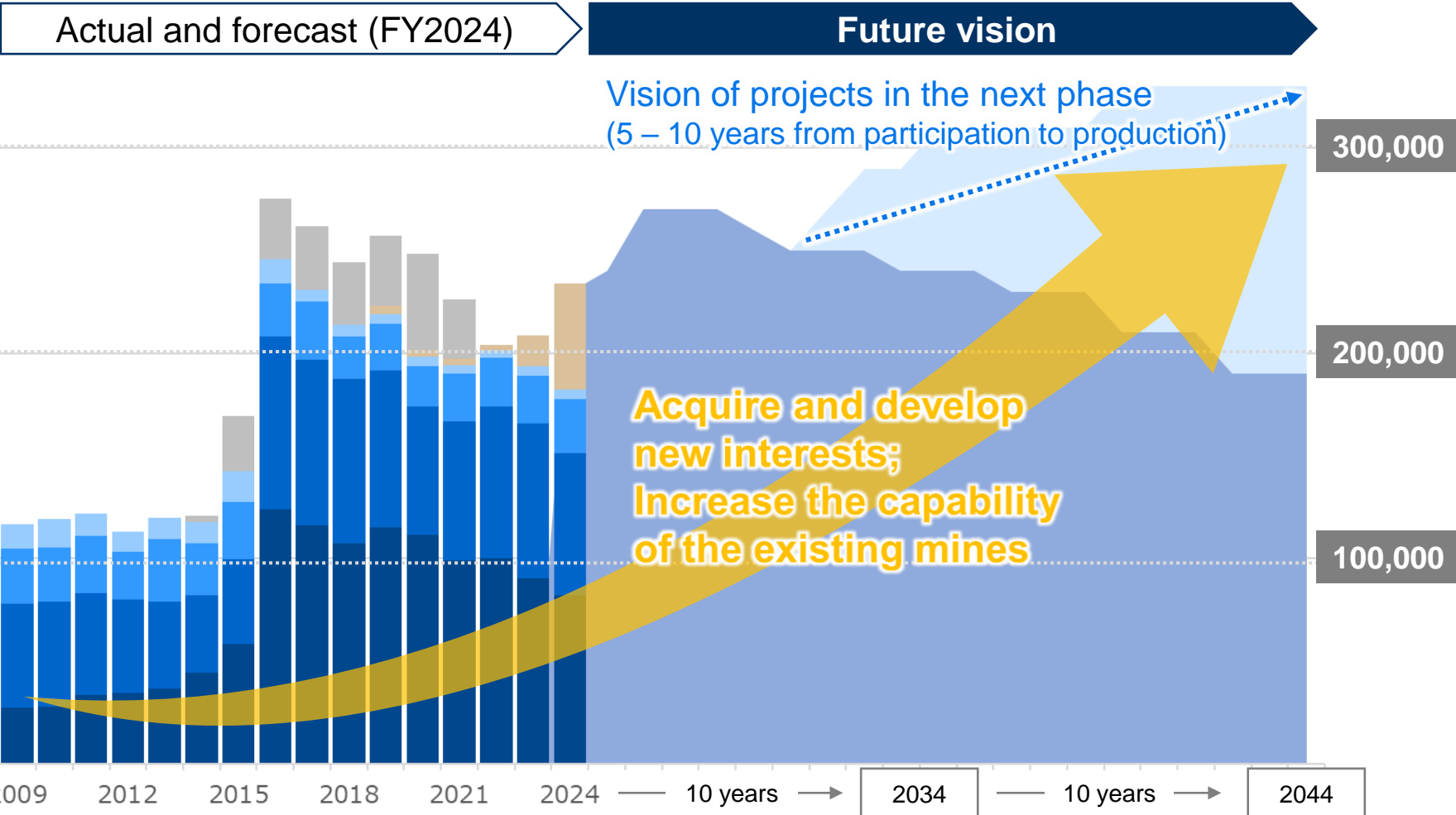
- ◆ Leveraging feedback from engagement to improve corporate value
- ◆ Strengthening of information dissemination capability (explanation including business characteristics such as profit/loss excluding temporary factors and a long-term growth story)
  - ✓ **Efforts to visualize the value of non-financial information specific to SMM**
    - Explore the possibility of visualizing the pathways of impacts that our business activities have on the environment, society, and economy
    - **Disclose the volume of metal from JV-operated mines in which SMM has an interest (P. 37-42)**
  - ✓ **Disseminate a long-term growth story**
    - **Include the record of production from copper mines, along with a future vision**



# 9. Production from Copper Mines and a Future Vision

With the competitive advantages we have developed, we will achieve further growth.

Production from copper mines (tons/year)



**Our competitive advantages**

- Expertise and talent necessary for mine operations
- Good relationships with the industry's leading and reliable partners
- Strong financial base
- Our interest in excellent, long-life mines

[Note] This chart is a conceptual image based on the information SMM had while preparing this document.

# IV. Supplementary Materials

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**IV** Supplementary Materials

# 1. Supply Demand Trends (Copper and Nickel)

## Copper

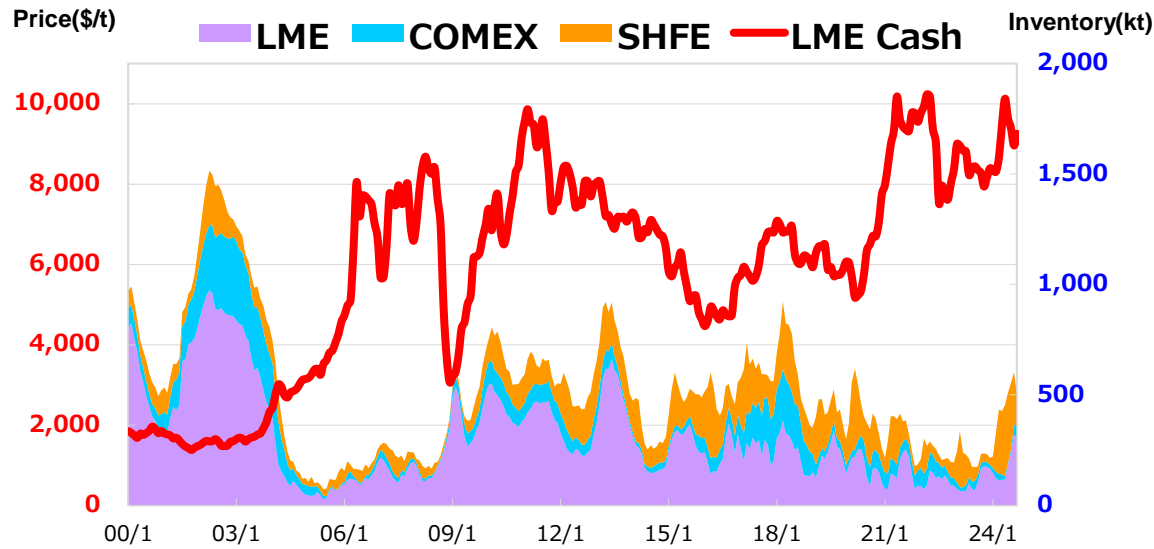
	ICSG Forecast(Sep 2024)		
( kt)	2023	2024	2025
Production	26,503	27,619	28,068
Usage	26,556	27,150	27,875
Balance	-53	+469	+194

## Nickel

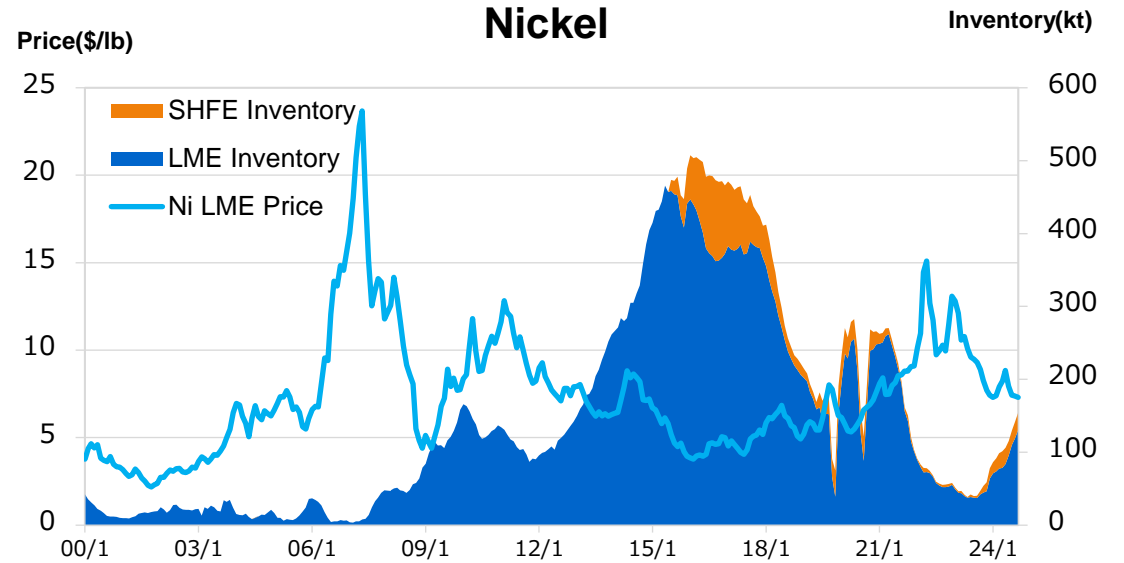
	INSG Forecast(Sep 2024)			SMM Forecast(Sep 2024)		
( kt)	2023	2024	2024	2023	2024	2025
Production	3,360	3,516	3,649	3,264	3,402	3,654
Usage	3,193	3,346	3,514	3,144	3,316	3,550
Balance	+167	+170	+135	+120	+86	+104

# 2. Non-ferrous Metal Prices and Exchange Rates

## Copper



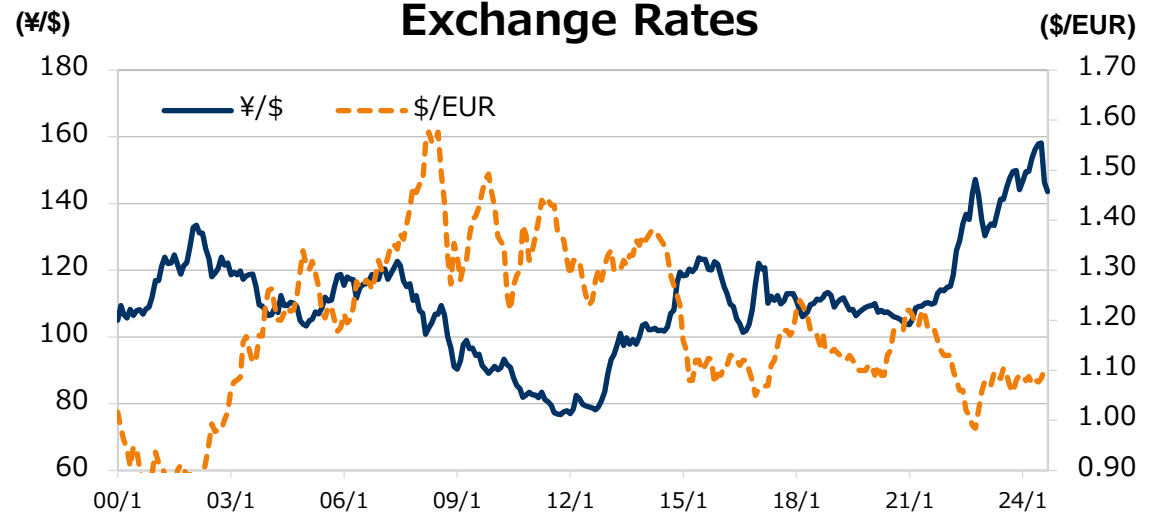
## Nickel



## Gold



## Exchange Rates



# 3. Metal Volume Under Mineral Resource Interests (1) Copper - 1

## [Major mines in which the SMM Group has interests]

### Morenci

SMM interest: 25%

Mineral volume calculation standards: S-K 1300 (U.S.A.)/as of December 31, 2023

(25%)	Grade (%)	Copper volume (Mt)
Proven and probable mineral reserves (Note:1,3)	<b>0.22</b>	<b>2.4</b>
(25%)	Grade (%)	Copper volume (Mt)
Measured and indicated mineral resources (Note:2,3)	<b>0.20</b>	<b>2.9</b>
Inferred mineral resources (Note:2,3)	<b>0.19</b>	<b>0.8</b>

### Reference

FY2024 production volume (November forecast)

**82.0kt** (25%)

### Northparkes

SMM interest: 13.3%

Mineral volume calculation standards: JORC Code 2012 (Australia)/as of December 31, 2023

(13.3%)	Grade (%)	Copper volume (Mt)
Proven and probable mineral reserves (Note:1,3)	<b>0.51</b>	<b>0.06</b>
(13.3%)	Grade (%)	Copper volume (Mt)
Measured and indicated mineral resources (Note:2,3)	<b>0.55</b>	<b>0.3</b>
Inferred mineral resources (Note:2,3)	<b>0.57</b>	<b>0.04</b>

### Reference

FY2024 production volume (November forecast)

**4.7kt** (13.3%)

(Note) See slide 42 for notes.

### 3. Metal Volume Under Mineral Resource Interests (1) Copper - 2

#### [Major mines in which the SMM Group has interests through equity-method affiliates]

##### Cerro Verde

SMM interest: 16.8% (The figures in the table below are on a 100%)  
 Mineral volume calculation standards: S-K 1300 (U.S.A.)/as of December 31, 2023

(100%)	Grade (%)	Copper volume (Mt)
Proven and probable mineral reserves (Note:1,3)	<b>0.34</b>	<b>12.2</b>
(100%)	Grade (%)	Copper volume (Mt)
Measured and indicated mineral resources (Note:2,3)	<b>0.33</b>	<b>6.9</b>
Inferred mineral resources (Note:2,3)	<b>0.33</b>	<b>3.7</b>

##### Reference

FY2024 production volume (November forecast) **413kt** (100%)

##### Candelaria Complex (including Ojos Del Salado)

SMM interest: 16% (The figures in the table below are on a 100%)  
 Mineral volume calculation standards: NI-43-101 (Canada)/as of December 31, 2023

(100%)	Grade (%)	Copper volume (Mt)
Proven and probable mineral reserves (Note:1,3)	<b>0.47</b>	<b>2.9</b>
(100%)	Grade (%)	Copper volume (Mt)
Measured and indicated mineral resources (Note:2,3)	<b>0.58</b>	<b>8.0</b>
Inferred mineral resources (Note:2,3)	<b>0.48</b>	<b>1.0</b>

##### Reference

FY2024 production volume (November forecast) **163kt** (100%)

(Note) See slide 42 for notes.

## [Major mines in which the SMM Group has interests through equity-method affiliates]

### Quebrada Blanca

SMM interest: 25% (The figures in the table below are on a 100%)  
 Mineral volume calculation standards: NI-43-101 (Canada)/as of December 31, 2023

(100%)	Grade (%)	Copper volume (Mt)
Proven and probable mineral reserves (Note:1,3)	<b>0.52</b>	<b>7.4</b>
(100%)	Grade (%)	Copper volume (Mt)
Measured and indicated mineral resources (Note:2,3)	<b>0.36</b>	<b>15.9</b>
Inferred mineral resources (Note:2,3)	<b>0.34</b>	<b>14.4</b>

### Reference

FY2024 production volume  
 (November forecast) **207kt** (100%)

(Note) See slide 42 for notes.

## [Major mines owned by the SMM Group]

### Hishikari Mine

Mineral volume calculation standards: JIS M 1001:1994 (Japan)/as of December 31, 2023

(100%)	Grade (g/t)	Gold volume (t)
Gold mineable reserve*	<b>18.8</b>	<b>155</b>

\*Calculated based on the Hishikari Mine Mineable Volume Calculation Standards, which complies with Japanese Industrial Standards (JIS) M1001-1994.

### Reference

FY2024 production volume  
(November forecast) **4.0 t**  
(100%)



### 3. Metal Volume Under Mineral Resource Interests (2) Gold - 2

#### [Major mines in which the SMM Group has interests]

※For the Côte Gold Mine, in accordance with the operator's reporting classification, the measured and indicated mineral resources (Côte Deposit and Gosselin Deposit) include the proven and probable mineral reserves .

#### Côte Gold Mine (Côte Deposit)

JV interest: 39.7%

Mineral volume calculation standards: NI-43-101 (Canada)/as of December 31, 2023

(JV39.7%)	Grade (g/t)	Gold volume (t)
Proven and probable mineral reserves (Note:1,3)	<b>1.01</b>	<b>94</b>
(JV39.7%)	Grade (g/t)	Gold volume (t)
Measured and indicated mineral resources (Note:2,3)	<b>0.84</b>	<b>149</b> ※
Inferred mineral resources (Note:2,3)	<b>0.61</b>	<b>15</b>

#### Reference

FY2024 production volume  
(November forecast)

**2.7t** (JV39.7%)

#### Côte Gold Mine (Gosselin Deposit)

JV interest: 39.7%

Mineral volume calculation standards: NI-43-101 (Canada)/as of December 31, 2023

(JV39.7%)	Grade (g/t)	Gold volume (t)
Proven and probable mineral reserves (Note:1,3)	-	-
(JV39.7%)	Grade (g/t)	Gold volume (t)
Measured and indicated mineral resources (Note:2,3)	<b>0.85</b>	<b>55</b> ※
Inferred mineral resources (Note:2,3)	<b>0.75</b>	<b>37</b>

Following exercise of repurchase option of interest by IAMGOLD, SMM's JV interest will decline from 39.7% to 30% at the end of November 2024

(Note) See slide 42 for notes.

# 3. Metal Volume Under Mineral Resource Interests (3) Notes

## [Notes]

Please note the following points regarding each slide of the metal volume under mineral resource interests.

- The "measured mineral resources", "indicated mineral resources", or "inferred mineral resources" in this presentation do not necessarily mean that they are or will be economically or legally mineable. Further, "inferred mineral resources" have a great amount of uncertainty as to their existence and as to their economic and legal feasibility. It cannot be assumed that any part or all of an inferred mineral resource will ever be upgraded to a higher category.
- The data set out in this presentation are estimates, and no assurance can be given that the anticipated volumes and grades will be achieved.

- (Notes) 1. Proven and probable mineral reserves represents the volume where mining is economically feasible, calculated based on mineral volume calculation standards of each country.
2. The volume of mineral resources represents the volume of minerals discovered, calculated based on mineral volume calculation standards of each country and classified based on the certainty of ore grade and volume.  
The volume of mineral resources is classified as "measured," "indicated," or "inferred" in the order of precision. To be considered as reserves where mining is economically feasible, the precision needs to be "indicated" or higher.
3. Figures for proven and probable mineral reserves, measured and indicated mineral resources, and inferred mineral resources are those as of December 31, 2023. The classification of proven and probable mineral reserves, measured and indicated mineral resources, and inferred mineral resources is based on reports from the operating companies that have the operator rights of the copper mines.

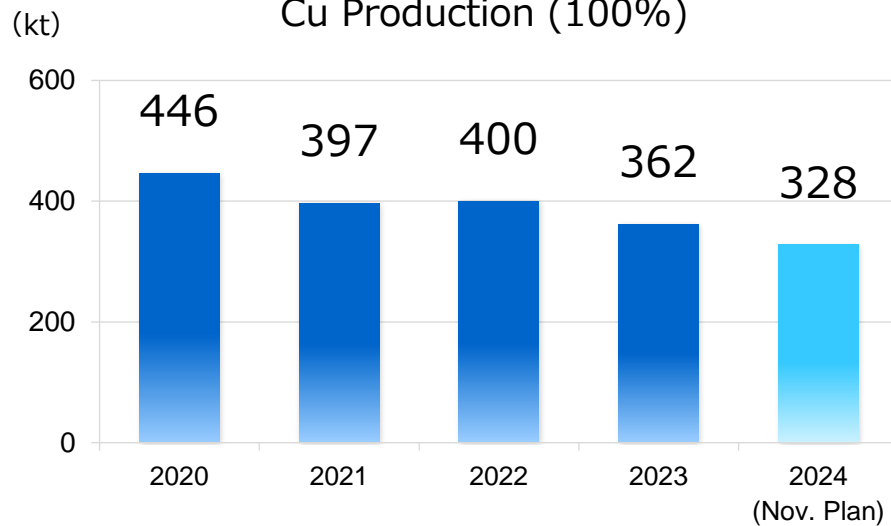
# 4. State of Business - Mineral Resources (1) Copper - 1

## Morenci (U.S.A.)

Interest	FCX	72%
	SMM	25%
	Sumitomo Corp.	3%



Cu Production (100%)

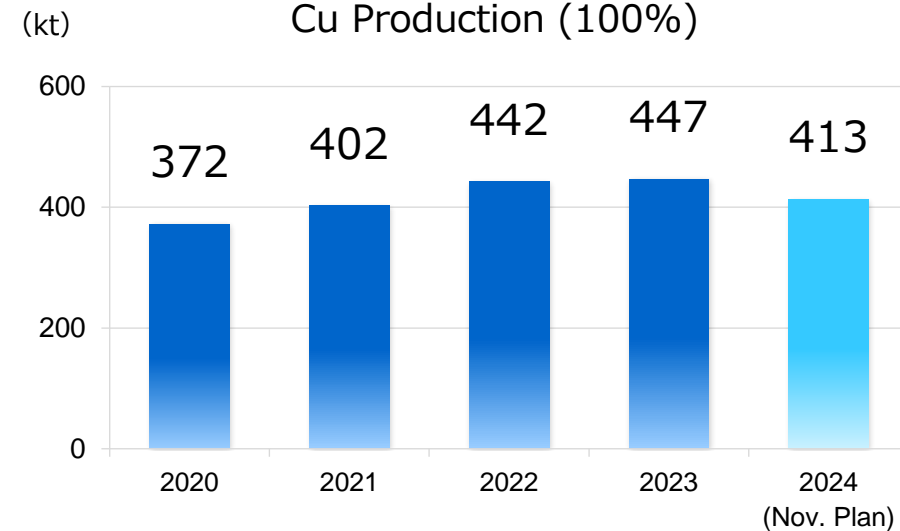


## Cerro Verde (Peru)

Interest	FCX	55.08%
	SMM	16.80%
	Sumitomo Corp.	4.20%
	Others	23.92%



Cu Production (100%)



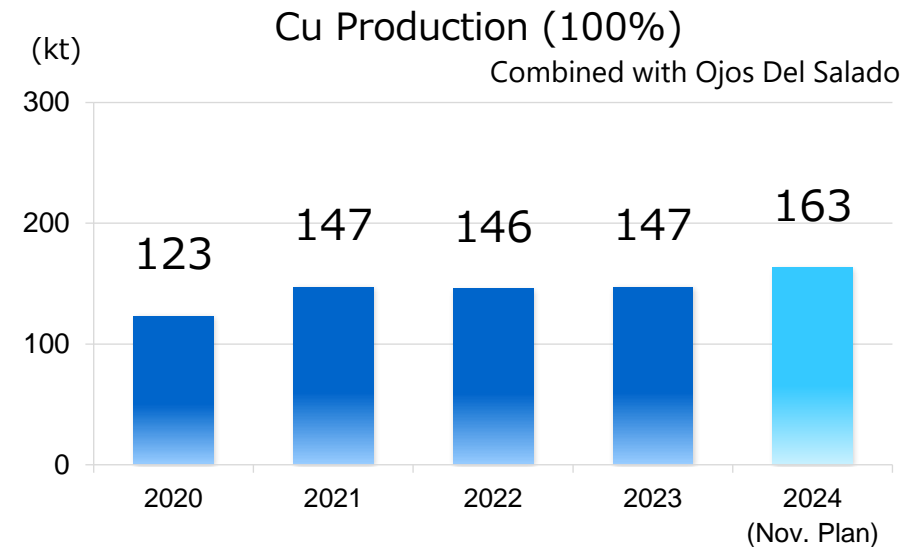
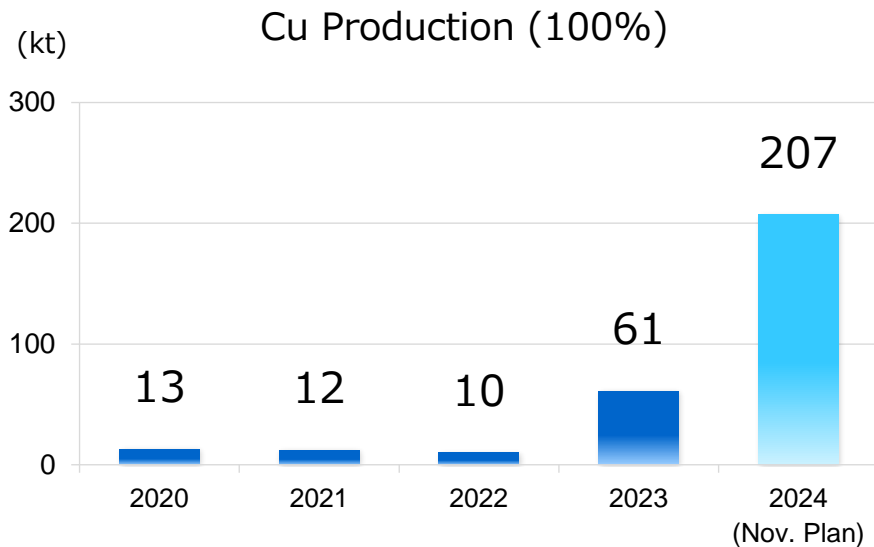
## Quebrada Blanca (Chile)

Interest	Teck	60%
	SMM	25%
	Sumitomo Corp.	5%
	Others	10%



## Candelaria Complex (Chile)

Interest	Lundin	80%
	SMM	16%
	Sumitomo Corp.	4%



# 4. State of Business - Mineral Resources (2) Gold (Hishikari and Côté)

## Hishikari Mine (Kagoshima Pref.)

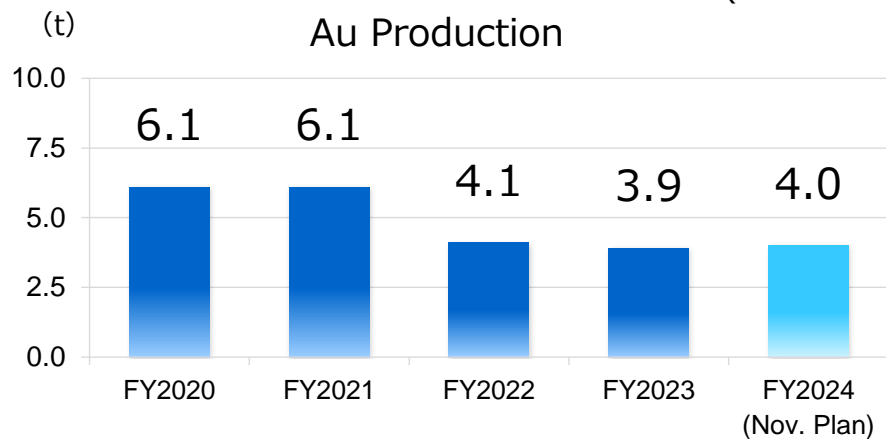
Interest

SMM

100%



- Mineable gold reserve as of the end of 2023:  
155 tons (JIS Standard)



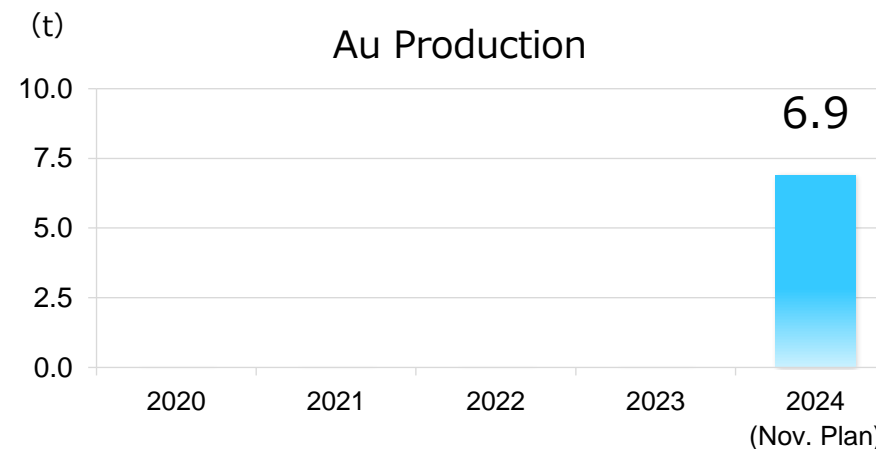
## Côté Gold Mine (Canada)

JV Interest

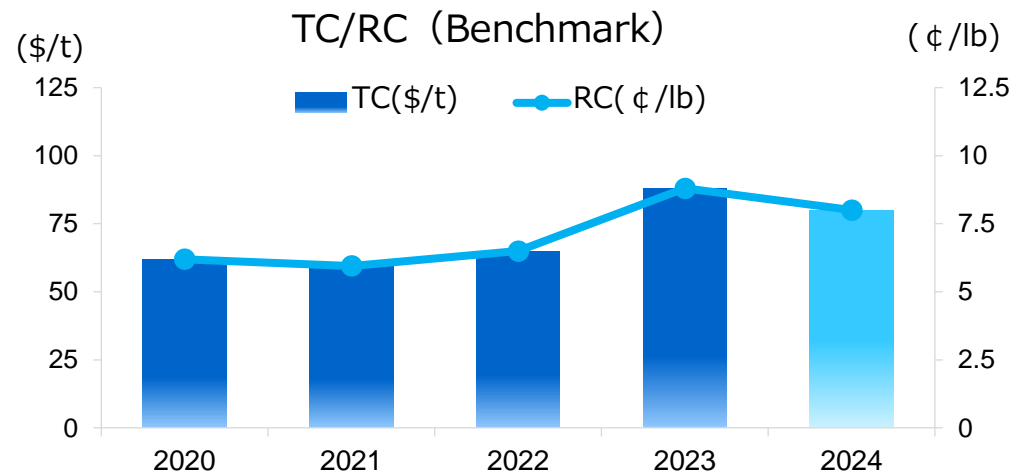
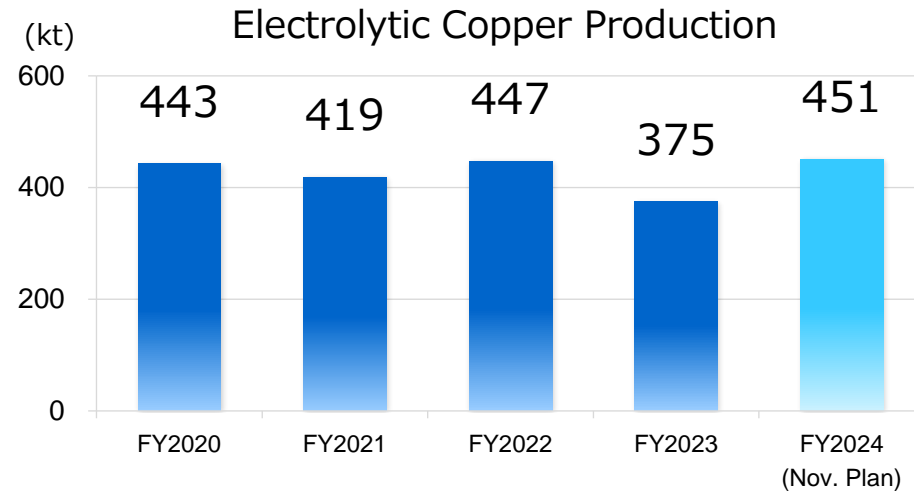
IAMGOLD Approx. 60.3%  
SMM Approx. 39.7%  
(as of Sep.30.2024)



- Construction began in 2020
- Commercial Production began in August 2024 \*



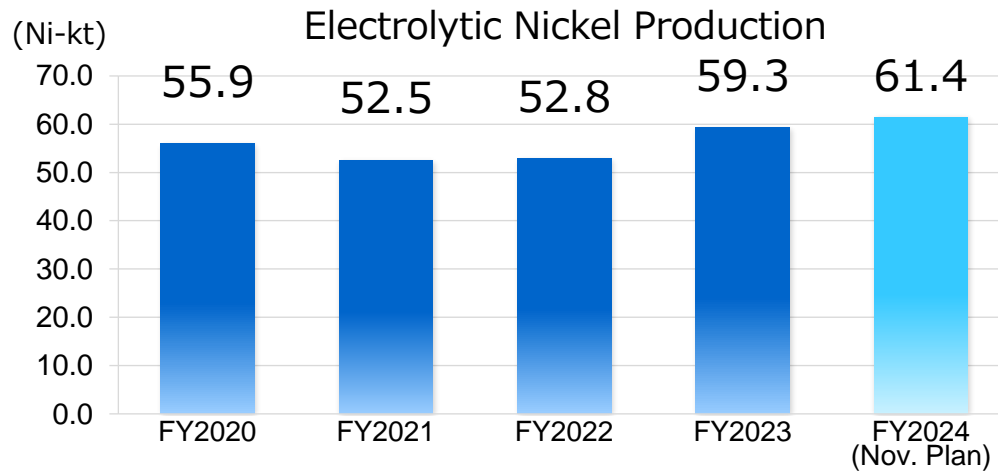
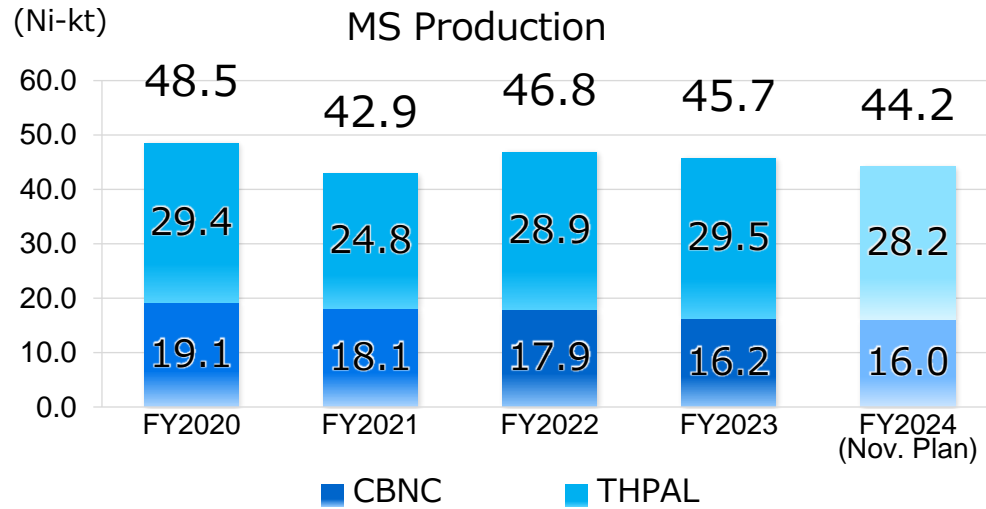
## Toyo Smelter & Refinery (Ehime Pref.)



A large shutdown was implemented in FY2023, first time in 12 years. During the shutdown, some facilities underwent an energy switch and so on.

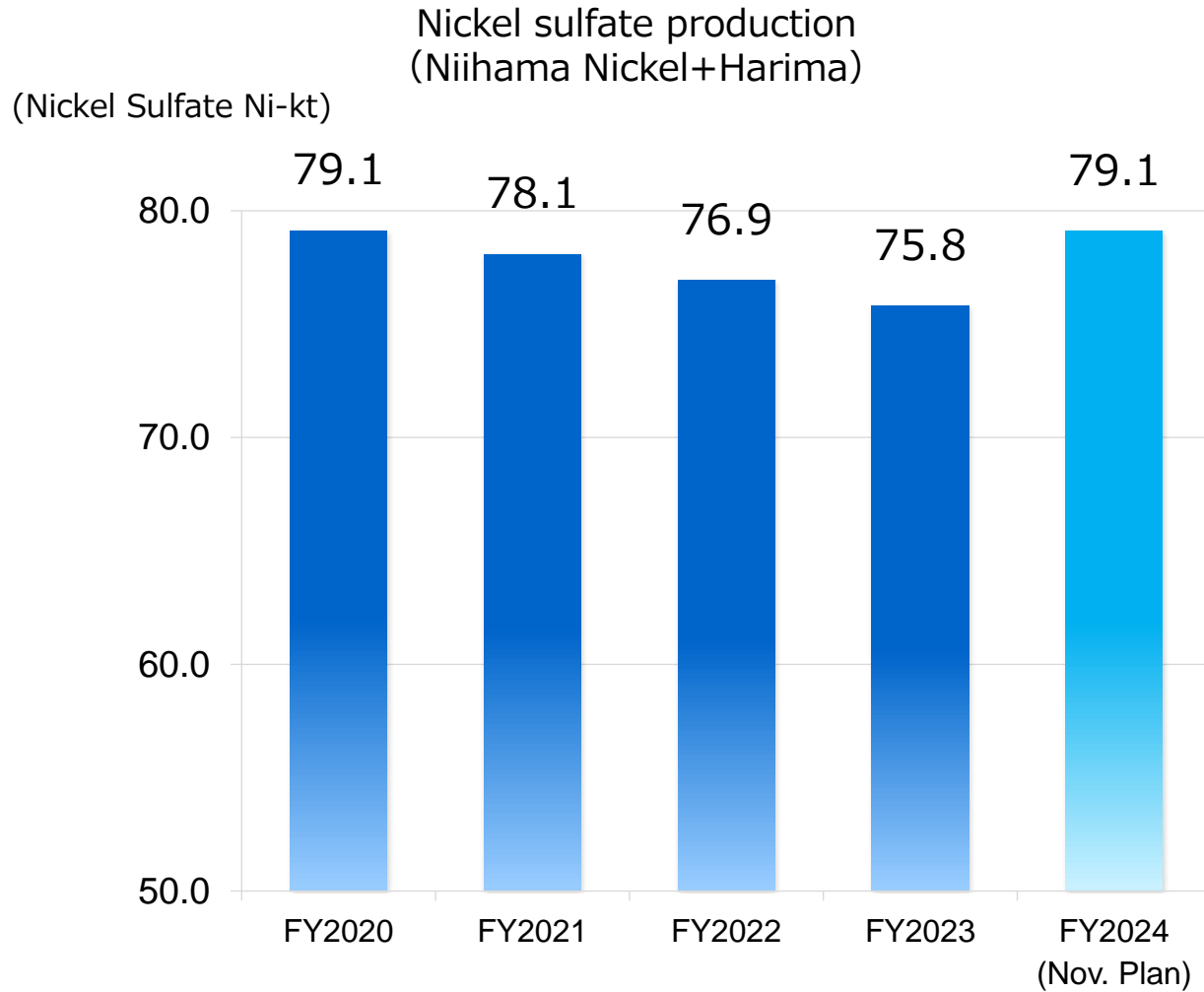


## CBNC, THPAL (Philippines) 、Niihama Nickel Refinery (Ehime Pref.)



THPAL

## Niihama Nickel Refinery (Ehime Pref.), Harima Refinery (Hyogo Pref.)

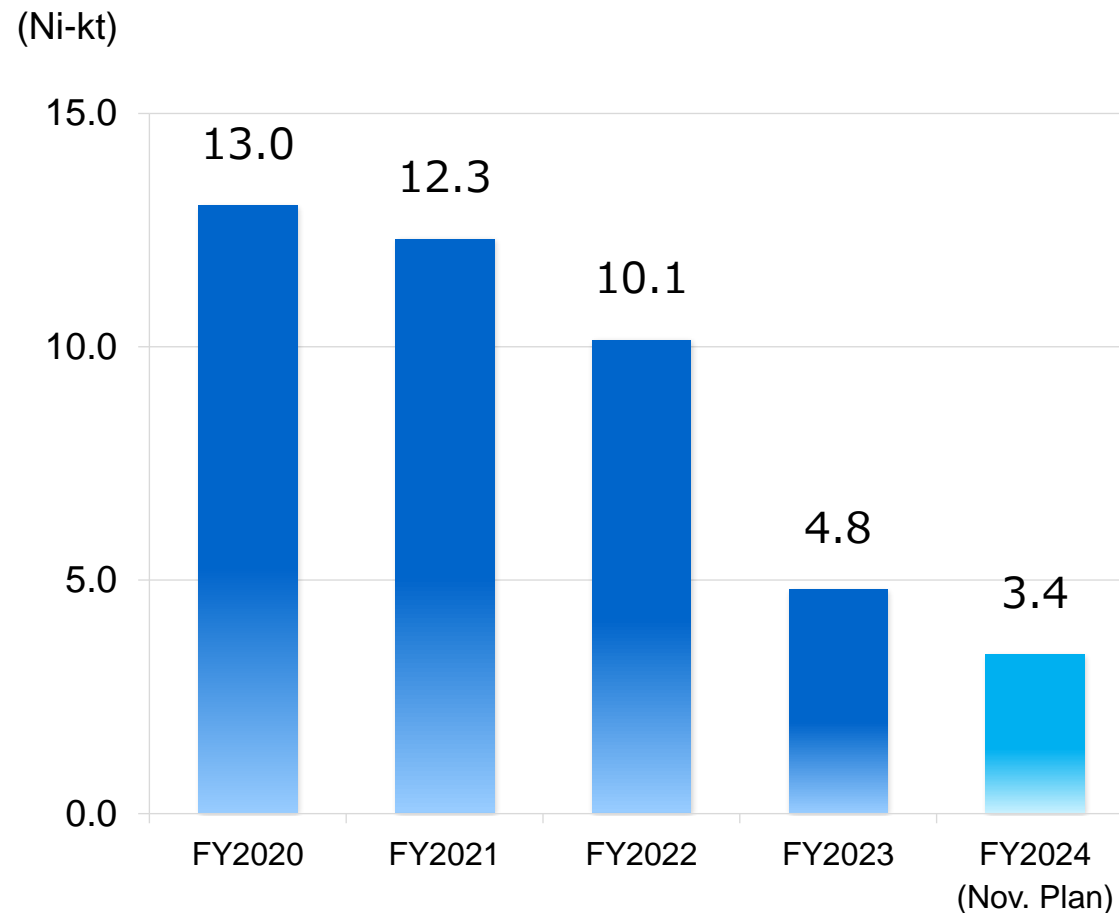


Harima Refinery



## Hyuga Smelting Co.,Ltd (Miyazaki Pref.)

### Fe-Ni Production



- ◆ Making production adjustments, incl. temporary shutdown, based on the current business environment.
- ◆ Plan to take actions such as cost reduction, facility renewal, and GHG reduction during the shutdown.
- ◆ Organize a structure to take action promptly when the situation improves.

# 6. Status of Business - Materials

## Battery materials

Subsidies have been scaled down or abolished in some countries and territories, and there is a view that demand from early adopters of xEVs, especially BEVs, has been satisfied up to a point.

The xEV market is expected to grow in the medium- to long-term.

Plan to continue regular production in accordance with customer demand in FY2024.

## Powder materials

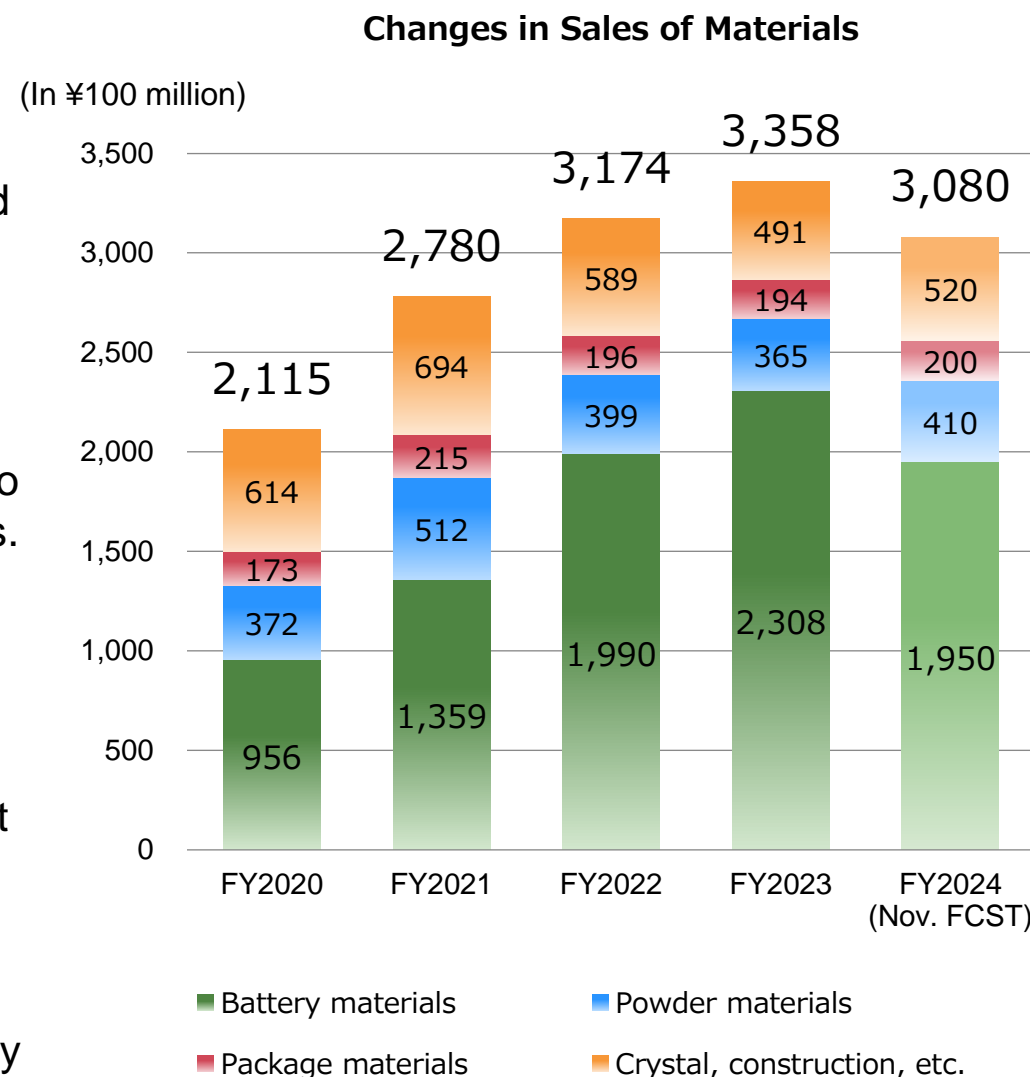
Demand is recovering solidly, mainly in the market for automotive-use materials. Recovery, however, is slow overall and full-scale recovery will take time. Demand is projected to grow in the medium to long term due to the electrification of cars and the spread of 5G networks for smartphones.

## Crystal materials

Despite the spread of 5G networks and the continued recovery trend, demand is unlikely to increase substantially, mainly due to longer smartphone replacement cycles and the spread of reusable products. AI server-related demand has been growing for communication devices, but its outlook is unclear.

## Package materials

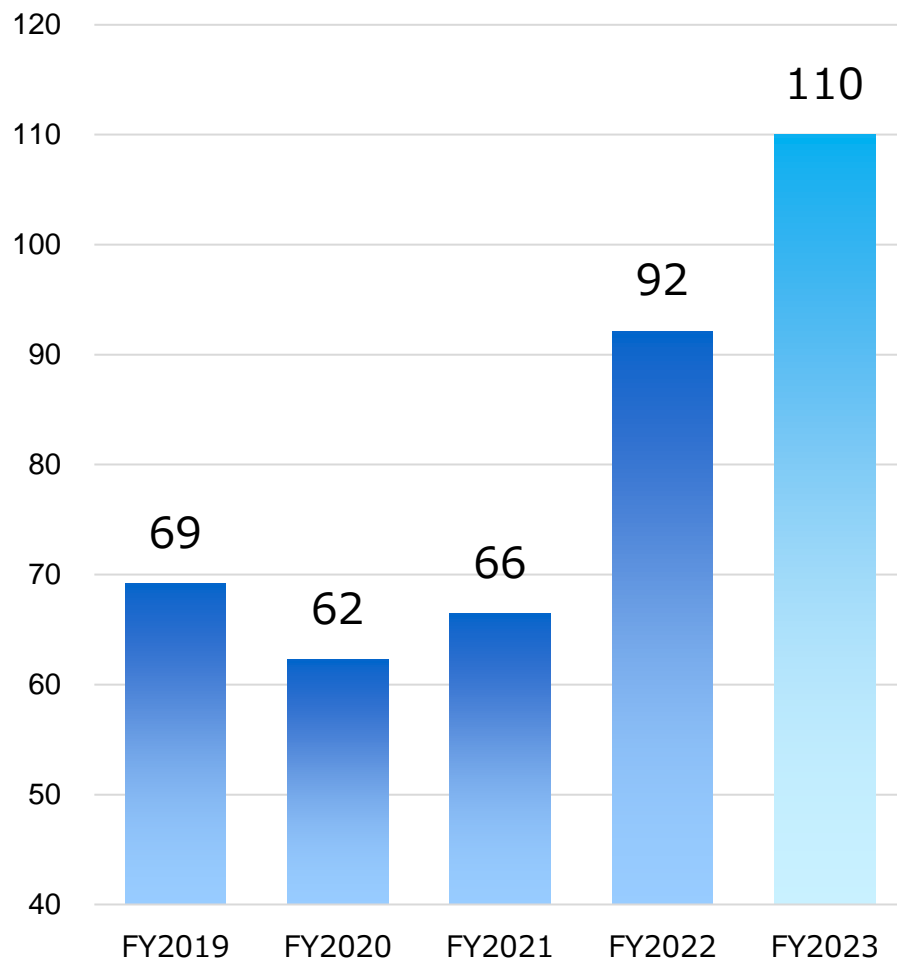
The display/monitor market was strong in 1H FY2024 due to the special Olympics-related demand for materials for TVs, but a temporary inventory adjustment is expected going forward.



# 7. Status of Business - Research & Development (1)

(In ¥100 million)

## R&D Expense




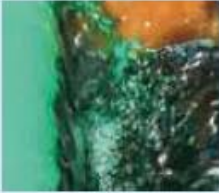
### Promoting the development of products, new technologies and processes that contribute to carbon neutrality

- ◆ Advanced materials (materials using hydrogen, future battery materials): Exploring new material themes at GX Materials Science Co-creation Research Center established in Tohoku University
- ◆ Direct reduction of GHG emissions from existing processes
  - ✓ Reducing neutralizers, fixing CO<sub>2</sub>, using biomass reductants, etc.
- ◆ Direct reduction of GHG emissions from an innovative smelting process
  - ✓ Pursuit of a next-generation nickel smelting and refining process, use of hydrogen reduction technologies, etc.
- ◆ New businesses to reduce carbon footprints
  - ✓ Battery recycling (Ni, Co, Cu, Li): Promoting a NEDO-subsidized project
  - ✓ Direct recovery of lithium from salt lake brine
  - ✓ Development of cathode materials for all-solid batteries: Promoting a NEDO-subsidized project
  - ✓ Research on photocatalyst materials for artificial photosynthesis: Opened an industry-academia joint course on carbon dioxide with Kyoto University

# 7. Status of Business - Research & Development (2) Areas/Fields

**Core Technology**  
Smelting and refining process technology


**Development of Mineral Resources and Metal Processes**  
Mutual separation of Ni and Co salts through solvent extraction

Aqueous cobalt solution      Aqueous nickel solution

Smelting and refining process technology

Exploration, mining, and mineral processing technology



Morenci Copper Mine

**Core Technology**  
Exploration, mining, and mineral processing technology

**Fundamental Technology**  
Analysis Technology

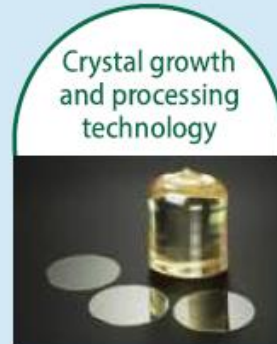
**Fundamental Technology**  
Computer aided engineering and Analysis technology

## Materials Development

Cathode materials for lithium-ion secondary batteries



Nickel powder for multilayer ceramic capacitors (MLCCs)



Single-crystal lithium tantalate

**Core Technology**  
Powder synthesis and Surface treatment technology

**Basic Research**  
Powder synthesis and surface treatment technology

Powder material basic research

**Basic Research**  
Powder material basic research

**Core Technology**  
Crystal growth and Processing technology

Focus on growth strategy fields, search for the *seeds* of next-generation business

## Results

	Mineral Resources	Smelting & Refining	Materials (Battery material and Advanced material)
FY2022 Result	8.6%	12.0%	4.8%
FY2023 Result	4.6%	5.8%	-2.9%

※ Figures for "Materials" above do not include other than battery material and advanced material.

## 【Reference : Trial Calculation in FY2024 under 21 3-Year Plan (ROCE standard during 21 3-Year Plan period: 5.5%)】

	Mineral Resources	Smelting & Refining		Materials
21 3-Year Plan 2024	10.1%	4.5%		4.1%
	Cu	Ni	Gold	Exchange rate (¥/\$)
21 3-Year Plan Assumed price for trial calculation	\$8,000/t	\$7.5/lb	\$1,600/toz	115

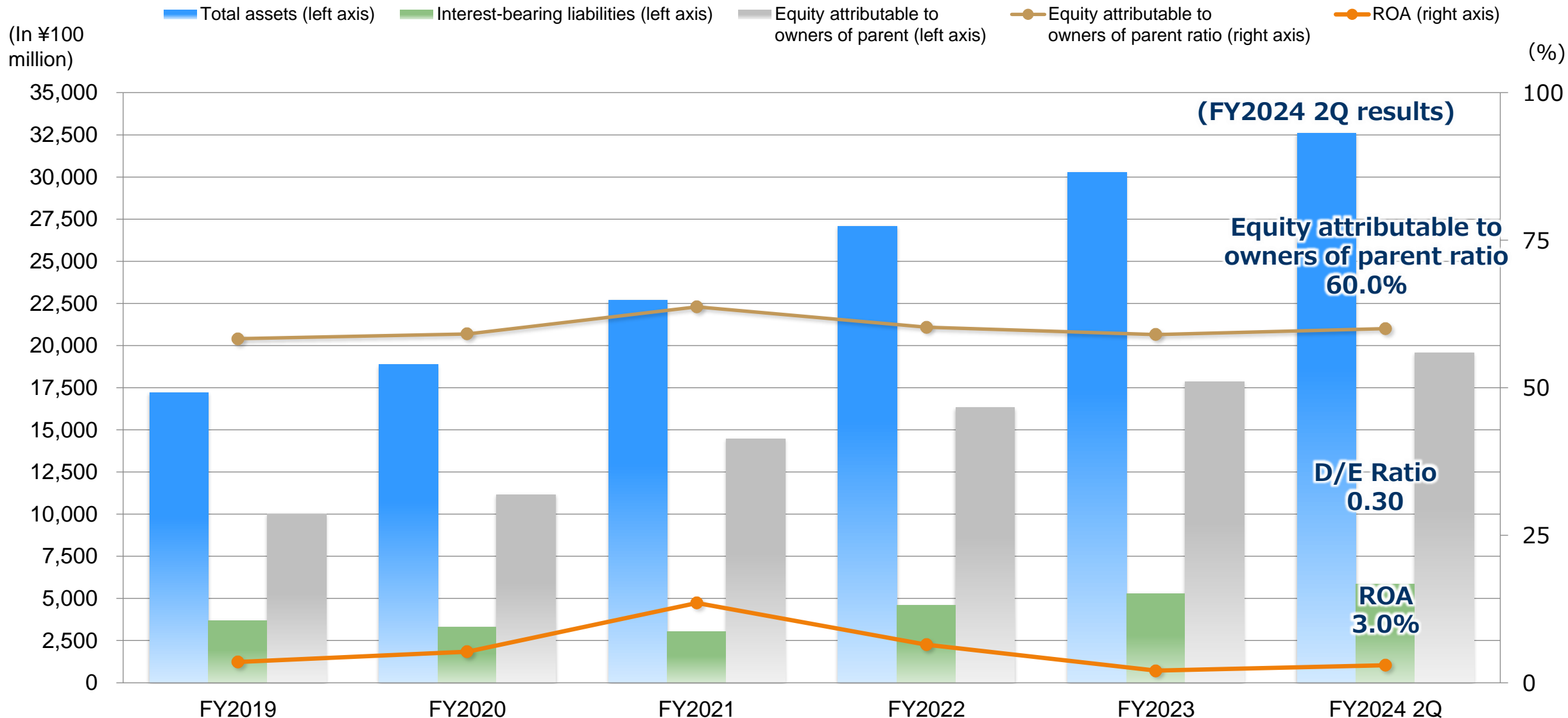
# 9. Changes in Financial Results (FY2019 - FY2024 Forecast)

Data/Reference

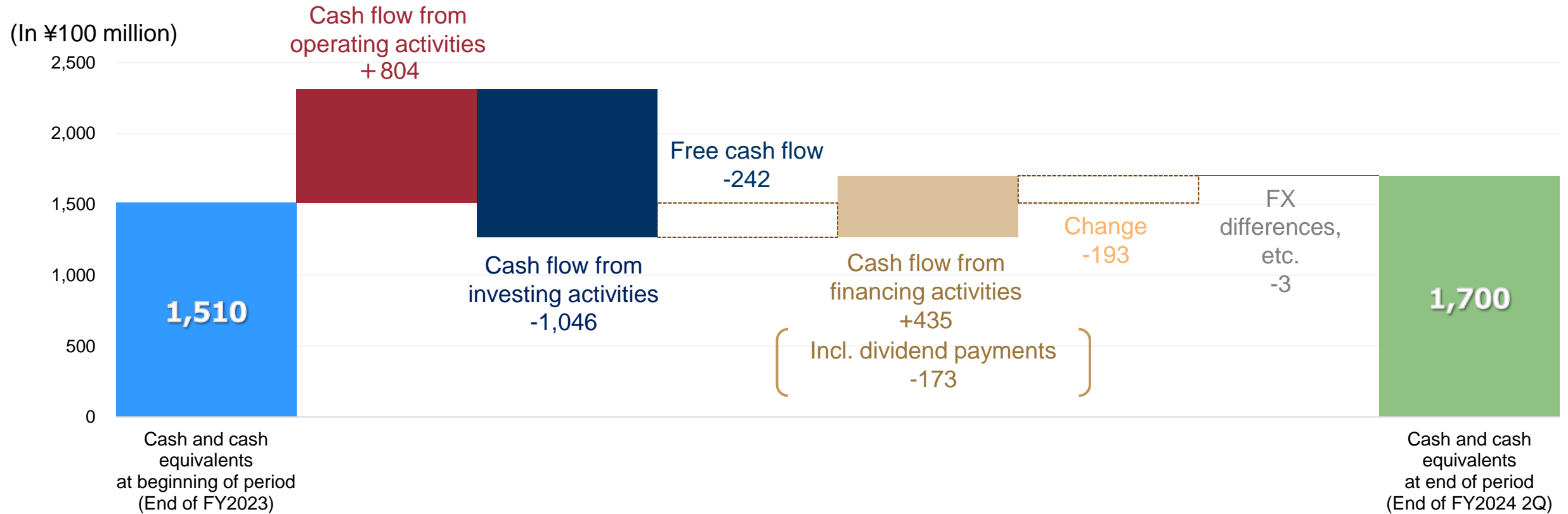
(in ¥100 million)		FY2019	FY2020	FY2021	FY2022	FY2023	FY2024 (Nov.Forecast)	FY2024 (21yr-Mid Plan)
Net sales		8,519	9,261	12,591	14,230	14,454	15,550	11,160
Gross profit		1,095	1,509	2,578	2,501	1,661	1,140	-
Profit / loss before tax		790	1,234	3,574	2,299	958	960	1,570
Equity method profit/loss		62	87	575	365	331	230	620
Segment profit	Mineral Resources	379	631	2,085	764	528	1,060	990
	Smelting & Refining	482	530	1,148	1,179	622	70	480
	Materials	53	105	276	173	-72	-20	150
	Other	-9	-28	-9	-30	-15	-20	-30
	Diff. adjustment	-115	-4	74	213	-105	-130	-20
Net income attributable to owners of parent		606	946	2,810	1,606	586	670	1,180
Copper (USD/t)		5,860	6,879	9,691	8,551	8,362	9,389	8,000
Nickel (USD/lb)		6.35	6.80	9.35	11.63	8.68	7.68	7.50
Gold (USD/toz)		1,462	1,824	1,818	1,805	1,989	2,404	1,600
Cobalt (USD/lb)		15.76	16.62	27.46	25.57	14.16	10.51	-
Exchange (JPY/\$)		108.74	106.07	112.39	135.48	144.63	146.32	115.00



# 10. Changes in Financial Position



# 11. Cash Flows (FY2024 1H Results)



**Cash flow used in investing activities remained at a high level due to expenditures for growth strategy, which resulted in a negative free cash flow.**

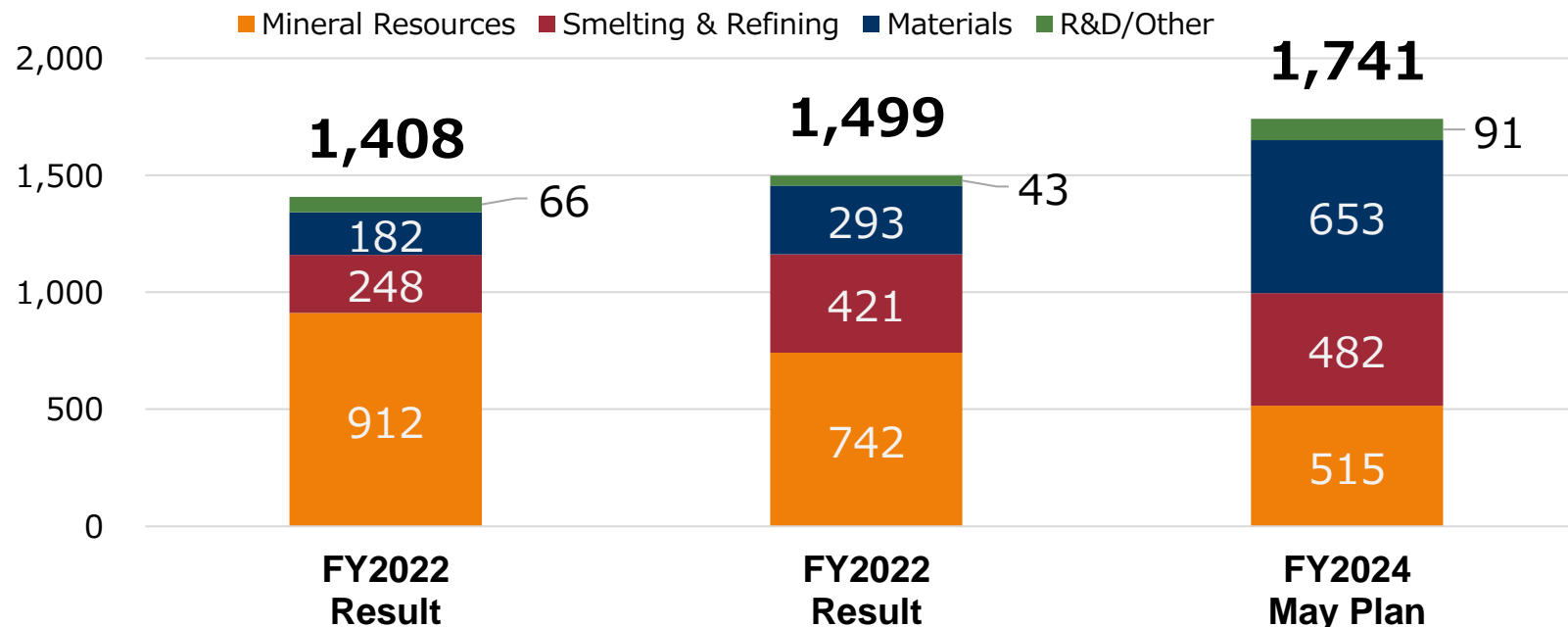
**Maintain an appropriate level of liquidity in hand for further future growth investments and continue promoting the growth strategy set out in the 3-Year Plan.**



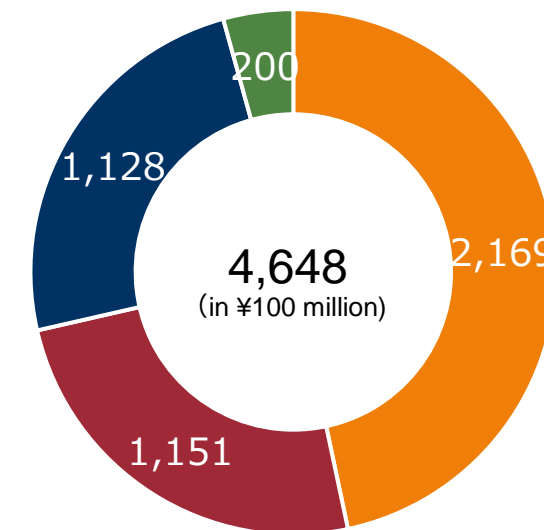
# 12. Capital Investment, Investments and Financing

(in ¥100 million)

## Trends of Capital Investment



Capital Investment  
21 3-Yr Total Forecast  
(FY2022 · FY2023+FY2024Forecast)



### Investments and financing excl. capital investment

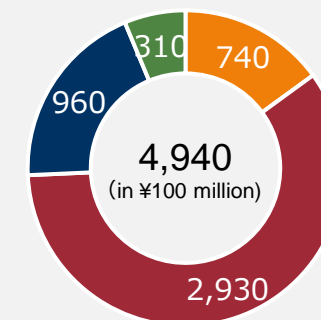
FY2022 Result	1,017
FY2023 Result	1,480
FY2024 May Plan	776
<b>21 3-Year Plan Total</b>	<b>3,273</b>



#### 【Key Projects in FY2024 May Plan】

- Expansion of production capacity for cathode materials for secondary batteries for electric vehicles:  
35.5 billion yen (total outlay: 47.0 billion yen)
- Cote Gold Project:  
18.3 billion yen (total outlay: USD 1,134 million)

### 21 3-Yr Plan



+Investments and financing  
1,090

# 13. Sensitivity Estimation

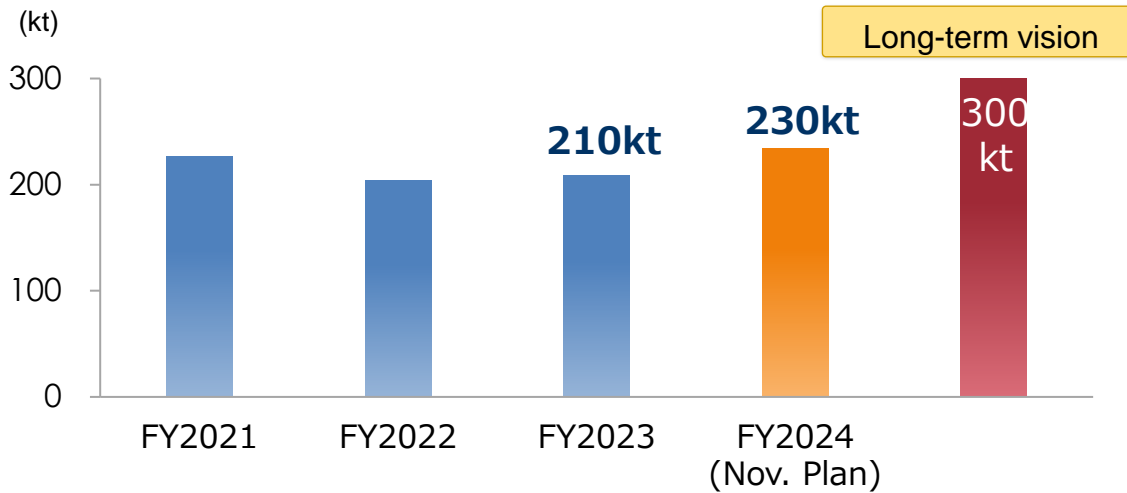
(in ¥100 million)

Element	Fluctuation	FY2024 Profit before tax
Cu	±100\$/t	35
Ni	±10 ¢ /lb	15
Au	±10\$/toz	3
Exchange rate (Yen/USD)	±1¥/\$	12

Note: The monetary value of the impact of exchange rate fluctuations provided above is the sum of the revenue from metal processing operations in Japan and FOREX differences in foreign operations. It does not include the impact of inventory valuation.

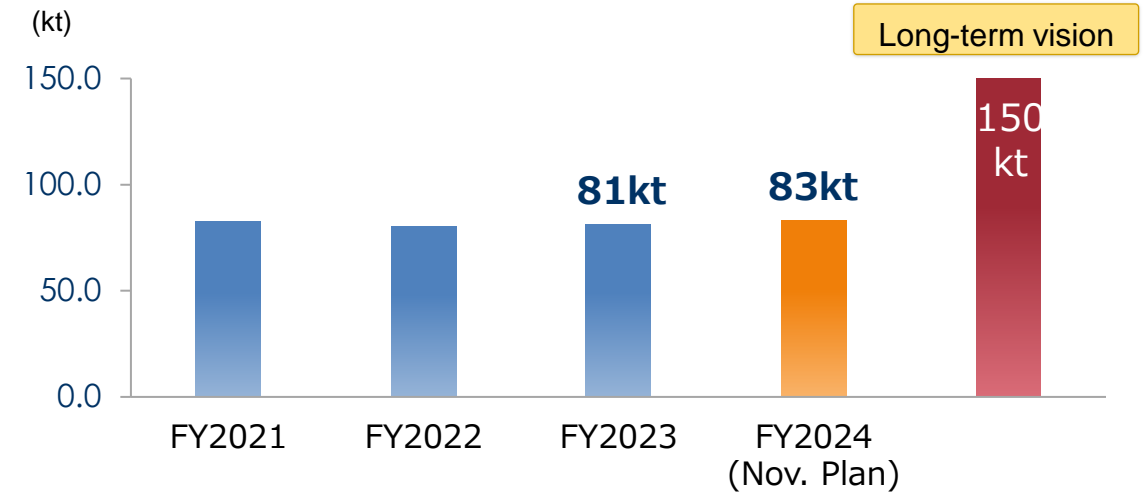
# 14. Long-term Vision Targets and Their Achievements

## Cu (Production from company mines)

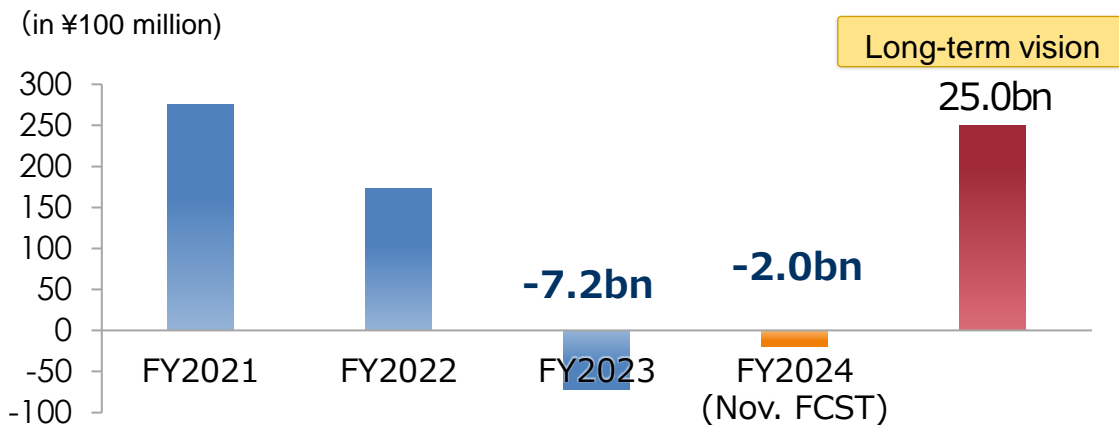


## Ni (Annual production volume)

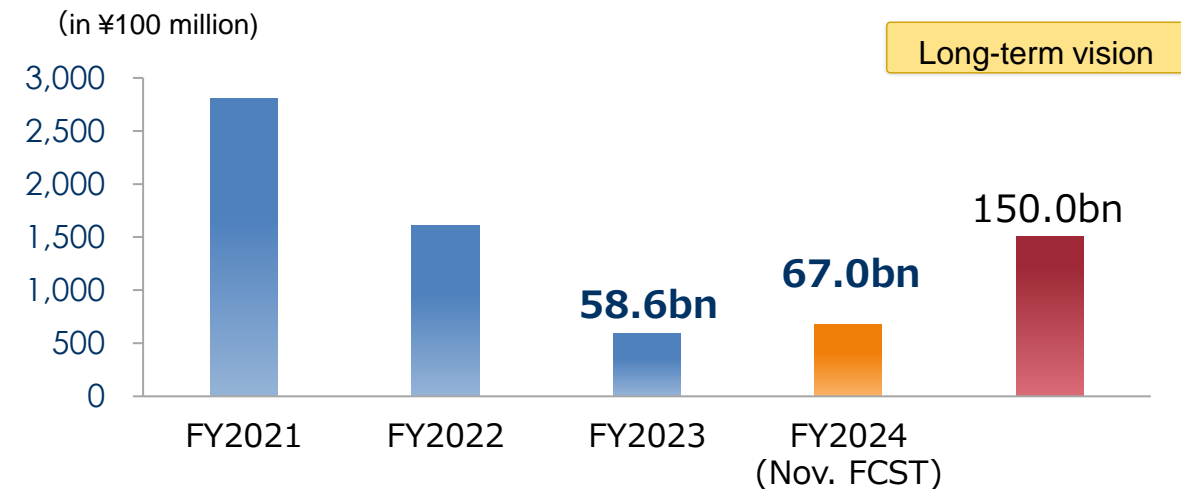
\*Long-term vision focuses on "production capacity"



## Materials Business (Segment profit)



## Net income (Attributable to owners of the parent)



## SMM Group's material issues

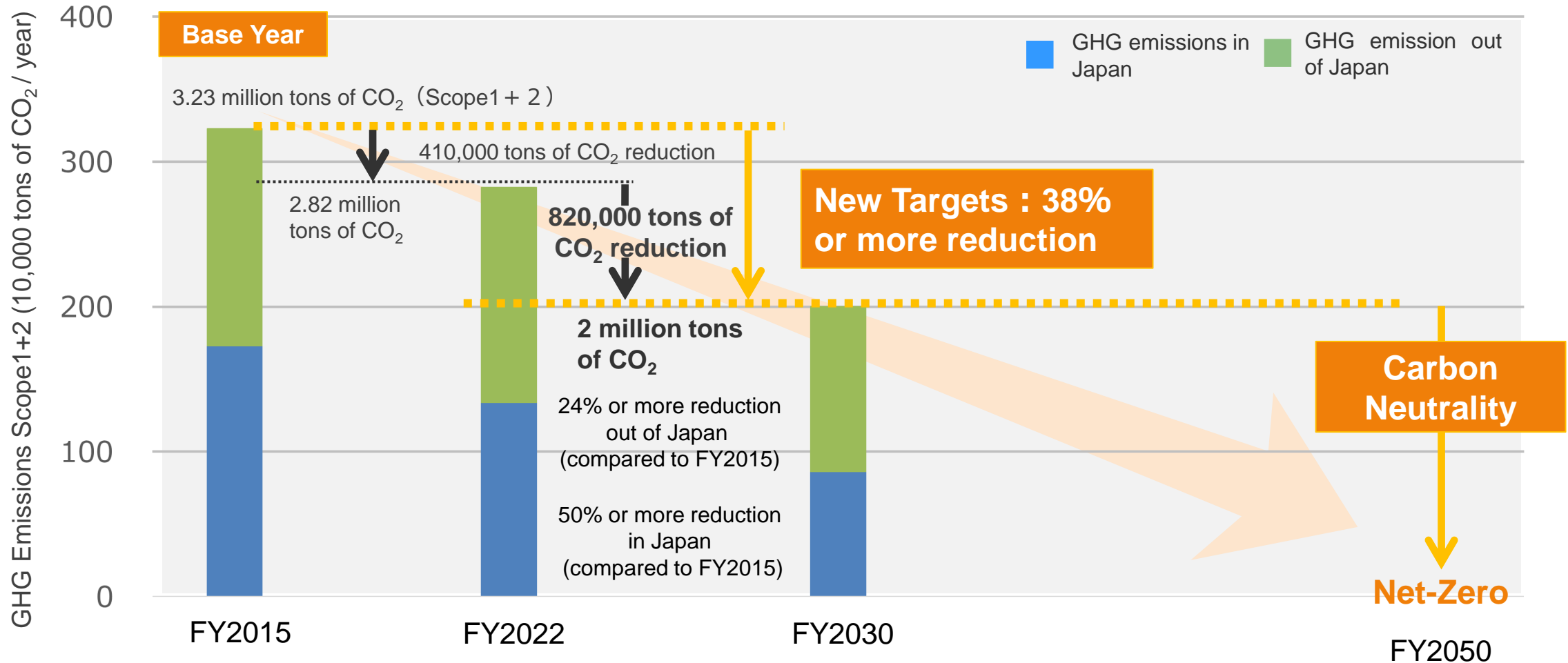
We assessed issues from both social and business perspectives and identified issues with significant impact.

1	Effective Use of Non-Ferrous Metal Resources	7	Development and Participation of Human Resources
2	Climate Change	8	Engagement with Stakeholders
3	Significant Environmental Accidents	9	Co-Existence and Mutual Prosperity with Local Communities
4	Biodiversity	10	Rights of Indigenous Peoples
5	Employees' Occupational Health and Safety	11	Human Rights in the Supply Chain
6	Diverse Human Resources		

# 16. Carbon Neutrality Initiatives

Announcement of interim target and roadmap toward carbon neutrality (December 26, 2023)

- Reduction target for FY2030 : 38% or more reduction compared to FY2015  
(More than 50% in Japan, 24% out of Japan)



## [Initiatives for the environment and communities]

- ◆ CBNC received the following three awards: 2023 Presidential Mineral Industry Environmental Award (PMIEA) and first place in the Safest Mineral Processing – Extraction Plant Category and in the Best Mining Forest Contest, Mineral Processing Plant Category.
- ◆ THPAL was the runner-up for PMIEA and in the Best Mining Forest Contest, Mineral Processing Plant Category, following CBNC.
  - PMIEA is the most prestigious award in the Philippines' mining industry. CBNC and THPAL were recognized as responsible operators in terms of safety, contribution to society, biodiversity preservation, and so on.

## [Human rights-related initiatives in supply chains]

- ◆ Responsible mineral sourcing
  - Gold/silver: Renewed LBMA RGG/RGC certification
  - Cobalt: RMI certification since 2021
  - Nickel: RMI certification since 2023
  - Copper: RMI certification since 2023



**[Published Integrated Report and Sustainability Report (Japanese version on August 2, English version on September 30)]**

- ◆ Significantly increased the information we disclosed in response to demands from stakeholders and in compliance with the revised GRI standards, new ICMM benchmarks

**[Engagement with investors (FY2023 results)]**

- ◆ **Enhanced our information dissemination capability mainly through IR activities while utilizing the valuable feedback obtained through our engagement with investors in our business management to raise our corporate value**

- ✓ President and Representative Director, Chairman and Director, Outside Directors, Executive Officers  
Financial results briefings, small meetings with President, meetings with outside directors, engagement with institutional investors in Japan and overseas (incl. those in charge of the exercise of voting rights and ESG)
- ✓ Executive Officer in charge of IR + concerned and relevant divisions  
Financial results briefings, one-on-one engagement with institutional investors, analysts, etc.: approx. 220 times  
Additionally, we also held briefings for individual investors, IR Day, business briefings, and briefings at business bases, etc.

# Disclaimer

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The materials provided herein are not intended as disclosure materials under the Financial Instruments and Exchange Act of Japan. We provide no guarantee as to their completeness or accuracy.

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We therefore ask you not to make any investment decisions based on these materials alone. We will not be held responsible in any way for any losses that may arise as a result of the use of these materials.

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