

# Integrated Report 2024



## Company Philosophy

# Leverage the power of people to deliver the earth's resources in more useful forms and contribute to the happiness of humankind

## Company Policy

- 1 Integrate the management strategies of the entire Group to maximize the synergy effects of each Group company.
- 2 Focus on the development and quality improvement of world-class smelting technology, and establish the world-leading platform for management efficiency and competitiveness.
- 3 Promote compliance.
- 4 Secure appropriate profits through fair, transparent and free competition.
- 5 Actively tackle all environmental problems to protect the irreplaceable earth.
- 6 To develop the individuality of employees and fully demonstrate their creativity, pursue a sense of comfort and affluence both physically and mentally, and realize a rewarding workplace.
- 7 Promote wide-ranging exchanges with society and actively disclose fair corporate information.

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## 2 Strategy for Value Creation

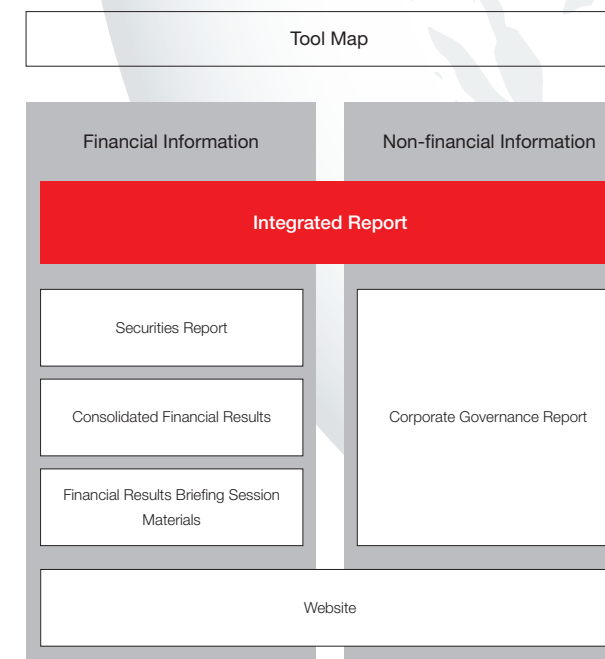
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### Editing policy

This report covers our performance during the target period and our initiatives for the mediumterm business plan, and explains our approach to sustainability linking financial and nonfinancial information. By doing so, we aim to make this report a tool for our shareholders, investors, and all other stakeholders to better understand the Company and deepen dialogue with us.

### Scope of report

PACIFIC METALS CO., LTD. (Domestic Offices)  
\*The activities of some affiliate companies are included.

### Reporting period

FY2023 (April 1, 2023 to March 31, 2024)  
\*Some activities outside the reporting period included.

### Month of issue

November 2024

### Reference guidelines

"Guidance for Collaborative Value Creation" by Ministry of Economy, Trade and Industry  
"Environmental Reporting Guidelines (Fiscal Year 2018 Version)" by Ministry of the Environment  
"Sustainability Reporting Guidelines Version 4" by the Global Reporting Initiative (GRI)

### Disclaimer

The contents of this report refer not only to past events, but also cover future plans and forecasts at the time of publication. Please note that actual future activities and results may differ from those described herein.

# Business Growth at PACIFIC METALS and the History of Our Environmental Activities

1970- → 1980- → 1990- → 2000- → 2010- → 2020-

**1970**

The Company absorbed Pacific Nickel Co., Ltd. through merger and changed its name to PACIFIC METALS CO., LTD. and established a foundation as the top manufacturer of ferronickel.



40,000 KVA closed nickel furnace (Hachinohe 45.9)

**1970**

Opened Philippines Office.

**1972**

Concluded a technological support agreement with Indonesian company PT Aneka Tambang for construction of a ferronickel smelting plant (Antam Plan).

**1973**

Acquired an equity stake in Rio Tuba Nickel Mining Corporation of the Philippines and started to involve development of nickel mines.

**1975**

Telemeter system  
Installed SOx monitoring equipment (compliance with agreement)

**1979**

Completed construction of Niigata Plant and departments of electromagnetic materials and activated carbon of Shibata Plant moved to Niigata Plant.



Indicates environmental initiatives

**1980**

Acquired industrial waste disposal business permit.

**1983**

Separated and transferred Iwase Plant to Pacific Rundum Co., Ltd., along with its abrasives business operation.



No.2 Mannesmann curved continuous casting machine (Hachinohe 56.10)

**1984**

Separated and transferred Naoetsu, Toyama and Narashino Plants to Pacific Special Alloy Castings Co., Ltd., Pacific Steel Mfg. Co., Ltd. and Pacific Machinery & Engineering Co., Ltd., respectively, along with its casting, forging and machinery business operations.

**1985**

The name Hachinohe Plant was renamed to Hachinohe Works.

**1988**

Developed a nickel mine by taking an equity stake in Taganito Mining Corporation in the Philippines.

**1995**

Installed a 60,000 kVA electric furnace. Three electric furnaces system established at Hachinohe Works.

**1996**

Completion of Kawaragi Wharf No.2 at Hachinohe Harbor (public).

**1997**

Completed installation of raw material transport conveyor line (Kawaragi).

**1997**

Established Pacific Energy Center Co., Ltd. (power supply from 2000 to 2015)

**1998**

Acquired ISO9002.

**1999**

Transferred headquarter functions to Hachinohe to become a specialized manufacturer for ferronickel.

Since our founding, we have been committed to meeting the diverse needs of our customers. By developing new technologies and new products and working on quality control, we have established ourselves as one of the world's top manufacturers of ferronickel. At the same time, we continue to enthusiastically promote environmental activities to contribute to a sustainable society.

**2000**

Registered as environmental measurement certification business.

**2003**

Construction completed "Incinerated ash and scallop shell recycling facility" for recycling business.

**2003**

Transitioned to ISO9001:2000.

**2005**

Achieved 1 million tons of ferronickel production.

**2005**

- Conducted environmental assessment in accordance with the Aomori Prefecture Environmental Impact Assessment Ordinance.
- Acquired special management industrial waste disposal business permit.
- Installed denitration equipment in the second power plant.

**2006**

Completed a recycling facility for molten fly ash for recycling business.

**2007**

- Installed a small-scale wastewater treatment device as part of the drainage port.
- Installed drainage monitors (compliance with agreement).

**2008**

Opened Jakarta Office.

**2009**

Acquired ISO 14001:2004.

**2010**

- Installed a dust monitor in the ore yard.
- Launched webpage for waste disposal status.

**2011**

Installed monitoring cameras for drainage and chimneys (drainage and dust control).

**2012**

Acquired OHSAS 18001:2007.

**2013**

Installed wastewater treatment system (compliance with agreement).

**2014**

Started operation of Integrated Management System.

**2015**

Established Basic Policy on Corporate Governance.

**2016**

Formulated a new "company philosophy" and "long-term vision."

**2017**

Awarded "Excellent Workplace" from the Aomori Industrial Waste Association.

**2018**

Received the "Mottainai Aomori Award" on the 10th Anniversary of the Mottainai Aomori Prefectural Movement Promotion Council.

**2020**

Obtained certification of a specially controlled industrial waste disposal operator "Excellence."

**2021**

- Transitioned to ISO 45001: 2018.
- Signed a capital and business alliance agreement with AMITA HOLDINGS CO., LTD. to strengthen and enhance our resource recycling business and environmental recycling business.

**2022**

Transitioned to Prime Market of Tokyo Stock Exchange.

**2022**

- Endorsed the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).
- Developed a manufacturing process of raw materials for lithium-ion battery materials, utilizing emulsion flow.

**2023**

- Signed a joint research and development agreement with Emulsion Flow Technologies Ltd. to realize rare metal recycling of lithium-ion batteries.
- Withdraw from recycling business of incinerated ash and scallop shell.

**1970-**

**Established a foundation as a top ferronickel manufacturer**

In 1949, the Company was founded as Nisso Steel Co., Ltd., and following the establishment of Pacific Nickel Co., Ltd. in 1959, in 1970 the Company absorbed Pacific Nickel and changed its name to PACIFIC METALS CO., LTD. In 1973, we started developing nickel mines. We have established a stable supply of raw materials and a high-quality production system.

Pollution countermeasures and regulations have been strengthened due to factors such as the spread of pollution-related diseases, so we have also accelerated the promotion of environmentally friendly business activities, such as concluding pollution prevention agreements.

**1980-**

**Spun off affiliated companies and formed the Pacific Group**

In 1983, the Company separated and transferred its Iwase Plant to Pacific Rundum Co., Ltd., and in 1984, separated and transferred Naoetsu, Toyama and Narashino Plants to Pacific Special Alloy Castings Co., Ltd., Pacific Steel Mfg. Co., Ltd. and Pacific Machinery & Engineering Co., Ltd., respectively. Consequently, this formed the network of the Pacific Group.

At that time, waste disposal in Japan was increasingly becoming an issue garnering attention as waste volume was surging due to growing consumption and expanded production activities. This was when the Company acquired the industrial waste disposal business permit.

**1990-**

**Established the three electric furnaces system. Transformed to become a specialized manufacturer of ferronickel.**

With the installment of the third ferronickel smelting electric furnace at Hachinohe Works in 1995, the Company established its three electric furnaces system. Subsequently, in 1999, we transferred headquarter functions to Hachinohe, transforming ourselves to become a specialized manufacturer of ferronickel. In addition, in 1997 we established Pacific Energy Center Co., Ltd. to specialize in the wholesale supply of electric power to electric utility companies by leveraging the technology for the in-house power generation system developed by the Company.

**2000-**

**Promoting the recycling business to contribute to the creation of a recycling-oriented society**

Having accumulated a track record of accomplishments as a top manufacturer of ferronickel, in 2005 we reached production volume of 1 million tons. Moreover, as waste disposal and recycling measures for the development of a recycling-oriented society escalated in importance, in 2003 we completed construction of a "recycling facility for incinerated ash and scallop shell" and similarly in 2006, completed a "recycling facility for molten fly ash" among other efforts to promote our recycling business.

**2010-**

**Initiatives for ESG management based on a new company philosophy and vision**

Awareness of ESG has risen worldwide, and we addressed social issues and worked on the development of corporate governance while strengthening our environmentally friendly business activities to realize ESG management.

Then in 2016, we formulated a new "company philosophy" and "long-term vision" in order to achieve sustained growth and a sustainable society from a medium- to long-term perspective.

**2020-**

**Aiming to realize a sustainable society**

Now, when the whole world is working on climate change countermeasures, we are also promoting the use of carbon-free energy and other environmentally friendly manufacturing technologies and methods, as well as expanding sales of eco products.

We will continue to contribute to the realization of a sustainable society by responding to all environmental risks and promoting initiatives to achieve carbon neutrality by FY2050.



# The material that realizes a wide range of possibilities by making the most of its excellent properties

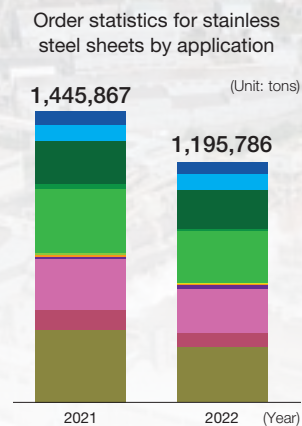
## Features of Ferronickel

### ▶ Excellent material properties

Made of stainless steel and alloy steel, it can realize high heat resistance and high corrosion resistance. It is used as an alloy material that requires resistance to high temperatures, fresh water, sea water, and alkaline aqueous solutions.

### ▶ Wide range of uses

Stainless steel has excellent corrosion resistance and heat resistance, and has a beautiful luster, so it is used in large quantities in household goods such as spoons and forks, automobiles, building materials such as buildings and housing, and various industrial fields such as chemicals, foods, and brewing.



\* Referred to application examples and order statistics by application from Japan Stainless Steel Association (JSSA)

Nickel ore is smelted in one of the world's largest electric furnaces using the ELKEM method and is transformed into ferronickel, an alloy of iron and nickel that is the main raw material of stainless steel. PACIFIC METALS' ferronickel is put to use in lifestyle equipment and helps to enrich people's lives in invisible ways.

### ▶ High recyclability

Nickel is one of the most recycled materials in the world. It is often recovered and recycled as an alloy. Today, about half of the nickel content in stainless steel products comes from recycling.

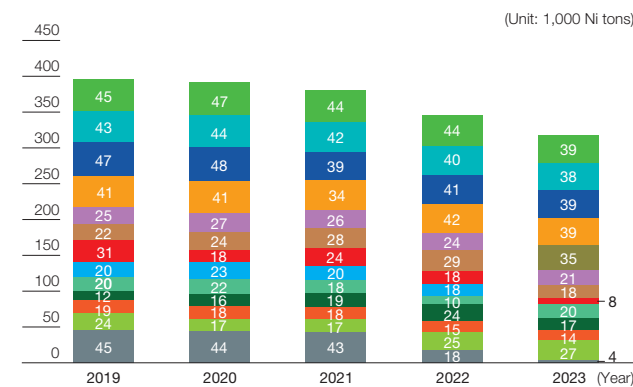
### ▶ Growth potential

Due to its diverse performance, ferronickel is widely used from the dining table to the industry. It can be considered a useful material as the need for sustainable materials is expected to increase around the world.

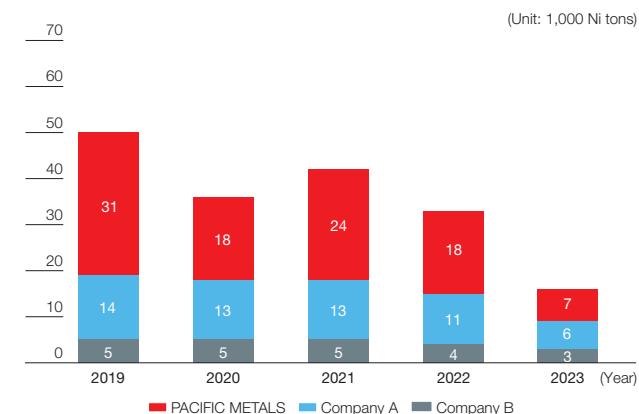


## Information Relating to Production

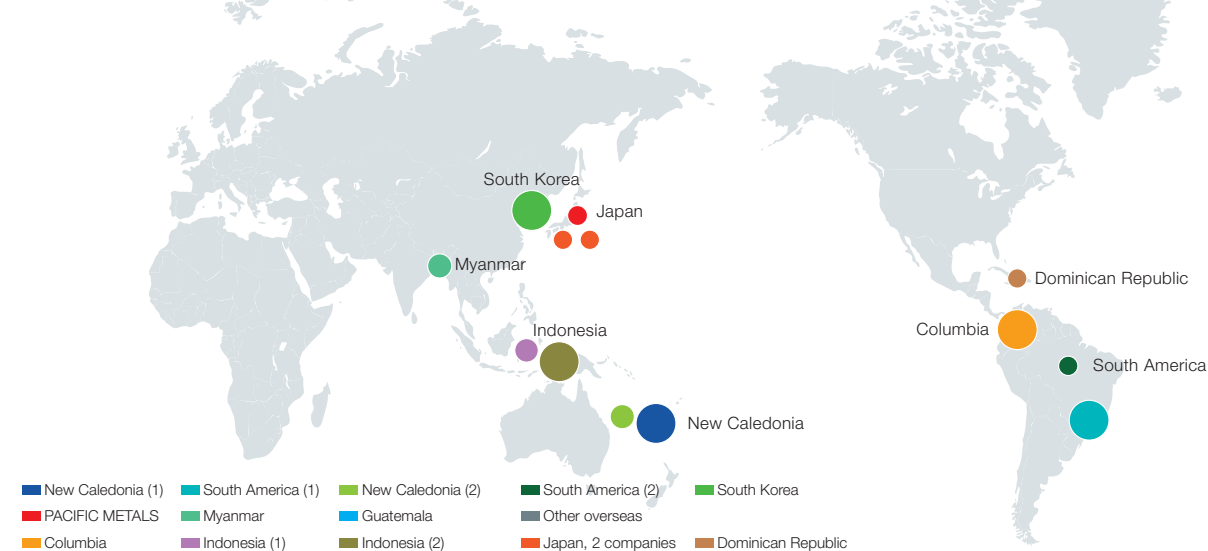
### Global ferronickel production



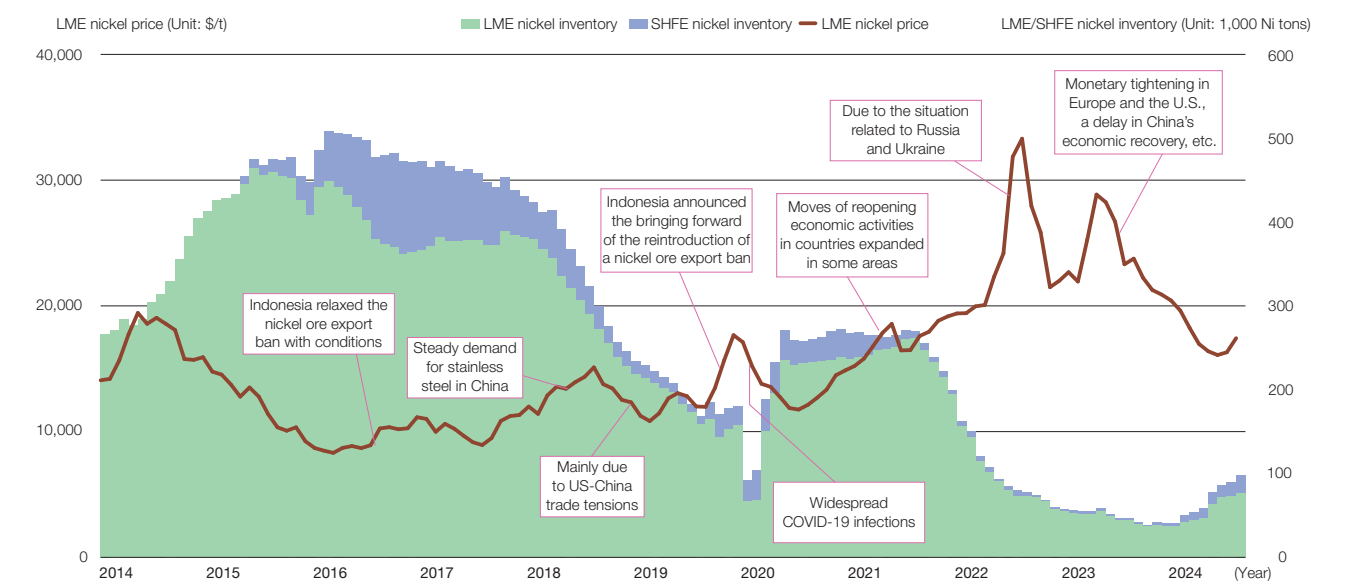
### Japan's ferronickel production



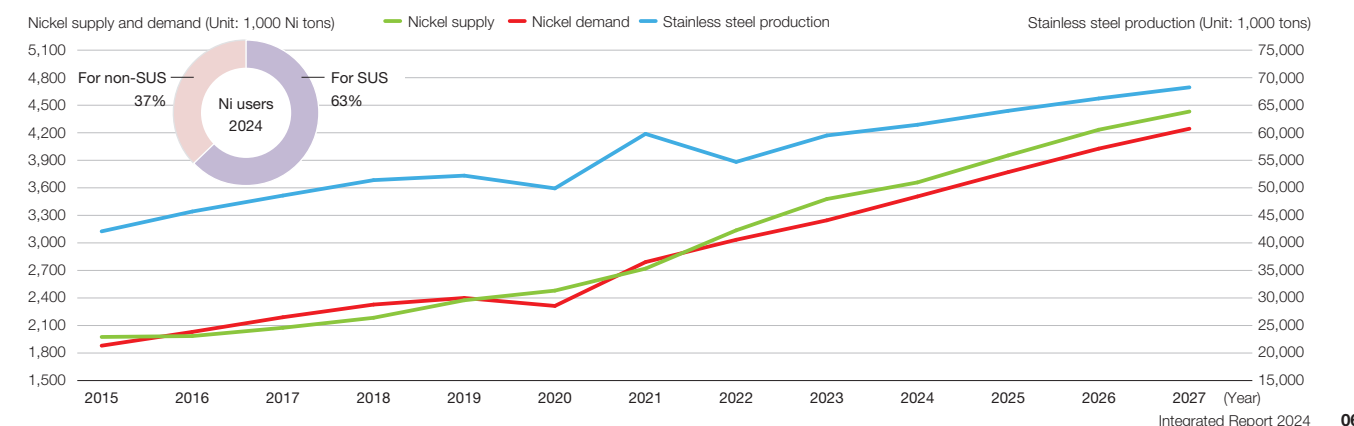
### Global ferronickel production bases



### Trends in LME nickel prices and nickel inventory volumes



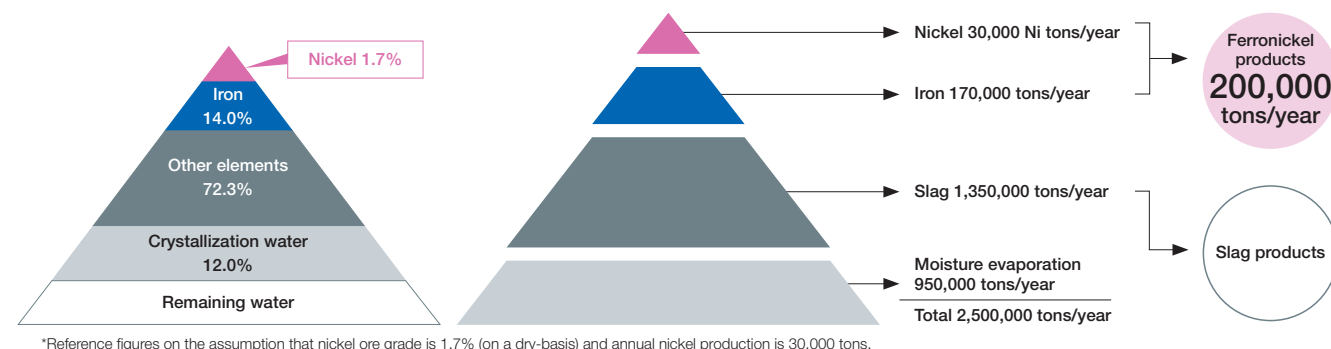
### Outlook for stainless steel production and nickel supply and demand



## What Is Ferronickel?

### Raw Material Information of Ferronickel

#### ► Composition of nickel ore



#### ► Composition of ferronickel (on the assumption of nickel sales volume of 30,000 Ni tons/year)

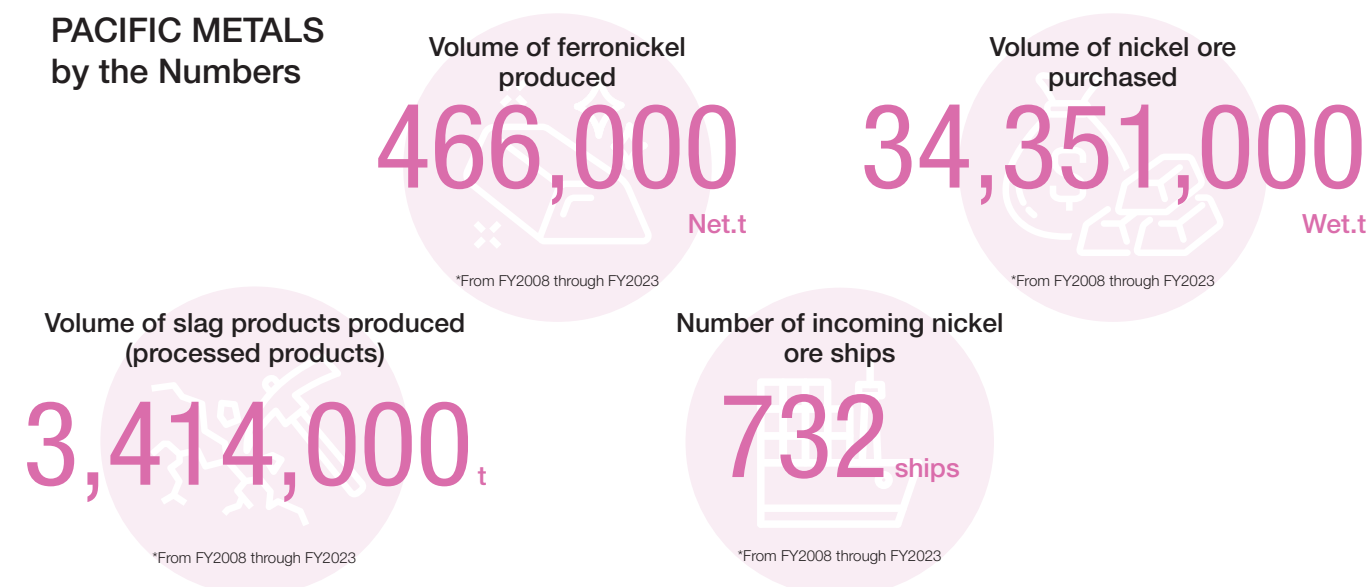


### All Slag Generated in the Ferronickel Manufacturing Process Is Recycled

Ferronickel slag is a by-product of the ferronickel smelting process. Molten slag is poured into cooling pits, where it is cooled by atmospheric cooling and moderate sprinkling with water, to turn it into a solid, rock-like state. This rock-like slag is crushed and mechanically stabilized before being recycled. This resource is attracting attention as an environmentally friendly recycled material.



### PACIFIC METALS by the Numbers



## Business Model and Competitive Advantage

### As One of the World's Top Ferronickel Manufacturers

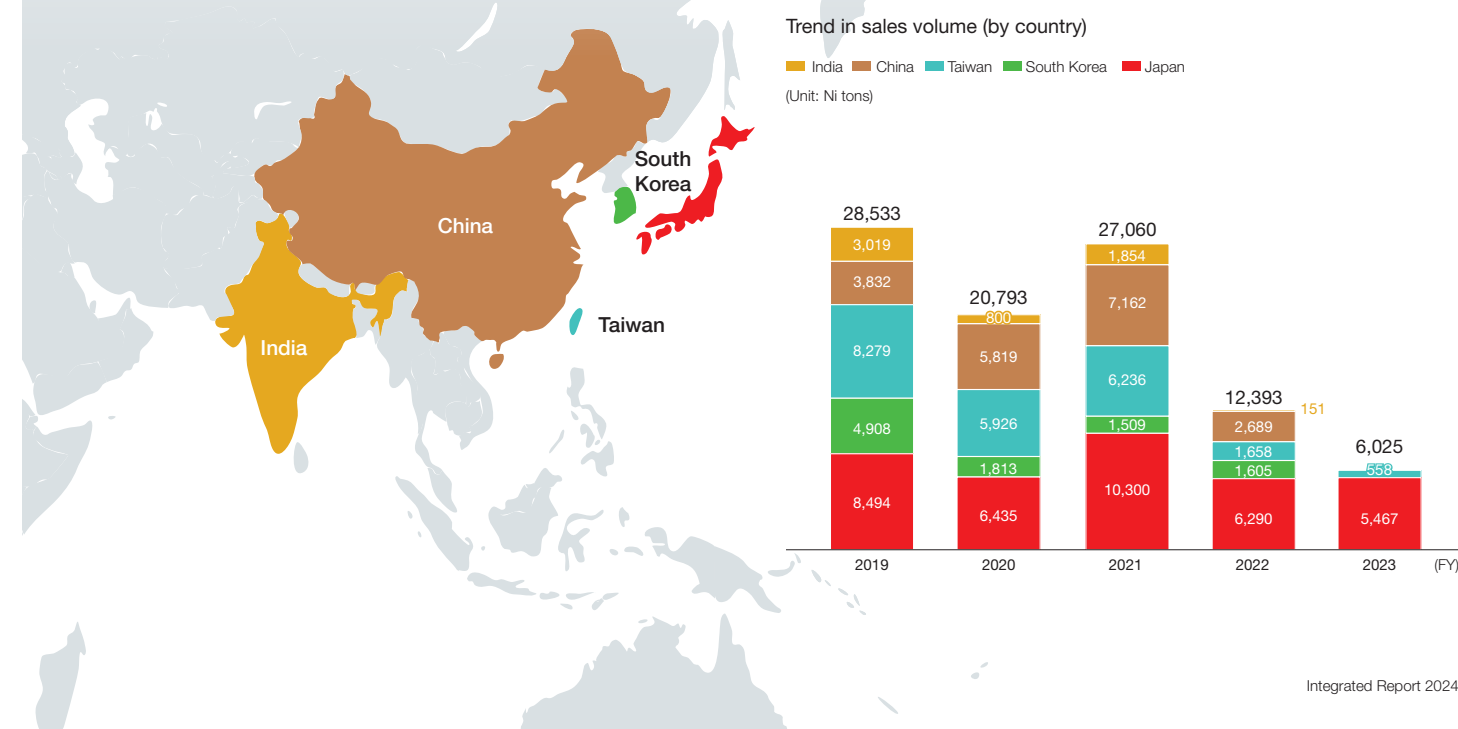
We sell ferronickel not only to Japan but the rest of the world as well. Our strengths are in our production capacity made possible with some of the world's largest electric furnaces, our connections with mining companies supporting that production, and our sales network that supports overseas expansion. By combining these strengths, we have realized the production and supply of high-quality, stable products that are valued around the world.

#### From procurement of ferronickel raw materials to product sales



### Strength 1 Operation in East Asia, a Region Convenient for Sales

The world's demand for nickel comes from China, Taiwan, South Korea, India, the United States, and Europe, and demand is largely concentrated in East Asia, with China alone having demand for several million tons. To meet that demand, we collect information on the market and technology and use it effectively for future business development.





## Strength 2 Hachinohe Works With Environmentally Friendly and Highly Efficient Production

We own three of the world's largest electric furnaces, and we use world-class smelting technology to carry out efficient manufacturing.

### ► Achieving highly efficient production

Our Hachinohe Head Office (Manufacturing Works) is located in Hachinohe Port, which is a cornerstone of the coastal industrial zone facing the Pacific Ocean, making it easy to import nickel ore from overseas. In terms of product sales, this also enables us to expand into the Asian region, starting with major domestic stainless steel manufacturers. Our raw materials are transported efficiently from Hachinohe Port on a large conveyor with a belt width of 3.2m and a total length of 2.4km, saving energy and costs compared to truck transportation. We extract nickel efficiently from the transported nickel ore using our proprietary smelting technology and some of the world's largest electric furnaces.

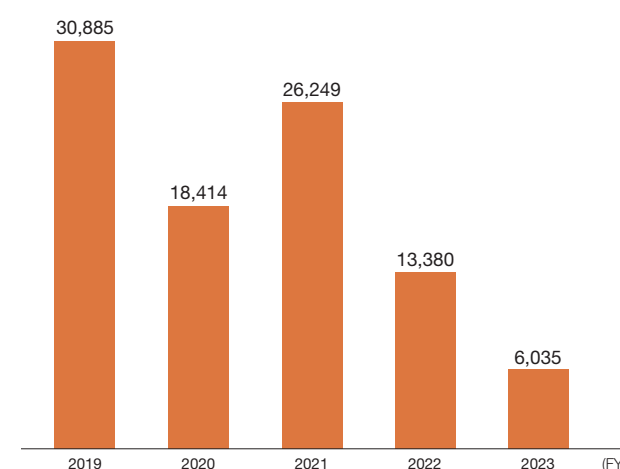


### ► Environmentally friendly technology

We are making innovations to reduce our environmental impact, such as reducing our energy consumption by using the high-temperature exhaust gas emitted from electric furnaces in the ore drying process, and partially replacing nickel ore with recycled raw materials that contain nickel.

Production volume

(Unit: Ni tons)

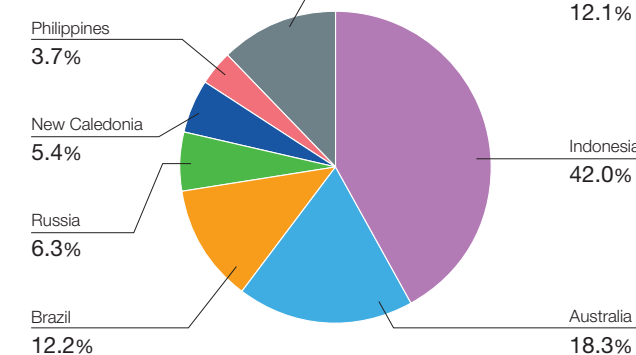


## Strength 3 Close Relationships With Mining Companies

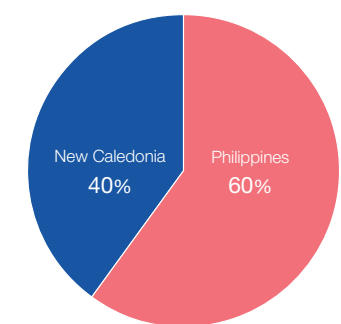
As one of the world's top manufacturers of ferronickel, the Company has also actively ventured into overseas businesses, working with local companies in the Philippines, Indonesia, and other countries to develop resources. The nickel mine development businesses of Philippines-based Rio Tuba Nickel Mining Corporation and Taganito Mining Corporation, which were formed through joint ventures with local capital, support our production of high-quality products through the stable supply of raw materials. We have built up a network of trust that transcends the oceans in addition to technological assistance and resources development.

### ► Information relating to purchasing

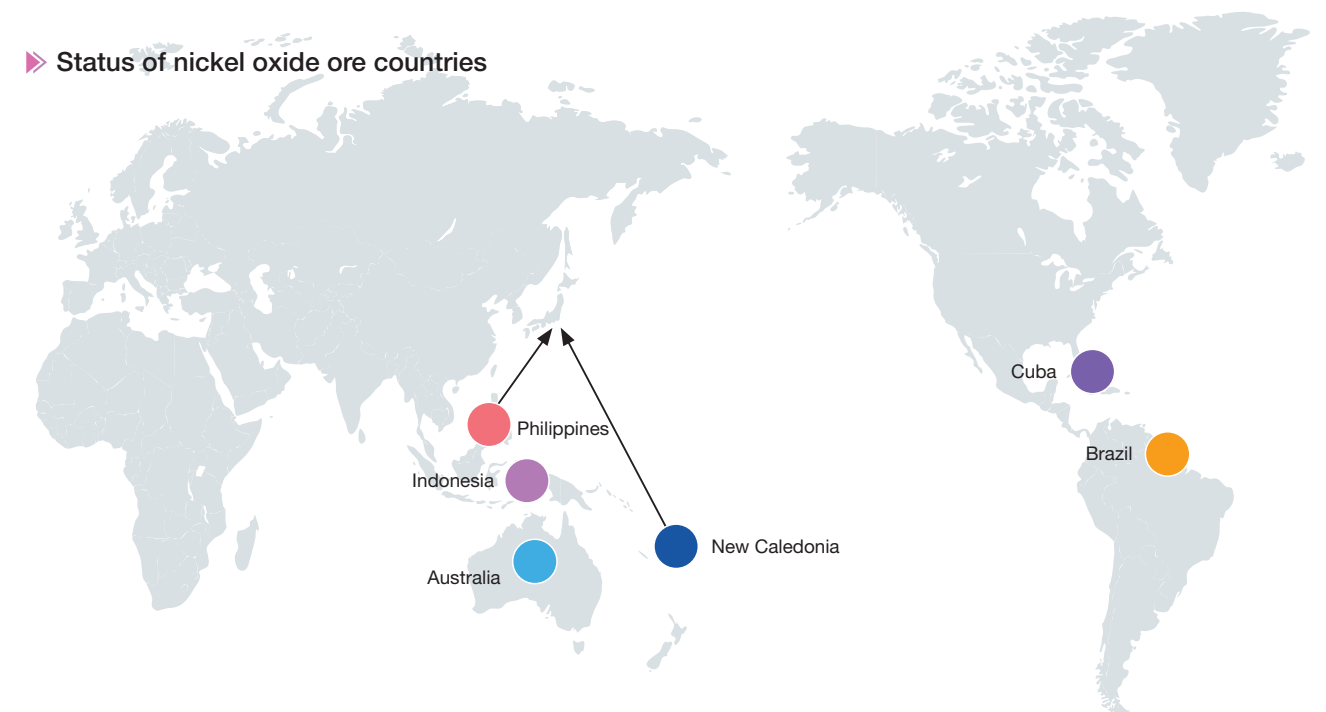
Global nickel ore reserves  
(131,040,000 Ni tons as of 2023)



Amount of nickel oxide ore we purchased  
(5,500 Ni tons for FY2023)



### ► Status of nickel oxide ore countries



**Philippines** Both the Rio Tuba Nickel Mining Corporation and the Taganito Mining Corporation are joint ventures in which we have contributed 36% and 33.5% of the capital, respectively. We have continuously provided the mutual exchange of technical and human support since the mines first opened.

**New Caledonia** We procure ore from Société Minière Georges Montagnat SARL and Mai Kouaoua Mines on a stable basis under 10-year long-term contracts.

**Indonesia** In 1975, we provided technical assistance to PT Antam Tbk as a general supervisor involved in the construction of Indonesia's first ferronickel smelting plant, as well as operational guidance, and over the years we had provided a wide range of technical assistance in mining operations, nickel smelting, and other areas.

\*In January 2014, a policy to ban exportation of unprocessed ore came into effect. From January 2017 to December 2019, that policy was partially eased.  
\*A policy to ban exportation is being implemented again since January 2020

Leverage the power of people to deliver the earth's resources in more useful forms and contribute to the happiness of humankind



### Environmental Changes Affecting Business

- Climate change issues
- Soaring resource and energy prices
- Materialization of resource nationalism in the nickel ore-supplying countries
- Changes in main products' market structure

## INPUTS

### PACIFIC METALS' Main Capitals

Results for FY2023

**Financial capital**

- Net assets 69.0 billion yen

**Manufactured capital**

- Smelting equipment Three furnaces (Capacity: 60,000-80,000 kVA)
- Capital investment 330 million yen

**Natural capital**

- Long-term nickel ore sales and purchase agreement 6 units
- Purchase volume of nickel ore 530,000 tons

**Human capital**

- Number of employees (consolidated) 459

**Social capital**

Customers (delivery destination)

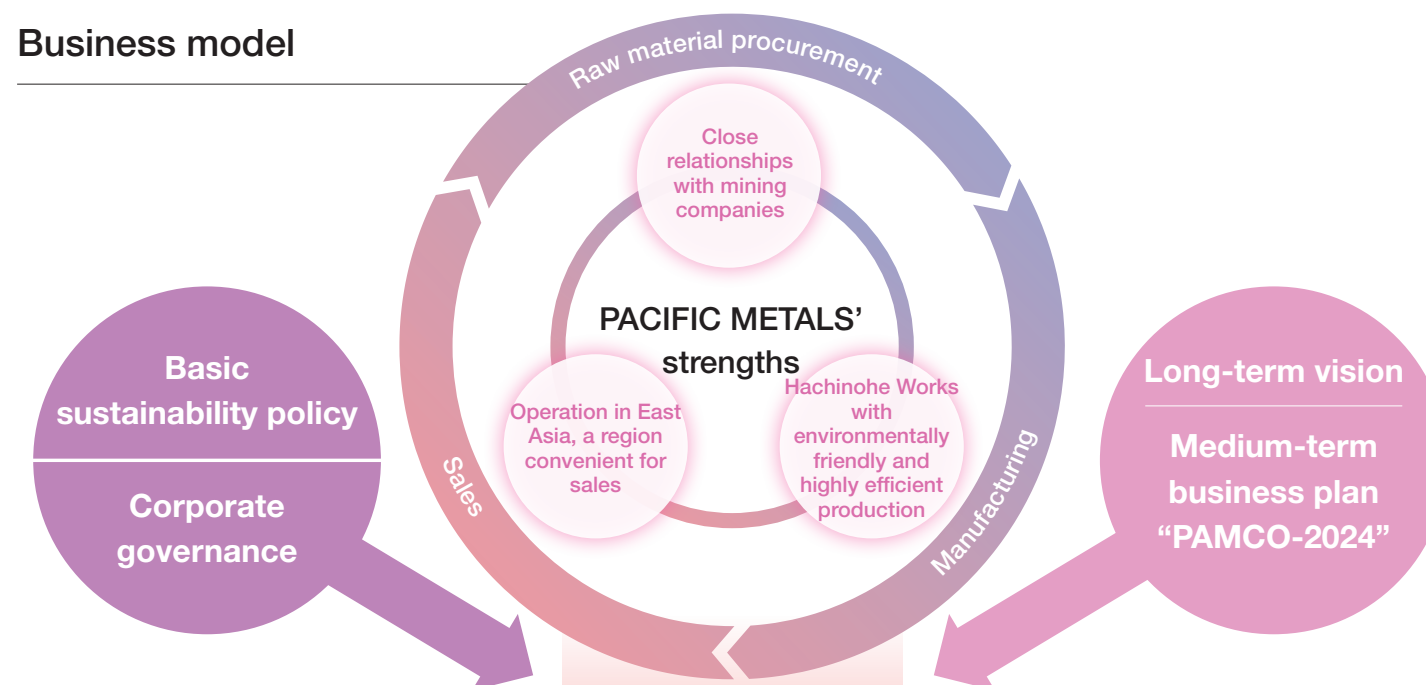
- Ferronickel sales destination 7 companies
- Ferronickel slag sales destination 43 companies

**Intellectual capital**

- R&D investment cost 510 million yen
- 1 GHG emissions reduction
- 2 Establishment of hydrometallurgical and smelting technologies
- 3 Establishment of LIB recycling technology
- 4 Establishment of smelting technology for polymetallic nodules
- 5 Expanded use of nickel recycling resources
- 6 Increased ferronickel slag applications

## Creating Value by Identifying Social Issues and Environmental Changes

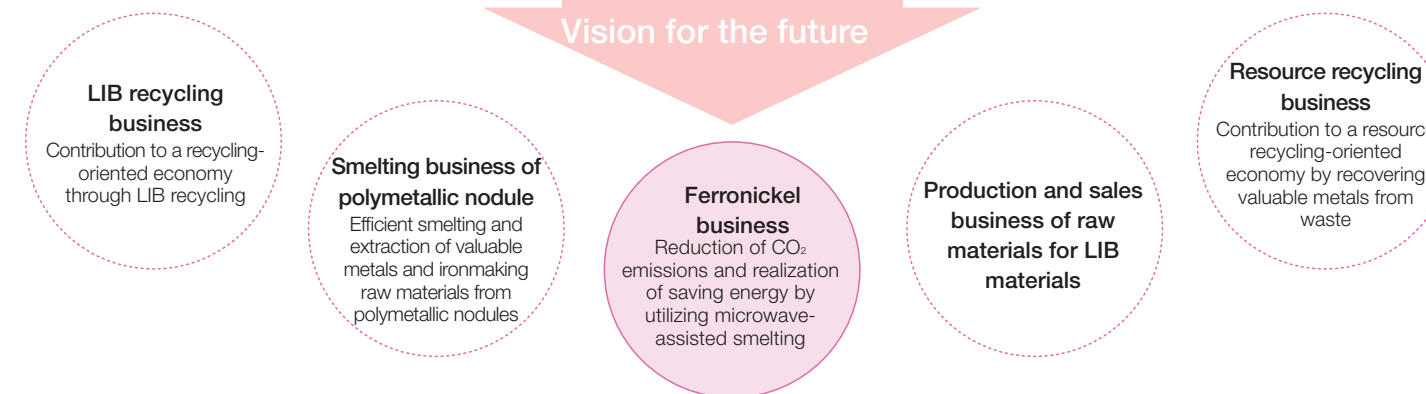
### Business model



### Materiality

- 1 Restructuring of ferronickel production and sales systems with emphasis on profitability**
  - Establishment of optimal production system by reviewing production strategy
  - Strengthening of cost competitiveness by reviewing procurement strategy
- 2 Acceleration of consideration of expansion into overseas smelting business**
  - Promotion and production start-up of overseas smelting projects
- 3 Creation of new businesses that contribute to society**
  - Realization of production and sales of raw materials for LIB materials
- 4 Diversification of business in Japan to contribute to a recycling-oriented society**
  - Restructuring of recycling business
- 5 Enhancement of corporate value by addressing sustainability issues**
  - Sustainability Promotion Council
  - Reduction of GHG emissions
  - Promotion of symbiosis by contributing to the development of regions and resource-rich countries
  - Promotion of constructive dialogue with stakeholders

### Vision for the future



Raising corporate value and reinforcing each form of capital

## OUTCOMES

### Values provided to society

- Efficient use of limited resources
- Creation of a sustainable recycling-oriented society
- Reduction of GHG emissions
- Contribution to the development of regions and resource-rich countries

## OUTPUTS

### Market development

Results for FY2023

- Ferronickel sales volume 6 kt
- Ferronickel slag sales volume 356 kt
- GHG emissions (CO<sub>2</sub>-equivalent) 314 kt-CO<sub>2</sub>/year
- Recycled water volume 47,800 k m<sup>3</sup>/year
- Consolidated net sales 15.5 billion yen
- Dividend payout ratio —



## Message From the President

**We will continue to change so that we may remain the kind of materials manufacturer that the times demand**

**Masayuki Aoyama**

President and Representative Director



### ► Our future will change depending on how we view the rapid changes in the business environment

Our financial performance for the fiscal year ended March 31, 2024 were harsh, with decreases in both net sales and profits due to the impact of rapid changes in the business environment surrounding us. I would first like to express our sincere apologies to our shareholders and other stakeholders for the concern that this has caused.

In addition to possessing one of the world's largest ELKEM-type electric furnaces at our plant in Hachinohe City, the Company has built a position as one of the world's leading ferronickel manufacturers based on our in-house developed smelting technology. However, the environment surrounding our industry has changed dramatically due to China ramping up production of nickel pig iron (NPI), which is produced from relatively low-grade nickel ore, since the 2000s. The price of ferronickel handled by the Group handles is based on the nickel price on the London Metal Exchange (LME). However, the expansion of supply of NPI produced, smelted, and processed by companies with Chinese and other capital regrettably caused a situation where market prices are

determined by the price movements of NPI. This resulted in a fall in the selling price of our ferronickel products, which had a severe impact on our earnings. Although there continues to be high demand for our products from customers seeking high-quality ferronickel, we have been forced to strategically control production.

Frankly speaking, the market environment related to ferronickel is not something that we can change, and the current market trends are expected to continue. On the other hand, although the fall in market prices is not attributable to us, the smelting technologies that we have cultivated remain highly valued, and there is potential for them to be applied to polymetallic materials. While we face extremely difficult straits as a ferronickel manufacturer, my view of the situation is that, once again, an opportunity for us to change has come around. So that you may understand that this is my heartfelt belief, allow me to talk briefly about the history of PACIFIC METALS CO., LTD.

### ► We have continued to change to demonstrate our strengths in our field of expertise

Pacific Metals was founded in 1949 as a company making pig iron from iron sand. It established its headquarters in the industrial zone of Hachinohe, Aomori Prefecture, where many companies have grown and prospered together while respecting each other's fields of expertise. When I joined the Company in 1975, it had already begun its smelting business and was manufacturing ferroalloys, including Fe-Ni, Fe-Mn, and Fe-Cr, and stainless steel. Subsequently, however, price competition in the stainless steel industry intensified. At the time, I visited a major steel company, and I honestly felt that, given its huge scale, this was not a company that we wanted to compete with. Later, the Company shifted its focus to become a specialized manufacturer of ferronickel, the raw material of stainless steel. Looking back, I can sense that the history of the Company has been a repeated cycle of finding an area of expertise and transforming in order to survive.

Thanks to that cycle of transformation, we have received many requests for new projects from companies that value our smelting technologies. One of them is a project to refine the seabed resources of polymetallic nodules. The layers of black deposits that have

accumulated over many years on the deep ocean floor are called polymetallic nodules. They contain metals with high resource value, such as cobalt and nickel. We have already conducted a feasibility study in cooperation with a company that mines polymetallic nodules, and we have begun pilot demonstration trials with a sample mining of approximately 2,000 tons of polymetallic nodules. In the next stage of this project, we plan to obtain technical and facility data for separating and extracting polymetallic nodules in our electric furnaces, verify the changes in the smelting process, and conduct a detailed examination of the equipment and the amount of investments that will be required. We are also working on multiple new projects, including the development of lithium-ion battery technologies.

If the ferronickel business had been going well, we would not have had the spare capacity to use our electric furnaces for other projects. I believe that it is this harsh business environment that has actually handed us the opportunity to take on the challenge of new growth areas, including polymetallic nodules.

### ► Moving steadily forward with our eyes on the present for the sake of the future

One thing that I would like to say is that I have no hesitation whatsoever about the idea of the Company shifting its business model. However, companies do not change suddenly one day; it takes time and money to get new businesses on track. In the meantime, all of us, including our employees, have to make a living. We will sustain the high value-added ferronickel business by continuing to operate our electric furnaces while strategically controlling production. We will also uphold our earnings base, employment of personnel, and technologies at a certain level. During that time, we will steadily generate results from new businesses. To take it further, no matter how meticulously we may plan a new business, quite often, it is a case of not knowing until we try, or the business environment may change in the process of tackling that new business. That is why we are always focused on facing reality, carrying out what we can do right in front of us, so we will be ready for whatever opportunities may come our way.

The Company's treasures are its technological capabilities and its employees. Amid the rapid pace of technological innovation in society, the driving force behind passing on and further developing our technologies is our employees. Amid the severe business environment, we have been placing efforts into providing internal briefings and individual interviews so as not to cause anxiety among our employees. Now that the medium-term business plan, PAMCO-2024, has been completed, we are also developing plans to explain the Company's vision for our future to our stakeholders.

There are many companies in Japan that have been around for 100 years, but I think it is rare for a company to have continued handling the same materials or business for that long. So that it may continue to be a manufacturer of materials that each era requires, the Company is now entering another time of transformation, one of several that it has faced in the past. I hope that all our stakeholders will watch over our challenges and extend their support.



We have established a new long-term vision, “a comprehensive materials company that co-creates a sustainable, recycling-oriented society,” aiming to grow into a sustainable company, and we have implemented the medium-term business plan (period: FY2022-FY2024, hereinafter, PAMCO-2024) to achieve this.

Summary of Progress on Major Priority Measures

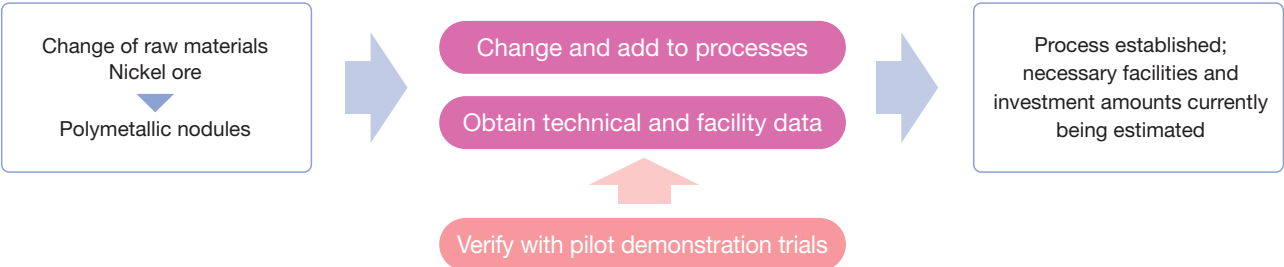
Creation of new businesses that contribute to society	Promotion of new metal refining projects → Highlights of major priority measures ❶	
	Realization of production and sales of raw materials for LIB materials	● Established (filed patent application for) cobalt sulfate manufacturing process, but postponed consideration of joint ventures with other companies ● Continuing development of process for producing rare metals for LIB applications from other raw materials (will consider commercialization after process is established, taking requirements of U.S. Inflation Reduction Act into account)
	Development of LIB recycling technology	● Completed development of technology, phased up to demonstration levels
Acceleration of consideration of expansion into overseas smelting business	Promotion and production start-up of overseas smelting projects	● Restarted project after obtaining approval of local governments ⇒ Deepened discussions with owners toward the Company’s participation
Diversification of business in Japan to contribute to a recycling-oriented society	Restructuring of recycling business	● Continued marketing activities of the production and sales business of raw materials for steelmaking and raw materials for battery materials
Enhancement of corporate value by addressing sustainability issues	Reduction of GHG emissions → Major priority measures highlights ❷	
	Promotion of symbiosis by contributing to regions and resource-rich countries	● Disclosed value creation process in integrated reports ● Conducted CSR surveys of consolidated subsidiaries and equity-method affiliates as part of our initiatives for respecting human rights
	Promotion of constructive dialogue with stakeholders	

Priority Measures Highlights ❶

Promotion of new metal refining projects

▶ Feasibility study of new metal smelting business from seabed resources

The Company is currently conducting pilot demonstration trials toward the construction of a smelting process tailored to the characteristics of polymetallic nodules (prior verification tests completed). We aim to ensure highly reliable operations by obtaining technical and facility data on the smelting process through smelting tests using polymetallic nodules.



Prior verification test



Polymetallic nodules being unloaded



Polymetallic nodule stockpile

Priority Measures Highlights ❷

Reduction of GHG emissions

▶ Electrification of calcination process in ferronickel production

In joint research with Microwave Chemical Co., Ltd., we succeeded in calcination and reduction of nickel ore using standard microwave bench-scale equipment.

● Removal of crystallization water from nickel ore

We measured the crystallization water after the calcination test and confirmed that it had been removed.

● Reduction reaction of nickel ore

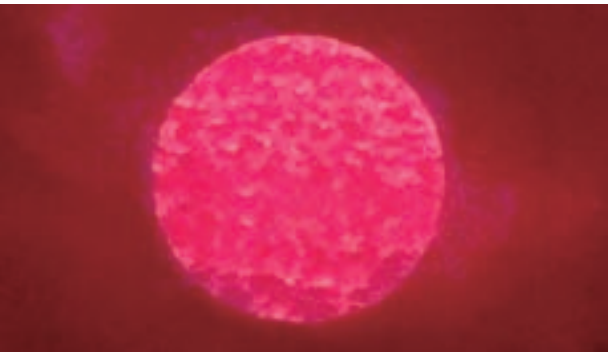
Reduction of nickel oxide and iron oxide in ore progressed. We obtained results that are almost equivalent to the reduction rate of our existing rotary kiln.

● Identification of issues and estimation of economic feasibility

Having obtained material and thermal balance data from continuous supply testing, we are now in the process of identifying the issues and estimating economic feasibility for the introduction of the actual system.



Standard microwave bench-scale equipment



(Center) Nickel ore undergoing calcination (900°C)

Investment Plan

	“PAMCO-2024” Plan for FY2023	Results for FY2023	(Difference)	Plan for FY2024
❶ Capital investment	1,351	317	(1,034)	309
❷ 1) Domestic business	500	0	(500)	0
❷ 2) Overseas business, resources	18	0	(18)	3,607
❷ 3) R&D investment	0	14	14	231
Total	1,869	331	(1,538)	4,147

Reason for difference between “PAMCO-2024” Plan for FY2023 and its results	● ❶ Capital investment Due to slump in environment, we reduced the amount of investment to the extent that it would not affect stable operations. ● ❷ 1) Domestic business Cancelled FY2023 capital investments as the results of marketing surveys about the restructuring of the recycling business found that demand diverges from our initially expectation.
Plan for FY2024	● ❷ 2) Overseas business, resources Investments in overseas smelting projects planned for FY2022 were postponed to FY2024 due to the review of the business structure.

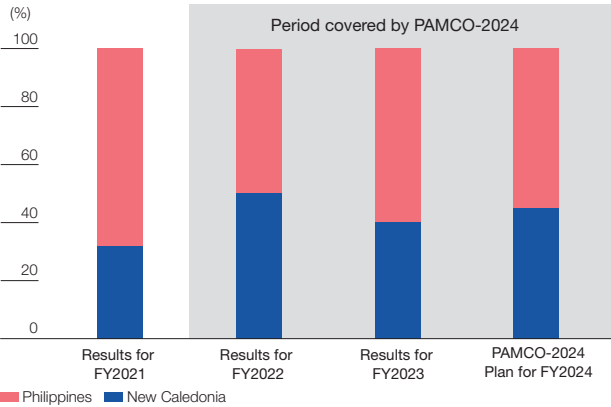
Ore Procurement Plan

► Status of conclusion of long-term contracts

Other party in long-term contracts	FY2021	FY2022	FY2023	FY2024	FY2025
<div></div> Rio Tuba Nickel Mining Corporation (36% stake held by the Company)	Prior contract period	Renewed	Contract period: Jan. 2022 to Dec. 2026 (5 years)		
<div></div> Taganito Mining Corporation (33.5% stake held by the Company)	Prior contract period		Contract period: Jan. 2022 to Dec. 2026 (5 years)		
<div></div> Cagdianao Mining Corporation	Prior contract period		Contract period: Jan. 2022 to Dec. 2026 (5 years)		
<div></div> Mai Kouaoua Mines	Contract period: Jan. 2014 to Dec. 2025 (2 contracts, 10 years each)				
<div></div> Montagnat SARL	Contract period: Apr. 2016 to Mar. 2026 (10 years)				

Philippines  New Caledonia

► Procurement ratio



► Status of procurement

Environment surrounding nickel ore procurement

- The export ban on Indonesian ore came in effect in January 2014.
- The export ban was relaxed temporarily between January 2017 and December 2019.
- Afterwards, the export ban was reintroduced in January 2020.
- Since then, ore supply and demand has remained tight.

The Company's ore procurement policy

- As an ongoing ore procurement policy, the Company is pushing forward with the expansion of the procurement of ores from New Caledonia.

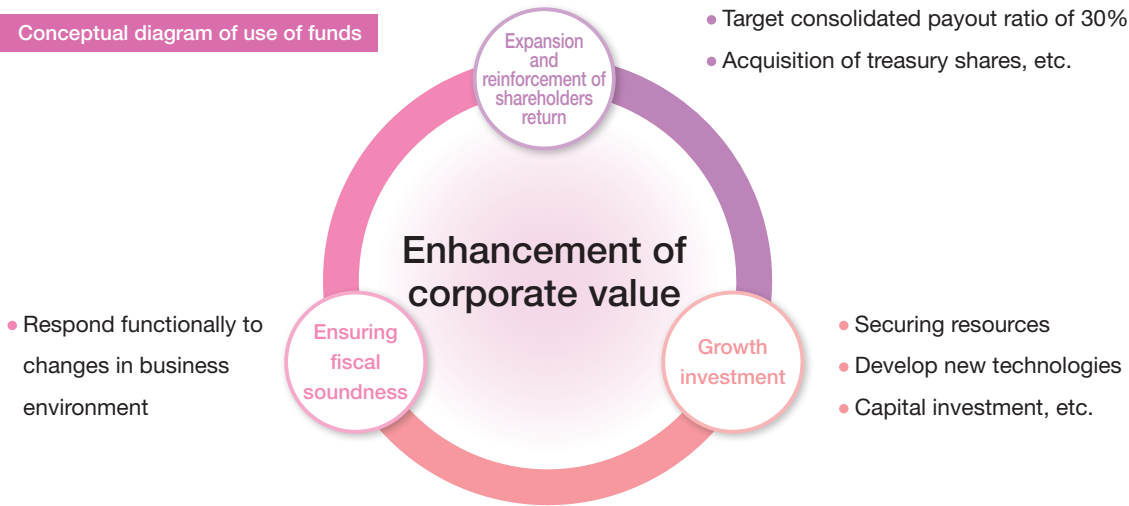
Quantitative Targets

Forecast for the period covered by PAMCO-2024		Plan for FY2022	Plan for FY2023	Plan for FY2024
	Production volume (Ni tons)	20,810	29,037	28,454
	Sales volume (Ni tons)	20,500	27,500	27,500
	Applicable LME nickel price (US\$/ton) [US\$/lb.]	21,451[ 9.73 ]	19,379[ 8.79 ]	19,290[ 8.75 ]
	Applicable exchange rate (¥/US\$)	111.05	111.06	111.07
	Net sales (million yen)	50,210	60,958	60,801
	Operating profit (loss) (million yen)	925	225	1,809
	Ordinary profit (loss) (million yen)	3,844	2,822	4,549
	Profit (loss) attributable to owners of parent (million yen)	3,513	2,415	4,058
	Total assets (million yen)	89,594	91,934	97,914
	Net assets (million yen)	81,026	82,416	85,797
	Investment (million yen)	7,089	1,869	9,484
	Depreciation (million yen)	314	402	536
Results and forecast for the period covered by PAMCO-2024		Results for FY2022	Results for FY2023	Results for FY2024
	Production volume (Ni tons)	13,380	6,035	5,547
	Sales volume (Ni tons)	12,393	6,025	6,000
	Applicable LME nickel price (US\$/ton) [US\$/lb.]	25,507[ 11.57 ]	21,208[ 9.62 ]	17,461[ 7.92 ]
	Applicable exchange rate (¥/US\$)	135.26	144.46	139.21
	Net sales (million yen)	34,852	15,521	13,994
	Operating profit (loss) (million yen)	(12,588)	(9,114)	(6,838)
	Ordinary profit (loss) (million yen)	(4,960)	(2,119)	(2,903)
	Profit (loss) attributable to owners of parent (million yen)	(5,026)	(1,074)	(3,252)
	Total assets (million yen)	78,825	73,790	70,670
	Net assets (million yen)	72,034	69,060	65,825
	Investment (million yen)	1,201	331	4,147
	Depreciation (million yen)	289	350	407

Capital Policy

We will pursue an optimal balance of expansion and reinforcement of shareholders return, growth investment, and ensuring fiscal soundness in the use of funds, and strive to enhance corporate value.

Conceptual diagram of use of funds



► Capital policy (expansion and reinforcement of shareholders return)

- **Dividends of surplus:** We regard the return of profits to shareholders as one of our most important management issues and will pay dividends with a target consolidated payout ratio of 30%, while enhancing and strengthening our corporate structure.
- **Internal reserve:** We will use internal reserve as a fund to respond functionally to changes in the business environment to secure resources, develop new technologies, make capital investments, and acquire treasury shares as part of our capital policies.

► Financial policy (ensuring fiscal soundness)

- With the aim of maintaining an appropriate level of funds for its business activities, the Group's basic policy in the immediate business climate is to finance capital investments with funds provided by operating activities. We have also concluded commitment line agreements as a means of ensuring short-term liquidity.
- In terms of the liquidity of funds, we strive to ensure an appropriate balance of cash and cash equivalents, while taking financial conditions and other factors into consideration. We have positioned the improvement of cash flow from operating activities through the improvement of profitability as the most important issue in our financial policy.

► Investment plans (growth investment)

- **Capital investment/strategic investment:** The investment plan under the medium-term business plan, PAMCO-2024, includes capital investments that contributes to the maintenance, efficiency, and longevity of facilities, and strategic investments in domestic business, overseas business and resources, and research and development. In the fiscal year ended March 31, 2024, the Group made capital investments of 314 million yen in the nickel business, primarily in ferronickel manufacturing facilities, and 16 million yen in the gas business, for a total investment (property, plant and equipment and intangible assets) of 331 million yen.
- **R&D investment:** Following a three-year plan (FY2022 - FY2024), we proceeded with research and development aimed at the reduction of greenhouse gas emissions aimed at carbon neutrality, the establishment of hydrometallurgical and smelting technologies, lithium-ion battery (LIB) recycling technology, polymetallic nodule smelting technology, expansion of recycled nickel resources use and applications for slag, and the rebuilding of the recycling business. A total of 511 million yen was spent on research and development in the fiscal year ended March 31, 2024.



## Basic Sustainability Policy

Under the Group philosophy “Leverage the power of people to deliver the earth’s resources in more useful forms and contribute to the happiness of humankind,” our stated long-term vision is to be “a comprehensive materials company that co-creates a sustainable, recycling-oriented society,” and the Group has positioned securing a management platform able to adapt to changes in the business environment, contributing to the SDGs, and achieving carbon neutrality as material issues for the Group. We are working to grow into a sustainable company and heighten corporate value, while devoting all our efforts to realize a sustainable society and environment.

### Material Issues (Materiality)

<b>Restructuring of ferronickel production and sales systems with emphasis on profitability</b>    	<p>1 Establishment of optimal production system by reviewing production strategy</p> <ul style="list-style-type: none"> <li>Establish optimal production system to further strengthen the platform.</li> </ul> <p>2 Strengthening of cost competitiveness by reviewing procurement strategy</p> <ul style="list-style-type: none"> <li>Review and strengthen procurement strategies for fuels and other raw materials, according to the highest priority to cost competitiveness.</li> </ul>
<b>Acceleration of consideration of expansion into overseas smelting business</b>     	<p>3 Promotion and production start-up of overseas smelting projects</p> <ul style="list-style-type: none"> <li>Establish optimal ferronickel production and sales system by combining domestic and overseas smelting operations.</li> </ul>
<b>Creation of new businesses that contribute to society</b>   	<p>4 Promotion of production and sales of raw materials for LIB materials</p> <ul style="list-style-type: none"> <li>Create a business to manufacture and sell raw materials for LIB materials by utilizing hydrometallurgical technologies.</li> </ul>
<b>Diversification of business in Japan to contribute to a recycling-oriented society</b>     	<p>5 Restructuring of recycling business</p> <ul style="list-style-type: none"> <li>Promote restructuring of our recycling business through collaboration with other companies, etc.</li> </ul>
<b>Enhancement of corporate value by addressing sustainability issues</b>              	<p>6 Sustainability Promotion Council</p> <ul style="list-style-type: none"> <li>Positioning the response to climate change and the realization of a sustainable society as the most important management issue, promote specific measures across PAMCO, including discussions on medium- to long-term initiatives and directions concerning material sustainability issues.</li> </ul> <p>7 Reduction of GHG emissions</p> <ul style="list-style-type: none"> <li>To achieve carbon neutrality by FY2050, implement measures with clear targets, including use of carbon-free energy and introduction of new technologies.</li> </ul> <p>8 Promotion of symbiosis by contributing to the development of regions and resource-rich countries</p> <ul style="list-style-type: none"> <li>Promote symbiosis through activities that contribute to the development of the region and resource-rich countries.</li> </ul> <p>9 Promotion of constructive dialogue with stakeholders</p> <ul style="list-style-type: none"> <li>Disclose operating and financial conditions in a timely, appropriate, and fair manner, and actively communicate and promote constructive dialogue on the market environment and our unique strengths.</li> </ul>

## Environment

## Response to the TCFD Recommendations



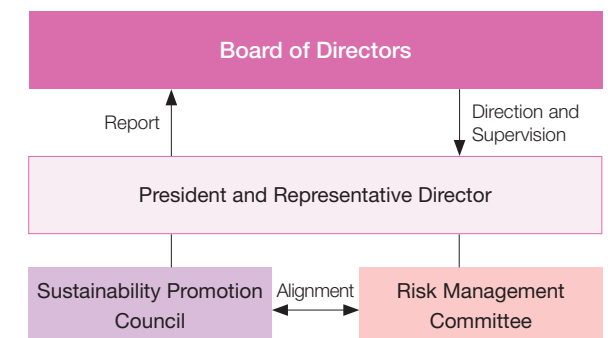
The Group has endorsed the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) established by the Financial Stability Board (FSB). Positioning the response to climate change and the realization of a sustainable society as important management issues, we are promoting company-wide initiatives, including deliberation on medium- to long-term initiatives and orientation regarding important issues (materiality) related to sustainability, as well as response to ESG issues, promotion of CSR, and initiatives toward carbon neutrality. As part of these efforts, the Company has established a framework for promoting initiatives for addressing issues regarding ESG/SDGs, sustainability and climate change.

We will proactively promote initiatives that contribute to climate change mitigation and adaptation and information disclosure in line with the TCFD recommendations, build a deep relationship of trust with our stakeholders, and contribute to resolving climate change issues and realizing a sustainable society through our business activities.

### ► Governance

The Group regards responding to climate change and realization of a sustainable society as important management issues. The Sustainability Promotion Council was established to discuss medium- and long-term initiatives and orientation related to materiality, as well as to promote specific measures across the Company to address ESG issues, promote CSR, achieve carbon neutrality, etc. The Sustainability Promotion Council meets quarterly.

The Sustainability Promotion Council is chaired by the President and its membership comprises executive officers. It reports to the Board of Directors for direction and supervision.



### ► Risks and opportunities

We examined “climate-related transition and physical risks” and “climate-related opportunities through climate change mitigation and adaptation solutions” according to the TCFD classifications.

Scenario analysis was conducted for 1.5°C and 4°C scenarios, with reference to the International Energy Agency (IEA) and the Intergovernmental Panel on Climate Change (IPCC). We have conducted a scenario analysis as shown on the following page, and the results confirmed that our strategy has resilience with regard to the response to each risk and opportunity.

#### Risk analysis procedure



### ► Risk management

The Group has established the Risk Management Committee for company-wide risk management, including risks related to climate change. The Risk Management Committee is chaired by a director appointed by the President and its membership comprises executive officers and general managers. It meets quarterly to conduct routine risk management (risk identification, evaluation, monitoring, etc.). For risk countermeasures, we prioritize risks based on likelihood and impact, and we engage in risk mitigation activities for priority risks and manage progress.

The Risk Management Committee reviews “climate-related risks and opportunities” annually and the status of activities is reported to the Board of Directors at least once a year for direction and supervision. Matters affecting important sustainability issues are reported to the Sustainability Promotion Council.

► Goals and indicators

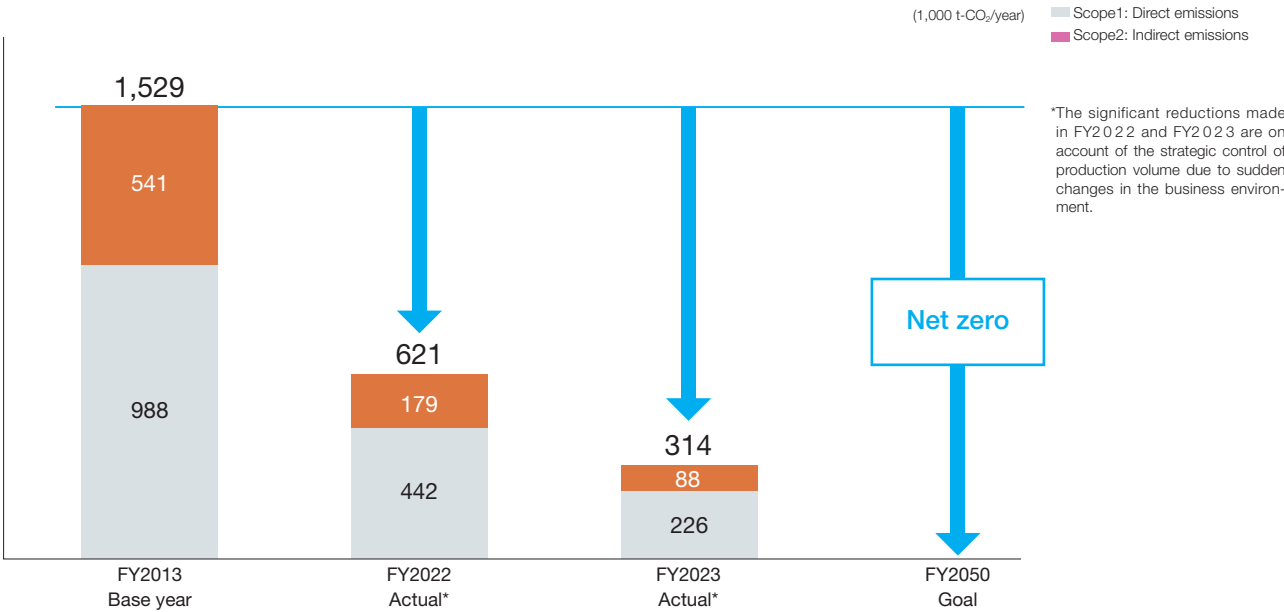
The Group aims to reduce GHG emissions by 46% or more by 2030 (compared with 2013) and achieve net zero emissions by 2050.

Initiatives to achieve the goals

- Reduction of GHG emissions

To achieve carbon neutrality by FY2050, we will implement measures with clear targets, including use of carbon-free energy and introduction of new technologies.

Scope 1 and 2 emissions (non-consolidated)



Scope 3 emissions (non-consolidated)

The Company has calculated Scope 3 emissions based on the “Basic Guidelines on Accounting for Greenhouse Gas Emissions Throughout the Supply Chain (Ver. 2.5)” provided by the Ministry of Economy, Trade and Industry and the Ministry of the Environment. The total of Scope 3 emissions in FY2023 was 96 kt-CO<sub>2</sub>. The category-specific breakdown was Category 1: Purchased goods and services (4%), Category 3: Fuel-and energy-related activities not included in scope 1 or scope 2 (37%), Category 4: Upstream transportation and distribution (46%), and Category 13: Downstream leased assets (10%), accounting for about 97% of the total.

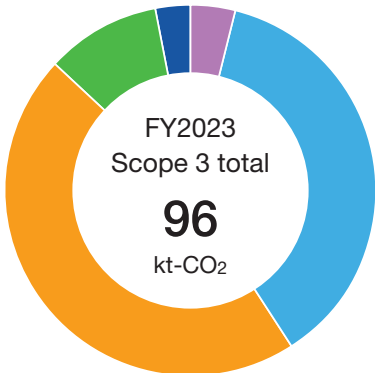
Supply chain emissions [1,000 t-CO <sub>2</sub> ]		
Category	FY2022 (% of total emissions)*2	FY2023 (% of total emissions)*2
C1 Purchased goods and services	41(16%)	4(4%)
C3 Fuel-and energy-related activities not included in scope 1 or scope 2	89(34%)	36(37%)
C4 Upstream transportation and distribution	116(45%)	44(46%)
C13 Downstream leased assets	10(4%)	9(10%)
Other than the above categories (the total of C2, C5-C9, C12)	4(1%)	3(3%)
Scope 3 total*3	260(100%)	96(100%)

\*2 Rounded to the nearest whole number \*3 C10, C11, C14, and C15 are not applicable.

Target ratios for non-fossil fuel electricity

To reduce our GHG emissions from electricity, we have set the following targets for the ratio of non-fossil fuel electricity.

	FY2030	FY2050
Target ratio for non-fossil fuel electricity (%)	50	100



► Scenario analysis (GHG emissions are in CO<sub>2</sub> equivalent)

Prerequisites: • We examined risks and opportunities expected in 2030. • Financial impacts of climate change have been estimated.

Category of risks and opportunities			Overview of risks and opportunities	1.5°C scenario		4°C scenario		PACIFIC METALS's response	
				financial impact	Possibility	financial impact	Possibility		
Risks	Transition	Policies and regulations	Higher energy costs for business operations (manufacturing and transportation) due to introduction of carbon tax	Large	High	Small	High	<ul style="list-style-type: none"><li>● Process electrification</li><li>● Transition to renewable energy use</li></ul>	<ul style="list-style-type: none"><li>● Installation of microwave equipment in the raw material drying and burning process to reduce coal and fossil fuels as heat sources</li><li>● Phased transition to the use of purchased renewable energy</li></ul>
			Higher risks and costs of procuring various raw materials due to higher fossil fuel prices caused by changes in the supply-demand balance resulting from climate change, unstable supply due to unseasonable weather and other factors, and a higher renewable energy levy	Small	Low	Large	Medium		
		Market and technology transition	Greater customer demand for decarbonization. Lower product competitiveness (e.g., declining market share) if the Company's response to decarbonization is insufficient	Large	Medium	Medium	Low	<ul style="list-style-type: none"><li>● LCCO2 evaluation</li></ul>	<ul style="list-style-type: none"><li>● Transition to decarbonized manufacturing, followed by LCCO2 evaluation to meet customer demand</li></ul>
			Higher Ni prices due to higher demand reflecting shift to EVs, leading to replacement of raw materials for stainless steel by less expensive alternative metals	Large	Low	Large	Low		
		Reputation in the market	Preference for ESG-responsive suppliers in the supply chain, leading to damage to corporate value and additional ESG-related costs	Large	Medium	Small	Medium	<ul style="list-style-type: none"><li>● Commitment to decarbonization</li><li>● Commitment to initiatives</li></ul>	<ul style="list-style-type: none"><li>● Commitment to sustainability issues and active disclosure of implementation status (TCFD disclosure, response to CDP, etc.)</li></ul>
			Declining value in capital markets (e.g., share price declines) because of failure to respond to climate change information disclosure requirements	Large	Medium	Small	Low		
	Physical	Acute	Physical damage to production sites and the supply chain, causing suspension of operations and logistics, resulting in lost profits and additional costs.	Small	Low	Small	Medium	<ul style="list-style-type: none"><li>● Diversification of risks by diversifying raw material suppliers</li></ul>	<ul style="list-style-type: none"><li>● Procurement risk diversification by diversifying the suppliers of raw materials, including recycled resources</li></ul>
		Chronic	Additional production costs due to changes in properties, such as increased moisture content of raw materials, because of longer rainy seasons in the regions where resources are procured.	Small	Medium	Small	High		
Opportunities		Resource efficiency	Expanded use of recycled metal resources (alternative to metal resources), which produce less GHG emissions and show higher manufacturing efficiency than natural resources	Large	Medium	Large	Medium	<ul style="list-style-type: none"><li>● Establishment of a system for resource recycling</li></ul>	<ul style="list-style-type: none"><li>● Establishment of a new system for resource recycling by collecting and accepting a larger amount of recycled resources</li></ul>
		Energy source	Innovation in the manufacturing process, which results in a substantial decrease in fossil fuel use and a reduction in energy costs and in turn reduces GHG emissions and improves the impact of carbon pricing	Large	Medium	Medium	Medium	<ul style="list-style-type: none"><li>● Process electrification</li><li>● Transition to renewable energy use</li></ul>	<ul style="list-style-type: none"><li>● Installation of microwave equipment in the raw material drying and burning process to reduce coal and fossil fuels as heat sources</li><li>● Phased transition to the use of purchased renewable power</li></ul>
		Products and services	Innovation in the manufacturing process, which contributes to GHG emission reductions in customers' supply chains and increases product competitiveness	Medium	Medium	Small	Low	<ul style="list-style-type: none"><li>● Strengthening of sales capabilities and expansion of new customers</li></ul>	<ul style="list-style-type: none"><li>● Sale of low-carbonization products, leading to better relationships with customers</li><li>● Cultivation of new business partners, such as overseas manufacturers</li></ul>
		Resilience	More flexible and speedy response due to the transition of active engagement in ESG issues to company-wide strengthening of governance, leading to support and cooperation from investors and other stakeholders, increased corporate value, strengthening of business foundation, and further business expansion	Medium	Medium	Small	Medium	<ul style="list-style-type: none"><li>● Strengthening of governance</li></ul>	<ul style="list-style-type: none"><li>● Planning, implementation, and management of response to ESG issues</li></ul>

1.5°C Scenario: A scenario where continued efforts are made to limit the average temperature increase to 1.5°C.

4°C Scenario: A scenario where no measures are taken and the situation takes its natural course.

► Process electrification initiatives

We are proceeding with research and development to shift our calcination process, which is the main cause of CO<sub>2</sub> emissions in nickel ore smelting, away from energy derived from coal combustion used in conventional technology to microwaves generated by electricity.

In tests using standard microwave bench-scale equipment, we have confirmed a reduction reaction equivalent to that of our current rotary kiln, which has given us prospects for significant reductions in CO<sub>2</sub> emissions from fossil fuels and energy savings through improved thermal efficiency.

We will continue with scaling-up verification tests with a view to introducing full-size equipment in 2030.



Existing rotary kiln



Standard microwave bench-scale equipment



# Environmentally Friendly Ferronickel Manufacturing Process

Ferronickel, which is the main raw material for stainless steel, and we are the number one domestic producer of ferronickel. Utilizing the world's top level smelting technology, we carry out efficient manufacturing with the world's largest electric furnace. Ingenuity to reduce environmental impact, we apply many technologies such as reducing energy consumption by using high-temperature exhaust gas from electric furnaces into the ore drying process, and partly replacing nickel ore with recycled resources containing nickel.

## ► Flow of inputs and outputs

INPUT			Results for FY2023
Main raw materials	Nickel ore	530,000 t	
	Secondary ingredients	70,000 t	
Industrial water		3,980,000 m³	

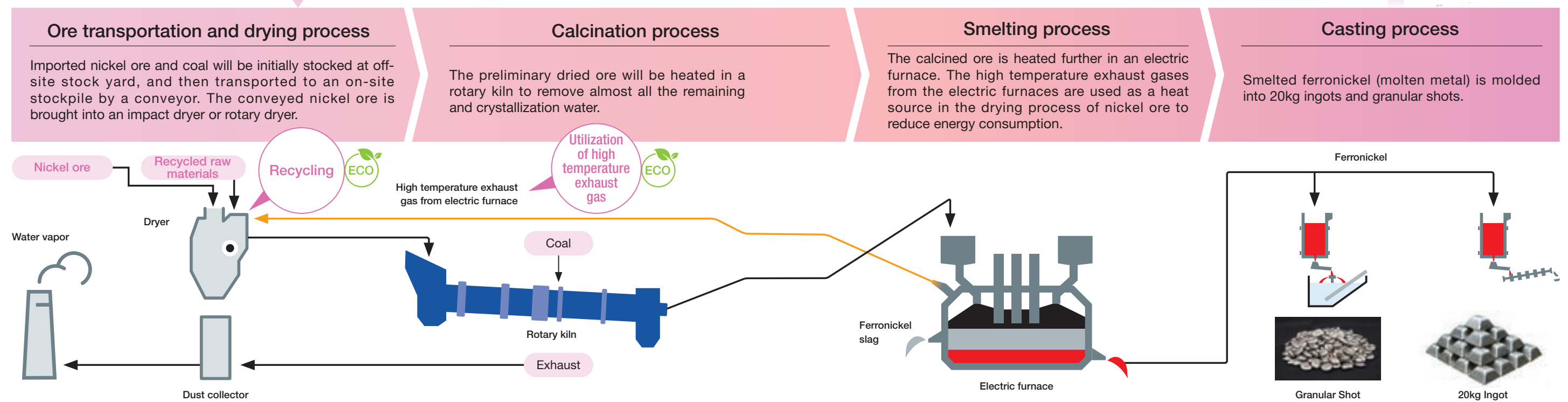
For total energy, see P45

OUTPUT			Results for FY2023
Product	Ferronickel	39,000 t	
Resource recycling	Ferronickel slag	330,000 t	
Wastewater	Discharged water	3,900,000 m³	
Atmospheric release	CO₂	310,000 t	
	SOx	295 t	
	NOx	1,007 t	
	Soot and dust	9 t	

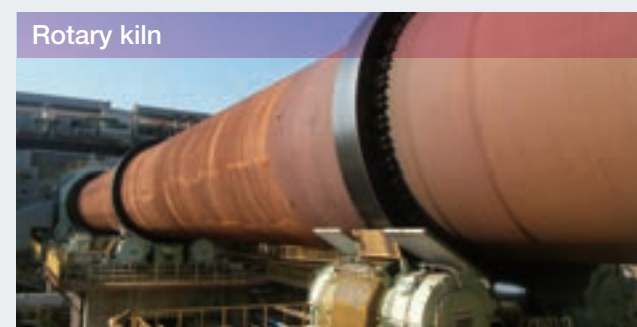
Recycling rate  
**100%**

Final waste disposal rate  
**0%**

## ► Ferronickel manufacturing process



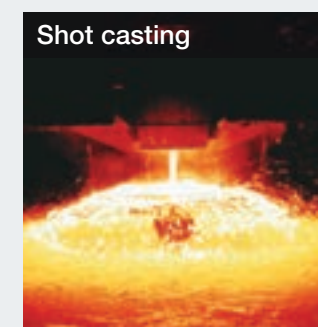
**Raw material conveyor**  
Conveyors totaling 2.4 km in length transport unloaded ore and other materials to the plant.



**Rotary kiln**  
A calcining equipment, over 100m in total length that thermally processes dried ore by heating it to approximately 1,000 degrees Celsius.



**Electric furnace**  
These are the world's largest electric furnaces that is heated by using electric resistance, and used for smelting ferronickel from ore.



**Shot casting**  
Molten metal is rapidly cooled with water in a water tank and finished into small particles.



**Ingot casting**  
Molten metal is poured into molds and finished into 20kg ingots.

# Environmental Management

The Company has established an environmental management system, and works to continuously improve its activities to reduce environmental impact through the stable implementation of the PDCA cycle. Based on this environmental management system, we have established an environmental policy and environmental objectives and targets, and are developing and implementing various environmental measures at each site.

## Environmental policy

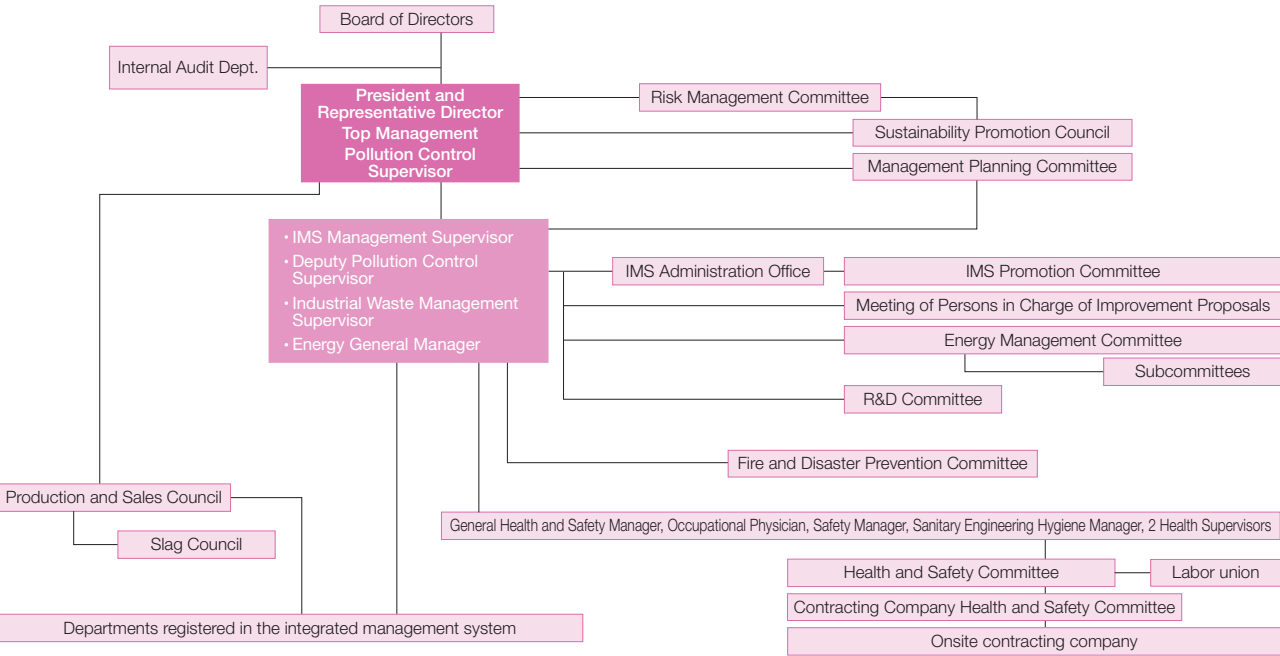
### Basic philosophy

Recognizing that environmental problems are common material issues for all humankind, the Company is committed to harmony with the environment and engages in activities aimed at conserving the global environment and contributing to society.

### Basic policy

- The Company uses large quantities of ore and energy in the production of nickel. The use of this ore and energy emits soot and greenhouse gases, so we consider environmental issues to be an important challenge for the Company and work together in our efforts to continuously reduce our environmental impact.
- (1) Reduction of environmental impact  
We strive to prevent air pollution caused by dust, soot and smoke emissions, and water pollution caused by wastewater. We also consider the reuse of these emissions and strive to minimize their impact on the environment.
  - (2) Reduction of greenhouse gas emissions  
We pursue the development of energy-saving and environmentally friendly technologies, promote operational efforts to improve productivity and yield, and strive to reduce greenhouse gas emissions.
  - (3) Contribution to zero emissions  
We will promote the reduction and recycling of waste generated in the course of our operations. We will also contribute to zero emissions by promoting the proper disposal of contracted waste.
  - (4) Compliance with laws, regulations, etc.  
We comply with environment-related laws, regulations, tripartite agreements and industry standards, while also setting voluntary standards and actively working to protect the environment.
  - (5) Ensure operation and continuous improvement of the environmental management system  
In order to achieve this environmental policy, we have set environmental objectives and targets for each department, and all employees promote efforts in environmental management. In addition, we will regularly review our environmental objectives and targets, and strive to promote a more effective environmental management system.
  - (6) Dissemination of the environmental policy  
This environmental policy is communicated to all employees, including those of affiliated companies. We also inform our partner companies of this policy and request their understanding and cooperation.

## Environmental management system



## Initiatives for a recycling society

Ferronickel slag, produced as a byproduct of the ferronickel manufacturing process, is composed mostly of silicon dioxide, magnesium oxide, and diiron trioxide at approximately 95% based on its high safety profile that meets all the elution (No. 18) and content (No. 19) standard values as notified by the Ministry of the Environment. As an eco-friendly product that contributes to the reduction of environmental impact, all ferronickel slag is recycled and widely used in and outside of Aomori Prefecture.

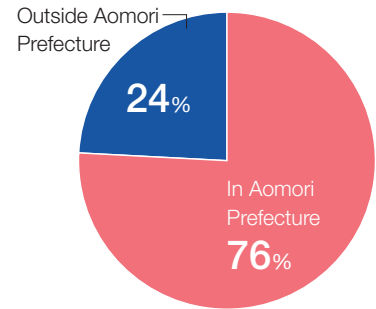
A new product, Pamco Green, has been added as a main ferronickel slag products, joining the existing Pamco Crustone. We produce and sell Pamco Crustone as a road material (subgrade and subbase material), earthwork material (land reclamation materials), and fertilizer material, and began producing and selling Pamco Green , a fertilizer (registered special fertilizer), in FY2023. A confirmed characteristic of Pamco Green is that it supplies magnesium and other nutrients to the soil and raises the level of available phosphoric acid in the soil, generally improving the absorption of nutrients needed for vegetables to grow. Farmers are using this product as a soil improvement agent, and we are promoting initiatives for a recycling-oriented society.



Pamco Green is used in the cultivation of garlic. Garlic grown in soil with the largest quantity added to the soil (120 t/1,000 m²) grew to almost twice the size (right photograph; weight: 148 g) of that grown in soil with no Pamco Green added (left photograph; weight: 79 g).

### Percentage of slag processed products sold by region

(Blast furnace steelmaking materials, fertilizers, fine aggregate for concrete)



## Pacific Metals Joins the Hachinohe Area New Zero Emissions Council to achieve carbon neutrality in the Hachinohe area

We have joined the Hachinohe Area New Zero Emissions Council with the aim of achieving carbon neutrality in the Hachinohe area. The main purpose of the council is to share challenges facing members, consider solutions, and learn about new technologies, to have industries in the Hachinohe region achieve carbon neutrality in 2050 while maintaining current production levels.



# Eco Products That Contribute to Reducing Environmental Impact

## Effective use of by-products

Ferronickel slag obtained as a by-product of the ferronickel manufacturing process is cooled by the slow cooling method, and then the entire product is recycled according to the intended use and sold as an attractive product that can be used in a wide range of applications. The slag's constituent components are stable, environmentally friendly, and have the same quality as natural resources and thus contribute to energy saving by conserving natural resources, and to the formation of a recycling-oriented society.



Used as a civil engineering material in earthquake disaster reconstruction areas

### Ferronickel slag (Product name: Pamco crustone)

After cooling, ferronickel slag is crushed by crushing equipment to particle sizes of 5mm or less, 5 to 20mm, or 20 to 40mm, which thus allows for a wide range of particle size adjustments when combined according to customer requests. The slag is characterized by the fact that it is environmentally friendly, highly safe, and does not contain harmful substances, and because it has high roadbed bearing capacity after compaction, it is easy to install, and has excellent frost heaving suppression. In the Tohoku area, it is used mainly as a substitute civil engineering material for mountain sand and crushed stone (for roads, embankments, and land development).

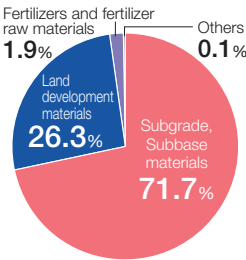


Ferronickel slag of 0 to 40mm



Ferronickel slag, 5mm or less

## Percentage of ferronickel slag product by application (period ended March 2024)



Application	Main Features and Effects
Land development materials	Suitable as soft ground improvement soil
Subgrade, Subbase materials	Excellent roadbed material strength and low freeze-thaw resistance
Fertilizers and fertilizer raw materials	Ferronickel slag contains substances need by crops, including ferric oxide (Fe) and magnesium oxide (MgO). Products are used as fertilizer and fertilizer raw materials.

## LCA for ferronickel slag products

Our ferronickel slag products meet all the elution amount and content standards notified by the Ministry of the Environment, are free from harmful substances, are environmentally friendly and boast high safety, and crushed stones the reduction of environmental load. The figure below is an LCA<sup>\*1</sup> evaluation comparing ferronickel slag products and quarry products<sup>\*2</sup>, confirming a reduction in CO<sub>2</sub> emissions<sup>\*3</sup>.

<sup>\*1</sup>: Abbreviation for Life Cycle Assessment. A method of quantifying the environmental impact of a product during its lifetime (resource extraction, manufacturing, use, disposal).  
<sup>\*2</sup>: Products manufactured by collecting and mining natural stones  
<sup>\*3</sup>: Evaluation results for ferronickel slag products manufactured in FY2018

Ferronickel slag product application	CO <sub>2</sub> emissions (t-CO <sub>2</sub> /year)		CO <sub>2</sub> reduction rate
	Crushed stone	PACIFIC METALS ferronickel slag products	
Land development materials	2,360	44	98%
Subgrade, Subbase materials	115	32	72%
Coverage materials, Earthwork materials	2,059	571	72%
Blast furnace steelmaking materials	5,518	1,477	73%
Total	10,052	2,124	79%

● Click here for product information

[WEB https://www.pacific-metals.co.jp/en/products/kras.html](https://www.pacific-metals.co.jp/en/products/kras.html)



# Quality Control System

To reliably provide products all of our stakeholders can trust, we have come together company-wide to promote quality management activities based on our Quality Management System (QMS) and the Industrial Standardization Act.

## ISO certification registration

We have registered certifications for ISO 9001, ISO 14001, and ISO 45001.

The Administration Office and each department are forming action plans and engaging in correction and improvement initiatives to prevent unforeseen nonconformities regarding quality, the environment and safety. One a positive note, we were given good assessments on 13 items. In addition, the audit results and the results of initiatives taken in the current fiscal year are reported in a Top Management review, and the issues indicated in the current fiscal year are taken up to be addressed in the next fiscal year, with efforts made to solve such issues.

### Certification Registration Information

Certification standard	Registration scope	Registration No.	Expiry date	Initial registration
ISO 9001:2015	Hachinohe Head Office (Manufacturing Works)	0314	February 15, 2027	April 9, 1998
ISO 14001:2015		E1998		March 19, 2009
ISO 45001:2018	Tokyo Head Office	H063		February 16, 2012

## Main initiatives and specific results

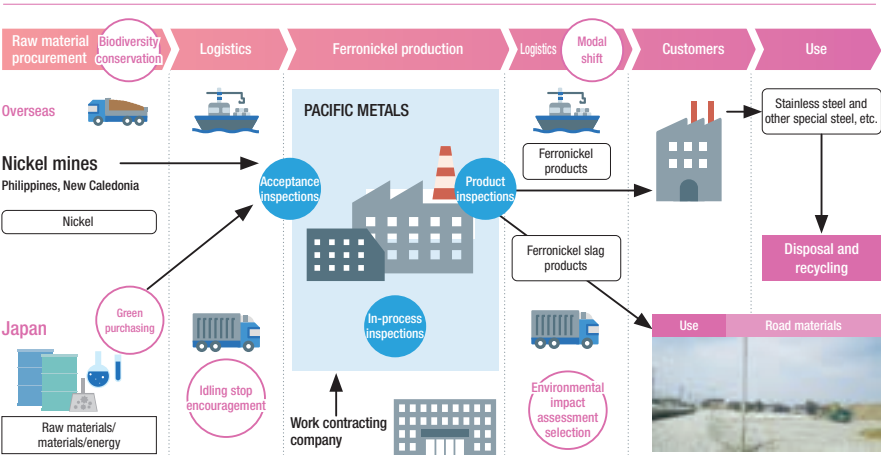
Main initiatives	Specific results
Measures to improve customer satisfaction	Our ferronickel products are highly regarded by our customers in a variety of aspects, including stable quality, stable supply, and precise adherence to delivery deadlines, etc. Our CS surveys, held every year, help us create products that meet customer needs. In addition, we are striving to deliver better products and services, and to provide proposal-type selling that benefits our customers. Our production and sales departments are working as one team to further improve customer satisfaction. Our ferronickel slag products are of high environmental safety quality and are mainly used for civil engineering works (roads and land development) in Aomori Prefecture and neighboring areas and as fertilizer materials. We strive day in day out to meet customer requirements for the particle size and component of our products. They are highly regarded by our customers for their ease of use, etc. Furthermore, our management system is in compliance with all relevant laws and regulations and in accordance with the Japan Mining Industry Association's "Guidelines for Managing the Production and Sale of Nonferrous Slag Products." In this manner, we have built a framework so as not to impose environmental impacts or other issues on the local residents, and regularly clean transportation roads in Hachinohe City. These efforts have been well received as contributions to the local community.
Brush up of our analytical techniques to improve product quality reliability	We conduct OJT based on a skills chart including diagrams and photographs, which document the tacit knowledge of experienced employees, such as sensory-based techniques and knowhow. In this manner, we are also working to expand individual scopes of work, implement initiatives to enhance competence, and share knowledge and experience of analytical techniques among all department staff. We are also working to improve our analytical techniques by adding and updating new information and knowledge to the skills chart.
Laboratory accreditation of certification standards for testing and calibration laboratories (ISO/IEC 17025)	Since the prices of ferronickel products and nickel ore depend on the amount of nickel they contain, ensuring the reliability of nickel analysis values is an important matter. We are certified under ISO/IEC 17025 in "methods for chemically analyzing components in ferronickel," "X-ray fluorescence methods for analyzing components in ferronickel," and "methods for chemically analyzing components in nickel ore," which we use to ensure the international and objective reliability of product inspections and raw material acceptance inspection results. In FY2023 as well, we improved and expanded our work qualifications, and conducted activities in preparation for their renewal assessment in FY2024.

## Supply chain management

We conduct a variety of activities that take the environment and quality into consideration at each stage in the supply chain, not just at our production sites. As an environmental measure, we carry out afforestation at local mines in order to restore (rehabilitate) sites to their original states to the degree possible after ore mining. In addition, we comply with internationally unified safety regulations for the sea transportation of cargo, and take safety measures and environmental considerations into account.

Regarding quality, in addition to product inspection before shipment, we thoroughly control the quality of manufacturing processes such as acceptance inspections of raw materials. We also contribute to the reliability of product quality in analyzing the chemical composition of ferronickel products. For slag products, we regularly conduct tests based on the Soil Contamination Countermeasures Act to confirm that our products meet the required standards.

### Overview diagram of the PACIFIC METALS supply chain



Occupational Health and Safety

We have been promoting voluntary work accident prevention activities under the slogan “Be Safety!” and working to prevent workplace accidents by raising safety awareness. We are also promoting health management activities so that employees can maintain a safe and healthy work environment.

Basic views

Health and safety policy : Eliminating accidents and continuing zero occupational illness

Occupational safety management

- Health and safety policy : Eliminating accidents and continuing zero occupational illness
- Specific activities
- (1) Promoting various safety activities through small group (team) activities
  - (2) Strengthening risk reduction activities
    - ① Enhancing early response to abnormalities in one-person operations by introducing a safety monitoring system
    - ② Reducing electric shock risk through modification of defects of the welding power supply panels and applying the countermeasures to other power supply panels
    - ③ Reducing risk of being caught or entangled during maintenance and periodic repair work by introducing lockout
  - (3) Raising safety awareness by conducting various training
    - ① Strengthening follow-up on health and safety education for new employees and contractors
    - ② Deepening understanding of laws and regulations through in-house training of the Company's internal safety and health standards
  - (4) Raising safety awareness through continued initiatives for safety focus campaigns

Occupational health management

- Priority goal : Continuing zero occupational illness
- Specific activities
- (1) Reducing health issue discovery rates through personalized, voluntary health management activities
    - ① Setting and working toward personal goals to develop a healthy body
    - ② Recommendations from occupational physicians to use the health guidance system for those with health checkup findings and individual consultations for those who have not yet received a secondary health checkup
  - (2) Reducing mental health illnesses by properly carrying out stress checks and mental health training
  - (3) Improving the workplace environment by continuing to measure the working environment

Safety management

● Introduction of safety monitoring system

By having personnel wear a dedicated smartwatch when performing solo tasks such as site inspections, abnormal situations such as sudden illness or falls will be detected, an alert will be sent promptly to the site control room or other location, and the person's location data will be obtained, in an effort to prevent the situation becoming worse by providing emergency life-saving and first-aid measures. In addition, rescue drills are held jointly by manufacturing departments on a regular basis.



If a fall alert is sent, employees will check location data.



If a person requiring aid is discovered, workers will check the person's condition.

● Near-miss & concern activities/serious near-miss reports

Through prompt reporting of information about near misses and company-wide sharing of that information, we take swift measures in response. Situations of extremely high risk are treated as serious near misses. Measures to prevent the recurrence of such situations are reported to and discussed by the Health and Safety Committee.

Health management

● Pacific Metals receives Silver accreditation as a company with outstanding health-oriented management

Since the President's declaration of a health-oriented company in May 2023, we have been engaged in health improvement initiatives to raise employees' health awareness. As a result, on July 2, 2024, the Company was certified as a company with outstanding health-oriented management and given “Silver Accreditation” (Accreditation No. Kengin-3036) by the Tokyo Federation of the National Federation of Health Insurance Societies .

Main initiatives

- Individual health goals activities: Employees are encouraged to set their own individual health goals and to undertake self-directed activities. They are also encouraged to receive a check-up under the health guidance system.
- Mental health care: Mental health seminars are held regularly, and occupational physicians hold individual consultations.
- Activities for improvement of working environment of the workplace: Health Supervisors make rounds of workplaces and undertake regular measurements of working environments.



Disaster prevention activities

During the annual Comprehensive Disaster Prevention Training, employees are trained to evacuate and confirm damage situation and safety under the assumption that large earthquakes with a seismic intensity of upper 5 occur. It also involves teaching new employees how to fight fires using fire extinguishers, and water discharge training using trucks carrying transportable pumps, thereby providing understanding of the importance of extinguishing fires quickly.



Firefighting training



Tsunami evacuation drill

In March, a tsunami evacuation drill was conducted to prepare for a major earthquake along the Japan Trench and the Chishima Trench, which is expected to occur in the future. The drill assumed that a large tsunami warning with an expected height of over 10 meters had been issued. The drill aimed to confirm personnel and damage status and evacuate to the on-site tsunami evacuation site with a secured height, enabling quick and reliable personnel confirmation and evacuation to the tsunami evacuation site in a limited time, leading to an improvement in disaster prevention awareness. In addition, we conduct training based on a scenario of a large earthquake with a seismic intensity of lower 6 having occurred at night or on holidays, and assuming that a tsunami alert has been issued. In the training, personnel use a mobile application to share information quickly and smoothly.

Communicating With the Local Community

We value the connection with the local community, carry out clean-up activities, and endeavor to revitalize the community by sponsoring local organizations and participating in local events. We strive to communicate with all of our stakeholders through local initiatives.

Cleanup activities on factory premises and in the region

In September 2024, 30 employees of the Company and Taiheiyo Kosan took part in a cleanup activity conducted along the walking paths of Hachinohe City's Kawaragi No. 2 Wharf Ryokuchi Park as part of Zero Marine Waste Week, a joint initiative of The Nippon Foundation and the Ministry of the Environment. Our Tokyo Head Office also participates in joint patrols and cleanup activities of the area around Tokyo Station organized by the Ote-Marunouchi Federation of Neighborhood Associations . Five employees of the Company took part in these activities in December 2023.



Sponsorship of the local soccer club

We started loaning the artificial turf “PAMCO Field” soccer field, prepared on a final disposal site where we used to bury ferronickel slag, to the local “Vanraure Hachinohe” soccer club in July 2019. In FY2023, we signed an official partner agreement (pitch advertising boards at home games and posting of company name on club website) with the Vanraure Hachinohe soccer club and a ground naming rights agreement for the Shimamori artificial turf field. In addition, at the PAMCO Cup, a league competition for Under-10s held every year, we co-sponsor the competition's operating expenses, as well as providing the green lanterns and green flags displayed on the field. We also sponsor ad hoc events.



Contributing to local communities through various organizations

- In March 2024, we made a donation to Nationwide Children's Cafeteria Support Center, Musubie.
- In October 2024, we conducted tours of the Company's plants for junior high schools in Hachinohe through the Regional revitalization Educational support Network.
- In 2023, we donated funds for the installation of security cameras through the City of Hachinohe.

Donations to disaster-stricken areas in Japan

- In January 2024, we made a donation to 2024 Noto Peninsula Earthquake disaster relief through the Japanese Red Cross Society.



Human Resources

We are working to realize our Company Philosophy of “Leverage the power of people to deliver the earth’s resources in more useful forms and contribute to the happiness of humankind.” To this end, we are developing a work environment and education system that allows a diverse workforce to thrive.

Personnel education to ensure diversity

Initiatives for diversity

To realize diversity, we will continue conducting training and other programs aimed at self-development. We strive to reform awareness and build a supportive corporate culture by actively implementing efforts to resolve any issues as they arise. We will also continue our initiatives for improving productivity and work-life balance.

In addition, we are raising the retirement age to 65 years old for employees who will turn 60 years old in FY2022. We will work to create a system that takes employees’ health into consideration while allowing them to continue to perform as well as ever.

● Establishment of environment to ensure diversity and expansion of human capital investment

We conducted human capital management training and ESG training for managers in August 2024, expecting managers to leverage the knowledge given by the training for management and human resources strategies. Also, as part of efforts for diversity and human capital investment in line with improvements in language skills and cross-cultural exchanges, we conducted an overseas language study program for female employees in October 2024.

● Diversity management training

We carried out training in which participants learned about the concept of diversity and diversity management with the aim of gaining the ability to develop and promote the advancement of diverse human resources required for management positions, including women. In this training, which we will continue based on the selection of appropriate themes, we aim to create a less stressful workplace and improve employee motivation. In addition, one element of the diversity training that we implemented was “foreign culture understanding in preparation for overseas assignments,” which aimed to achieve an understanding of how to communicate to be receptive to different cultures and smoothly conduct business with overseas people.

● Harassment prevention training

In FY2023, we held two training sessions, one in June and one in October, conducted by invited external lecturers. A total of 30 employees participated in these training sessions. Each participant prepared an action plan based on their understanding of the kinds of behavior that constitutes power harassment and implemented the goals for each group of trainees and individual targets in individual workplaces. We have continued to conduct this training in FY2024 as well.

Human resources education, development of environment, etc. to ensure diversity, including promoting active participation of women

Promoting active participation of women

We will always strive to create a comfortable work environment that balances work and home life, including support for childbirth, childcare, and nursing care, etc. We will also provide training for female employees to support their career development, in an effort to reform awareness. We will work to improve the environment in terms of both the work environment and the facility environment to promote the active involvement of women in the workforce. In October 2024, we conducted an overseas language study program for female employees for them to improve their skills. In the same month, we recruited female technical personnel.



Seminar on supporting active participation of women

● Seminar on supporting active participation of women

We will continue to conduct a training program that encourages participants to think proactively about how to continue contributing to the organization through the way they work, and how to live happily with being themselves by utilizing their value in order to realize a society in which women can fully demonstrate their individuality and abilities in a social environment where women are expected to play an active role.

Male employee childcare leave system

We take measures under our systems that support employees’ work-life balance as stipulated in the Child Care and Family Care Leave Act, and make efforts to inform employees of the various systems and encourage them to take childcare leave. With regard to instilling the systems and structures, we set up an opportunity for providing eligible employees with further briefings on an individual basis, encouraging them to take full advantage of such leave. We are working to collect internal information on whether a satisfactory system is in place to facilitate an environment where it is easy to take leave, and to put in place a desirable system.

In FY2023, the rate of childcare leave taken by eligible employees was 27.3%.

Number of female employees (non-consolidated)

FY2019	FY2020	FY2021	FY2022	FY2023
5.0%	4.6%	4.3%	4.7%	4.8%

Human rights awareness activities

Based on our stance of respect for human rights, we respect the human rights of all people involved in our business activities. We strive to ensure that no violations of human rights occur and engage in human rights education activities.

Basic views

1 Basic policy for respecting human rights

We will promote initiatives for respecting human rights, in accordance with international norms and standards as a guideline for fulfilling our responsibilities. Our Corporate Code of Ethics established based on our Company Philosophy and Company Policy states that we will create a work environment where employees can work together and express themselves. In keeping with this, we believe that creating a vibrant workplace whose human resources are diverse in terms of nationality, gender, and age, where we understand each other’s values, individuality, and circumstances, and where each individual can fully demonstrate his or her abilities, will lead to higher productivity.

2 Concept for respecting human rights

We will do our utmost not to violate the human rights of all those affected by our business activities. We will work to correct and remedy any situations that have negative impacts on human rights in the event that they occur. We also engage with our stakeholders, and we encourage them not to violate human rights if they have caused any negative impacts.

3 Scope of application

The scope of this policy applies to all employees and officers of the Group. We will promote respect for human rights in cooperation with our business partners with whom we have close relationships.

4 Education

We will promote appropriate education.

5 Human rights due diligence

We will refer to the Guiding Principles on Business and Human Rights, as well as guidelines and other information on the respect for human rights, and establish the necessary human rights due diligence system for the Company to identify, prevent or reduce negative impact on human rights.

6 Governance system

We will discuss our approach to respect for human rights at the Sustainability Promotion Council.

Human rights due diligence

To identify and assess the negative impact on human rights related to the business activities of the Company and the Group and to prevent and mitigate such impact, we are working on the development of a mechanism for human rights due diligence, which we will implement on an ongoing basis.

We have divided our existing supply chain into “the Company and its Group companies,” “upstream,” including the procurement of raw materials, and “downstream,” including the sale and disposal of products. With priority on the Company and Group companies in Japan and overseas, we conduct written surveys or desktop surveys to verify the status of initiatives related to human rights, labor, and health and safety and assess the risks involved, as part of our corporate social responsibility (CSR).

● CSR surveys

To identify human rights risks, we have conducted CSR surveys of the following business partners.

Scope of survey	FY2023
The Company and Group companies	10 companies

Two mining companies located in the Philippines from which we procure our main raw materials are included in the Group companies.

● Risks and assessment

We analyzed the survey results for each company and conducted additional surveys regarding certain matters of concern. From these surveys, we found that each of the survey items were being appropriately managed through means such as the establishments of systems, both in Japan and overseas, and that there were no actual cases of human rights violations. We will continue to monitor any potential risks as necessary and strive to prevent and mitigate risks.

Risk Management

We have established and operate a risk management system for dealing with various risks in a timely and appropriate manner.

Basic views

Basic policy

The Company aims to maximize corporate value by generating profits through the use of management resources and assets entrusted to it by shareholders. In making management decisions, the Board of Directors thoroughly scrutinizes and analyzes the risks associated with business and investment activities, and makes decisions based on appropriate procedures in light of the profits to be generated by such activities. In making such possible assumptions on management risks, the Company allows an appropriate level of risks in light of the corresponding business and investment returns. However, risks that affect permanent business continuity are diversifying and increasing as the business and natural environment changes. Depending on how these are handled, it may become extremely difficult to achieve the business plan, and the very survival of the business could come into jeopardy. To maintain a state in which appropriate management decisions can be made, the Company correctly understands the risks that may arise, reduces the possibility of occurrence, and devises measures to reduce probable losses before they occur. To this end, the organization and rules for dealing with each risk are clarified in the Risk Management Regulations. We have established a risk management system to thoroughly manage crises should they occur, minimizing damage and taking responsible measures for early recovery. We continuously implement this system under the following philosophy, basic objectives, and action guidelines. In the event the risk of a critical situation occurs or the possibility of occurrence rises, the Company responds in accordance with the Crisis Management Manual.

Philosophy

- (1) Fulfilling the Company's corporate social responsibility
- (2) Ensuring the Company's social credibility

Basic objectives

- |   |   |
|---|---|
| (1) Permanent business continuity                   | (2) Responding to climate change risk                   |
| (3) Securing the trust and interest of stakeholders | (4) Ensuring the safety of employees and their families |
| (5) Preserving company assets                       | (6) Enhancing corporate value                           |

Action guidelines

- (1) Improve risk response capabilities through continuous risk management activities
- (2) Share information on potential risks
- (3) Act in a manner that does not jeopardize the safety, health or interests of stakeholders
- (4) Minimize the damage caused by the occurrence of a business crisis and take responsible actions for early recovery.

Management system

The Company will establish a risk management system by preparing the Risk Management System List that describes the risks to be managed, the departments and organizations responsible for those risks, and the rules and regulations governing those bodies.

Risk identification and assessment process

The Risk Management Committee will implement the following matters under its jurisdiction.

- |  |   |
|--|---|
| (1) Understanding, analyzing and evaluating risks  | (2) Considering countermeasures for evaluated risks |
| (3) Matters related to crisis management           | (4) Report to the Board of Directors                |
| (5) Report to the Sustainability Promotion Council | (6) Other necessary matters related to risk         |

● Crisis Management Manual

The manual outlines the normal situation response in the “Normal situation crisis management policy” and the “Emergency response policy” (specific measures to be taken in the event of a serious crisis or the possibility of a serious crisis occurring).

Classification of major risks

The Company classifies and identifies major risks based on the basic objectives of the Risk Management Regulations.

1. Management risks

- (1) Financial (i) Stock price fluctuation (hostile takeover) (ii) Insufficient funds (iii) Accounting fraud
- (2) Market (i) LME fluctuation (ii) Exchange rate fluctuation (iii) Demand decline (price competition)
- (3) Procurement (i) Electricity (price fluctuation, securing procurement volume) (ii) Ore (price fluctuation, securing procurement volume) (iii) Coal and oil (price fluctuation, securing procurement volume) (iv) Other materials
- (4) Investment (i) New business (ii) Capital investment (iii) Research and development (iv) Acquisition and merger absorption (v) Overseas investment

2. Labor risks

- (1) Fraud or misconduct by officers (2) Fraud or misconduct by employees
- (3) Labor disputes and strikes (4) Harassment (5) Leakage of personal information

3. Social risks

- (1) Crime syndicates, Sokaiaa (racketeers that disrupt shareholder meetings), and intimidation
- (2) Media attacks, criticism, and slander
- (3) Compliance violations

4. Climate change risks

- (1) Global warming caused by GHG emissions

5. Risks of disasters, accidents, etc.

- (1) Natural disasters (i) Typhoons/storm surges (ii) Earthquakes/tsunami (iii) Water disasters/floods (iv) Tornadoes/wind disasters
- (2) Accidents (i) Fires, explosions, and high-heat leaks (hot water leaks, etc.) (ii) Chemical substance leaks (iii) Electrical and mechanical accidents (iv) Facilities accidents (v) Traffic accidents (vi) Industrial accidents (vii) Accidents during transportation and shipping (viii) Theft (ix) Trespassing
- (3) Hygiene (i) Infectious and contagious diseases

6. Risks in the production and sales process

- (1) Products (i) Product defect warranty (ii) Product liability (PL law) (iii) Defective products (iv) System failure (production, sales management operations, etc.)
- (2) Environment (i) Oil pollution accident (ii) Liability for environmental pollution (iii) Violation of environmental regulations (iv) Tighter environmental regulations

7. Network risks

- (1) Cyberattacks, etc. (2) Network failure

Compliance

We believe that compliance is essential to supporting the foundation of our corporate activities and avoiding various risks, and take strengthening measures.

Basic views

Our Board of Directors has established “Company Policy,” a “Corporate Code of Ethics,” and a “Corporate Code of Conduct,” etc., and advocates compliance with laws and regulations.

To ensure business is conducted based on these policies and norms, we have established an Internal Controls Committee to strengthen compliance. We list the following with respect to compliance and adherence to social norms, and all officers and employees, including directors, carry out their duties with an awareness thereof.

- 1 Conduct corporate activities in accordance with compliance, social norms, and social decency.
- 2 Conduct sound company activities by remaining insulated from antisocial forces that threaten social order and security.
- 3 Comply with international rules and local laws, and respect local cultures and customs when conducting international business activities. Conduct company activities that contribute to the development of each country.

Providing education on internal controls

We conduct the following internal control-related training and educational activities to instill compliance in our employees and to achieve adherence.

- Conducting compliance awareness questionnaires
- Compliance training
  - (1) Compliance education for new employees
  - (2) Circulation of the Company's “Rules of Whistle-blowing” and “Whistle-blowing Processing System” Target: employees, affiliates and business partners
  - (3) Compliance awareness activities Target: officers, managers, entire Company
  - (4) Compliance magazine regular distribution Target: entire Company
  - (5) External seminar for Internal Control Committee Secretariat (correspondence course)

Whistleblowing

- The Company has established a whistle-blowing system (internal and external contact points) based on the Whistle-blowing Rules. Whistle-blowing reports are submitted to the Board of Auditors, and specific cases are reported to the Board of Directors. Disadvantageous treatment of whistle-blowers is prohibited.



Corporate Governance

Aiming to improve corporate value, we strive to strengthen and enhance corporate governance through rapid decision making and management efficiency, and through ensuring transparency and soundness of management by strengthening supervisory functions.

Basic views

Based on the company philosophy and policy established by the Group, the Company will enhance its corporate governance as described below to achieve sustainable growth and increase its medium- to long-term corporate value.

- The Company shall respect the rights of all shareholders and ensure equality.
- The Company shall collaborate with all stakeholders, including shareholders, consumers, business partners, employees, and local communities, sincerely and appropriately, considering their interests.
- The Company shall proactively disclose information that could serve as a basis for investment decisions, in addition to disclosing information appropriately in compliance with relevant laws and regulations.
- The Company's Board of Directors shall be responsible for achieving sustainable growth and maximizing medium- to long-term corporate value based on its fiduciary responsibility to shareholders. To this end, the Company shall establish a fair and transparent management structure by introducing an executive officer system to separate decision-making and business execution functions and by strengthening the business execution supervisory function through the appointment of outside officers (outside directors and outside auditors).
- The Company shall engage in constructive dialogue with shareholders to achieve sustainable growth and maximum medium- to long-term corporate value.

Board of Directors

The Board of Directors consists of nine Directors (including three Outside Directors). In addition to monthly Board of Directors' meetings, Directors hold meetings as needed for prompt handling of matters, efficient execution of duties, and monitoring of the execution of duties among Directors.

Board of Auditors

The Company has adopted an auditor system, and three persons out of four Auditors comprising the Board of Auditors are Outside Auditors. In order to ensure the fair execution of duties by Directors, the Company enables all Auditors including part-time Auditors to attend all Board of Directors' meetings.

Nomination and Compensation Committee

The Company has established the Nomination and Compensation Committee, aiming at enhancing the fairness, transparency, and objectivity of procedures for the nomination and compensation of Directors and Executive Officers, as well as at further improving corporate governance. In response to inquiries from the Board of Directors, the Nomination and Compensation Committee primarily deliberates on matters related to the appointment and dismissal of Directors and other officers, the compensation of Directors, and matters approved by other committees regarding the nomination and compensation of Directors.

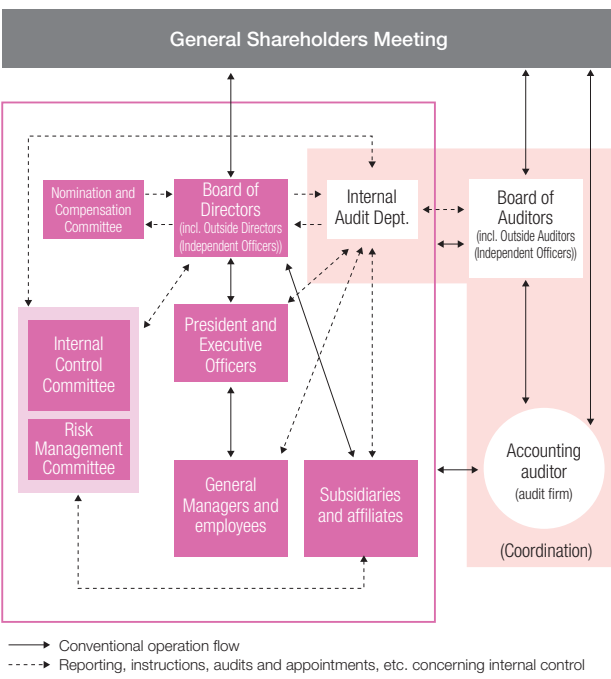
Internal Control Committee

The Company has established the Internal Control Committee as an advisory body to the Board of Directors to ensure "compliance with laws and regulations in corporate activities," "securing the reliability of financial reports," and "securing the effectiveness of duties" of the Group. The Internal Control Committee reports on its activities to the Board of Directors twice or more per year.

Risk Management Committee

The Company has established the Risk Management Committee, aiming at enhancing and continuously implementing the risk management system in order to correctly understand all possible risks, lower the possibility of their occurrence, devise measures to reduce probable losses before they occur, and when they occur, perform thorough crisis management, minimize the damage, and take responsible measures for early recovery.

Company governance system diagram



Reasons of appointment as Outside Directors and status of activities

Name	Reasons of Appointment	Attendance at Board of Directors' meetings
Shinya Matsumoto	The Company determined that Shinya Matsumoto is capable of properly performing his duties as Outside Director based on his professional perspective and broad insight as an attorney. The Company expects him to promote the enhancement of compliance and corporate governance, leveraging the above-mentioned perspective and insight.	22out of 22 meetings (100%)
Hikari Imai	The Company determined that Hikari Imai is capable of properly performing his duties as Outside Director based on his extensive experience as a corporate manager over many years. The Company expects him to promote the improvement of corporate governance and the enhancement of the foundation of corporate management at the Company by leveraging the above-mentioned experience.	21out of 22 meetings (95.5%)
Yukari Sakai	The Company determined that Yukari Sakai is capable of properly performing her duties as Outside Director based on her extensive experience as a corporate manager in a wide range of business fields. The Company expects her to promote the enhancement and reinforcement of corporate governance based on a variety of perspectives from the viewpoint of diversity, leveraging the above-mentioned experience.	22out of 22 meetings (100%)

Evaluation of the effectiveness of the Board of Directors

The Company analyses and evaluates the effectiveness of the Board of Directors as a whole to enhance the functions of the Board of Directors and ultimately the corporate value. In March 2024, the Company implemented the evaluation for FY2023 by means of a questionnaire survey performed by an outside institution, targeting all Directors and Auditors (including Outside Directors and Outside Auditors).

In FY2023, the Nomination and Compensation Committee was proactively involved in the formulation of succession plans. Going forward, the Committee will supervise the development of successor candidates to ensure that it is conducted in a systematic manner with sufficient time and resources allocated, and it will share progress with the Board of Directors. It also shares other issues with the Board, such as the need for further discussions concerning the appropriateness of incentives for senior management and full discussion on profitability, capital efficiency and other items in the management strategy and business plans. Based on the results of the evaluation of effectiveness, the Board of Directors of the Company aims to further enhance the functions of the Board of Directors by thoroughly examining the policy of addressing these issues in the future.

Identified issues

Issues	Measures
1 Formulation and documentation of successor development plans	● Formulated President's succession plan in 2023 and began successor candidate development, etc. in 2024 based on the plan's roadmap and successor candidate development policy outline
2 Establishment of environment to ensure diversity and expansion of human capital investment	● Conducted human capital management training and ESG training for managers ● Implemented overseas language study program for female employees for skills improvement

Compensation, etc. for officers, etc.

The Company, through the Nomination and Compensation Committee, has decided the determination policy on the details of individual Directors' compensation, etc. This policy has been established by the Board of Directors in the Officers' Compensation Rules. The Company's determination policy on the details of individual Auditors' compensation, etc. has also been established by the Board of Directors in the Officers' Compensation Rules. Compensation for individual Auditors is determined through discussion between Auditors, within the total compensation limit resolved by the General Shareholders Meeting. The basic policy for Director's compensation is to link the compensation system with the benefits of shareholders in order to make the system fully functional as an incentive to pursue the sustainable improvement of corporate value, and to determine the individual Director's compensation at an appropriate level according to his/her responsibilities.

Specifically, Directors' compensation consists of "basic compensation for officers" as fixed compensation, and "bonuses for officers (monetary/stock)" as performance-linked compensation. Regarding Outside Directors, who assume the responsibility of oversight, only "basic compensation for

officers" is paid in light of their duties. The basic compensation for officers is an amount of fixed compensation based on position, corresponding to the level of duties. Bonuses for officers (monetary) are performance-linked monetary compensation based on single fiscal year performance, etc. as a short-term incentive, which is limited to a maximum of the sum of individual monthly fixed compensation for five months. Compensation is paid after the Company's results, etc. have been determined in each fiscal year. Bonuses for officers (stock) are performance-linked stock compensation based on points awarded, while in office, for the delivery of shares, to promote the sharing of benefits and risks with shareholders from a medium- to long-term perspective. Shares are delivered to Directors upon retirement. Regarding the ratio by compensation type, the ratio of fixed compensation to performance-linked compensation is in the range between 10:0 and 7:3.

Basic compensation for Directors of the Company is fixed monthly compensation, in an amount deliberated by the Nomination and Compensation Committee and determined by the Board of Directors.

Proposals for monthly compensation for individual Directors are submitted to the Nomination and Compensation Committee by the President and Representative Director, based on careful evaluation of the roles expected of each Director by the Company. The Nomination and Compensation Committee, upon deliberation, determines compensation for individual Directors, and the President and Representative Director submits a proposal for the payment of the aggregate amount to the Board of Directors, which decides it.

The aggregate amounts of bonuses for officers, which are performance-linked compensation, are determined in accordance with the allocation standards. The President and Representative Director submits a proposal for the payment of the aggregate amount to the Board of Directors, which decides it. The amounts allocated to individual Directors are determined in proportion to the monthly fixed compensation for each position.

The Board of Directors has measures in place to ensure that the Nomination and Compensation Committee appropriately exercises this authority, with the President and Representative Director submitting the results of the Committee's deliberation to the Board of Directors for decision. Because the amounts of individual Directors' compensation are determined according to these procedures, the Board of Directors believes that they are in line with the determination policy.

The resolution of the Annual General Shareholders Meeting pertaining to officers' compensation was passed on June 29, 2006, which stipulates that the amount of monetary compensation for Directors of the Company shall be up to 350 million yen per year (excluding the portion of employee salary of Directors who concurrently serve as employees). In addition, it was also resolved that the amount of monetary compensation for Auditors of the Company shall be up to 60 million yen per year.

Regarding the amounts of compensation, etc. for individual Directors of the Company, the Nomination and Compensation Committee, delegated authority by the Board of Directors,

deliberates on proposals for the aggregate amounts of compensation for each period, based on the separately-established policy on Directors' compensation. The President and Representative Director submits the results of this deliberation to the Board of Directors, which decides the amounts of compensation, within the total compensation limit resolved by the General Shareholders Meeting.

Authority is delegated to the Nomination and Compensation Committee, a non-statutory advisory body of the Board of Directors composed of a majority of Outside Directors, to ensure the fairness, transparency, and objectivity of processes related to the determination of compensation, etc.

For the current fiscal year, the Nomination and Compensation Committee (Chairperson: Outside Director Shinya Matsumoto; Members: President and Representative Director Masayuki Aoyama, Outside Director Hikari Imai, Outside Director Yukari Sakai) has determined the details of compensation, etc. for individual Directors. The scope of this authority is stipulated under the Committee Regulations as the compensation system basic policy, proposals for compensation limits (including calculation methods), and specific individual compensation amounts (including calculation methods). The Board of Directors and the Nomination and Compensation Committee carried out the following activities in the process of determining the amount of compensation for officers of the Company during the fiscal year under review. The Committee evaluated the current compensation for Directors and organized its concept, conducted a general review of the composition of monthly compensation and performance-linked compensation, and discussed the ideal form of total amount of compensation and individual compensation. As a result, a new policy on Directors' compensation was formulated and the Officers' Compensation Rules was revised by the Board of Directors, adding an objective evaluation of each individual as well as his or her position, responsibilities, and years in office.

Total amount of compensation, etc. for each officer category, total amount by type of compensation, etc., and number of eligible officers

Officer category	Total amount of compensation, etc. (million yen)	Total amount of compensation, etc. by type (million yen)				Number of eligible officers (persons)
		Fixed compensation	Performance-linked compensation, etc.	Retirement benefits	Of which, non-monetary compensation, etc.	
Directors (excluding Outside Directors)	166	166	-	-	-	6
Auditors (excluding Outside Auditors)	21	21	-	-	-	1
Outside officers	37	37	-	-	-	7

(Notes) 1 The total amount of compensation, etc. for Directors do not include the portion of employee salary for Directors who concurrently serve as employees.  
2 The Board of Directors' meeting, held on May 22, 2006, resolved to abolish the retirement benefits system for officers, and the 80th Annual General Shareholders Meeting, held on June 29, 2006, resolved to grant final payments in conjunction with the abolishment of the retirement benefits system. Total amounts of the final payments in the future as of the end of this fiscal year is as follows. A total of 6 million yen for one Auditor.  
3 Outside officers do not receive officers' compensation, etc. from subsidiaries.

Shareholding status

Methods for assessing shareholding policies and rationality of holdings, and details of verification by the Board of Directors, etc. regarding the appropriateness of holding individual issues

The Company holds shares of other companies as cross-shareholdings, with the aim of maintaining or strengthening business relationships and enhancing the medium- to long-term corporate value of investee companies and the Company. In addition, the Company exercises voting rights as to its cross-shareholdings after taking into account the business relationships and the return, etc. from the shareholdings, as well as whether or not the proposed agenda will help improve the corporate value of the investee company and the Company.

The Board of Directors regularly explains the purpose and rationality of shares held by the Company as cross-shareholdings. This is done after comprehensively determining the appropriateness of continuing to hold, based on a quantitative assessment of changes in the stock price and market capitalization, changes in the amount of dividends received and the dividend yield, and changes in ROE over the past five years, as well as qualitative assessment of the medium- to long-term economic rationality and future prospects.

Number of issues and balance sheet amount

	Number of issues	Total amount on balance sheet (million yen)
Unlisted stocks	11	190
Stocks other than unlisted stocks	5	2,015

Officers

Directors



Masayuki Aoyama

President and Representative Director

April 1975 Joined the Company  
April 2009 General Manager, Utility & Maintenance Dept., Production Div.  
May 2010 Director, Pacific Energy Center Co., Ltd.  
June 2011 Executive Officer, the Company  
June 2014 Director, Rio Tuba Nickel Mining Corporation  
June 2014 Director, Taganito Mining Corporation  
June 2014 Director, the Company  
June 2014 Senior Executive Officer  
June 2014 General Manager, Production Div.  
May 2017 President & Representative Director, Pacific Gas Center Co., Ltd.  
June 2018 Managing Executive Officer, the Company  
July 2019 In charge of Business Process Reengineering, Production and Recycling Business  
June 2020 President and Representative Director (to present)  
May 2021 Member of Nomination and Compensation Committee (to present)



Yoshiharu Inomata

Director & Senior Managing Executive Officer

April 1975 Joined the Company  
June 2014 Senior Executive Officer  
June 2014 General Manager, Quality Control Dept. and General Manager, Environmental Management Dept.  
July 2016 General Manager, Quality Control & Environmental Management Dept.  
September 2016 General Manager, Quality Control & Environmental Management Dept., General Manager, Technical Research & Development Dept. and Manager, Pyrometallurgy Development Sec.  
June 2017 Director (to present)  
June 2017 In charge of Safety & Health Management, Quality Control & Environmental Management  
June 2017 General Manager, Technical Research & Development Dept.  
July 2019 In charge of Safety & Health Management and Resources & Technology Development Project  
July 2019 General Manager, Quality Control & Environmental Management Dept.  
June 2020 Managing Executive Officer  
June 2020 In charge of Corporate Planning, Safety & Health Management, Quality Control & Environmental Management  
June 2021 Senior Managing Executive Officer (to present)  
June 2021 Assistant to President (to present)  
June 2021 In charge of Recycling Business  
April 2023 In charge of Recycling Business & Technology Development Dept.  
July 2024 General Manager, Recycling Business & Technology Development Dept. (to present)



Kenichi Hara

Director & Managing Executive Officer

April 1988 Joined the Company  
June 2014 Executive Officer  
June 2014 General Manager, Ferro Nickel Sales Dept.  
June 2017 Senior Executive Officer  
March 2018 Director, Pacific Sowa Corporation (to present)  
June 2018 Director, the Company (to present)  
June 2018 In charge of Sales  
July 2019 General Manager, Sales & Marketing Dept. (to present)  
June 2020 In charge of Procurement (to present)  
June 2021 Managing Executive Officer (to present)



Terunobu Matsuyama

Director & Managing Executive Officer

April 1988 Joined the Company  
May 2014 Auditor, Pacific Gas Center Co., Ltd.  
June 2014 General Manager, Finance & Accounting Dept., the Company  
June 2017 Executive Officer  
June 2018 Director (to present)  
June 2018 Senior Executive Officer  
June 2020 In charge of IR (to present)  
May 2021 Director, Taiheiyō Kōsan Co., Ltd. (to present)  
June 2021 Managing Executive Officer, the Company (to present)  
June 2021 In charge of Internal Control (to present)  
June 2021 In charge of General Administration (to present)  
June 2021 In charge of Finance & Accounting (to present)  
June 2021 General Manager of Personnel & Labor Relation Dept. (to present)



Hiroaki Ichinyanagi

Director & Senior Executive Officer

April 2003 Joined the Company  
June 2014 Executive Officer  
June 2014 General Manager, Ore Purchasing & Mining Engineering Dept.  
June 2017 Senior Executive Officer (to present)  
June 2018 Director, Rio Tuba Nickel Mining Corporation (to present)  
June 2018 Director, Taganito Mining Corporation (to present)  
July 2019 General Manager, Resources & Technology Development Project Dept., the Company (to present)  
June 2020 Director (to present)  
June 2021 In charge of Quality Control & Environmental Management (to present)



Kazuo Iwadate

Director & Senior Executive Officer

April 1985 Joined the Company  
December 2012 General Manager, Production Dept., Production Div.  
November 2015 General Manager, Production Dept. and General Manager, Environmental Business Dept., Production Div.  
June 2017 Executive Officer  
June 2017 Assistant General Manager, Production Div., General Manager, Utility & Maintenance Dept. and General Manager, Environmental Business Dept.  
July 2019 General Manager, Business Process Reengineering Dept. (to present)  
May 2020 President & Representative Director, Pacific Gas Center Co., Ltd. (to present)  
June 2020 Director, the Company (to present)  
June 2020 Senior Executive Officer (to present)  
June 2020 In charge of Utility & Maintenance and Production (to present)  
June 2021 In charge of Safety & Health Management (to present)





**Shinya Matsumoto**  
Outside Director

April 1987 Registered as attorney, joined Marunouchi Sogo Law Office  
July 1996 Partner and attorney  
June 2001 Outside Corporate Auditor, Impress Corporation (now Impress Holdings, Inc.) (to present)  
June 2006 Member of Special Committee, the Company  
June 2007 Outside Director, The Shibusawa Warehouse Co., Ltd. (to present)  
October 2011 Partner and Representative Attorney, Marunouchi Sogo Law Office (to present)  
June 2013 Outside Director, the Company (to present)  
May 2021 Chairperson of Nomination and Compensation Committee (to present)



**Hikari Imai**  
Outside Director

April 1974 Joined Yamaichi Securities Co., Ltd.  
January 1986 Joined Morgan Stanley Japan Securities Co., Ltd.  
April 1993 Joined Merrill Lynch Japan Incorporated  
January 1999 Deputy Chairman, and Chairman, Investment Banking Division, Merrill Lynch Japan Securities Co., Ltd.  
November 2007 Vice-President and Director, RECOF Corporation  
April 2008 President  
July 2010 Advisor, Ebara Foods Industry, Inc.  
April 2012 Outside Director, Olympus Corporation  
June 2015 Outside Director, CYBERDYNE Inc. (to present)  
June 2016 Outside Director, the Company (to present)  
November 2019 Outside Director, SHIMACHU CO., LTD.  
May 2021 Member of Nomination and Compensation Committee, the Company (to present)  
December 2022 Outside Director, FUJI SOFT INCORPORATED (to present)



**Yukari Sakai**  
Outside Director

April 1991 Joined Nomura Securities Co., Ltd.  
January 2005 Director of Corporate Tune Co., Ltd.  
June 2005 Standing Outside Audit and Supervisory Board Member of UNITED ARROWS LTD.  
June 2008 Outside Auditor of REPROCELL Inc.  
September 2013 Outside Auditor of Beauty Kadan Co., Ltd.  
June 2016 Outside Director (Standing Audit and Supervisory Committee Member) of UNITED ARROWS LTD.  
October 2017 Outside Director (Audit and Supervisory Committee Member) of Tea Life Co., Ltd.  
March 2019 External Director (Audit & Supervisory Board Member) of Uzabase, Inc.  
June 2021 Outside Director, the Company (to present)  
June 2022 Member of Nomination and Compensation Committee (to present)  
June 2022 Outside Director, TOYO KANETSU K.K. (to present)

Auditors



**Kiichi Tatsunaka**  
Full-time Auditor

April 1963 Joined the Company  
December 1995 Assistant General Manager, Administration Dept., Hachinohe Plant and Manager, Finance & Accounting Dept.  
July 1999 Assistant General Manager, Finance & Accounting Dept. and Manager, Finance & Planning Dept.  
April 2003 General Manager, Finance & Accounting Dept.  
June 2003 Auditor  
June 2005 Full-time Auditor (to present)



**Ken Yasuda**  
Outside Auditor

April 1976 Joined The Kyowa Bank, Ltd.  
April 1995 Manager of Kawachi Chiyoda Branch, The Asahi Bank, Ltd.  
April 1997 Manager of Kosaka Branch, The Asahi Bank, Ltd.  
June 1999 Manager of Kudan Branch, The Asahi Bank, Ltd.  
April 2001 Manager of Tokyo Chuo Branch and General Manager of Branch Sales Dept. No.1, The Asahi Bank, Ltd.  
July 2001 General Manager of Tokyo Chuo Region Sales Dept. and General Manager of Regional Sales Dept. No.1, The Asahi Bank, Ltd.  
January 2003 Manager of Tokyo Chuo Branch, The Asahi Bank, Ltd.  
June 2003 Executive Officer, General Manager of Tokyo Sales Administration Dept. and In Charge of Tokyo Real Estate Dept., Resona Bank, Limited  
October 2003 Executive Officer and General Manager of Tokyo Sales Dept., Resona Bank, Limited  
June 2006 General Manager of General Affairs Dept., JCB Co., Ltd.  
June 2007 Standing Corporate Auditor, Hibiya Engineering, Ltd.  
June 2016 External Auditor, NIHON PLAST CO., LTD.  
June 2018 Outside Auditor, the Company (to present)



**Yutaka Iimura**  
Outside Auditor

April 1985 Joined Hokkaido-Tohoku Development Finance Public Corporation  
June 2009 Senior Manager in charge of credit determination, Credit Analysis Department, Development Bank of Japan Inc.  
June 2010 Representative Director and Senior Managing Director, Shin-Mutsu-Ogawara Inc.  
June 2012 Senior Manager in charge of credit appraisal, Credit Analysis Department, Development Bank of Japan Inc.  
June 2014 General Manager, Planning & Research Dept., Tomakomai Port Development Co., Ltd.  
June 2015 Director, General Manager, Ferry Terminal Business; General Manager, Planning & Research Dept.  
June 2019 Managing Director, General Manager, Ferry Terminal Business; General Manager, Planning & Research Dept.  
June 2021 Senior Executive Director, Hokkaido-Tohoku Regional Economic Research Institute  
April 2023 Senior Research Director, Public Service Design Division, Japan Economic Research Institute Inc. (to present)  
June 2023 Outside Auditor, the Company (to present)



**Kyosuke Miyazaki**  
Outside Auditor

April 1983 Joined The Fuji Bank, Ltd.  
October 2005 Credit Assessor, Credit Supervision Division I, Mizuho Bank, Ltd.  
January 2008 Deputy General Manager, Corporate Credit Department No. 1, Mizuho Bank, Ltd.  
May 2011 Executive Officer, Division Chief, Mizuho Real Estate Services Co., Ltd.  
April 2018 Executive Officer, The Shonai Bank, Ltd.  
April 2020 Director and Executive Officer, The Shonai Bank, Ltd.  
April 2021 Director and Executive Officer, General Manager, Corporate Management Dept., The Shonai Bank, Ltd.  
June 2023 Outside Auditor, J-WAVE Inc. (to present)  
June 2024 Outside Auditor, the Company (to present)

Skills matrix

	Name											
		① Corporate management	② Finance/Accounting	③ Marketing	④ Manufacturing	⑤ Research/Development/IT	⑥ Law	⑦ Risk management	⑧ Personnel and labor relations	⑨ Global management	⑩ ESG and sustainability	⑪ Audit
Directors	Masayuki Aoyama	●			●			●			○	
	Yoshiharu Inomata	○			○	○		●	○		●	
	Kenichi Hara	○		●	○			○		○	○	
	Terunobu Matsuyama	○	●		○	○	●	●	●		○	
	Hiroaki Ichiyanagi	○		○	○	●		○		○	○	
	Kazuo Iwadate	○			●	●		○			○	
	Shinya Matsumoto	Outside Independent	○				●	○				
	Hikari Imai	Outside Independent	●	○				○		●		
	Yukari Sakai	Outside Independent	○	●				○	○			
	Kiichi Tatsunaka		○				○					○
Auditors	Ken Yasuda	Outside Independent	○				○					○
	Yutaka Iimura	Outside Independent		○			○					○
	Kyosuke Miyazaki	Outside Independent		○			○					○

(Note) The skills matrix classifies knowledge and experience considered to be important for the Company and indicates the fields in which the Directors and Auditors have appropriate expertise (○) and the fields for which the Company has high expectations (●) of the Directors and Auditors.

Guidelines for fulfilling each item in the skills matrix

① Corporate management	● Experience as president or a director of a company, etc. ● Knowledge, experience, and track record in all aspects of corporate management to develop and implement the Company's medium- to long-term business plans
② Finance/Accounting	● Experience as a director in charge or general manager of a department related to accounting ● Experience as a director in charge or general manager of a department related to financial management or fund procurement ● Experience at a financial institution, etc.
③ Marketing	● Experience as a director in charge or general manager of corporate planning and coordination ● Experience as a director in charge or general manager of a department related to sales ● Experience as president or a director of a related company ● Experience as a director in charge or general manager of business investment, etc.
④ Manufacturing	● Knowledge related to the Company's business
⑤ Research/Development/IT	● Experience as a director in charge or general manager of a department related to R&D ● Experience as a director in charge or general manager of a department related to manufacturing technology or production facilities ● Experience as a director in charge or general manager of a department related to IT or information systems
⑥ Law	● Experience as a director in charge or general manager of legal affairs or compliance promotion ● Experience as an attorney-at-law
⑦ Risk management	● Experience as a director in charge or general manager of risk management
⑧ Personnel and labor relations	● Experience as a director in charge or general manager of a department related to HR (diversity promotion) or labor ● Experience as a member of another company's nomination or compensation committee
⑨ Global management	● Experience of overseas posting ● Officer experience or business experience at an overseas subsidiary
⑩ ESG and sustainability	● Experience as a director in charge or general manager of a department related to ESG/CSR ● Experience as a director in charge or general manager of a department related to sustainability

## Roundtable Discussion By Outside Directors

### We will discuss issues faced by management openly and support reforms for restoration

To improve the efficiency of its management and enhance its competitiveness, the Company has separated the executive and supervisory functions of management through the appointment of outside officers, thus maintaining a fair and transparent management structure. We asked our three Outside Directors about corporate governance and the progress of the Company's business plans.



**Yukari Sakai**  
Outside Director

**Shinya Matsumoto**  
Outside Director

**Hikari Imai**  
Outside Director

### Structural reform while continuing to strengthen governance is an urgent issue

**Matsumoto:** I became an Outside Director of the Company in June 2013. The significance of Outside Directors' participation in the Board of Directors is to enhance the transparency and objectivity of the decision-making process. When I look back on the ten years or so since my appointment, the Company has steadily strengthened its corporate governance systems, such as the establishment of the Nomination and Compensation Committee in 2021, which is chaired by an Outside Director.

**Imai:** The Company now has three Outside Directors and three Outside Auditors, with the outside officers forming the majority. This structure allows the Board of Directors to function as a monitoring board. I became an Outside Director in June 2016. There is no doubt that the Company's senior management has been working on the improvement of corporate governance through trial and error in line with the directions for corporate governance reform promoted by the Financial Services Agency and the Tokyo Stock Exchange. This includes the establishment of the Nomination and Compensation Committee mentioned by Mr. Matsumoto.

**Sakai:** Exactly three years have passed since I became an Outside Director in June 2021. The Company is a materials manufacturer, and when I was first appointed, I would repeatedly ask more than a few basic questions to aid my understanding of the details of the business and the Company's technical strengths. Despite my barrage of questions, I was always be given serious responses. My impression is that this is an extremely sincere company.

**Imai:** I mentioned earlier that the Company is seeing progress in corporate governance reforms. The improvement of management efficiency is a key theme that the Japanese government is also requesting of companies. Its urging of management with a price-to-book ratio (PBR) of 1 or more from the perspective of capital efficiency is part of that request. The fact remains that the Company needs to have further discussions about the improvement of management efficiency. The Company has always had a high equity ratio to address business volatility risks. Unfortunately, however, the current situation, in which the Company has been unable to keep up with the rapid changes in the industry, lies behind its recent poor performance. It is working hard on structural reforms, but the market structure is changing at a pace that exceeds those efforts.

**Matsumoto:** The core business of the Group is the production and sale of ferronickel. In the conventional market structure, the price on the London Metal Exchange was the index, and profits would rise and fall in accordance with the movement of the LME price. However, cheap nickel pig iron (NPI) produced by Chinese companies in Indonesia and other countries has rapidly entered the market in large quantities, and market prices are now being determined by NPI price trends, separately from the LME. The urgent challenge is how to break free from this situation where



performance is heavily influenced by the business environment and to establish new businesses that will become a new pillar of earnings, in which Pacific Metals can hold pricing power.

The Company is promoting new metal smelting projects that take advantage of the technological capabilities it has cultivated to date. The Board of Directors is monitoring the progress of those projects.

**Sakai:** There is a shared recognition among senior management that breaking away from what one could term the "singled-legged" business of production and sale of ferronickel is a challenge of the greatest urgency. As Mr. Matsumoto pointed out, at the monthly Board of Directors meetings, we monitor the progress of initiatives to discover and grow new businesses in which the Company can hold pricing power. One of those initiatives is a new metal smelting business from seabed resources. Feasibility studies, including smelting tests using polymetallic nodules, are currently underway. However, as was pointed out earlier, the external environment is changing rapidly, and the outcomes of the Group's initiatives are not keeping up with the speed required by the capital markets. This is proving a challenge for the Company.

In order to obtain a certain level of recognition from capital markets, I feel that we need to disclose information about management initiatives in ways that are easy to understand. Although the medium-term business plan and other information have been disclosed honestly at financial results briefing sessions, I do feel the need to show a willingness to engage in dialogue with capital markets, while at the same time adopting a careful approach, sometimes outlining timelines while avoiding misunderstandings or confusion.

**Imai:** As an Outside Director, I endeavor to deepen discussions with senior management while leveraging the knowledge that I have cultivated as a corporate executive myself. My own view is that the issue that the Group should address with top priority is investment for transformation of





the business model, and that the Group should be more proactive in making investments that take on sound risks. For the past several years, the Company has been working on new metal smelting projects, but my sense is that it has been a little too conservative in its approach. Some projects have disappeared partway through, and the reasons why those projects did not go well have not always been made

## To foster the next generation and revitalize the Company

**Matsumoto:** Earlier, Mr. Imai pointed out the importance of human resources. As the chairperson of the Nomination and Compensation Committee, I have endeavored to establish a system for succession planning. The Company's business itself is at a turning point, and the selection of the next generation of human resources to lead its transformation is a key challenge. Part-time Outside Directors are not inherently knowledgeable enough to involve themselves deeply in senior management-level personnel matters. That is why I have focused on clarifying the meaning of Outside Directors' involvement, namely, to bring transparency and objectivity to the processes by which the current top executives have nominated their next successors without putting it into formal writing. In addition, as a new experiment related to personnel matters, individual interviews were held last year between the Outside Directors and Executive Officers, who are part of senior management. This allowed us to sense that each of these officers is addressing management issues seriously. Many of these officers are originally from Hachinohe in Aomori, where the Company is based, or other parts of the surrounding Tohoku region. They are extremely serious and patient individuals who have a thorough understanding of the company's situation and challenges. On the other hand, it is also true that, in order for Pacific Metals to change, it will need people who have different perspectives and ideas in addition to that shared quality of seriousness.

clear. If I may put it bluntly, one factor appears to have been an over-reliance on business partners. I feel that the Company needs to search more widely for investment projects and take the initiative in realizing them, to be more proactive in advancing projects boldly. Human resources will be key to achieving this, and the recruitment of personnel from outside the Company is also an important theme.

**Matsumoto:** As an attorney myself, rather than voicing opinions about business strategies, I basically express my views from the perspective of whether or not the Company's management decisions are in conflict with the law. For example, as an Outside Director of another company, I once opposed an overseas M&A project at a Board of Directors meeting. In actual management, it is not always easy to draw a line as to whether laws are being violated or not, and grey areas do exist. Moreover, all businesses come with risks. For my part, as well as the legal perspective, I aim to assess calmly whether investment and other management decisions will truly contribute to corporate profits and to support the Company in taking on sound risks.

**Sakai:** Regarding that shared quality that Mr. Matsumoto mentioned, generally speaking, in corporate management, there is a positive form of such shared qualities, or homogeneity, such as employees working toward a common goal in line with the Company's management philosophy. However, there are also concerns that such homogeneity may lead to a corporate culture where individuals find it difficult to express differing opinions or where new ideas are less likely to emerge. That is why diversity is so important in a company. Although the launch of earnings pillars is a high priority for the Group, I believe that senior management does have ample will to invest in human resources. While there is a need for further discussion about diversity, generalities such as simply increasing the number of women may not necessarily be suitable for the frontline work of the Group.

I would like to propose a revitalization project to cultivate young leaders, regardless of gender. Based on my past experiences of involvement in these areas at other companies, I will encourage young employees to discuss the company's future and their dreams about what kind of company they want to see in 10 or 20 years' time and to incorporate their opinions in the formulation of medium-term visions and measures, thus promoting the revitalization of the company as a whole. Pacific Metals has a very serious and sincere corporate culture, and for that very reason, I hope to support the revitalization of the Company for the sake of the "change and challenge" that it needs now.

**Imai:** Regarding what I said earlier about business investment, as Ms. Sakai says, I also believe that one way of breaking through the current situation is to encourage revitalization, with younger employees at the center, and have them take the lead in driving the Company as a whole forward. Using external advisors to promote new business is a common and necessary approach, but in the circumstances to date where operating losses have continued, I think that there would be some difficulty in hiring people from outside and paying them high remuneration.

**Matsumoto:** Incentives for senior management has been a topic of discussion in the Nomination and Compensation Committee, but given the harsh circumstances of the business environment surrounding the Company, the majority opinion is that there is no need to rush the introduction of such a scheme. There has also been some discussion that we should prioritize incentive schemes such as stock options for employees over those for senior management. However, under current circumstances, this is an issue on which we will naturally need to exercise caution before reaching any conclusions.

## Expectations of transformation and the role of Outside Directors

**Imai:** Personally, in terms of my role as an Outside Director, I want to leverage my knowledge of corporate management that I mentioned at the beginning to support new business development. I want to encourage proactive investment using liquidity on hand, and my role as an Outside Director is to examine the process by which quality investment projects are identified and appropriate investments are made.

At the same time, I would like to see a sense of crisis brought more fully to the fore, so that each and every employee can sense in their own skin that launching new business pillars is a challenge of personal urgency. I am constantly thinking about what words I should use and what actions I should take as an Outside Director.

**Matsumoto:** I feel that the next one to two years will be critical for making a success of new core businesses and securing stable employment. Pacific Metals' strength is undoubtedly its seriousness, but on the other hand, there is also a tendency not to express emotions outwardly, perhaps due to the characteristic patience of people from the Tohoku region. Overcoming crises will require the clear expression of passion and enthusiasm for rebuilding this company and the energy to involve not only the people inside the company but also external parties in those efforts. The main players are senior management and the employees inside the Company, and there is truly a limit to what we Outside Directors can do. I would love to see the executives and employees achieve the renewed growth of Pacific Metals by dedicating themselves to new businesses with such passion that they almost forget to sleep and eat.

**Sakai:** It is true that there is a limit to what part-time Outside Directors can do, given that we basically attend Board of Directors meetings held once a month. On the other hand, in the three years since my appointment, I have sensed a significant change in the atmosphere in the Board meetings. For example, Outside Directors actively speaking up has led to the reinvigoration of discussions between inside Directors.

My view of the strength of Pacific Metals, alongside the seriousness that Mr. Matsumoto mentioned, is the smelting

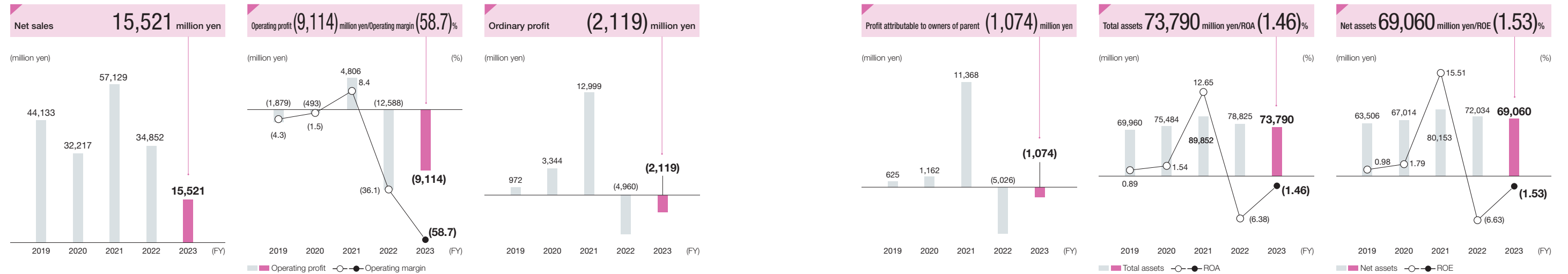
technologies that it has cultivated since its inception. The fact that external parties have come to Pacific Metals with business investments is, I believe, due to their recognition of the Company's smelting technologies. The key for the future will be how well it makes the most of those investment opportunities. In connection with the example of an internal revitalization project that I mentioned earlier, it is in times of crisis for a company that there is potential for new strengths to emerge. I hope that cross-departmental technology projects that embrace the challenge of the future will emerge from younger employees and that the combination of their youthful energy and the technological capabilities that they have cultivated will create new value. I also hope that my words and actions as an Outside Director will serve as an opportunity for the transformation of the Company.

**Matsumoto:** While inside Directors and Executive Officers may find it difficult to speak up when it is just themselves, I believe that Outside Directors speaking up frankly at Board of Directors meetings has created an atmosphere in which those internal Directors and Executive Officers will also feel more comfortable expressing their opinions. As Outside Directors, let's endeavor to ensure the transparency and objectivity of management by expressing our opinions from external perspectives, while at the same time encouraging openness within the Company, to increase momentum for reform.

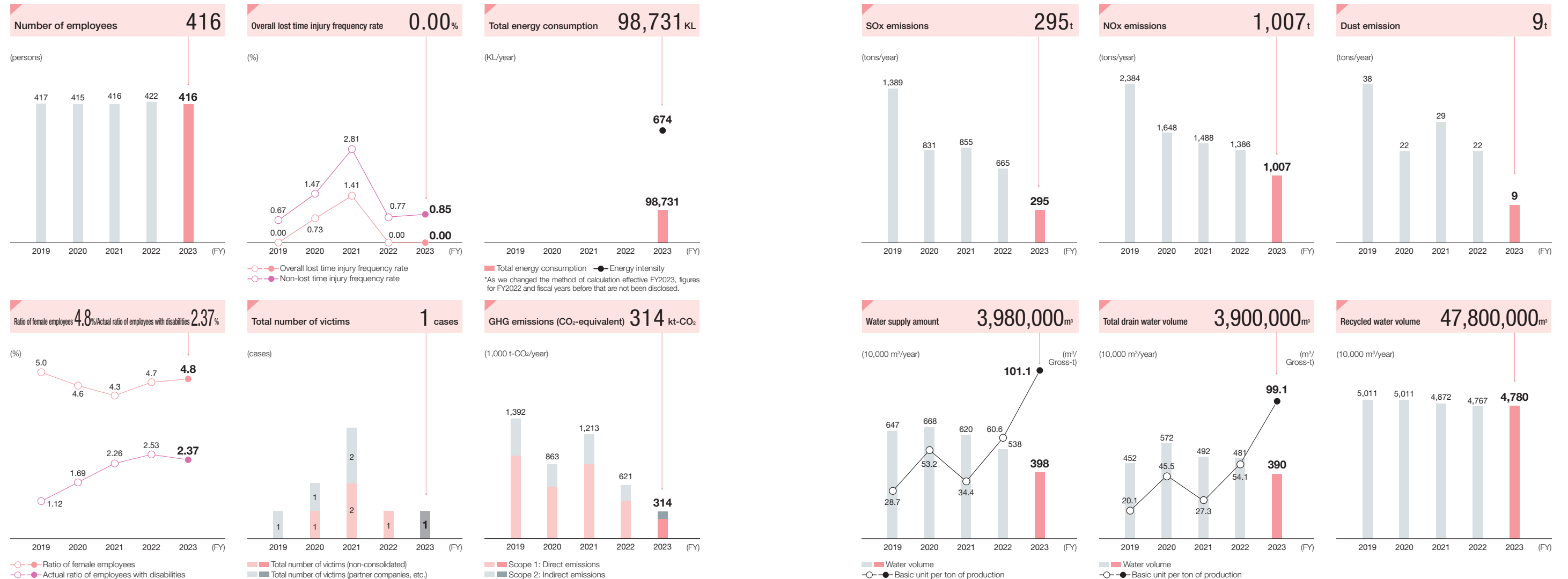


# Financial and Non-financial Highlights

## Financial Data (Consolidated)



## Non-financial Data (Non-consolidated)





## 11-Year Financial Highlights [Japanese GAAP] (Consolidated)

	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022	(million yen) FY2023
<b>Business Performance</b>											
Product sales volume [Ni.t]	37,801	32,274	34,525	33,100	31,600	32,000	28,533	20,793	27,060	12,393	6,025
Production volume [Ni.t]	38,530	29,651	36,692	33,101	29,902	33,506	30,885	18,414	26,249	13,380	6,035
Net sales	56,408	61,225	47,649	38,697	41,210	49,062	44,133	32,217	57,129	34,852	15,521
Operating profit (loss)	(4,079)	(7,787)	(15,357)	(3,070)	(3,239)	176	(1,879)	(493)	4,806	(12,588)	(9,114)
Ordinary profit (loss)	(1,838)	(91)	(12,283)	(515)	(203)	3,451	972	3,344	12,999	(4,960)	(2,119)
Profit (loss) before income taxes	(4,260)	(952)	(38,462)	(3,321)	(445)	4,054	937	1,399	12,795	(4,287)	(611)
EBITDA	3,170	(1,627)	(9,819)	(2,695)	(2,928)	483	(1,549)	(115)	5,062	12,299	(8,764)
Profit (loss) attributable to owners of parent	(6,149)	(1,611)	(38,369)	(3,561)	(810)	3,693	625	1,162	11,368	(5,026)	(1,074)
Capital investment	1,353	4,247	1,091	269	259	276	530	1,249	686	1,201	331
Depreciation	7,249	6,160	5,538	375	311	307	330	378	256	289	350
Research and development expenses	2,320	999	171	128	144	142	190	234	276	360	511
<b>Financial Status</b>											
Total assets	116,175	120,105	73,840	71,760	70,351	71,933	69,960	75,484	89,852	78,825	73,790
Property, plant and equipment	42,229	39,801	10,191	9,542	9,292	9,146	8,596	7,606	7,734	8,383	7,388
Net assets	107,865	109,807	67,733	63,771	62,616	64,439	63,506	67,014	80,153	72,034	69,060
<b>Per Share Information</b>											
Net assets per share (yen)*1	552.18	562.00	346.33	325.95	3,199.09	3,291.66	3,242.70	3,421.84	4,095.12	3,678.90	3,527.21
Basic earnings (loss) per share (yen)	(31.51)	(8.26)	(196.62)	(18.25)	(41.56)	189.37	32.06	59.61	582.93	(257.75)	(55.10)
Cash dividend (yen)	—	—	—	—	—	55.00	25.00	20.00	175.00	—	—
Dividend payout ratio (%)	—	—	—	—	—	29.0	78.0	33.6	30.0	—	—
<b>Financial Indicators</b>											
Equity ratio (%)	92.77	91.32	91.52	88.62	88.70	89.26	90.40	88.41	88.89	91.02	93.22
ROA (%)	(5.29)	(1.34)	(51.96)	(4.96)	(1.15)	5.14	0.89	1.54	12.65	(6.38)	(1.46)
ROE (%)	(5.54)	(1.48)	(43.29)	(5.43)	(1.29)	5.84	0.98	1.79	15.51	(6.63)	(1.53)
D/E ratio	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
<b>Status of Cash Flows</b>											
Cash flows from operating activities	(984)	9,646	(3,618)	(3,360)	(1,067)	399	(4,720)	5,829	7,857	(7,516)	2,793
Cash flows from investing activities	(1,636)	(272)	(4,859)	7,907	(2,333)	3,026	(394)	(1,781)	(2,909)	974	2,000
Cash flows from financing activities	(1,058)	(272)	(100)	(21)	(18)	(398)	(1,072)	(102)	(785)	(3,006)	(5)
Free cash flows	(2,620)	9,374	(8,477)	4,547	(3,400)	3,425	(5,114)	4,048	4,948	(6,542)	4,793
<b>Information by Segment</b>											
<b>Net sales</b>											
Nickel business	54,302	59,065	45,239	37,357	39,855	48,142	43,489	30,419	56,338	34,135	14,727
Gas business (power generation business)*2	1,627	1,361	661	620	760	135	624	617	576	774	811
Other (Non segment)	724	997	1,952	868	748	917	148	1,283	324	38	61
<b>Operating profit</b>											
Nickel business	(3,978)	(7,987)	(16,208)	(3,129)	(3,412)	382	(1,559)	(567)	4,950	(12,441)	(9,082)
Gas business (power generation business)*2	213	119	22	87	269	(111)	3	21	(10)	4	(14)
Other (Non segment)	(334)	29	796	(51)	(125)	(123)	(342)	43	(142)	(160)	(26)
<b>Other</b>											
Number of employees (persons)	494	498	482	468	464	456	459	458	460	468	459

\*1 The Company conducted a 1 to 10 share consolidation on October 1, 2017.

\*2 The Company has changed its reportable segments since the second quarter of the fiscal year ended March 31, 2021, making the "Nickel business" and the "Gas business" its reportable segments.

1

Outline and Vision

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Strategy for Value Creation

3

Sustainability Strategies to Support Value Creation

4

Data Section

# Overview of the Company and Stock Information

## Overview of the Company (As of March 31, 2024)

Name	PACIFIC METALS CO., LTD.
Representative	Masayuki Aoyama President and Representative Director
Date of establishment	December 1, 1949
Annual sales	14,752 million yen (nonconsolidated basis for FY2023)
Number of employees	416 employees (nonconsolidated basis for FY2023)
Capital	13.9 billion yen

## Officer Information (As of June 21, 2024)

Masayuki Aoyama	President and Representative Director	Shinya Matsumoto	Director (Outside)
Yoshiharu Inomata	Director	Hikari Imai	Director (Outside)
Kenichi Hara	Director	Yukari Sakai	Director (Outside)
Terunobu Matsuyama	Director	Kiichi Tatsunaka	Auditor (Full-time)
Hiroaki Ichiyanagi	Director	Ken Yasuda	Auditor (Outside)
Kazuo Iwadate	Director	Yutaka Iimura	Auditor (Outside)
		Kyosuke Miyazaki	Auditor (Outside)

## Business Offices and Works

Tokyo Head Office	1-6-1 Otemachi, Chiyoda-ku, Tokyo 100-0004 (Otemachi Building) TEL. +81-3-3201-6681 FAX. +81-3-3212-7876
Hachinohe Head Office (Manufacturing Works)	5-2 Toyama Shinden, Kawaragi, Hachinohe City, Aomori 031-8617 TEL. +81-178-47-7121 FAX. +81-178-45-8118
Philippines Office	Unit-2, 22/F, NAC Tower, 32nd St., Bonifacio Global City, Taguig City, Philippines
Jakarta Office	Sentral Senayan II, 15th Floor Jl. Asia Afrika No.8, Jakarta 10270, Indonesia

## Business Items

Ferronickel	Granular shots, 20kg ingots (used mainly as raw materials for stainless steel)
Ferronickel slag	Pamco crustone (used for civil engineering material)

### Company Website Information

The Company's website provides latest corporate and IR information. We welcome your visit to our website.

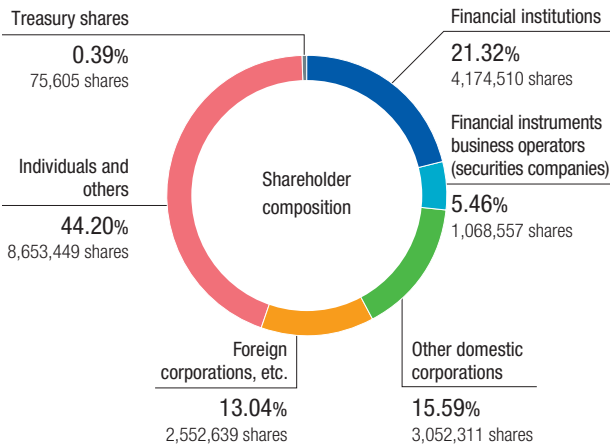
<https://www.pacific-metals.co.jp/en/>



## Stock Information (As of March 31, 2024)

### Status of shares

Total number of shares authorized to be issued	50,000,000
Total number of shares issued and outstanding (excluding 75,605 shares of treasury shares)	19,501,466
Number of shareholders (Increase of 1,556 shareholders from the end of the previous fiscal year)	17,871



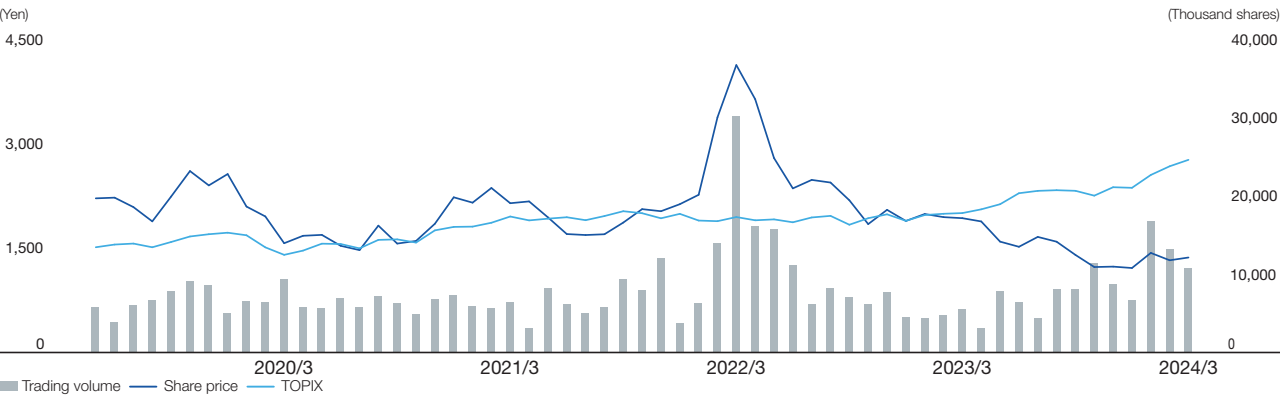
### Major shareholders (top 10 shareholders)

Name of shareholders	Number of shares held (thousands)	Shareholding ratio (%)
The Master Trust Bank of Japan, Ltd. (trust account)	2,999	15.38
NIPPON STEEL Stainless Steel Corporation	2,049	10.51
Custody Bank of Japan, Ltd. (trust account)	917	4.70
Tachibana Securities Co., Ltd.	647	3.32
J.P. MORGAN SECURITIES PLC FOR AND ON BEHALF OF ITS CLIENTS JPMSP RE CLIENT ASSETS-SEGR ACCT	300	1.54
BNY GCM CLIENT ACCOUNT JPRD AC ISG (FE-AC)	253	1.30
AVI JAPAN OPPORTUNITY TRUST PLC	249	1.28
Business Partners' Shareholding Association, PACIFIC METALS CO., LTD.	237	1.22
JP JPMSE LUX RE NOMURA INT PLC 1 EQ CO	232	1.19
Nihonkisetu Co., Ltd.	228	1.17

\*1 Figures less than thousand shares in the number of shares held are rounded down.

\*2 The shareholding ratios are calculated using the figure 19,501,466, which is the total number of shares issued and outstanding less treasury shares.

## Trends in Share Prices



## Trends in Annual Dividend per Share

FY2019	FY2020	FY2021	FY2022	FY2023
25.00	20.00	175.00	00.00	00.00





Tokyo Head Office

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Hachinohe Head Office (Manufacturing Works)

5-2 Toyama Shinden, Kawaragi, Hachinohe City, Aomori 031-8617

<https://www.pacific-metals.co.jp/en/index.php>

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