

Integrated Report 2023



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.

Table of Contents

1 Outline and Vision

- 01 Company Philosophy/Company Policy/Table of Contents
- 02 Tool Map/Editing Policy
- 03 History
- 05 What Is Ferronickel?
- 08 Business Model and Competitive Advantage
- 11 Value Creation Process
- 13 Financial and Non-financial Highlights

2 Strategy for Value Creation

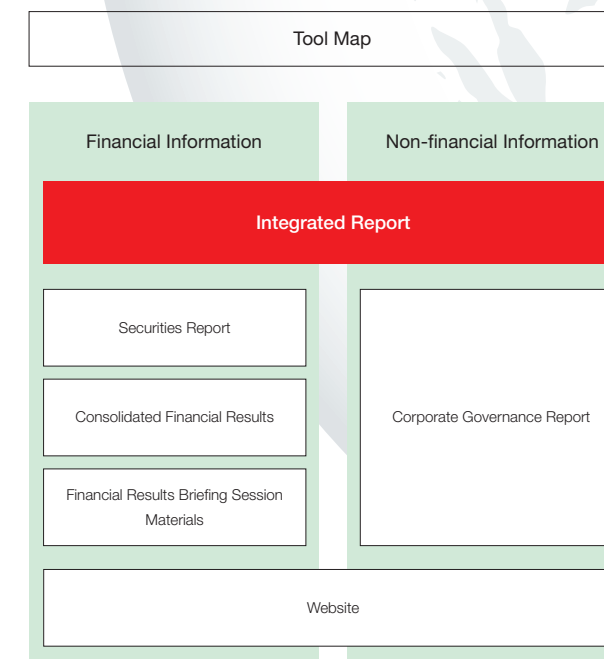
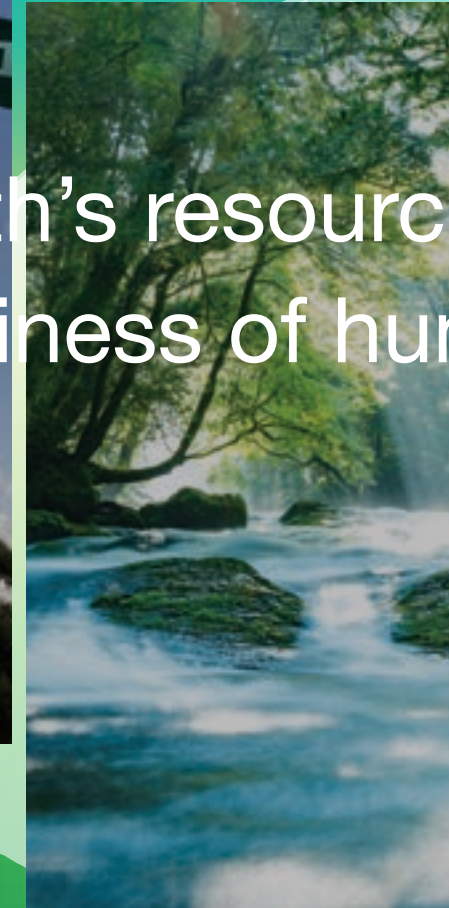
- 15 Message From the President
- 19 Medium-Term Business Plan "PAMCO-2024"

3 Sustainability Strategies to Support Value Creation

- 21 Environment
- 30 Quality
- 32 Occupational Health and Safety
- 34 Human Resources
- 38 Coexistence With Society
- 39 Governance

4 Data Section

- 49 11-Year Financial Highlights
- 51 Overview of the Company and Stock Information

**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

FY2022 (April 1, 2022 to March 31, 2023)
*Some activities outside the reporting period included.

Month of issue

November 2023

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.

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.
Transitioned to ISO 45001:2018.

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.

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

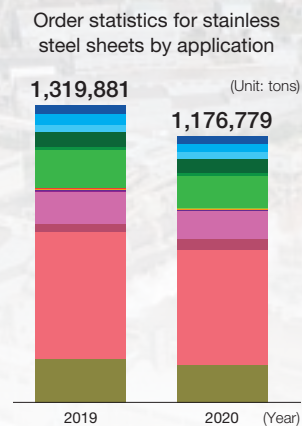
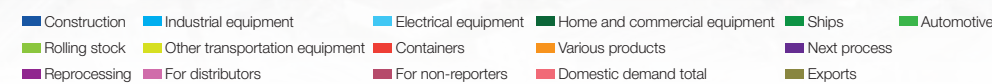
Features of Ferronickel

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.

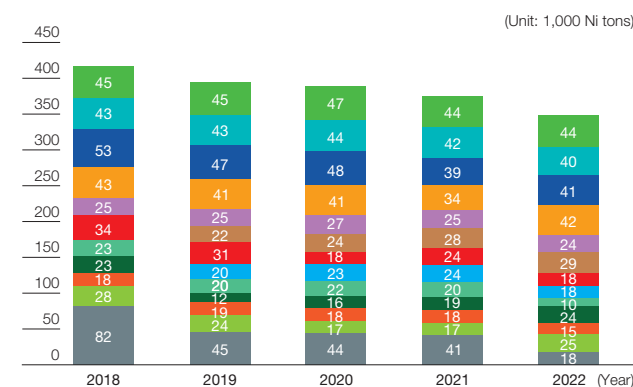
Growth potential

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.

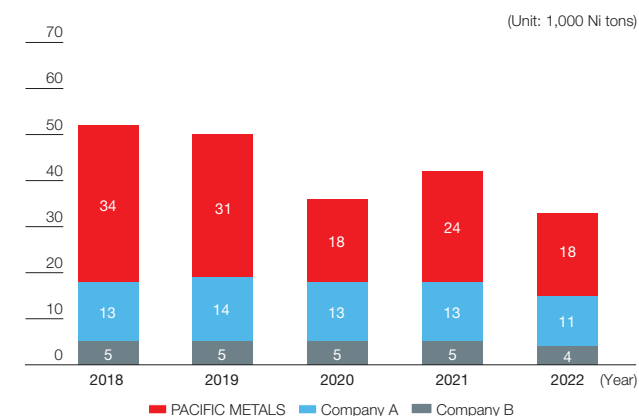


Information Relating to Production

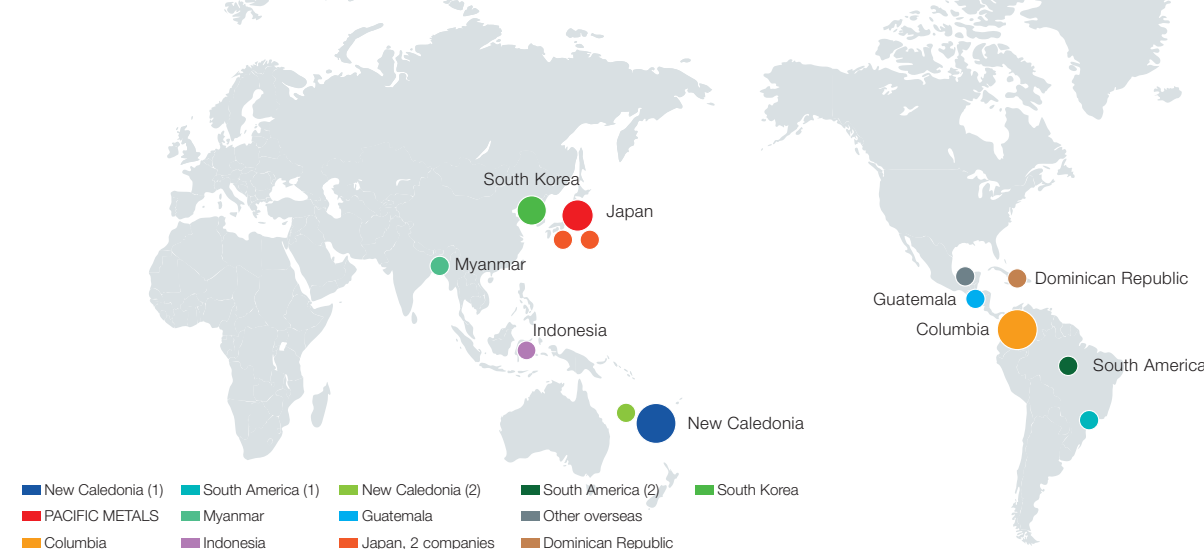
Global ferronickel production



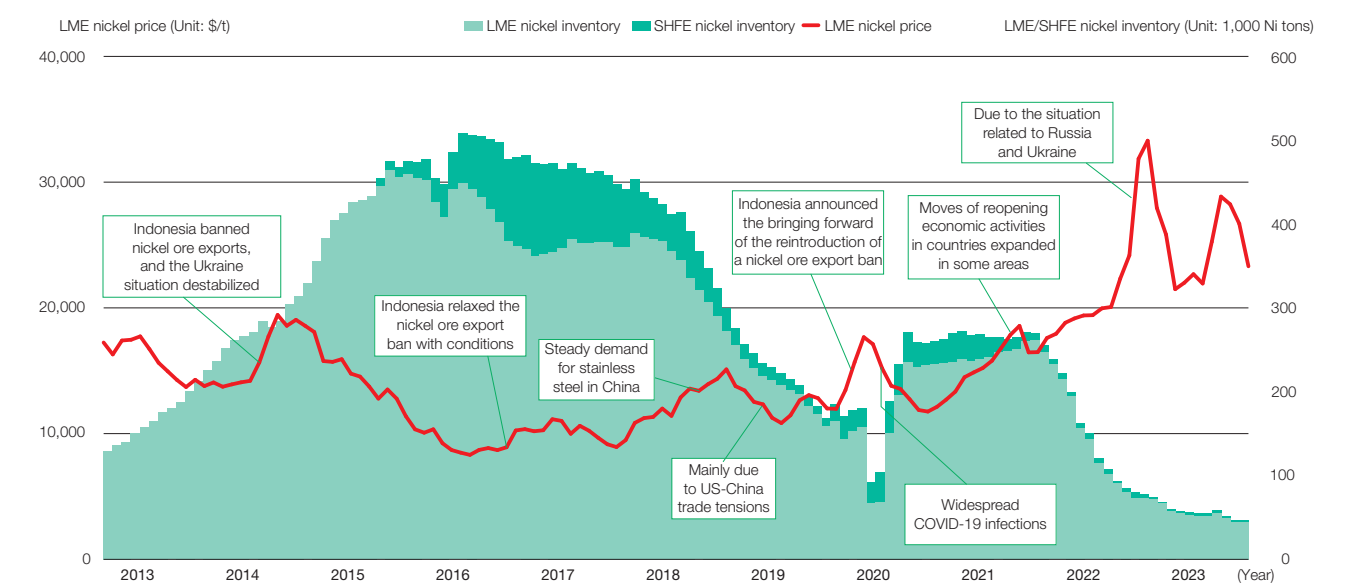
Japan's ferronickel production



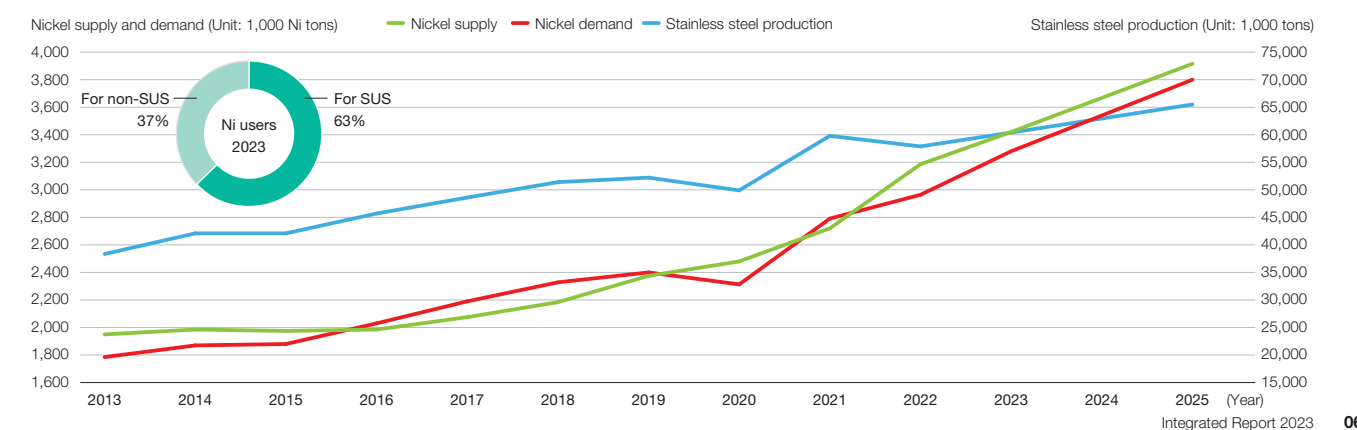
Global ferronickel production bases



Trends in LME nickel prices and nickel inventory volumes



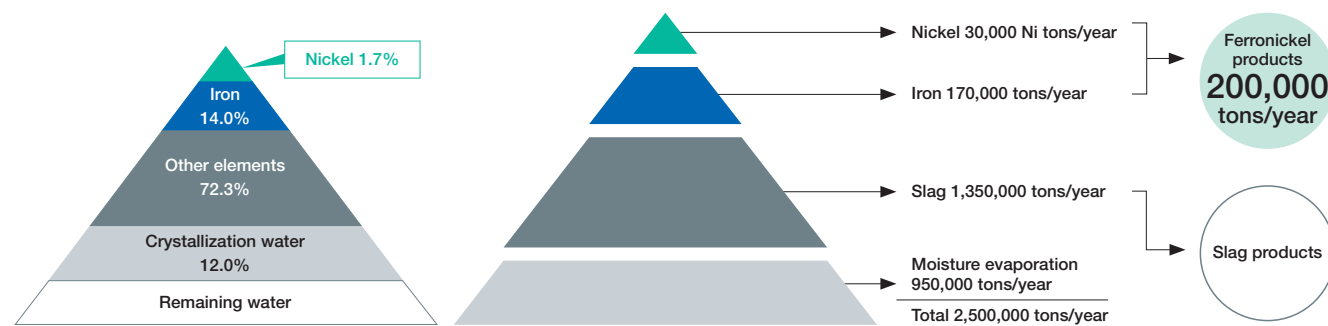
Outlook for stainless steel production and nickel supply and demand



What Is Ferronickel?

Raw Material Information of Ferronickel

Composition of nickel ore



*Reference figures on the assumption that nickel ore grade is 1.7% (on a dry-basis) and annual nickel production is 30,000 tons.

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

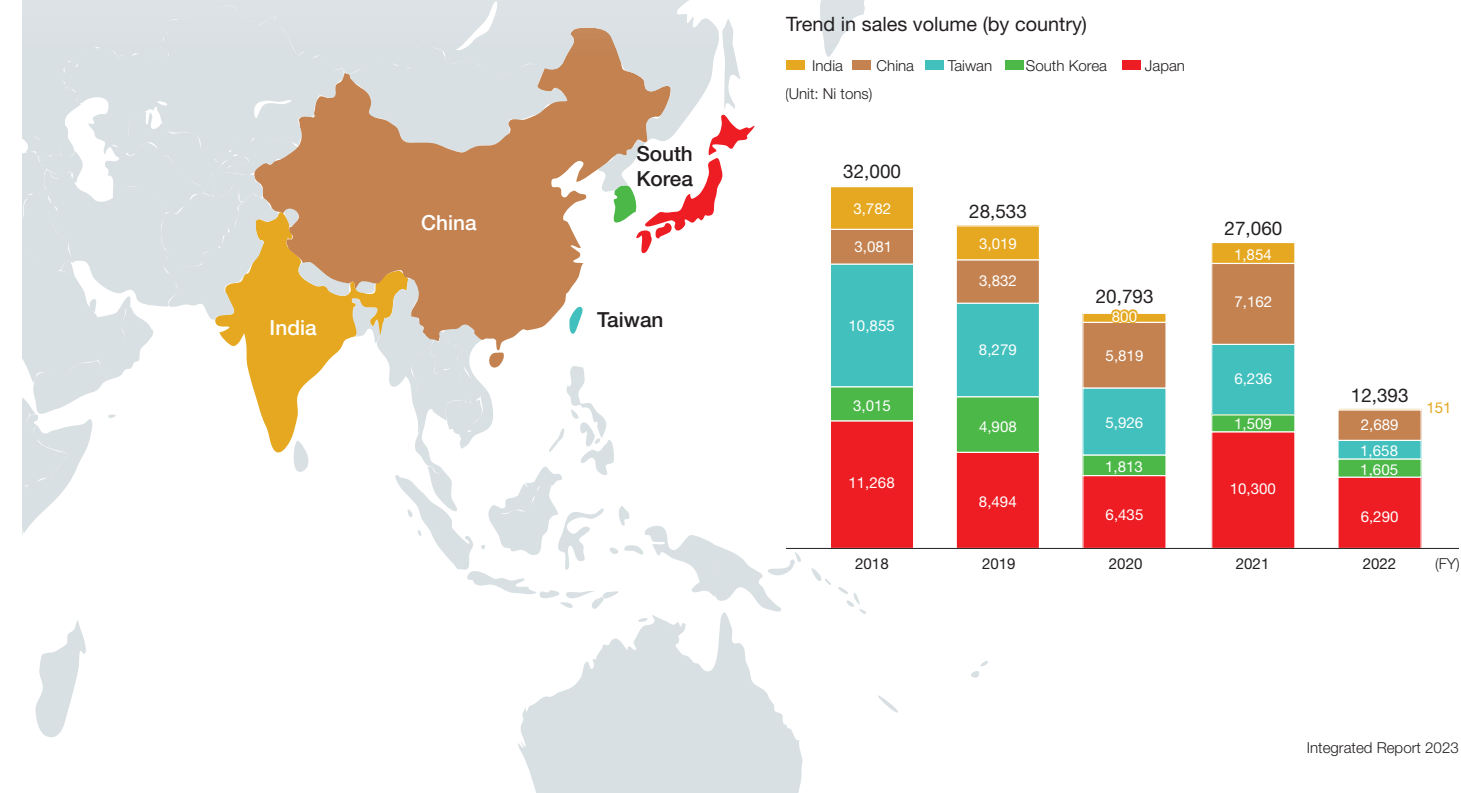
As One of the World's Top Ferronickel Manufacturers



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

Currently, about 50% of our sales are made overseas, supported by our network centered on East Asia. Through our carefully cultivated information network, we collect information on the market and technology, and use it effectively for future business development.

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. In order to comply with international rules and local laws and regulations and conduct corporate activities that contribute to the development of each country, we give due consideration to local traditions, culture, business practices, and labor-management practices, based on international goals related to human rights such as the SDGs.



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.

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.

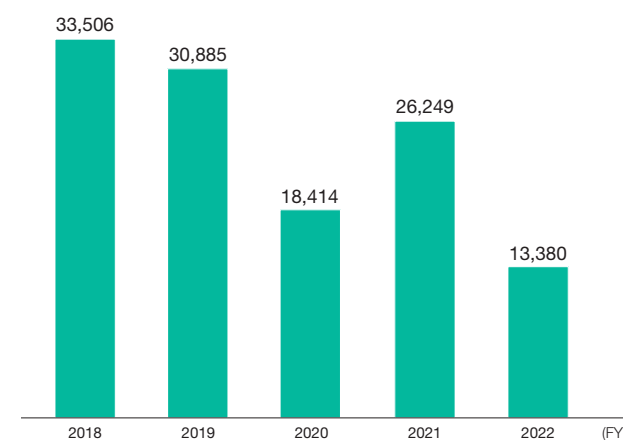


► Environmentally friendly technology

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)

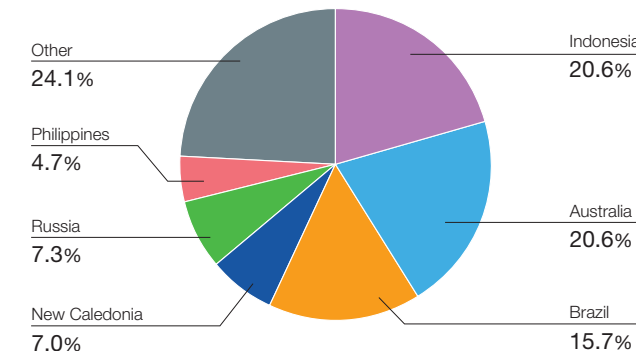


Strength 3 Close Relationships With Mining Companies

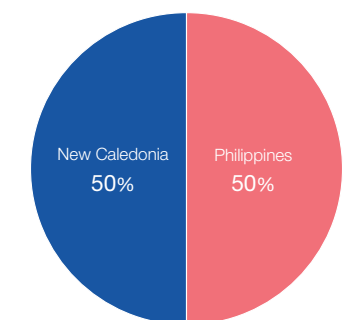
As one of the world's top manufacturers of ferronickel, the Company has also actively ventured into overseas businesses, working with local companies in the Philippines, Indonesia, and other countries to develop resources. The nickel mine development businesses of Philippines-based Rio Tuba Nickel Mining 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

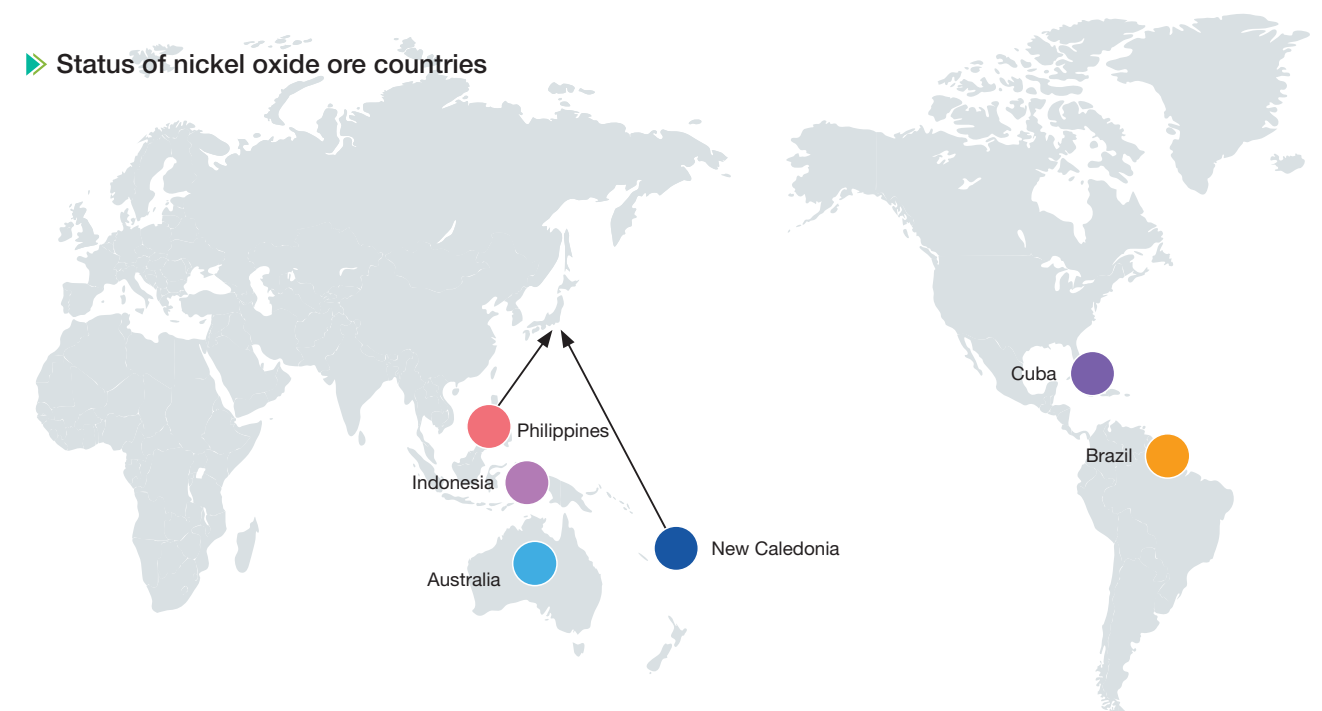
Global nickel ore reserves
(102,070,000 Ni tons as of 2022)



Amount of nickel oxide ore we purchased
(14,000 Ni tons for FY2022)



► 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.

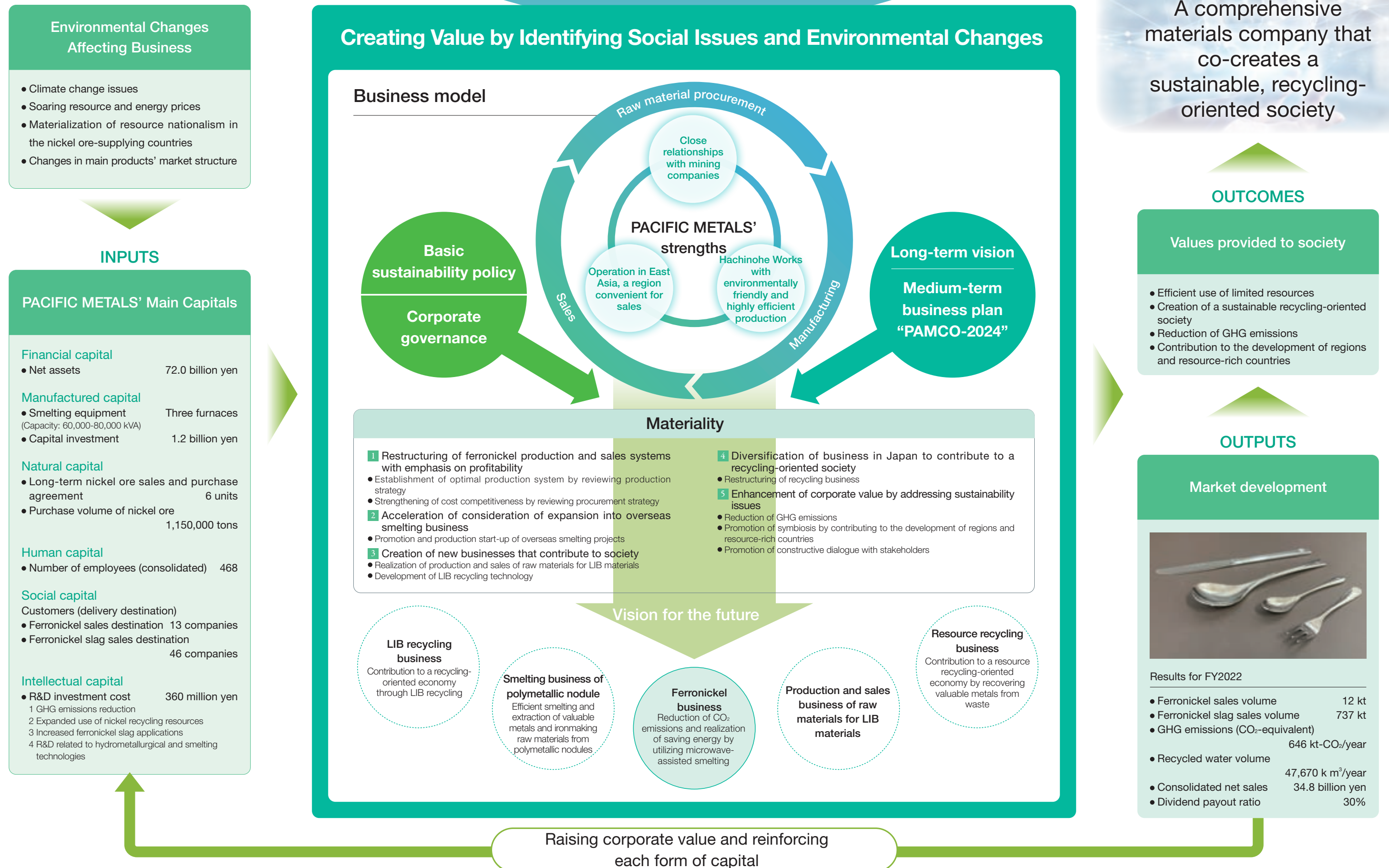
New Caledonia We procure ore from Société Minière Georges Montagnat SARL and Mai Kouaoua Mines on a stable basis under 10-year long-term contracts.

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.

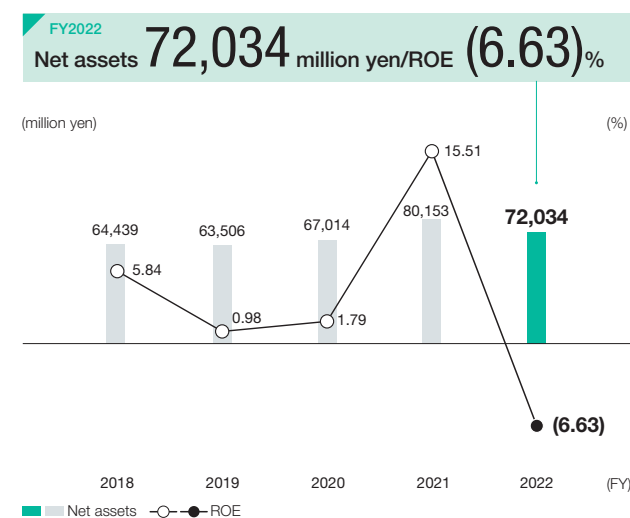
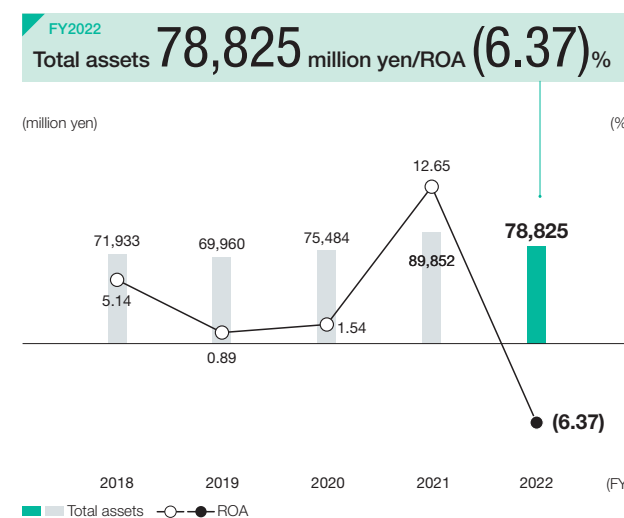
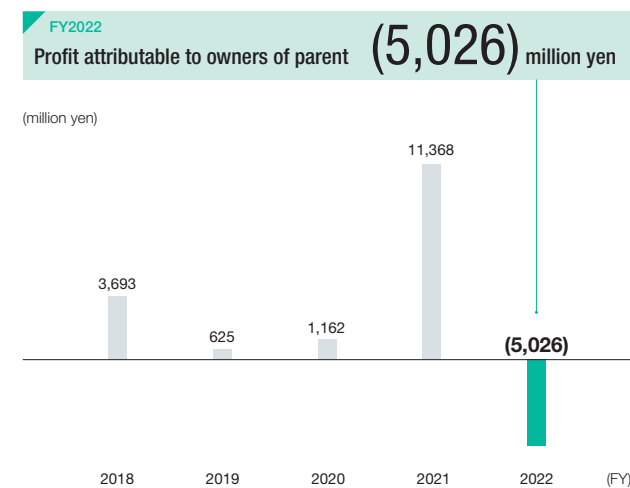
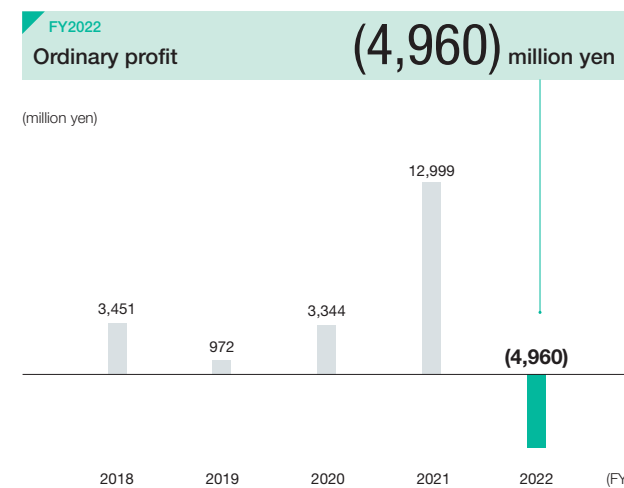
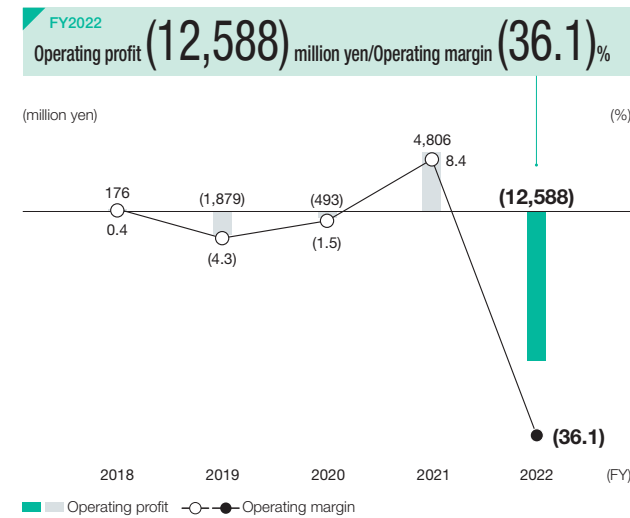
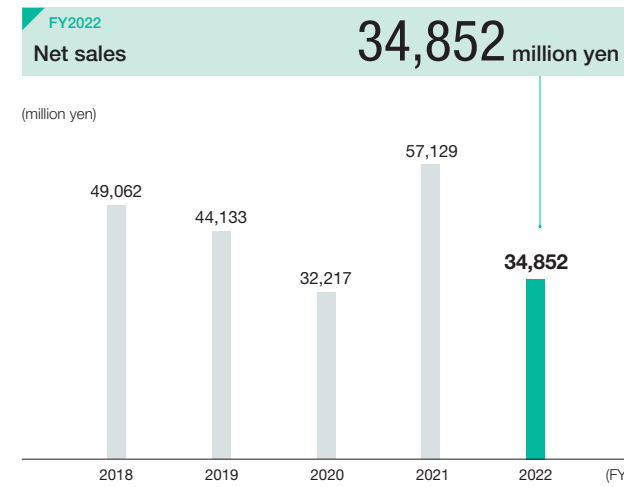
*In January 2014, a policy to ban exportation of unprocessed ore came into effect. From January 2017 to December 2019, that policy was partially eased.
*A policy to ban exportation is being implemented again since January 2020

Value Creation Process

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

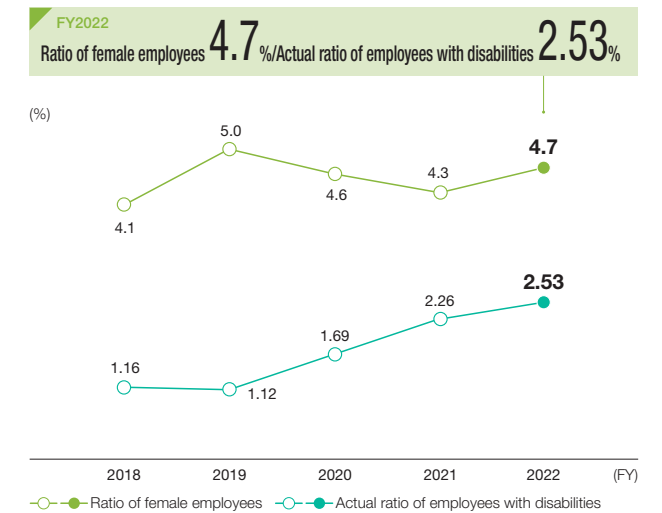
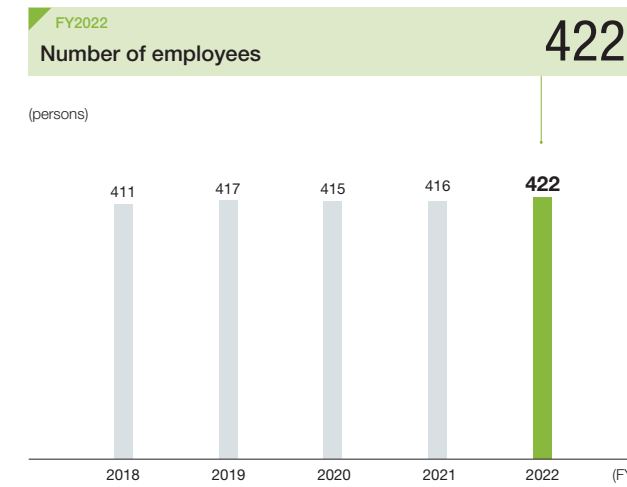


Financial Data (Consolidated)

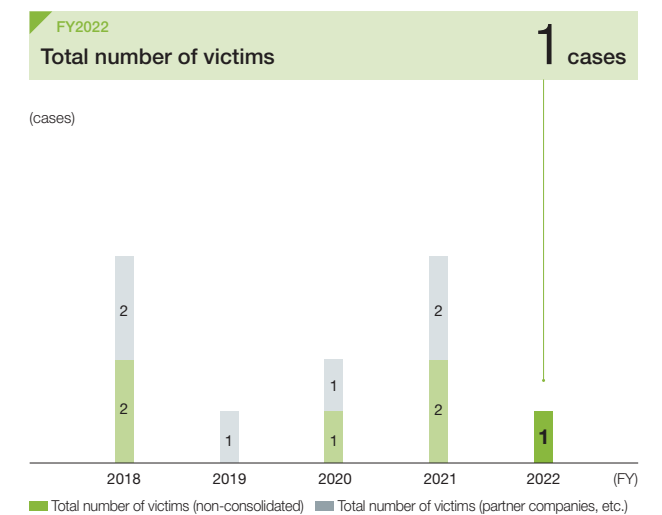
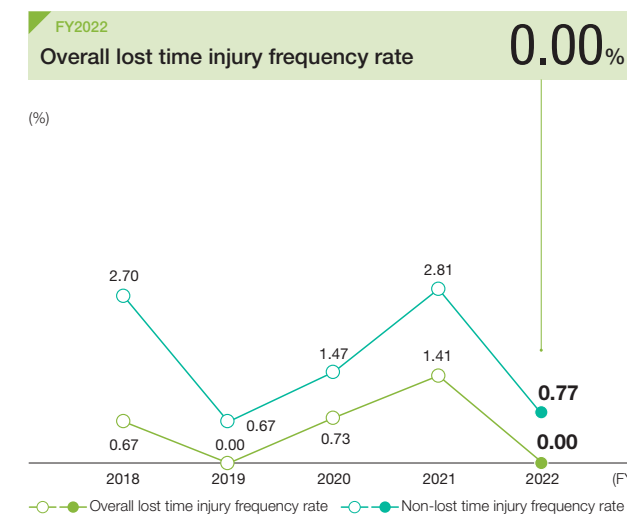


Non-financial Data (Non-consolidated)

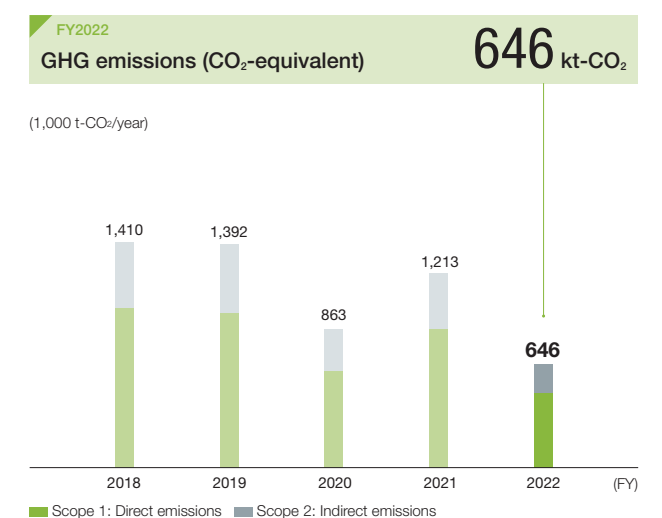
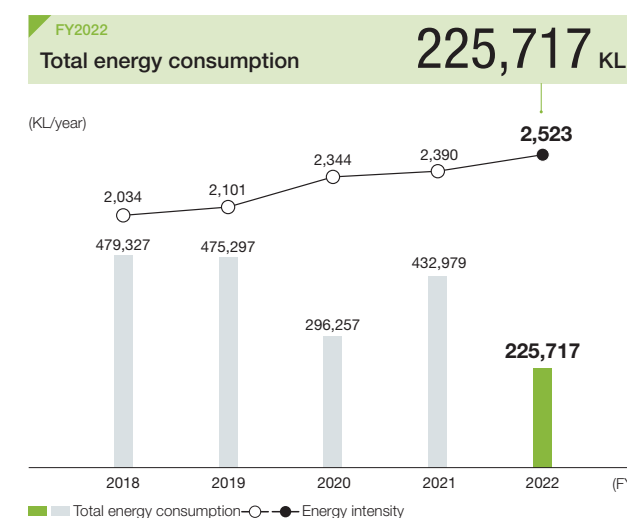
Employee-related



Occupational health and safety-related



Environment-related



Message From the President

We will continue to tackle challenges as a comprehensive materials company that creates a society for the next generation

Masayuki Aoyama

President and Representative Director



► Underpinning Society by Constantly Meeting the Needs of Changing Times

The Company was founded in 1949 and today our primary product is ferronickel, an alloy of iron and nickel that is the main raw material for stainless steel. We are responsible for the entire process from purchasing ore from overseas and production (smelting) to sales to stainless steel manufacturers and other customers. In addition to possessing one of the world's largest ELKEM-type electric furnaces at our plant in Hachinohe City, Aomori Prefecture, we have built a position as one of the world's leading ferronickel manufacturers based on our in-house developed smelting technology.

Ferronickel has excellent heat resistance and holds up well against corrosion and oxidation. As mentioned above, ferronickel is used as the main raw material for stainless steel for various applications ranging from tableware to construction materials and aircraft parts. While there may be quite a few people who are unfamiliar with this, stainless

steel is a generic term that refers to a vast array of products that vary in their proportions of iron, nickel, chromium, and other content, with JIS designations ranging up to the 600 series. To meet the needs of a diverse range of stainless steel manufacturers and other customers, we have made a commitment to thorough quality control. As a result, we are be proud of the stellar reputation that we have earned for the quality of our various products.

Based on our company philosophy, which is to "leverage the power of people to deliver the earth's resources in more useful forms and contribute to the happiness of humankind," we are currently conducting research into the production of processed ferronickel slag, a byproduct of the ferronickel smelting process, as well as the creation of new businesses related to recycling by applying smelting technology to low-grade nickel ore.

► Strategic Control of Sales Volume Addresses Sudden Changes to a Severe Selling Environment

As for the business environment surrounding the Company, the stainless steel industry, which is the main source of demand for ferronickel, is recovering in demand after the COVID-19 pandemic, and the supply and demand for nickel is expected to continue to grow at a steady pace. In addition, amid the worldwide shift toward achieving a low-carbon society, the tide is also rising for business opportunities related to low-carbon products. On the other hand, the trends in China, a major country in terms of stainless steel production and nickel demand, have since before COVID-19 exerted an impact on the entire industry, including the Company's own nickel business.

For years we have been actively engaged in overseas business, including nickel mine development projects in the Philippines, technical assistance to Indonesia, the Philippines and New Caledonia, as well as the opening of offices in the Philippines and Jakarta for the procurement of nickel ore.

Meanwhile, since the 2000s, as the real estate market in China boomed, that country ramped up production of nickel pig iron (NPI), which is produced from relatively low-grade nickel ore. Coincidentally, against a backdrop of resource nationalism in the nickel ore-supplying countries, Indonesia has now banned the export of unprocessed ore, and the amount of nickel supplied with NPI, the production, smelting, and processing of which is backed by Chinese and other capital, accounts for about 1/3 of the world's nickel supply. The price of ferronickel handled by the Group is based on the nickel price on the London Metal Exchange (LME), which has remained high in recent years. However,

overseas stainless steel producers have shifted some of their procurement to NPI, which has a price advantage over high-purity ferronickel, and this has also affected our ferronickel selling prices, creating a situation that cannot be ignored. As a result, our selling price is partially based on the LME nickel price applicable to the Company and the average exchange rate of Japanese yen against U.S. dollar applicable to the Company, as well as NPI prices. Furthermore, the curtailment of economic activities in China due to measures to counter COVID-19 infections and the slump in the real estate market resulted in a slackening of supply-demand balance for nickel, which was a factor in the reduction in selling price.

Amid escalating severity in competition in such a market, in the fiscal year ended March 31, 2023, production costs, including prices of raw materials, fuel, and electricity, rose due to the globally high prices of resources against the backdrop of the situation in Ukraine and other factors. In the midst of rapid change to the severe business environment in which revenue growth was sluggish, we shifted our policy to strategic volume control that does not impair profitability. As a result, consolidated net sales decreased by 39.0% year on year to ¥34,852 million, operating loss was ¥12,588 million (compared with operating profit of ¥4,806 million for the previous fiscal year), and loss attributable to owners of parent amounted to ¥5,026 million (compared with profit attributable to owners of parent of ¥11,368 million for the previous fiscal year).

► PAMCO-2024, Tackling Material Issues as a Sustainable Strategy

With an eye toward 2030, the Company has presented its long-term vision as being "a comprehensive materials company that co-creates a sustainable, recycling-oriented society." In promoting the efficient use and recycling of finite resources, our aim as a comprehensive materials company that handles nickel, other metals and recycled materials, among others, is to work with our stakeholders for a sustainable recycling-oriented society.

Furthermore, to realize our long-term vision, we have formulated the three-year medium-term business plan "PAMCO-2024," which commenced from April 2022. Its

theme is to "further strengthen the platform and promote the sustainability strategy," and we are also making efforts for "restructuring of ferronickel production and sales systems with emphasis on profitability," "acceleration of consideration of expansion into overseas smelting business," "creation of new businesses that contribute to society," "diversification of business in Japan to contribute to a recycling-oriented society," and "enhancement of corporate value by addressing sustainability issues," as material issues.

► Wielding Our Assets of Quality and Technology to Rebuild Production and Sales Systems

As I mentioned above, we are exercising ongoing strategic control of production given the current severe sales market and continuously soaring costs of raw materials, fuel, and

electricity, in our efforts of "restructuring of ferronickel production and sales systems with emphasis on profitability" which is one of the material issues being addressed by the

medium-term business plan. Specifically, the Company is continuing to operate two ferronickel manufacturing facilities in response to a molten material leakage incident at one of the three ferronickel manufacturing facilities' electric furnaces. At the same time, we will strive to receive orders with an emphasis on profitability based on the high value-added nature of the Group's products, build a flexible production and sales system, early realize overseas

business development and new mine development, and continue to strengthen measures to improve operational efficiency.

With regard to "acceleration of consideration of expansion into overseas smelting business," we will continue to discuss with our overseas partners about our participation in smelting operations outside of Japan.

► Contributing to Decarbonization and the Creation of a Recycling-Oriented Society through Business

As part of our efforts for "creation of new businesses that contribute to society," we are working to realize a business of manufacturing and selling raw materials for lithium-ion battery (LIB) materials. LIB cathode materials contain lithium, cobalt, nickel, and other rare metals, and these are designated as substances of specific importance that depend on certain countries, and this leads to an urgent need to secure stable worldwide supplies of these metals.

We are now continuing to study commercialization with an eye to collaboration with other companies. We have also begun joint research and development with other companies for the development of LIB recycling technology. Furthermore, in August 2023, the Company signed a joint development agreement with Microwave Chemical Co., Ltd. for microwave-based nickel smelting technology. In 2014, Microwave Chemical succeeded in developing the world's first microwave-based manufacturing process for a large-scale chemical plant. Through joint development, coal combustion during nickel ore smelting will be replaced by microwaves generated by electricity, thereby significantly reducing CO₂ emissions. We aim to achieve carbon neutrality by FY2050, and by FY2030 intend to reduce our greenhouse gas emissions by 46% or more compared to the FY2013 level. This joint development is aimed at introducing actual equipment by FY2030 after conducting experiments with a large demonstration unit, and is an initiative to achieve a stable supply of nickel and other metals while promoting decarbonization and to achieve carbon neutrality for the Company. In addition, ferronickel

slag, a byproduct of ferronickel smelting, has been used mainly as a substitute for natural sand and aggregate for components of bridges or roads. However, in field trials conducted in recent years, when used as an agricultural fertilizer the magnesium and silicic acid contained in ferronickel slag have been proven by third-party analysis to be effective in improving clay soil and producing abundant crops. We will continue to move forward on developing applications with the goal of contributing to a recycling-oriented society.



► Achieving Sustainable Growth, Continuing to Tackle New Challenges

Toward "enhancement of corporate value by addressing sustainability issues," we are putting in place a system for conducting sustainability measures company-wide, and in June 2021, we established the Sustainability Management Section in the Corporate Planning & Coordination Department, and in November of the same year, we established the Sustainability Promotion Council with the President serving as a chairman and full-time Directors serving as council members, to regularly discuss medium-to long-term directions and initiatives. As part of our ESG initiatives, we are working to strengthen compliance,

enhance corporate governance, and smoothly operate internal control systems as important management issues.

In addition, our capital policy is based on the three pillars of expansion and reinforcement of shareholders return, growth investment, and ensuring fiscal soundness with a view to enhancement of corporate value. We regard shareholders return 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. At the same time, the Company will secure an appropriate level of internal reserves

to be used for growth investment such as securing resources, developing new technologies, and making capital investments, as well as for acquisition of treasury shares as part of our capital policies, along with funds to functionally respond to changes in the business environment and to ensure fiscal soundness.

The Company has always deeply valued its human resources. Employees are the company's treasure, and I hope that they will pass on their accumulated skills through education and work to develop new technologies. Currently, while reviewing our staffing structure, we are now allocating personnel in our R&D department and working to develop new technologies. In addition, as basic measures, we will work on themes such as safe operations, human resource development, harassment prevention, respect for human rights, and diversity to create a work environment where each and every employee can work comfortably and play an active role, thereby increasing employee engagement and enhancing corporate value.

Since our founding, we have developed our business through no small number of economic crises, including postwar reconstruction, rapid economic growth, the oil crisis, and the Great East Japan Earthquake. I have personally experienced that by continuing to take on challenges in a difficult environment, new value can be found and that will lead to the growth of the Company and oneself. We remain in a difficult business environment, but this also presents an opportunity to further reform ourselves and grow the Company again. For example, the above-mentioned joint development of microwave-based nickel

smelting technology is a technological innovation that will fundamentally change our conventional production base by converting all coal combustion in the important process of electric furnaces to electric heating, and has the potential to create new value for the Company in a decarbonized society.

Against the backdrop of global warming, addressing climate change has become a pressing issue in the world. In May 2022, we endorsed the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), and we are promoting information disclosure based on the recommendations and, as mentioned above, are forging ahead toward achieving carbon neutrality by FY2050.

With the global environment on the cusp of crisis, pressure is being placed on every aspect of industry to make changes. What are the raw materials needed to maintain a livable world while protecting the environment, and what materials can keep the high standards of our social environment without damaging the global environment? How can we coexist with the global environment so that we can continue both production activities and sustainable growth? Finding answers to these questions is no simple matter, but the Company must continue to transform itself. As for myself, I will keep working with our employees to tackle challenges, and while presenting such a profile to our young workers, will pass the baton to the next generation and contribute in at least some small manner to a society where children of the future can live in happiness. To that end I would appreciate the support and cooperation of all our stakeholders.



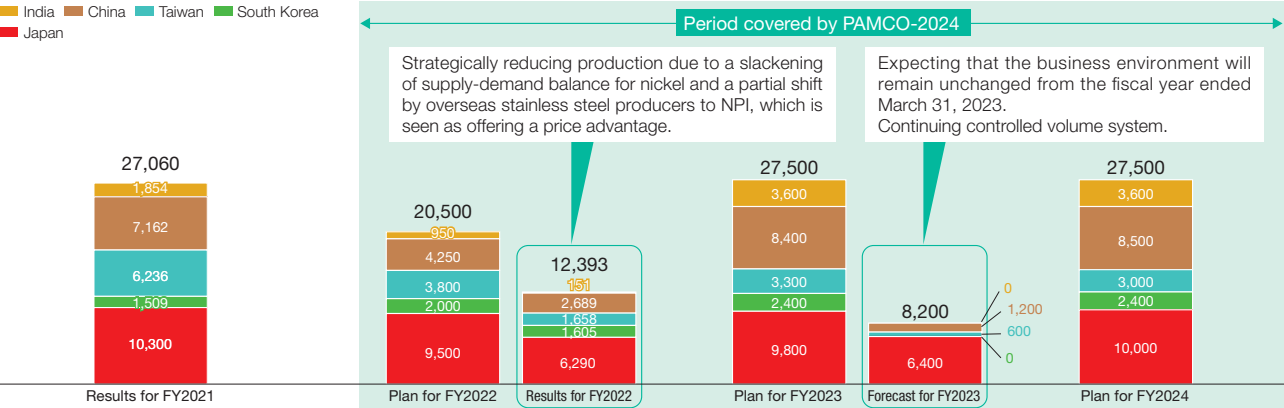
Medium-Term Business Plan “PAMCO-2024”

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.

Progress on Major Priority Measures (Review of FY2022)

Acceleration of consideration of expansion into overseas smelting business	Promotion and production start-up of overseas smelting projects	Continuing discussions with local partners in Indonesia for participation in the overseas smelting business
Creation of new businesses that contribute to society	Realization of production and sales of raw materials for LIB materials	Continuing to study commercialization with an eye to collaboration with other companies
	Development of LIB recycling technology	Start of joint research and development with Emulsion Flow Technologies Ltd.
	Promotion of new metal smelting projects	Now studying new metal smelting business from seabed resources, with priority on environmental and social considerations → Signed a non-binding memorandum of understanding with The Metals Company
Diversification of business in Japan to contribute to a recycling-oriented society	Restructuring of recycling business	Currently evaluating raw materials for steelmaking obtained through field trials, with a view to production and sale of raw materials for steelmaking and raw materials for battery materials utilizing by-products generated by other companies Currently evaluating precious metals extracted from urban mined resources for recycling by utilizing the Company's melting treatment technology
Enhancement of corporate value by addressing sustainability issues	Reduction of GHG emissions	Continuing to study electrification process, with microwaves to eliminate the use of fossil fuels (excluding coal required for reduction) in rotary kiln operations in the calcination process for Fe-Ni production Confirmation of removal of crystallization water from ore by microwave heating in a bench test → Now considering transition (investment) to a larger scale test
	Publication of Integrated Report	Published in February 2023

Outlook for Sales by Country (Unit: Ni tons)



Investment Plan

Capital investment	Capital investment that contributes to the maintenance, efficiency, and longevity of facilities			
Strategic investment	Domestic business: Business investment based on business profitability evaluation of domestic business candidates considered in PAMCO-2021			
	Overseas business, resources: Business investment based on decision to participate in overseas smelting projects New mining area development surveys, etc., to secure resources			
	R&D investment: R&D investment for sustainable nickel business			
(Unit: million yen)	“PAMCO-2024” Plan for FY2022	Results for FY2022	(Difference)	Forecast for FY2023
Capital investment	1,495	1,126	△369	472
Domestic business	53	70	17	0
Overseas business, resources	5,506	31	△5,475	2,007
R&D investment	35	5	△30	57
Total	7,089	1,232	△5,857	2,536

Reason for difference between FY2022 plan and results
Mainly regarding “overseas business, resources,” investment was postponed due to a change in the controlling shareholder because of the restructuring of overseas smelting project ownership. The Company plans to resume conversations with the new controlling shareholder to realize the investment, and the timing of the investment is expected to be determined depending on progress.

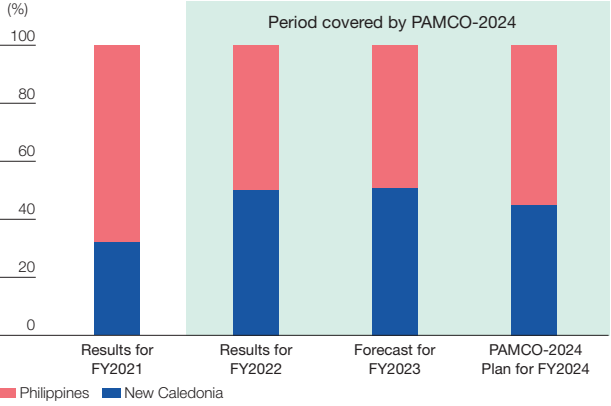
Ore Procurement Plan

► Status of conclusion of long-term contracts

Other party in long-term contracts	FY2021	FY2022	FY2023	FY2024	FY2025
Rio Tuba Nickel Mining Corporation (36% stake held by the Company)	Prior contract period	Renewed	Contract period: Jan. 2022 to Dec. 2026 (5 years)		
Taganito Mining Corporation (33.5% stake held by the Company)	Prior contract period		Contract period: Jan. 2022 to Dec. 2026 (5 years)		
Cagdianao Mining Corporation	Prior contract period		Contract period: Jan. 2022 to Dec. 2026 (5 years)		
Mai Kouaoua Mines (1)	Contract period: Jan. 2014 to Dec. 2023 (10 years)			To be updated	
Mai Kouaoua Mines (2)	Contract period: Jan. 2016 to Dec. 2025 (10 years)				
Montagnat SARL	Contract period: Apr. 2016 to Mar. 2026 (10 years)				

Philippines New Caledonia

► Procurement ratio



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
Results and forecast for the period covered by PAMCO-2024		Results for FY2022	Forecast for FY2023	
	Production volume (Ni tons)	13,380	7,083	
	Sales volume (Ni tons)	12,393	8,200	
	Applicable LME nickel price (US\$/ton) [US\$/lb.]	25,507[11.57]	22,686[10.29]	
	Applicable exchange rate (¥/US\$)	135.26	134.08	
	Net sales (million yen)	34,852	20,899	
	Operating profit (loss) (million yen)	(12,588)	(7,299)	
Remarks	Ordinary profit (loss) (million yen)	(4,960)	(4,569)	The Company shifted its policy to strategically control ferronickel production and sales volume for FY2022 so as not to impair a certain level of profitability. In addition to the impact of the molten material leakage incident that occurred in an electric furnace in the ferronickel manufacturing facilities immediately before the previous fiscal year, this was due to signs of easing in the nickel supply-demand balance, and the partial shift by producers of stainless steel to procurement of NPI, which has a price advantage, even including production costs. The price of NPI has also affected the selling price of the Company's products. Our forecast is for the harsh environment to remain in FY2023, and continuing from FY2022, we expect to implement a strategic volume control policy, with which achieving a certain degree of profitability should not be hampered. As for the restoration and resumption of operations of the electric furnace that was shut down due to the leakage incident, we plan to resume operations once the volume control policy is lifted, while keeping a close eye on the business environment.
	Profit (loss) attributable to owners of parent (million yen)	(5,026)	(4,778)	
	Total assets (million yen)	78,825	73,893	
	Net assets (million yen)	72,034	66,963	
	Investment (million yen)	1,232	2,536	
	Depreciation (million yen)	289	371	

Environment

Response to the TCFD Recommendations



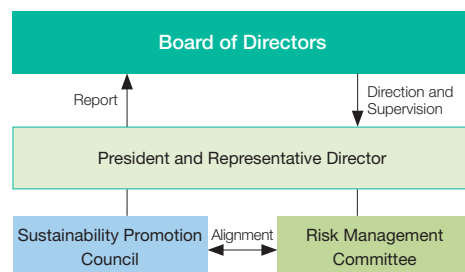
The Group has endorsed the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) established by the Financial Stability Board (FSB). Positioning the response to climate change and the realization of a sustainable society as important management issues, we are promoting company-wide 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 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.

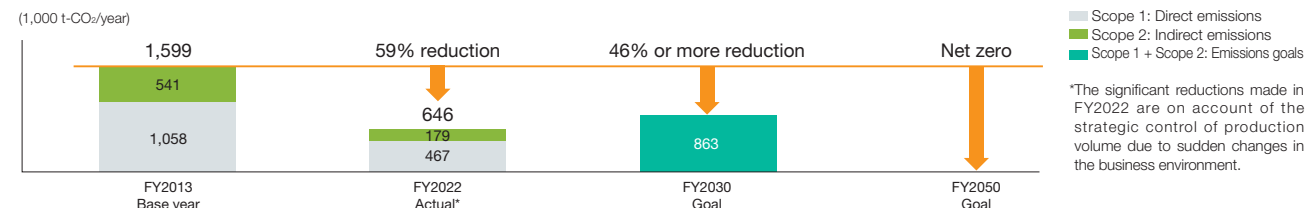
Goals and indicators

In “PAMCO-2024” announced in May 2022, the Group set the following goals.

Initiatives to achieve the goals

- Reduction of GHG emissions (from PAMCO-2024 priority measures)
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

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 FY2022 was 260 kt-CO2. The category-specific breakdown was Category 1: Purchased goods and services (16%), Category 3: Fuel-and energy-related activities not included in scope 1 or scope 2 (34%), Category 4: Upstream transportation and distribution (45%), and Category 13: Downstream leased assets (4%) accounted for about 99% of the total.

*Reference for emissions intensities: 1. the database on emissions intensities for calculating organizational greenhouse gas emissions, etc. through a supply chain (Ver. 3.3); 2. IDEA v2 (for supply chain greenhouse gas emissions calculations)

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

C10, C11, C14, and C15 are not applicable.

*Emissions ratios are rounded to the nearest whole number.

Scenario analysis (GHG emissions are in CO₂ 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	● Process electrification ● Transition to renewable energy use	● Installation of microwave equipment in the raw material drying and burning process to reduce coal and fossil fuels as heat sources ● Phased transition to the use of purchased renewable energy
			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	● LCCO2 evaluation	● Transition to decarbonized manufacturing, followed by LCCO2 evaluation to meet customer demand
	Physical	Reputation in the market	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	● Creation of new businesses	● Restructuring of business portfolio, with an eye to creating new businesses in the long term
			Preference for ESG-responsive suppliers in the supply chain, leading to damage to corporate value and additional ESG-related costs	Large	Medium	Small	Medium	● Commitment to decarbonization ● Commitment to initiatives	● Commitment to sustainability issues and active disclosure of implementation status (TCFD disclosure, response to CDP, etc.)
		Acute	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		
Opportunities	Physical	Chronic	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	● Diversification of risks by diversifying raw material suppliers	● Procurement risk diversification by diversifying the suppliers of raw materials, including recycled resources
			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		
	Transition	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	● Establishment of a system for resource recycling	● Establishment of a new system for resource recycling by collecting and accepting a larger amount of recycled resources
		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	Large	Medium	● Process electrification ● Transition to renewable energy use	● Installation of microwave equipment in the raw material drying and burning process to reduce coal and fossil fuels as heat sources ● Phased transition to the use of purchased renewable power
		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	● Strengthening of sales capabilities and expansion of new customers	● Sale of low-carbonization products, leading to better relationships with customers ● Cultivation of new business partners, such as overseas manufacturers
Resilience	Transition		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	● Strengthening of governance	● Planning, implementation, and management of response to ESG issues

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.

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 FY2022
Main raw materials	Nickel ore	1,150,000 t	
	Secondary ingredients	160,000 t	
Industrial water		5,280,000 m³	

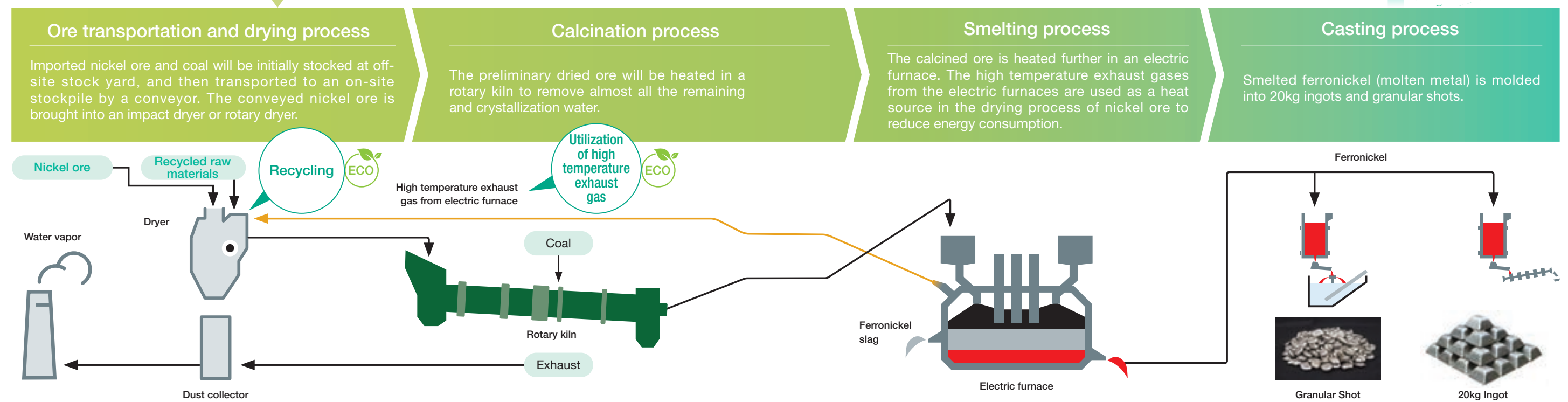
For total energy, see P27

OUTPUT			Results for FY2022
Product	Ferronickel	89,000 t	
Resource recycling	Ferronickel slag	660,000 t	
Wastewater	Discharged water	4,810,000 m³	
Atmospheric release	CO₂	460,000 t	
	SOx	665 t	
	NOx	1,385 t	
	Soot and dust	22 t	

Recycling rate
100%

Final waste disposal rate
0%

Ferronickel manufacturing process



Raw material conveyor

Raw material conveyor is total around 2.4km length.



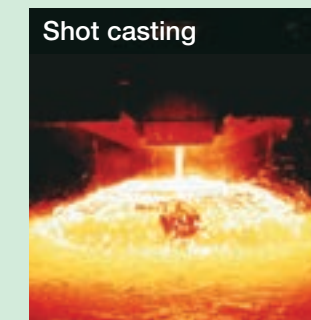
Rotary kiln

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.

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)

Restructuring of ferronickel production and sales systems with emphasis on profitability 	1 Establishment of optimal production system by reviewing production strategy ● Establish optimal production system to further strengthen the platform.
Acceleration of consideration of expansion into overseas smelting business 	3 Promotion and production start-up of overseas smelting projects ● Establish optimal ferronickel production and sales system by combining domestic and overseas smelting operations.
Creation of new businesses that contribute to society 	4 Promotion of production and sales of raw materials for LIB materials ● Create a business to manufacture and sell raw materials for LIB materials by utilizing hydrometallurgical technologies.
Diversification of business in Japan to contribute to a recycling-oriented society 	5 Restructuring of recycling business ● Promote restructuring of our recycling business through collaboration with other companies, etc.
Enhancement of corporate value by addressing sustainability issues 	6 Sustainability Promotion Council ● 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. 7 Reduction of GHG emissions ● To achieve carbon neutrality by FY2050, implement measures with clear targets, including use of carbon-free energy and introduction of new technologies. 8 Promotion of symbiosis by contributing to the development of regions and resource-rich countries ● Promote symbiosis through activities that contribute to the development of the region and resource-rich countries. 9 Promotion of constructive dialogue with stakeholders ● 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.

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.

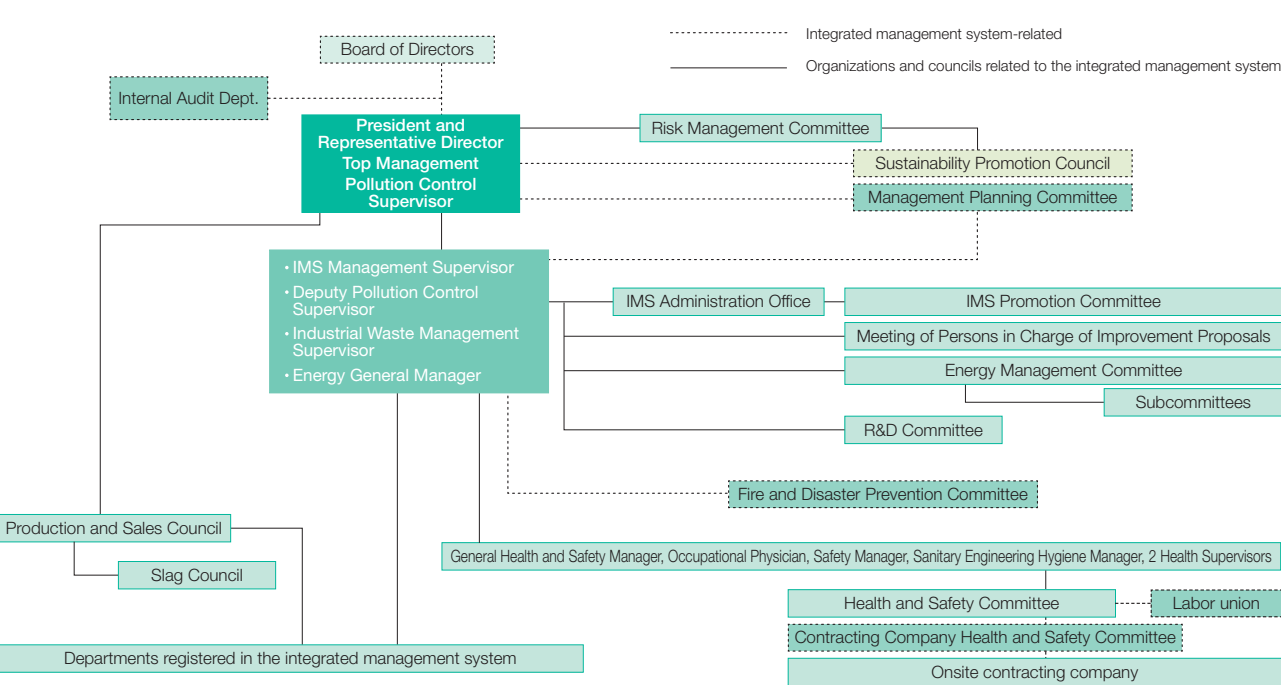
(5) Ensure operation and continuous improvement of the environmental management system

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



Environmental accounting and safety accounting

Aggregated results for environmental accounting and safety accounting in FY2022 are shown below. We spent about 470 million yen on environmental accounting as a whole. Pollution control costs, resource recycling costs, and environmental damage response costs account for the bulk of this spending. We spent about 70 million yen on safety accounting as a whole. Most of this was for capital investments in safety countermeasure construction, etc. and in costs relating to health and safety protective equipment.

Environmental accounting

Classification		Main content	Amount (10,000 yen)
Business area costs	Pollution prevention costs	Dust collector maintenance costs	31,613
		Wastewater treatment facilities maintenance costs	
		Purchase costs for ammonia water for denitration	
	Global environmental protection costs	Energy conservation-related training costs	
Upstream and downstream costs	Resource recycling costs	Costs for in-house treatment of waste generated by the Company	—
		—	
Management activity costs		International Organization for Standardization (ISO) inspection costs	3,634
		On-site tree planting and management costs	
		Sustainability report publishing costs	
		Various monitoring equipment maintenance and management costs	
R&D costs		—	—
Social activity costs		General road cleaning costs for the vicinity	31
Costs of dealing with any environmental damage		Pollution load levy	12,197
Total			47,475

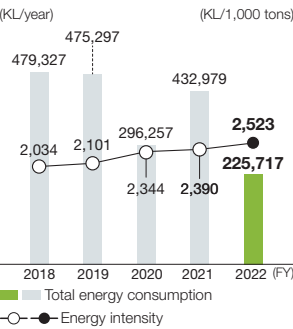
Safety accounting

Classification	Amount (10,000 yen)
Capital investment (constructions for safety measures, etc.)	1,758
Safety, health, and disaster prevention education costs	826
Legal inspection costs (boilers, cranes, firefighting related)	519
Health checkup fees	1,363
Safety and health protective equipment costs	2,792
Total	7,258

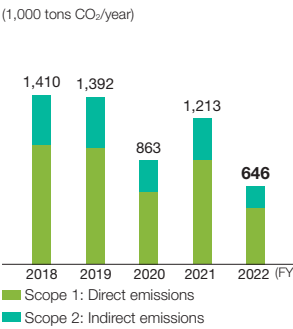
Initiatives for Reducing Environmental Impact

We use significant amounts of electricity and fossil fuels in the manufacturing process and emit soot and smoke. For this reason, we are actively working on energy-saving measures and to reduce the environmental impact on the atmosphere and water.

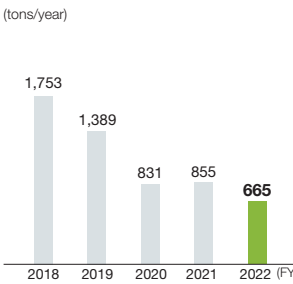
Total energy consumption



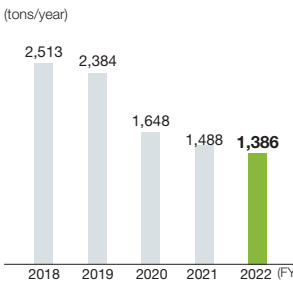
GHG emissions (CO₂ equivalent)



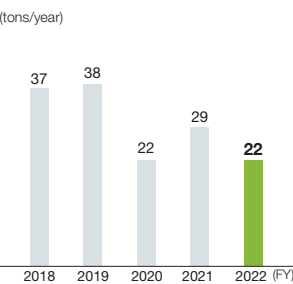
SOx emissions



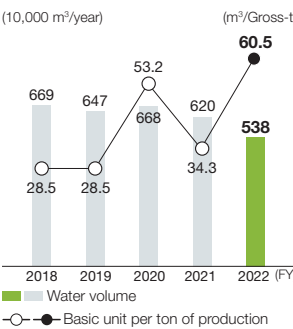
NOx emissions



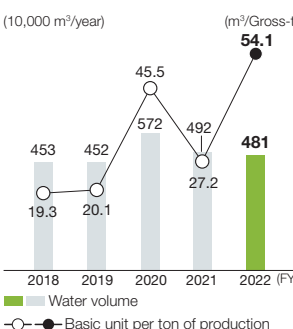
Dust emission



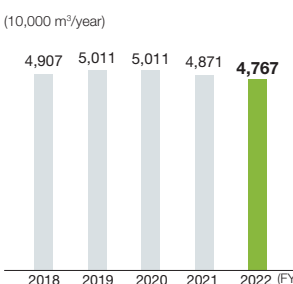
Water supply amount



Total drain water volume



Recycled water volume



Curbing global warming and energy conservation measures

We are engaged in efforts to use energy more efficiently, including using hot electric furnace exhaust gas in our nickel ore drying process to reduce the amount of heavy oil and LNG we use in our production process.

The Company strictly adheres to product standards, the Air Pollution Control Act, the Act on Waste Management and Public Cleansing, and other laws and regulations to promote investment in emissions reduction activities while also implementing and reviewing emission reductions. In addition, by providing incentives through the system of improvement proposals, we encourage employees to maintain their motivation, and in departments that consume large amounts of energy derived from Scope 1 and 2, we identify energy-saving and CO₂-reducing themes and conduct bottom-up-style activities.

In FY2022, our total energy consumption, CO₂ emissions, and energy used per unit of production (energy intensity) rose in line with higher production volumes.

Air pollution control measures

To monitor the soot and smoke generated by production processes and private power generation equipment, we have taken measures such as constant monitoring using telemeters and upgrading continuous measuring equipment of exhaust emission, have thoroughly managed the status of self-managed values, and have implemented training in legal and regulatory compliance to raise employee awareness. We also prevent the scatter of dust by running watering and dust collecting devices in front of furnaces 24-hours a day in mines and on-premises road surfaces, etc. In FY2022, each emission volume decreased from the previous fiscal year due to reduced facility operating hours and a decline in the use of raw materials resulting from lower production volume. Going forward, we will continue to consider measures for curbing emissions.

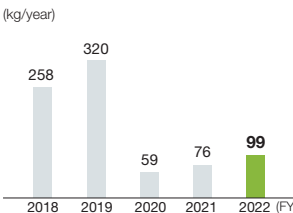
Proper management of chemical substances

Based on the PRTR system, we ascertain the amount of emissions from and movements of substances subject to notification and report them to the government every year. Substances subject to PRTR notification in FY2022 are as stated in the table. We control the amounts of chemical substances we procure, use, and store, and are working to reduce the amounts of hazardous substances we use. We use a chemical control system to control the chemicals used in testing more thoroughly than ever before. Furthermore, since controlling the nickel compounds discharged from our ferronickel production process is one of our most important control items, we take various control measures, including 24-hour a day watering and cleaning with motorized sweepers.

Substances subject to PRTR notification in FY2022

		Nickel compounds (kg/year)	Chromium and trivalent chromium compounds (kg/year)	Manganese and compounds thereof (kg/year)	Dioxins class compounds (mg/year)
Emission volumes	Atmospheric	58	18	11	0
	Waterways	41	24	0	0
	Soil	0	0	0	0
	Landfill	0	0	0	0
Transfer volumes	External waste	0	0	0	6.1

Nickel compound emissions



Observance of environmental laws and regulations

We regularly inspect business-use air conditioning, refrigerating, and freezing equipment in accordance with the Fluorocarbon Emissions Restraining Act. Inspection results revealed no leaks that needed to be reported. Regarding waste incinerators, measurement of total mercury in exhaust gas and dioxins is conducted in accordance with the law, and no emissions exceeded the standard values in FY2022. We outsource the treatment of product waste that uses mercury (fluorescent lamps, etc.) appropriately in accordance with the Waste Disposal Act. We are systematically eliminating insulating oil containing PCBs.

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. Its main applications are as road materials (subgrade and subbase materials), earthwork materials (land reclamation materials), and fertilizer materials.

Furthermore, in July 2022, we received approval from Aomori Prefecture to produce and sell the material as a “special fertilizer (containing iron),” expanding its use as a fertilizer material.

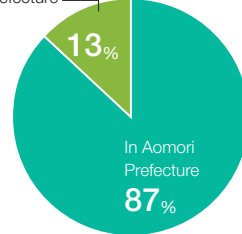
As part of our efforts toward a recycling-oriented society, we recycle all waste generated from our ferronickel manufacturing process and private power generation facilities. Waste oil is recycled in-house. All waste that cannot be disposed of within the Company is recycled by contracted waste disposal companies. We have achieved zero emissions by carefully selecting waste disposal companies and eliminating final disposal.

Amount of industrial waste disposal subcontracted in FY2022

Type of Waste	Amount Disposed (t)	Type of Waste	Amount Disposed (t)
Dust (hazardous)	56.0	Waste plastic and metal scrap mixtures	0.0
Sludge	14.5	Waste oil	143.6
Strong acid	1.3	Wood scrap	11.2
Cinders (hazardous)	36.1	Asbestos	0.0
Cinders	1.2	Stable mixed waste	47.4
Waste alkali	0.8	Glass, concrete, and ceramic scrap	325.8
Waste alkali (hazardous)	0.0	Waste PCBs, etc.	0.0
Flammable waste oil	0.1	Other waste	0.2
Waste plastics	48.5	Total	686.7

Percentage of slag processed products sold by region

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



Acquisition of environment-related technical qualifications

To enhance environmental awareness and strengthen our environmental control initiatives, we promote the acquisition of environment-related technical qualifications. Acquisition status is as shown on the right.

Number of environment-related technically qualified personnel

Name of qualification	Number of qualified personnel
Atmospheric pollution control manager - Type 1	14
Water quality pollution control manager - Type 1	12
Dioxin pollution control manager	6
Disposal courses relating to specially controlled industrial waste treatment businesses	1
Industrial waste incinerator technical manager	11
Industrial waste intermediate treatment facility technical manager	4

Name of qualification	Number of qualified personnel
Garbage treatment facility technical manager	6
Crushing and recycling facility technical manager	2
Specially controlled industrial waste management supervisor	5

Consideration to biodiversity (Consent given for the Forest Conservation Project Plan in Aomori Prefecture)

In Aomori Prefecture, it is recognized that material issues include mountain disaster prevention measures to protect the lives and property of local residents from localized torrential rains that have occurred frequently in recent years and from landslides during the snowmelt season due to the prefecture's fragile geological conditions, forest development to improve water source cultivation functions and others to ensure a continuous supply of safe, secure and clean water, development of coastal disaster prevention forest to protect living environments from wind, sand and tide damage, and the early recovery of black pine forests damaged by the tsunami following the Great East Japan Earthquake.

The prefecture's policy is to emphasize the “restoration and conservation of the water circulation systems connecting mountains, rivers, and oceans” as part of its “proactive agriculture, forestry, and fisheries industry,” and the prefecture is implementing forest conservation projects based on the “Forest Development and Conservation Project Plan (FY2014-2018)” with the following three priority goals:

1. Forest maintenance for sustainable conservation of abundant, safe and secure water resources
2. Early restoration of damaged areas and development of mountain disaster risk areas to create forests that stand up well to mountain disasters
3. Maintenance for the preservation of a green living environment in suburban areas

In addition, public works projects that support agriculture, forestry, and fisheries industry are positioned and promoted as “environmental public projects.” For forest conservation projects, environmental public model districts have been selected since FY2008, and efforts are being made to revitalize regional strength, to link agriculture, forestry, and fisheries, and to conserve and restore the environment.

The Company holds approximately 16 ha of protected forest area in Yokosawayama, Dobutsu, Hashikami-cho, Sannohe-gun, Aomori Prefecture, and in May 2019, submitted a written consent regarding the implementation of a forest conservation project to the Sanpachi Regional Civil Affairs Bureau of Aomori Prefecture.



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).

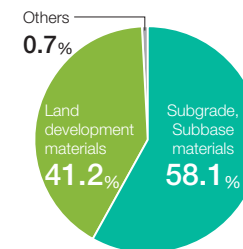


Ferronickel slag of 0 to 40mm



Ferronickel slag, 5mm or less

Percentage of ferronickel slag product by application (period ended March 2023)



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
Coverage materials, Earthwork materials	Suitable for embankments etc. because it compacts well to form firm ground
Blast furnace steelmaking materials	Used as an auxiliary material for adjusting blast furnace slag components

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^{*1} evaluation comparing ferronickel slag products and quarry products^{*2}, confirming a reduction in CO₂ emissions^{*3}.

^{*1}: Abbreviation for Life Cycle Assessment. A method of quantifying the environmental impact of a product during its lifetime (resource extraction, manufacturing, use, disposal).

^{*2}: Products manufactured by collecting and mining natural stones

^{*3}: Evaluation results for ferronickel slag products manufactured in FY2018

Ferronickel slag product application	CO ₂ emissions (t-CO ₂ /year)		CO ₂ 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 surveillance audit in FY2022 uncovered no minor nonconformities and 18 opportunities for improvement.

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		April 9, 1998
ISO 14001:2015		E1998	February 15, 2024	March 19, 2009
ISO 45001:2018	Tokyo Head Office	H063		February 16, 2012

Main initiatives and specific results

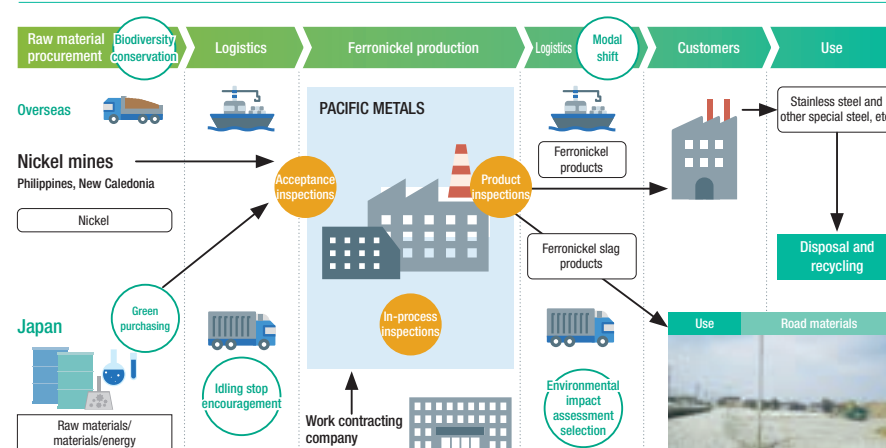
Main initiatives	Specific results
Measures to improve customer satisfaction	Our ferronickel products are highly regarded by our customers in a variety of aspects, including stable quality, stable supply, and precise adherence to delivery deadlines, etc. Our CS surveys, held every year, help us create 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 FY2022 as well, we improved and expanded our work qualifications, and maintained certifications by undergoing the surveillance audit.

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

Occupational safety management

Health and safety policy : Eliminating accidents and continuing zero occupational illness
Priority goal : Achieving thorough elimination of accidents

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

Occupational safety activities

In recent years, many accidents in the manufacturing industry have occurred when hand tools are used, so we have been educating newly hired employees by holding "learning sessions on how to use tools and utensils" since this year. Highly experienced on-site foremen serve as instructors to teach ways to inspect and use ladders and stepladders, how to use hand hammers, sledge hammers, wrenches, and other tools, while discussing past accidents and the mistakes they have experienced.

In addition, we have held a new "laws and regulations study session" related to health and safety for team leader-class managers. It is an effective education for them to reaffirm what they "should" do and what they "should protect." We will continue to provide training that is in line with the times and that improves the safety awareness of our employees.



Hygiene activities

Aiming to reduce the rate of health issue findings during periodic checkups, we have set as a goal to reduce one category of health issue finding during a regular checkup. Each individual sets their respective health management goal and engage in activities that improve lifestyle habits. Moreover, by actively encouraging those who are eligible to obtain specific health guidance and workers' compensation secondary health checkups, the number of users has increased, and this has led to improved health awareness.

As for the health goal of "continuing zero occupational illness," Health Supervisors conduct inspections, immediately correct defects, and constantly work to improve the work environment for a comfortable workplace. In 2022, we were again able to achieve zero illnesses.



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.

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.



Message From the Person in Charge of Human Resources

People are the greatest asset for the Company and the key to enhancing corporate value

Terunobu Matsuyama

Director & Managing Executive Officer
General Manager of Personnel & Labor
Relation Dept.



Working to vitalize the organization with diversity in mind

People are the Company's greatest asset, and my firm belief is that the recruitment and training of diverse human resources will lead to the creation of new value and vitality in our organization. Moreover, we continue to develop a safe and rewarding work environment and education system, heighten our organizational capabilities, and develop human resources in order to realize our company philosophy.

As Japan's total population continues to decline, what we really need to be looking at, I believe, is what could be referred to as "comprehensive engagement." As times change, peoples' preferences change and values diversify. My belief is that incorporating such transformations into our management strategy, while keeping an eye on changing needs, will contribute to the Company's growth. Concerning our current endeavors, the Company is striving to create an organizational climate in which employees can maximize their abilities by raising their awareness through training and other programs aimed at self-development related to diversity. We are also lifting the retirement age while promoting the development of a framework in which employees can play an ever-more active role and maximize their workplace performance by continuing to hire workers who possess specialized expertise and a thorough understanding of our corporate culture. "Diversity" is a keyword that did not just appear today; it is an idea that we have all long come across, even if it was only in the background. However, perhaps we can also consider that there is a deepening of diversity that we have come to overlook if we are not aware of it. As corporate activities are increasingly globalized, aggressively changing how we go about doing things in tune with international standards leads to strengthening competitive capabilities. However, it will be difficult to raise the level of awareness regarding diversity just in one day, and we will need to bring it up to the level of corporate culture. Given that, I would like to see the implementation of training programs in which all employees can participate. As an issue of the times, there is the question of what diversity means for society. This is not an issue to be solved at a single bound, and we should move forward with efforts in a way that is fully understood by all.

Promoting the active participation of women regardless of the industry-specific image

One could say that in the Company, which has a high ratio of male employees, promoting the active participation of women is a growth strategy issue. We strive to create a comfortable work environment that balances work and home life, including support for childbirth, childcare, and nursing care, and provide support for female employees' career development. We also offer training for male employees to reform their awareness, and actively endeavor to provide a fulfilling work-life balance. The business of the Company is manufacturing and smelting, and having only the one business segment means that physical work is a big part of our operations, which leaves the impression that the scope of work for female employees is limited. On the other hand, as the environment changes and the Company grows, a variety of opportunities emerge and the range of activities available to a diverse workforce expands. We constantly promote the development of a comfortable working environment and a change in awareness involving others, and we will continue to work on and implement these efforts in our future plans. Particularly at our plants in Japan's region, I believe it to be of the utmost importance that we aim for the same goals throughout our organization. Of course, this should be done in a reasonable manner.

Investing in human capital opens the way to our company philosophy

In an era that demands responsiveness to a rapidly changing environment, investment in human capital is essential to unlock the potential of human resources, encourage autonomy, and effectively leverage on an individual and organizational basis. This investment in human capital leads to value creation, and individual growth raises the level of organizational strength, while at the same time it contributes to enhanced corporate value. Promoting investment in human resources, facilitating growth, raising organizational responsiveness, and contributing to the society all pave the way to our company philosophy to "leverage the power of people to deliver the earth's resources in more useful forms and contribute to the happiness of humankind," and we will continue our endeavors on these initiatives.

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.

● 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.

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, and training for male employees to reform their 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.

Number of female employees (non-consolidated)

FY2018	FY2019	FY2020	FY2021	FY2022
4.1%	5.0%	4.6%	4.3%	4.7%



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 FY2022, the rate of childcare leave taken by eligible employees was 5.9%.

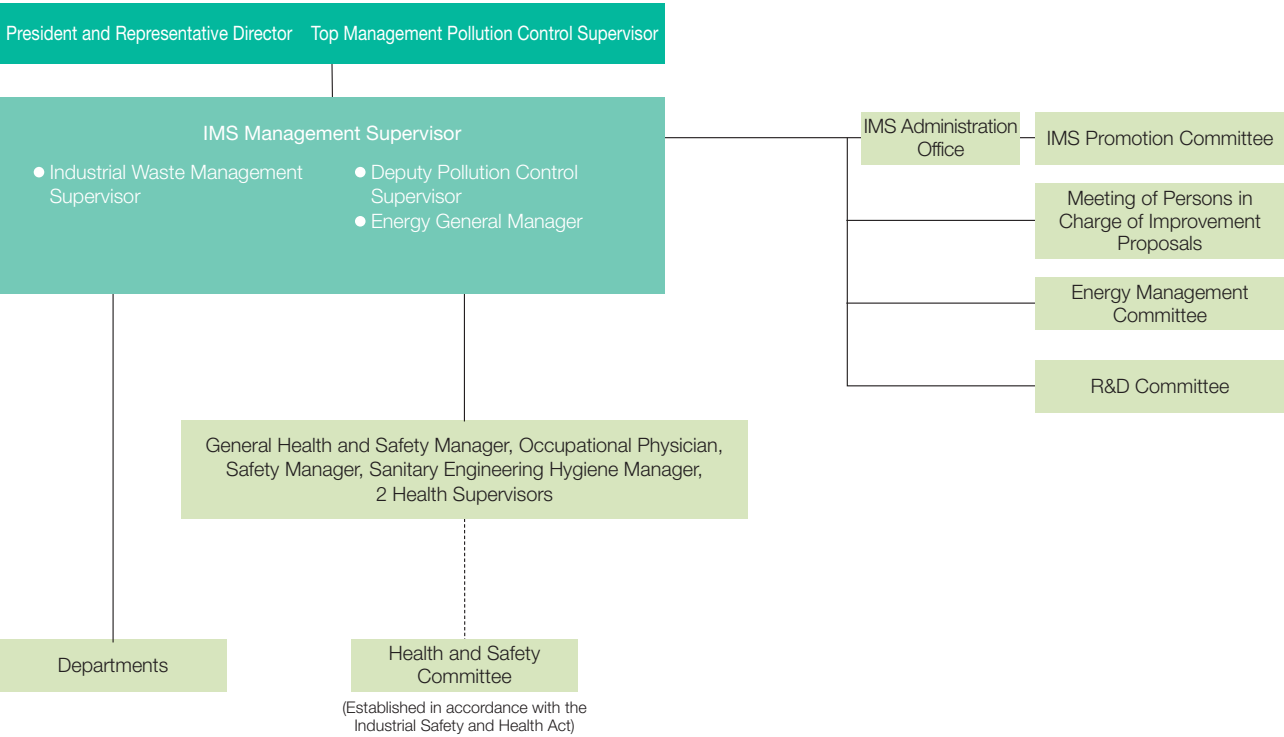
Number of male employees who took childcare leave (non-consolidated)

FY2018	FY2019	FY2020	FY2021	FY2022
0	0	0	0	1

Integrated Management System (IMS) concept and education

The Company operates three management systems - Quality Management, Environmental Management, and Occupational Health and Safety Management - as an Integrated Management System (IMS). This system is maximally utilized, with management policies positioned with IMS policies as goal attainment tools in PAMCO-2024.

IMS system diagram



- 1 The purpose of IMS education**

The purpose of these rules is to clarify the competencies (knowledge and skills) required for IMS for those who work for the Company, and to establish education procedures to improve these competencies and ensure their competence.
- 2 Awareness education**

Awareness education is education to help employees understand what is expected of them in the tasks they are entrusted with. It highlights how these tasks support the Company's overall activities and performance, for example by realizing customer satisfaction, reducing environmental impact, and reducing occupational health and safety risks. In this manner, the education helps employees realize that they are entrusted with important tasks that are indispensable to the Company.

We plan and implement awareness education necessary for our employees and for employees of partner companies and subcontractors.

Details of education for employees of partner companies, etc.

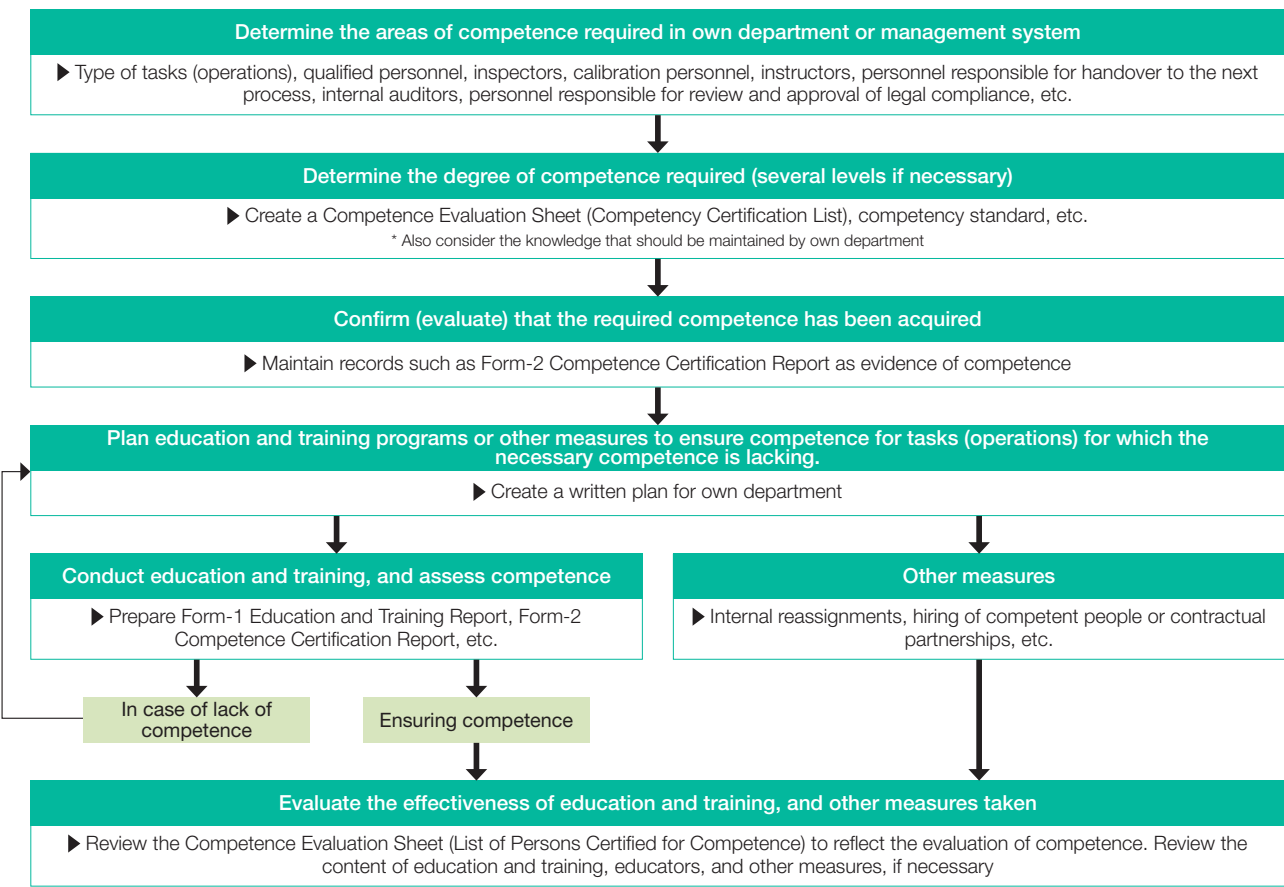
- 1 Technical guidance**
 - ① How to operate newly installed equipment, etc.
 - ② How to operate equipment, etc. that has been refurbished
 - ③ At the start of production of a new product
 - ④ Instructions on matters that require urgent action for environmental or health and safety reasons
- 2 Emergency instructions for disasters, accidents, etc.**

In case of giving instructions necessary to ensure the health and safety of employees of partner companies and subcontractors in the event of an emergency, such as a disaster or accident
- 3 Instructions necessary for compliance with laws and regulations, etc.**

To provide guidance and instructions necessary to prevent violation of related laws and regulations, Company rules, etc.
- 4 Onboarding education, etc.**
 - ① Onboarding education conducted by the Safety & Health Management Department at the beginning of each fiscal year
 - ② Each fiscal year, each Department uses the New Visitor Safety Guide for personnel visiting for the first time.
- 5 Participation in educational seminars held by the Company (quality, environment, safety and health education)**

Acceptance to attend educational seminars held by the Company, if necessary

Procedure for ensuring competence



Human rights awareness activities

We organize our diversity efforts and promote the following ideas within the Company.

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.

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

It's been 14 years now since we started cleanup activities along harbor-facing roads around our works to support regional beautification efforts and make contributions to society. In November 2022, nine members of the labor union and 16 employees of the Company and Taiheiyo Kosan Co., Ltd. conducted coastal road cleanup activities along a road in the Toyosu area and along a road around the First Industrial Port, respectively. The City of Hachinohe recorded this cleanup activity in its "Hachinohe Green System," which supports environmental beautification activities.



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. We continued our official partnership with Vanraure Hachinohe into FY2022 as well. We very much hope to remain an active part of "Vanraure Hachinohe," and continue our contributions to the promotion of regional sports. In addition, under our sponsorship, the PAMCO Cup league competition for the U-10 age group is held every year.



Endorsement of the Red Cross Support Plan

In September 2022, in support of the Asahi Photo News project "Red Cross Support," which seeks to deepen understanding of Red Cross activities, we donated a year's supply of newspapers for students and newspaper racks to Hachinohe Technical High School.



Donations to disaster-stricken areas in Japan and overseas

- In November 2022, we made a donation to victims of the West Java Earthquake in Indonesia.
- In February 2023, we donated to Expo 2025 Osaka, Kansai, Japan, through the Japan Iron and Steel Federation.

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, Sokaia (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 Rules of Whistle-blowing System. 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

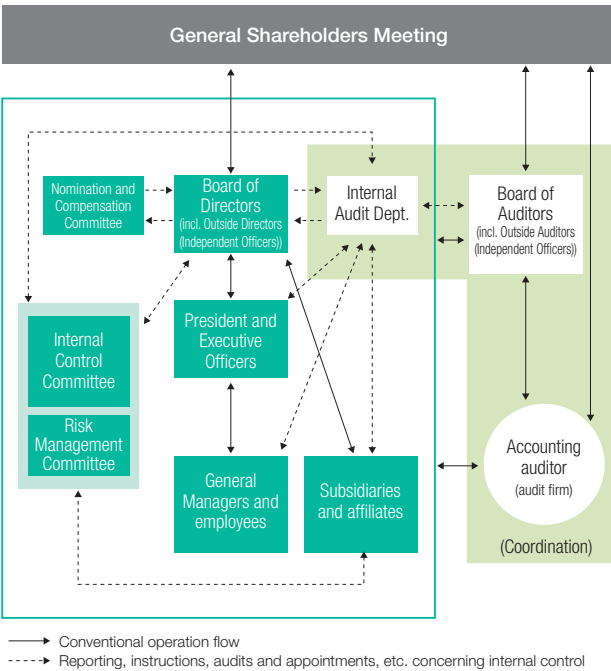
Aiming to improve corporate value, we strive to strengthen and enhance corporate governance through rapid decision making and management efficiency, and through ensuring transparency and soundness of management by strengthening supervisory functions.

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.

Company governance system diagram



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.

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.	21out of 21 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 21 meetings (100%)
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.	21out of 21 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 2023, the Company implemented the evaluation for FY2022 by means of a questionnaire survey performed by an outside institution, targeting all Directors and Auditors (including Outside Directors and Outside Auditors).

The responses to the survey show that the compensation system for senior management is evaluated positively because compensation is appropriately determined through discussions by the non-statutory Nomination and Compensation Committee (established in May 2021). Accordingly, the Company shared the recognition that the Board of Directors has generally maintained a certain level of effectiveness. On the other hand, the Directors also shared issues such as the need for further discussion 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 the 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 Discussion concerning the appropriateness of incentives for senior management	● Review and consideration of compensation system by the Nomination and Compensation Committee (stock compensation, performance-linked compensation, etc.) ● Going forward, holding discussions on the timing and type of introduction
② Full discussion on the basic sustainability policy, including aspects such as ESG and the SDGs, initiatives to improve sustainability and related disclosure, and appropriately reflecting these to management strategy	● Matters resolved at the Sustainability Promotion Council and other items reported at the Board of Directors held on June 15 and November 22, 2022, and February 22, 2023 ● On May 20, 2022, announced the endorsement of the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) ● Initiatives on climate change and response to TCFD are presented on the Company's website and Integrated Report

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)	158	158	-	-	-	6
Auditors (excluding Outside Auditors)	20	20	-	-	-	1
Outside officers	37	37	-	-	-	6

(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	6,717

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 (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 Ichiyanagi

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. (to present)
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)



Shuzo Ikeda
Outside Auditor

April 1985 Joined the Industrial Bank of Japan
April 1995 Deputy Assistant General Manager, International Business Dept., the Industrial Bank of Japan
June 1997 Assistant General Manager, Screening Dept., the Industrial Bank of Japan
November 1999 Assistant Manager, Industrial Investigation Dept., the Industrial Bank of Japan
October 2000 Acting General Manager, Capital Markets Group, Mizuho Securities Co., Ltd.
October 2003 Assistant Manager, Corporate Marketing Dept. 2, Mizuho Corporate Bank, Ltd.
April 2005 Corporate Researcher, Credit Engineering Dept., Mizuho Corporate Bank, Ltd.
April 2007 Deputy General Manager, Credit Engineering Dept., Mizuho Corporate Bank, Ltd.
April 2011 Vice President, Member of the Board, Japan Industrial Solutions Co., Ltd.
September 2012 External Director, ULVAC, Inc.
May 2013 Member of the Board, Japan Industrial Solutions Co., Ltd.
July 2014 Outside Director, TOKYO ROPE MFG. CO., LTD.
June 2020 Outside Auditor, the Company (to present)
June 2020 External Auditor, NIHON PLAST CO., LTD. (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 (to present)
April 2023 Senior Research Director, Japan Economic Research Institute Inc.
June 2023 Outside Auditor, the Company (to present)

Skills matrix

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

(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

Message From Outside Directors



Shinya Matsumoto
Outside Director

For over a year now, I have endeavored to design a succession planning system, as the chairperson of the Nomination and Compensation Committee and based on consultation with the Board of Directors of the Company. In the process of creating the system, my main concern was how to bring transparency and objectivity to the process of nominating the next successor by the incumbent top management that had been treated as a sudden unspoken oath until now. I do not believe that a part-time Outside Director is inherently knowledgeable or qualified enough to judge every single management-level personnel matter. However, if there is any meaning for Outside Directors to be involved in management-level personnel matters that will impact the future of the Company, I believe it is primarily to ensure transparency and objectivity in personnel matters

and thereby prevent arbitrary and monopolized decisions. Furthermore, if top personnel were bound by unspoken agreements, this would be an opportunity, I suppose, to have them reflect on such matters from time to time. To select the right management-level executives that can quickly adapt to a drastically changing business environment, I believe that it is necessary to have not only an internal perspective but also, in some cases, an external point of view that can observe the Company's situation while also looking at the big picture.

In addition, as something new that we tried out, Outside Directors and management-level Directors and Executive Officers met on an individual basis. The purpose of the meetings was not to select successor candidates, but rather because there were quite a few aspects that we were not

able to see, such as each Board member's personality and what they think about day-to-day management, although we meet them at the Board of Directors' meetings and hear and see each other's explanations of projects and other comments. Even though each meeting lasted less than an hour, we were able to get a sense of how each Board member was thinking and tackling management issues from their own standpoint or with outside-the-box thinking where they would detach themselves from their position. However, I felt that for such a pursuit to bear fruit, it is essential for everyone, including employees, to be united in their hearts and push forward. I've been asking myself what I can and should do as an Outside Director to help in this regard.



Hikari Imai
Outside Director

In the environment surrounding the Company, competition with China is escalating in severity year by year, and especially with the increasing prevalence of NPI production, price competition is becoming more and more fierce, and the Company, which has its main business in Japan, is being pushed into a more difficult situation. The percentage of nickel price negotiations with stainless steel manufacturers that comply with the conventional LME price has been drastically reduced, and recently, Japanese customers that normally have valued quality may also shift to NPI.

Under these circumstances, the executive management team has made a huge effort to cut costs and scale back production to keep operating losses under control. However, with the prolonged Russian invasion of Ukraine, there appears to be no offramp from rising energy prices, and smelting by electric furnace in the midst of soaring electricity prices is thought to be a difficult business model to maintain, making an immediate business transition unavoidable.

The collaboration with AMITA CORPORATION, which aims to create a recycling-oriented society through waste recycling, was one attempt, but unfortunately it has not led

to an immediate change in the Company's business. The bright spot is that the executives have raised the prospect of planting the seeds of what may grow into several new businesses that could turn our business around. As an Outside Director, I am engaged in lively discussions at the Board of Directors' meetings to support the executives' wish to transform the Company's business.



Yukari Sakai
Outside Director

Last year, the Company announced its new long-term vision for 2030, which is to be "a comprehensive materials company that co-creates a sustainable, recycling-oriented society," and also "PAMCO-2024," the medium-term business plan. Under PAMCO-2024, the Company has set its goal as to "further strengthen the platform and promote the sustainability strategy" to overcome changes in the business environment and lay the foundation for our long-term vision, and we are working on specific management issues.

The business environment surrounding the ferronickel business is currently faced with an exceptionally challenging phase, and we are keenly aware of the pressure to make drastic structural reforms. To break away from a single-pillar profit structure, the Board of Directors vigorously engages in

discussions based on specific projects for consideration when creating new businesses. In addition to the business of cobalt sulfate, which is used as raw materials for LIB materials by utilizing the hydrometallurgical business technologies we have developed, there are several other businesses under consideration, including refining and recycling businesses for other materials. However, we realize that none of these will be an immediate source of revenue and that this is a time for upfront investments. I also feel the importance of drawing up a timeline, and as much as possible taking care to explain, both internally and externally, the path to commercialization.

In my position as an Outside Director overseeing the proper investment and management of limited management

resources (people, goods, and money), I believe that it is essential to first prioritize investments in multiple businesses under consideration, and that more rapid consideration and decision making are needed given the business environment. As a constituent member of the Board of Directors, I hope to contribute to the enhancement of corporate value with a spirit of change and challenge, based on precise risk analysis and the exchange of opinions from diverse perspectives.

11-Year Financial Highlights

[Japanese GAAP] (Consolidated)

(million yen)

	FY2012	FY2013	FY2014	FY2015	FY2016	FY2017	FY2018	FY2019	FY2020	FY2021	FY2022
Business Performance											
Product sales volume [Ni.t]	37,102	37,801	32,274	34,525	33,100	31,600	32,000	28,533	20,793	27,060	12,393
Production volume [Ni.t]	38,380	38,530	29,651	36,692	33,101	29,902	33,506	30,885	18,414	26,249	13,380
Net sales	58,488	56,408	61,225	47,649	38,697	41,210	49,062	44,133	32,217	57,129	34,852
Operating profit (loss)	2,168	(4,079)	(7,787)	(15,357)	(3,070)	(3,239)	176	(1,879)	(493)	4,806	(12,588)
Ordinary profit (loss)	4,920	(1,838)	(91)	(12,283)	(515)	(203)	3,451	972	3,344	12,999	(4,960)
Profit (loss) before income taxes	4,817	(4,260)	(952)	(38,462)	(3,321)	(445)	4,054	937	1,399	12,795	(4,287)
EBITDA	9,172	3,170	(1,627)	(9,819)	(2,695)	(2,928)	483	(1,549)	(115)	5,062	12,299
Profit (loss) attributable to owners of parent	2,126	(6,149)	(1,611)	(38,369)	(3,561)	(810)	3,693	625	1,162	11,368	(5,026)
Capital investment	3,626	1,353	4,247	1,091	269	259	276	530	1,249	686	1,201
Depreciation	6,980	7,249	6,160	5,538	375	311	307	330	378	256	289
Research and development expenses	2,814	2,320	999	171	128	144	142	190	234	276	360
Financial Status											
Total assets	125,771	116,175	120,105	73,840	71,760	70,351	71,933	69,960	75,484	89,852	78,825
Property, plant and equipment	48,697	42,229	39,801	10,191	9,542	9,292	9,146	8,596	7,606	7,734	8,383
Net assets	114,388	107,865	109,807	67,733	63,771	62,616	64,439	63,506	67,014	80,153	72,034
Per Share Information											
Net assets per share (yen)*1	585.56	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
Basic earnings (loss) per share (yen)	10.89	(31.51)	(8.26)	(196.62)	(18.25)	(41.56)	189.37	32.06	59.61	582.93	(257.75)
Cash dividend (yen)	4.00	0.00	0.00	0.00	0.00	0.00	55.00	25.00	20.00	175.00	0.00
Dividend payout ratio (%)	36.7	—	—	—	—	—	29.0	78.0	33.6	30.0	—
Financial Indicators											
Equity ratio (%)	90.88	92.77	91.32	91.52	88.62	88.70	89.26	90.40	88.41	88.89	91.02
ROA (%)	1.69	(5.29)	(1.34)	(51.96)	(4.96)	(1.15)	5.14	0.89	1.54	12.65	(6.37)
ROE (%)	1.89	(5.54)	(1.48)	(43.29)	(5.43)	(1.29)	5.84	0.98	1.79	15.51	(6.63)
D/E ratio	0.01	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Status of Cash Flows											
Cash flows from operating activities	7,183	(984)	9,646	(3,618)	(3,360)	(1,067)	399	(4,720)	5,829	7,857	(7,516)
Cash flows from investing activities	(6,845)	(1,636)	(272)	(4,859)	7,907	(2,333)	3,026	(394)	(1,781)	(2,909)	974
Cash flows from financing activities	(701)	(1,058)	(272)	(100)	(21)	(18)	(398)	(1,072)	(102)	(785)	(3,006)
Free cash flows	338	(2,620)	9,374	(8,477)	4,547	(3,400)	3,425	(5,114)	4,048	4,948	(6,542)
Information by Segment											
Net sales											
Nickel business	56,026	54,302	59,065	45,239	37,357	39,855	48,142	43,489	30,419	56,338	34,135
Gas business (power generation business)*2	1,743	1,627	1,361	661	620	760	135	624	617	576	774
Other (Non segment)	987	724	997	1,952	868	748	917	148	1,283	324	38
Operating profit											
Nickel business	1,780	(3,978)	(7,987)	(16,208)	(3,129)	(3,412)	382	(1,559)	(567)	4,950	(12,441)
Gas business (power generation business)*2	217	213	119	22	87	269	(111)	3	21	(10)	4
Other (Non segment)	152	(334)	29	796	(51)	(125)	(123)	(342)	43	(142)	(160)
Other											
Number of employees (persons)	491	494	498	482	468	464	456	459	458	460	468

*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.

Overview of the Company and Stock Information

Overview of the Company (As of March 31, 2023)

Name	PACIFIC METALS CO., LTD.
Representative	Masayuki Aoyama President and Representative Director
Date of establishment	December 1, 1949
Annual sales	34,095 million yen (nonconsolidated basis for FY2022)
Number of employees	422 employees (nonconsolidated basis for FY2022)
Capital	13.9 billion yen

Officer Information (As of June 27, 2023)

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 Iwadata	Director	Shuzo Ikeda	Auditor (Outside)
		Yutaka Iimura	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.

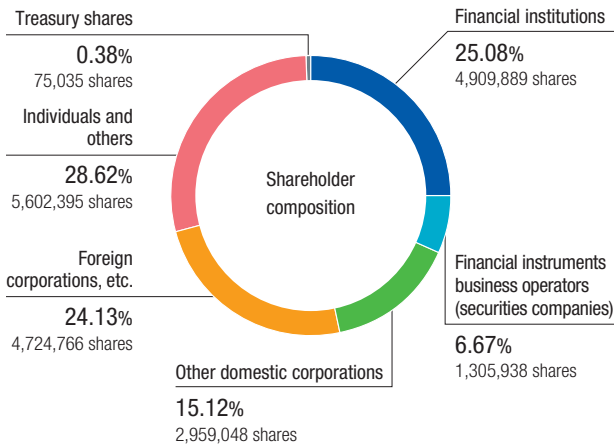
<https://www.pacific-metals.co.jp/en/>



Stock Information (As of March 31, 2023)

Status of shares

Total number of shares authorized to be issued	50,000,000
Total number of shares issued and outstanding (excluding 75,035 shares of treasury shares)	19,502,036
Number of shareholders (Increase of 1,893 shareholders from the end of the previous fiscal year)	16,315



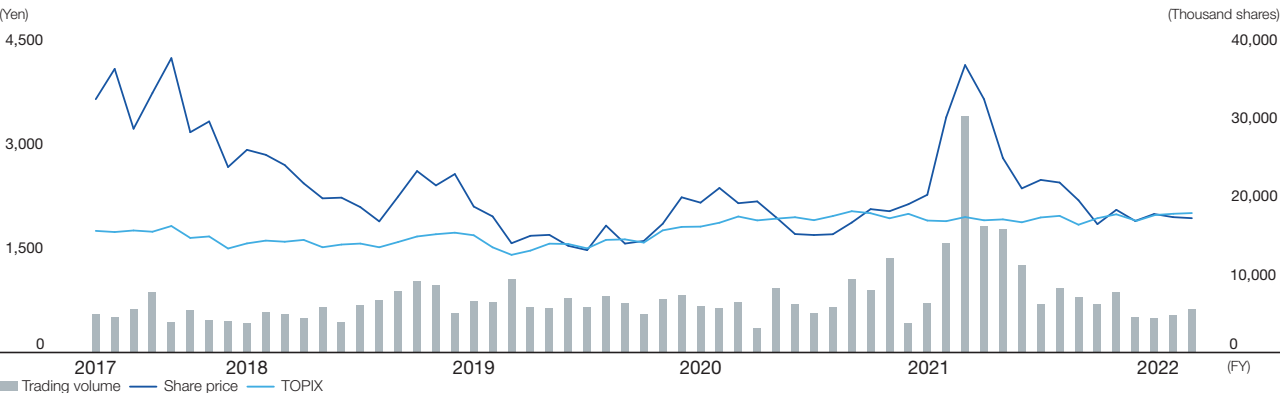
Major shareholders (top 10 shareholders)

Name of shareholders	Number of shares held (thousands)	Shareholding ratio (%)
The Master Trust Bank of Japan, Ltd. (trust account)	3,257	16.70
NIPPON STEEL Stainless Steel Corporation	2,049	10.51
Custody Bank of Japan, Ltd. (trust account)	1,373	7.04
STATE STREET BANK AND TRUST COMPANY 505103	1,240	6.36
BBH FOR FIDELITY PURITAN TR: FIDELITY SR INTRINSIC OPPORTUNITIES FUND	712	3.65
Tachibana Securities Co., Ltd.	685	3.52
J.P. MORGAN CHASE BANK 385781	439	2.25
J.P. MORGAN SECURITIES PLC FOR AND ON BEHALF OF ITS CLIENTS JPMSP RE CLIENT ASSETS-SEGR ACCT	430	2.21
GOVERNMENT OF NORWAY	376	1.93
Business Partners' Shareholding Association, PACIFIC METALS CO., LTD.	217	1.12

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

*2 The shareholding ratios are calculated using the figure 19,502,036, which is the total number of shares issued and outstanding less treasury shares.

Trends in Share Prices



Trends in Annual Dividend per Share

FY2018	FY2019	FY2020	FY2021	FY2022
55.00	25.00	20.00	175.00	00.00



Tokyo Head Office

1-6-1 Otemachi, Chiyoda-ku, Tokyo 100-0004 (Otemachi Building)

Hachinohe Head Office (Manufacturing Works)

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

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

Contact: General Administrative Department

TEL: +81-178-47-7121 FAX: +81-178-45-8118