Contents

Editorial Policy

Since 2016, we have published these integrated reports to serve as a tool for dialogue with stakeholders inside and outside the Group and to help stakeholders attain a deeper understanding of the SMM Group's efforts toward sustainable growth and maximization of corporate value.

Recent years have seen a sharp increase in interest and demands directed at companies' ESG-related initiatives. Importance is shifting away from information centered on short-term performance changes and finances and toward information related to long-term value creation and ESG. The Sumitomo Metal Mining Co., Ltd. Integrated Report 2021, our sixth integrated report, describes value creation by our Group in connection with the risks and opportunities that surround our business, our competitiveness and the value we provide, and our business model and strategies, as we further integrate business with sustainability.

In this report, CBNC and THPAL are acronyms for Coral Bay Nickel Corporation and Taganito HPAL Nickel Corporation, respectively.

Also, unless otherwise stated, the term "ton" refers to a metric ton.

Disclaimer

The forward-looking statements in this integrated report, including business result forecasts, are based on information available to the Company and on certain assumptions deemed to be reasonable as of the date of release of this report. Actual business results may differ substantially due to a number of factors.

* This document is the English version of the Japanese original.

Integrated Report 2021 Concepts

A focus on resolution of social issues through business and on content of interest to stakeholders

Integrated Report 2021 consists of six chapters: "Introduction," "The SMM Group's Creation of Value," "Growth Strategy," "Strategy for Co-creating Value with Society," "Governance Strategy as a Foundation for Value Creation," and "Data Section." This report attempts to make the content easier to read for stakeholders, and enriches information that takes into consideration the perspective of investment decisions regarding our Company's stock.

A Special Feature takes up the theme of the electrification of automobiles, which bears a role in achieving decarbonization as a solution to social issues. This section discusses the development of our secondary battery cathode material business for xEVs through collaboration among our three businesses of Mineral Resources, Smelting & Refining, and Materials, and explains the strengths generated by that collaboration.

The report further positions our Vision for 2030, a milestone toward realizing our long-term vision, as a material issue of our Group, and describes our progress over the past year toward each of 11 material issues, along with the KPIs we use.

Detailed data concerning sustainability is separately sorted and selected for publication in the supplementary ESG Data Book 2021. Integrated Report 2021 narrows down its coverage to pursue greater readability, while maintaining the quality and quantity of information the report has always offered.

A basis in integrated thinking

In Value Creation Process, this report further quantifies the details of value creation processes to clarify features of our Group's value creation model. From this year, the report adds explanations that enhance understanding of our Group's unique mechanisms for creating value.

Throughout its entirety, the report expresses our value creation and the high goals and determination behind our long-term vision of being the "world leader in the non-ferrous metals industry." The report reveals our commitment to sustainability, with a focus on our business strategy and our efforts toward achieving Vision for 2030.

Referenced Guidelines and Assurance

In editing this report, we referenced the International Integrated Reporting Framework of Value Reporting Foundation (VRF; reorganized in June 2021 from the previous International Integrated Reporting Council (IIRC)), and the Guidance for Collaborative Value Creation of the Ministry of Economy, Trade and Industry. For information on sustainability, we have complied with the Core option of the Global Reporting Initiative's[1] Sustainability Reporting Standards. Performance data have received independent assurance.

1. Global Reporting Initiative (GRI): An organization established with the purpose of creating and promoting international guidelines for sustainability reports. The GRI Content Index is on our website: https://www.smm.co.jp/en/

Boundary of the Report

Sumitomo Metal Mining Co., Ltd. (SMM)
The Sumitomo Metal Mining Group (SMM and consolidated subsidiaries)
Economic Topics SMM, consolidated subsidiaries and equity-method affiliates
Environmental Topics SMM, consolidated subsidiaries and equity-method affiliates (27 companies)
Social Topics SMM and consolidated subsidiaries

Publication Date

November 2021 Next scheduled publication: November 2022 (Previous publication: November 2020)

Period Covered

(Some activities before or after the following periods have also been included)
Japan: April 1, 2020–March 31, 2021
Overseas: January 1, 2020–December 31, 2020

Referenced Guidelines

GRI's Sustainability Reporting Standards
VRF's International Integrated Reporting Framework

VALUE REPORTING FOUNDATION
INTEGRATED REPORTING FRAMEWORK

Ministry of the Environment's Environmental Reporting Ministry of Economy, Trade and Industry's Guidelines (Fiscal Year 2018 Version)
Guidance for Collaborative Value Creation

Environment Social Governance 価値協創ガイダンス
Guidance for Collaborative Value Creation

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The Sumitomo Business Spirit

Article 1

Sumitomo shall achieve strength and prosperity by placing prime importance on integrity and sound management in the conduct of its business.

Article 2

Sumitomo shall manage its activities with foresight and flexibility in order to cope effectively with the changing times. Under no circumstances, however, shall it pursue easy gains or act imprudently.

(Quoted from the Sumitomo Goshi Kaisha Administrative Regulations, named "Summary of Business Operations", formulated in 1928)

SMM Group Corporate Philosophy

Sumitomo Metal Mining Co., Ltd. (SMM), in accordance with the Sumitomo Business Spirit, shall, through the performance of sound corporate activities and the promotion of sustainable co-existence with the global environment, seek to make positive contributions to society and to fulfill its responsibilities to its stakeholders, in order to win ever greater trust.

SMM shall, based on respect for all individuals and recognizing each person's dignity and value, seek to be a forward-minded and vibrant company.

SMM Group Management Vision

By improving technical capabilities, we shall fulfill our social responsibilities as a manufacturing enterprise.

Based on the principles of compliance, environmental protection and operational safety, SMM Group shall pursue maximum corporate value through the securing of resources and the provision of high-quality materials such as non-ferrous metals and advanced materials via its global network.

Materials required in the future.
Materials will be required to build a sustainable society.
Materials will be required to create happiness and peace of mind for people.

It has been 430 years since Sumitomo's founding. We, Sumitomo Metal Mining, have inherited the original business of Sumitomo. We stably shoulder the development and operation of mines, smelting and refining which produce metals, and even produce advanced materials. In doing so, we exhibit a unique value as a company unlike any other in the world.

If the supply of our materials were to stop, society would come to a halt.
At the same time, mine development must never harm the sustainability of the environment and local communities.
In our DNA is a spirit of taking a broad view as a global citizen and engaging in proper business, together with partners with whom we share a great responsibility toward future generations.

As we enhance our technology, the metals that we discover and extract will serve as materials for dreams and support human progress.
Not only for people alive today, but also for those who will be born and live in future generations.
Our mission continues, becoming the future for all.

SUMITOMO METAL MINING

MINING THE FUTURE

Development of the SMM Group

Our path toward long-term value creation

Through a history of over 430 years, we have provided society with the non-ferrous metals that are indispensable to people's lives. Our technologies for handling metals and our spirit of co-existence with society have been passed down through the ages to become major strengths in our business today. Looking ahead, we will continue moving forward together with metals and with society.

1691 Mineral Resources Business

A major step toward the mining business

The Besshi Copper Mine operated continuously for 283 years from its opening and made a huge contribution to Sumitomo's development. The opening of the mine presented an opportunity to expand the company's business to include mineral resources business in addition to copper smelting and refining. The mining technology cultivated at the Besshi Copper Mine continues to be inherited by SMM's Mineral Resources Business as it expands across the globe.

1917 Mineral Resources Business

Starting our gold mining business

At a time when the importance of gold as a resource was growing, we acquired the management rights for the Kounomai Mine in Hokkaido. This added gold as a new metal to our Mineral Resources Business portfolio, which had previously been centered on copper.

1939 Smelting & Refining Business

Overcoming smoke pollution at Shisaka Island

In 1939, we realized zero emissions of sulfur dioxide gas, which was a root cause of the smoke damage, becoming the first in the world to solve the problem of smoke damage that was afflicting copper smelters all over the globe.

1500 | 1600 | 1700 | 1800 | 1900

Management and CSR

Around 1650
Monjuin Shiigaki
The Sumitomo Business Spirit, which continues to this day, has its origins in the *Monjuin Shiigaki*, written by the founder of the Sumitomo family, Sumitomo Masatomo (1585–1652), in his later years to explain the merchant's frame of mind.

1894
Large-scale reforestation operations
Large-scale reforestation operations are started after Iba Teigo, the second Director-General, becomes manager of the Besshi Copper Mine. At peak, more than two million trees are being planted annually and Mt. Besshi once again overflows with greenery.

The Besshi Copper Mine in the past (left) and today (right)

Mineral Resources Business

Copper mines

1691
Opening of the Besshi Copper Mine

Gold mines

1917
Start of the gold mine business

Kounomai Mine

Overseas copper mines

1961
Investment and financing contract signed for the Bethlehem Mine in Canada

1973
Closure of the Kounomai Mine and the Besshi Copper Mine

1979
Closure of the Sazare Mine

Smelting & Refining Business

Copper smelting and refining

1590
Start of the copper smelting and refining business

1905
Relocation of copper smelting and refining from the Niihama coast to the Shisaka Island

Nickel smelting and refining

1939
Start of the nickel smelting and refining business

1971
Start of production at the Toyo Smelter & Refinery

Materials Business

1960
Entry into the materials business

Innovation Topic

Nanban-buki

In Japan at this time, there was no technology for removing the silver from copper ore, so copper was sold and exported at copper prices while it still included silver. Soga Riemon, develops a smelting and refining technology for separating copper and silver, known as *Nanban-buki*. He shares this widely with others in the same business in Osaka, preventing the loss of wealth.

World-leading nickel smelting and refining technology

In 1939, SMM launches its nickel smelting and refining business and goes on to develop nickel refining technologies such as the MCLE method[1]. In the 2000's, factors such as the diversification of raw material procurement through the practical application of HPAL[2] technology push us toward becoming the world leader in nickel smelting and refining technology.

Adding new value to metals

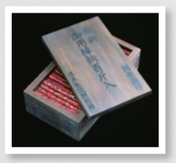
As mining business in Japan undergoes a contraction, attention turns to electronic materials business as a new market. In 1960, SMM begins production of germanium dioxide for use in transistors. Since then, we have continued to provide the market with various electronic materials.

History

Around 1700

■ The majority of Nagasaki trade

In the Edo period, about half of all copper produced in Japan for international trade is exported through Nagasaki. In the year 1698, Sumitomo's annual production reaches about 1,500 tons, a quantity that accounts for one quarter of Japan's copper production.



Around 1900

■ The modernization of industry

Starting in the Meiji Period, with the growth in demand for communications lines, wires for electric lighting, and copper alloy fabricated products, domestic demand for copper increases significantly. The Besshi Copper Mine, which introduces Western-style smelting and refining, supports the industry in Japan.

1961 Mineral Resources Business

Participating in overseas copper mines and acquiring interests

After WWII, the closure of mines in Japan meant that smelting and refining businesses had to switch to resources procured from overseas. In 1961, SMM signed an investment and financing contract with Bethlehem Mine, beginning the company's involvement with overseas mines. To present, SMM has created footholds in mine interests and in 1986 we acquired an interest in the Morenci Copper Mine, known as a superior copper mine.

1985 Mineral Resources Business

Starting operation of the Hishikari Mine

With the closure of the Sazare Mine in 1979, the curtain closes for a time on SMM's heritage of mining technology. However, in 1985, operations begin at the Hishikari Mine and SMM Group's technology begins to chart a new history in a new area. The mine boasts a rich gold content ratio to date and has become a primary source of profit for the Group, and it also plays a role in passing down our mining technology.

1999 Management

Corporate reform since the JCO criticality accident

The JCO criticality accident in 1999 was a turning point for the management of the SMM Group. Since then we have taken a strong turn toward returning to core values and thorough compliance through the Corporate Reform Plan. Although more than 20 years have passed since the accident, we will not forget and will pass the lessons learnt on to younger generations.

2014 Materials Business

Increasing the production of battery materials

In 2014, we announced that we were increasing production of cathode materials for automobile batteries and converting the business structure of our Harima Refinery to increase nickel sulfate production. We leveraged our strength of an integrated process from the procurement of nickel raw material through to processing in order to further advance material performance and ensure a stable supply.

2000

1985
Start of operations at the Hishikari Mine

1986
Acquisition of interest in the Morenci Copper Mine. Full-scale investment in overseas mines

1993
Conversion of nickel refining process to MCLE technology

1999
The JCO criticality accident

A criticality accident occurs at SMM subsidiary, JCO Co., Ltd., which manufactures fuel for nuclear power generation. The SMM Group reflects on this accident and in 2000 it formulates the Corporate Reform Plan which promotes the reconfirmation and thorough execution of the corporate philosophy, reinforcement of corporate organization, and reform of corporate culture.

2001
Start of production of cathode materials for automobile batteries

2005
Start of production at Coral Bay Nickel Corporation

2006
Start of production at the Cerro Verde Copper Mine

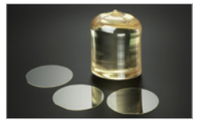
2010
Switch to three core businesses – Mineral Resources, Smelting & Refining and Materials

In the 2009 3-Year Business Plan, it is announced that SMM will switch to a business model with three core businesses – Mineral Resources & Smelting & Refining & Materials. Management resources are concentrated and invested in these core businesses.

2013
Start of production at Taganito HPAL Nickel Corporation

2014
Increase production of battery materials, increase production of SAW filter LT/LN[3]

Nickel-based battery materials



LT/LN

2015
Start of production at the Sierra Gorda Copper Mine

2016
Acquisition of additional interest in the Morenci Copper Mine

2017
Acquisition of interest in the Cote Gold Mine

2017
Issuance of the Declaration for the promotion of Working Style Reform

2019
Reconsideration of the Long-Term Vision

The 2018 3-Year Business Plan is announced. This reveals a reconsideration of the Long-Term Vision and a target of ¥150.0 billion in annual profit as a world leader in the non-ferrous metals industry.

2019
Acquisition of interest in the Quebrada Blanca Copper Mine

2020
Formulation of "Vision for 2030"

We formulated our Vision for 2030, which states the milestone to be reached by 2030 in order to realize the SMM Group's Long-Term Vision of becoming the "world leader in the non-ferrous metals industry."

Making high-capacity batteries possible

Lithium nickel-cobalt-aluminum oxide (NCA) produced by the SMM Group has high-levels of nickel content which has made high-capacity batteries possible. We are leveraging our strength of being able to provide an integrated production structure that ranges from resource procurement to battery material supply and contributing to extending the range that an electric vehicle can travel on a single charge.

Practical application of the HPAL method

SMM is the first in the world to apply the HPAL method to convert low-grade nickel oxide ore into a nickel resource. In addition to contributing to the realization of in-house procurement and the effective use of nickel resources, we also carry out activities that contribute to society in the Philippines, where the operations are based.

1. MCLE: An acronym for Matte Chlorine Leach Electrowinning. This is a manufacturing process adopted at the SMM Group's Niihama Nickel Refinery. Matte and mixed nickel-cobalt sulfides (MS) are dissolved in chlorine at high temperature, then electrolysis is used to produce high-purity nickel. MCLE is more competitive than other methods in terms of cost, but poses significant operational challenges, and only two other producers outside of SMM have commercialized it using similar technology.
2. HPAL: An acronym for High Pressure Acid Leach. This technology enables the recovery of nickel from nickel oxide ores that had been conventionally difficult to process. The SMM Group was the first company in the world to apply it successfully on a commercial scale.
3. LT/LN: Lithium Tantalate and Lithium Niobate. These refer to Lithium Tantalate substrates and Lithium Niobate substrates. Used in chips for information and communication terminal SAW filters.

Around 1980

■ The diffusion of stainless steel

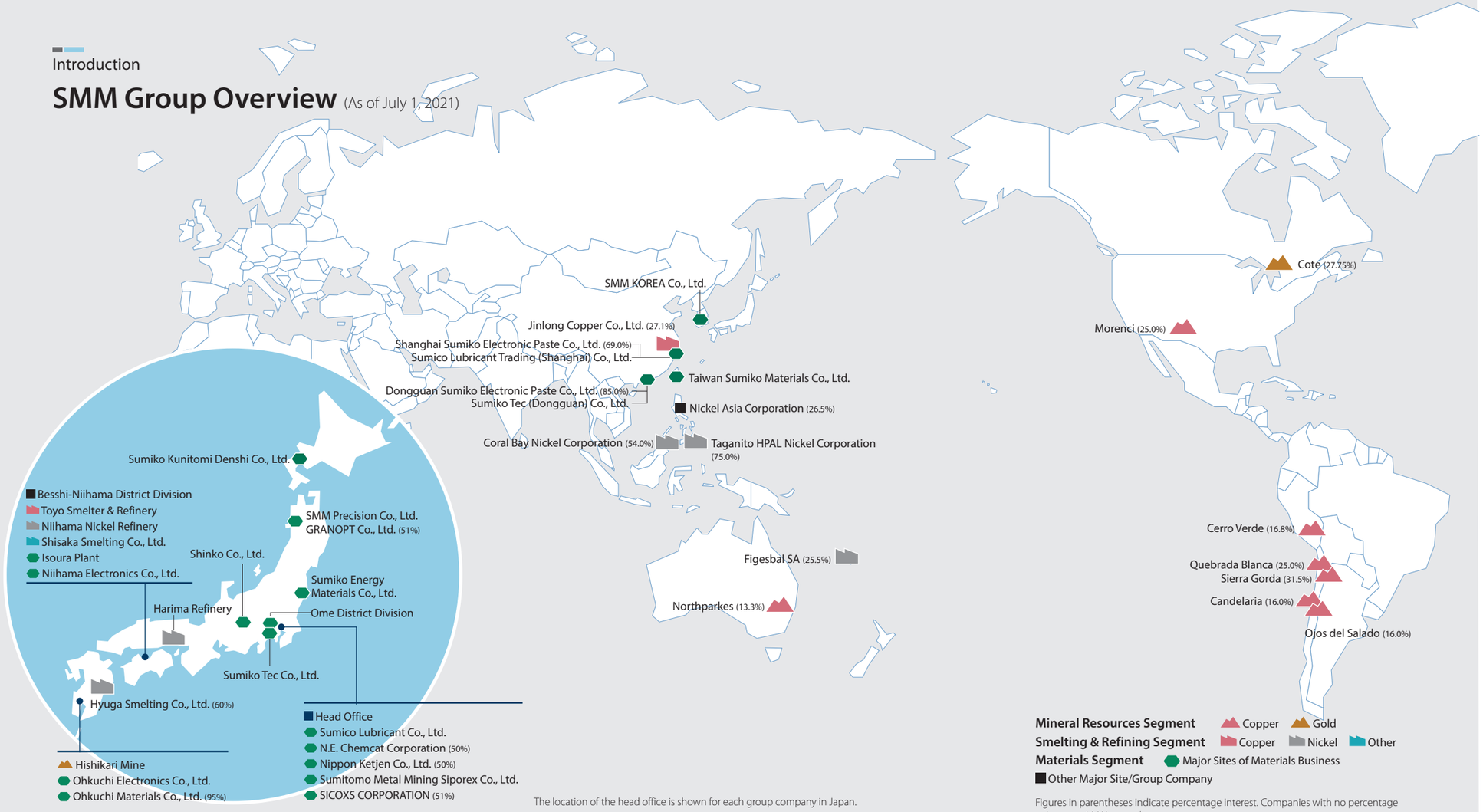
Nickel is used as a raw material in stainless steel and special steels. These materials are used in various areas such as communications, medical, construction materials, and the generation of electricity.

Around 2000

■ Rapidly rising demand for cathode materials for automobile batteries

Against the background of rising environmental awareness, demand has risen rapidly for cathode materials for hybrid and electric vehicle secondary batteries. Through close collaboration with customers, the SMM Group is working to supply high performance, safe battery cathode materials in addition to fulfilling its obligation as a producer of nickel and cobalt, the raw materials of battery cathode materials.

SMM Group Overview (As of July 1, 2021)



The location of the head office is shown for each group company in Japan.

Figures in parentheses indicate percentage interest. Companies with no percentage written are 100% owned.

◉ Consolidated subsidiaries ■ Equity-method affiliates * Included in the boundary of the environmental performance data

Japan

Sumitomo Metal Mining Co., Ltd.*

Mineral Resources

◉ Sumiko Resources Exploration & Development Co., Ltd.

Smelting & Refining

■ Acids Co., Ltd.
■ MS Zinc Co., Ltd.
◉ Shisaka Smelting Co., Ltd.*
◉ Sumiko Logistics Co., Ltd.*
◉ Hyuga Smelting Co., Ltd.*
■ Mitsui Sumitomo Metal Mining Brass & Copper Co., Ltd.

Materials

◉ SMM Precision Co., Ltd.*
■ N.E. Chemcat Corporation
◉ Ohkuchi Electronics Co., Ltd.*
◉ Ohkuchi Materials Co., Ltd.*
◉ GRANOPT Co., Ltd.*
◉ SICOXS CORPORATION*
◉ Shinko Co., Ltd.*
◉ Sumiko Energy Materials Co., Ltd.*
◉ Sumiko Kunitomi Denshi Co., Ltd.*
◉ Sumico Lubricant Co., Ltd.*
◉ Sumiko Tec Co., Ltd.*
◉ Sumitomo Metal Mining Siporex Co., Ltd.*
◉ Niihama Electronics Co., Ltd.*
■ Nippon Ketjen Co., Ltd.*

Other

◉ Igeta Heim Co., Ltd.*
◉ JCO Co., Ltd.*
◉ Sumiko Technical Service Co., Ltd.
◉ Sumiko Techno-Research Co., Ltd.*
◉ Sumitomo Metal Mining Engineering Co., Ltd.*
◉ Japan Irradiation Service Co., Ltd.*

Asia

Mineral Resources

■ Cordillera Exploration Company Inc. (Philippines)

Smelting & Refining

■ Jinlong Copper Co., Ltd. (China)
◉ Sumitomo Metal Mining Management (Shanghai) Co., Ltd. (China)
◉ Sumitomo Metal Mining (Hong Kong) Co., Ltd. (China)
◉ Coral Bay Nickel Corporation (Philippines)*
■ Nickel Asia Corporation (Philippines)
◉ Taganito HPAL Nickel Corporation (Philippines)*
◉ Sumitomo Metal Mining Philippine Holdings Corporation (Philippines)

Materials

◉ Dongguan Sumiko Electronic Paste Co., Ltd. (China)*
◉ Shanghai Sumiko Electronic Paste Co., Ltd. (China)*
◉ Sumico Lubricant Trading (Shanghai) Co., Ltd. (China)
◉ Sumiko Tec (Dongguan) Co., Ltd. (China)
◉ Granopt Optics Trading (Shenzhen) Co., Ltd. (China)
◉ Taiwan Sumiko Materials Co., Ltd. (Taiwan)*
◉ SMM KOREA Co., Ltd. (South Korea)
◉ Sumiko Tec (Thailand) Co., Ltd.(Thailand)

North America

Mineral Resources

◉ SMMA Candelaria Inc. (U.S.A.)
◉ SMM Exploration Corporation (U.S.A.)
◉ Sumitomo Metal Mining America Inc. (U.S.A.)
◉ Sumitomo Metal Mining Arizona Inc. (U.S.A.)
◉ SMM Morenci Inc. (U.S.A.)
◉ SMM Gold Cote Inc. (Canada)
◉ Sumitomo Metal Mining Canada Ltd. (Canada)
◉ SMM Resources Inc. (Canada)

Other Regions

Mineral Resources

■ Compania Contractual Minera Candelaria (Chile)
■ Compania Contractual Minera Ojos del Salado (Chile)
◉ Sumitomo Metal Mining Chile LTDA. (Chile)
◉ SMM Sierra Gorda Inversiones LTDA. (Chile)
■ Sierra Gorda S.C.M. (Chile)
◉ SMM-SG Holding Inversiones LTDA. (Chile)
◉ SMMQB Holding SpA (Chile)
◉ SMM Quebrada Blanca SpA (Chile)
■ Quebrada Blanca Holdings SpA (Chile)
◉ Sumitomo Metal Mining Peru S.A. (Peru)
■ Sociedad Minera Cerro Verde S.A.A. (Peru)
◉ Sumitomo Metal Mining do Brasil LTDA. (Brazil)
◉ Sumitomo Metal Mining Oceania Pty. Ltd. (Australia)
◉ SMM Cerro Verde Netherlands B.V. (Netherlands)
◉ SMMCV Holding B.V. (Netherlands)
◉ SMM Holland B.V. (Netherlands)

Smelting & Refining

■ FIGESBAL SA (New Caledonia)

Corporate Data

Company name	Sumitomo Metal Mining Co., Ltd.
President & Representative Director	Akira Nozaki
Founded	1590
Incorporated	1950
Capital	¥93.2 billion
Listing	Tokyo Stock Exchange
No. of subsidiaries (consolidated)	55 (including the money held in trust which is deemed to be a consolidated company)
No. of equity-method affiliates	14
Net sales (consolidated)	¥926.1 billion (for the year ended March 31, 2021)
Profit before tax (consolidated)	¥123.4 billion (for the year ended March 31, 2021)

Main Facilities

Head Office	11-3, Shimbashi 5-chome, Minato-ku, Tokyo (Shimbashi Sumitomo Building)
Main Branch	Osaka Branch
Branches	Nagoya Branch (Aichi Prefecture) Besshi-Niihama District Division (Ehime Prefecture)
Plants	Toyo Smelter & Refinery (Ehime Prefecture) Niihama Nickel Refinery (Ehime Prefecture) Harima Refinery (Hyogo Prefecture) Ome District Division (Tokyo) Isoura Plant (Ehime Prefecture)
Mine	Hishikari Mine (Kagoshima Prefecture)
Research centers	Niihama Research Laboratories (Ehime Prefecture) Battery Research Laboratories (Ehime Prefecture) Materials Laboratories (Tokyo) Ichikawa Research Center (Chiba Prefecture)

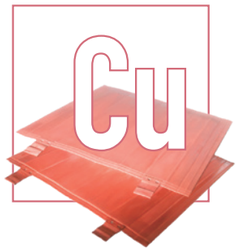
Main Products

Mineral Resources Segment	Gold and silver ore, copper concentrates, copper, gold
Smelting and Refining Segment	Copper, gold, silver, electrolytic nickel, electrolytic cobalt, ferronickel, palladium, chemical products
Materials Segment	Battery materials, paste, powder materials, crystal materials, thin film materials, magnetic materials, package materials, oil refining catalysts, automotive catalysts, autoclaved lightweight concrete, lubricants

No. of countries and regions where business is conducted

14

The Global Non-Ferrous Metal Industry and the SMM Group



The Business Environment Surrounding Copper

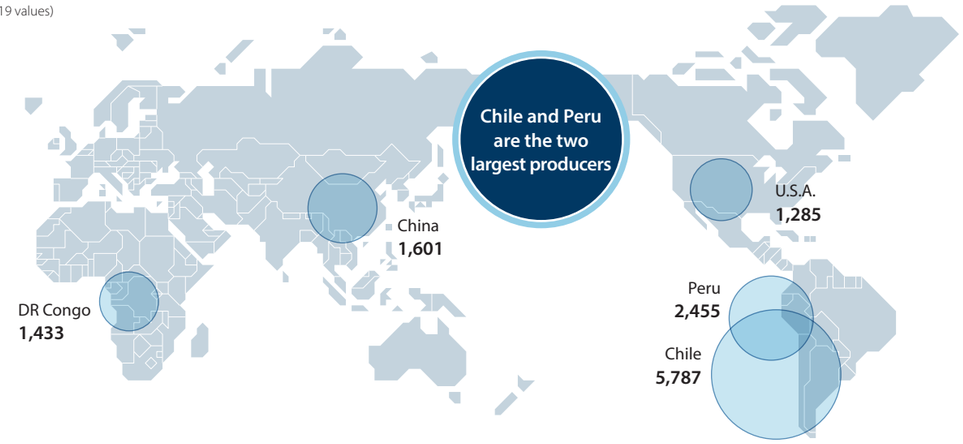
Copper is thought to be the first metal used in human history. It offers high heat and electrical conductivity, is relatively inexpensive, and has superior workability. This has resulted in it becoming an indispensable base metal for electrical wiring and copper alloy fabricated products in a wide range of industries.

Chile and Peru are the world's two largest copper ore producing countries, followed by China, DR Congo and the U.S.

Copper is an indispensable base metal in a wide range of industries, particularly for infrastructure such as electrical wiring and copper alloy fabricated products, and China accounts for about half of global copper demand. Going forward, there is expected to be firm increases in demand along with global economic development. However, on the supply side, with development moving forward on the world's superior mines, the development of new sites will unavoidably occur in increasingly remote locations or higher elevations and with increasingly lower grade ore, making it more difficult. It is thought that this will result in the continuation of the current tight situation, including for recycled products.

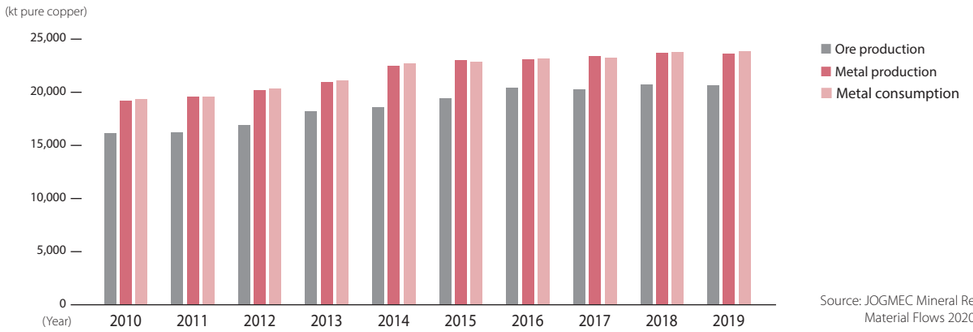
World's Largest Copper Ore Producing Countries

(kt, 2019 values)



Source: JOGMEC Mineral Resource Material Flows 2020

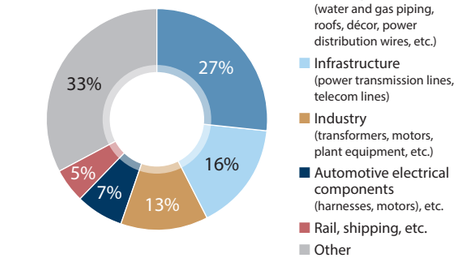
Global Copper Supply and Demand



Source: JOGMEC Mineral Resource Material Flows 2020

Statistical Data Regarding Copper

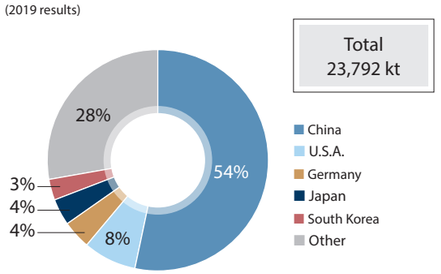
Copper End-Use (2020 results)



Source: The International Wrought Copper Council (IWCC) and the International Copper Association (ICA)

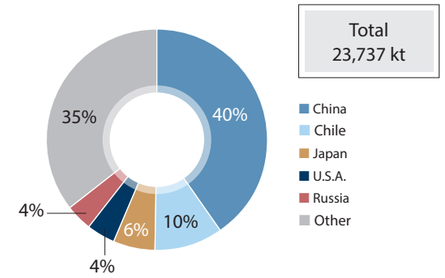
Copper Metal Consumption by Country/Region

(2019 results)



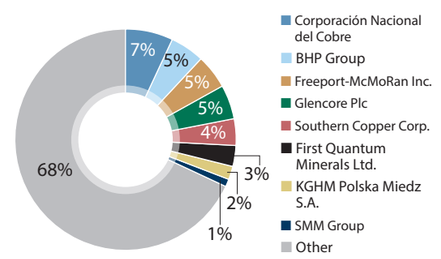
Source: JOGMEC Mineral Resource Material Flows 2020

Copper Metal Production by Country (2019 results)



Source: JOGMEC Mineral Resource Material Flows 2020

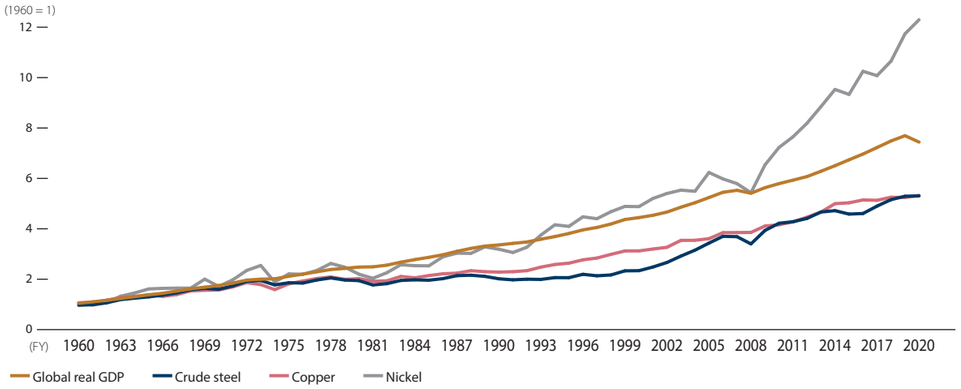
Global Copper Interest Production (2020 results)



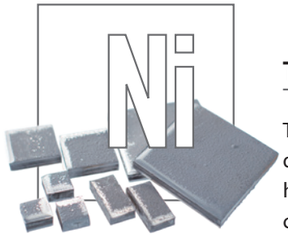
Source: S&P Global

The size of the global copper market is about 24,400 kt
The SMM Group ranks 18th in the world for global copper interest production (FY2020: 250 kt)

Global Resource Demand Trends



Source: Research by SMM



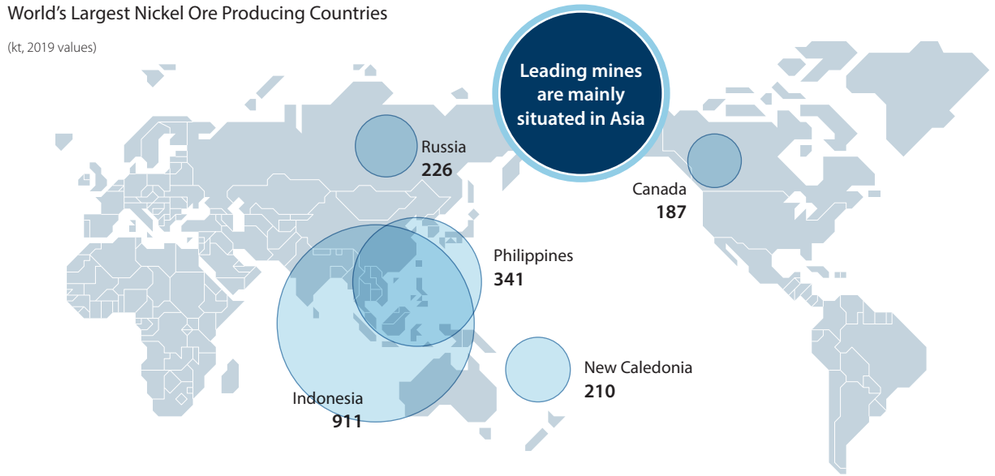
The Business Environment Surrounding Nickel

The main end-use of nickel is in stainless steel and a certain amount of increase in demand is expected. In addition to this, the electrification of the automotive sector has accelerated globally in recent years and an increase in demand for nickel for use in cathode materials for lithium-ion secondary batteries is expected to accompany this.

The Philippines and Indonesia are the world's two largest nickel ore producing countries. The end-use of about 70% of all nickel is in stainless steel and, like copper, China accounts for about half of global demand. In recent years, the growth in demand for nickel has been increasing at a much greater rate than growth in demand for copper and going forward, an increase in demand for use in cathode materials for lithium-ion secondary batteries is expected to accompany the spread of EVs. However, on the supply side, although the supply of products that are not of particularly high grade—so-called "class 2" nickel grades, such as ferronickel and nickel pig iron (NPI), which are mainly used as raw materials for stainless steel production—will be brisk due to development by Chinese companies in countries such as Indonesia, for products in the "class 1" high-grade nickel category used as raw materials in special steels and batteries for EVs, there is a limit to the specific new development that can be carried out and a situation in which demand exceeds supply is expected to continue.

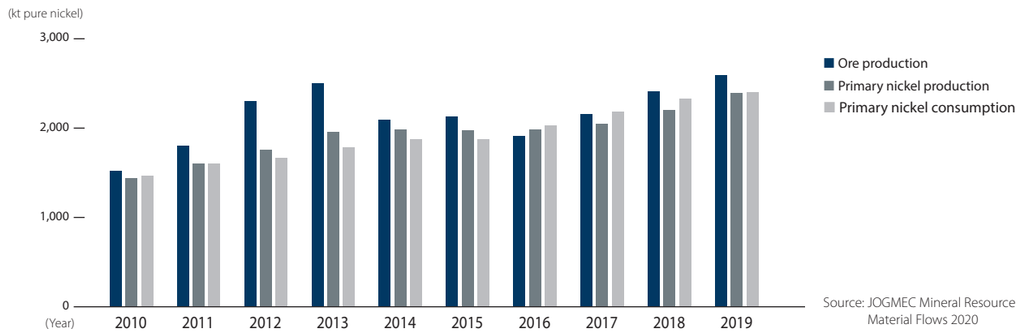
World's Largest Nickel Ore Producing Countries

(kt, 2019 values)



Source: JOGMEC Mineral Resource Material Flows 2020

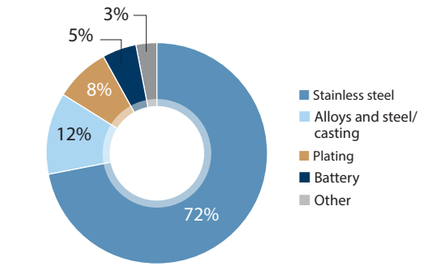
Global Nickel Supply and Demand



Source: JOGMEC Mineral Resource Material Flows 2020

Statistical Data Regarding Nickel

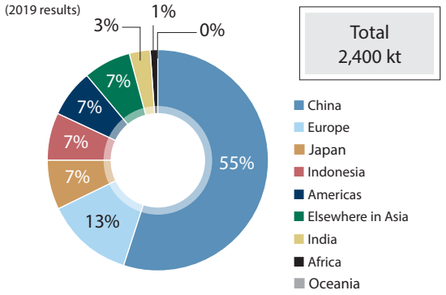
Nickel End-Use



Source: S&P Global Market Intelligence (June 28, 2021)

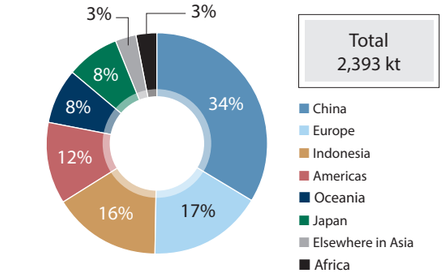
Nickel Metal Consumption by Country/Region

(2019 results)



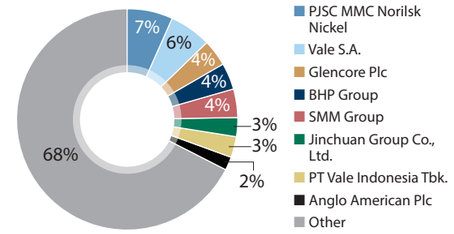
Source: JOGMEC Mineral Resource Material Flows 2020

Nickel Metal Production by County/Region (2019 Results)



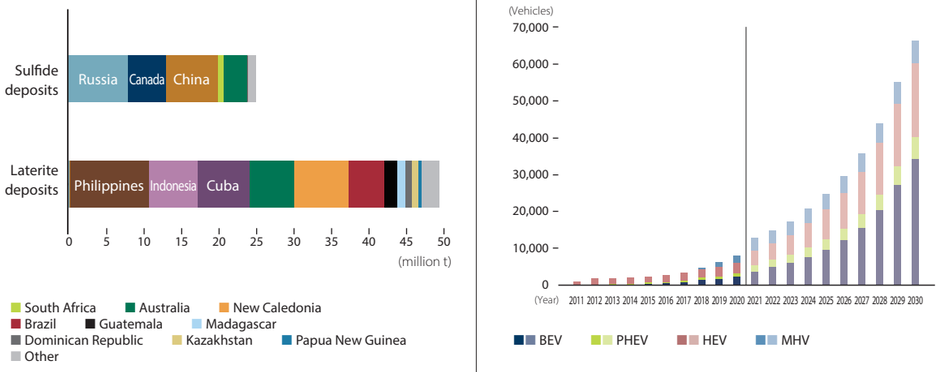
Source: JOGMEC Mineral Resource Material Flows 2020

Global Nickel Interest Production (2020 Results)



Source: S&P Global
Interest production volume for each company's mines, metal production volume for the SMM Group

Nickel in Reserves



Source: S&P Global Market Intelligence (July 7, 2021)

xEV Sales

Values for 2021 onward are projections

Source: B3 Report 21-22