Medium-Term Management Plan for Fiscal 2020 to 2022

Beginning in fiscal 2020, the medium-term management plan is positioned as a three-year period for sowing seeds in anticipation of transforming into a technology-based company as set forth in the JX Nippon Mining & Metals Group Long-Term Vision 2040 formulated in May 2019. We are accelerating our efforts in new growth areas. We are promoting initiatives, human resource development, and the creation of an organizational culture suited to the characteristics of each business. We are implementing corporate management that further enhances autonomy, agility, and independence.

The JX Nippon Mining & Metals Group Long-Term Vision 2040

By pivoting from being an equipment industry company to a technology-based company, we will realize a highly profitable structure even in the face of intensifying international competition and contribute to the realization of a sustainable society as targeted by the SDGs

Role of the Current Medium-Term Plan

Next Medium-Term **Current Medium-Term Plan** Prev. Medium-Term 2040 Plan Plan (2017 to 2019) (2020 to 2022) (2023 and beyond) Achieve the Long-Term Vision through owing the seeds for transformation into a Formulation of technology-based company toward sustainable growth and contribution to Long-Term Vision achievement of the Long-Term Vision society Sowing the seeds for transformation into a technology-based company and achieving our Long-Term Vision through business operation with a greater autonomy, agility, and independence **Basic Policy** xpand Strategic Investment Develop Human Resources Review Business Portfolios Capable of Creating New Contribute to the SDGs Promote Technology Development Value **Base Businesses** prove the profitability of the Caserones Copper Mine and enhance its ability to respond to changes in the market Organization and **Human Resources SDGs** (Corporate Culture) Through technological Creating a corporate innovation and human Advanced materials, technology-based recycling business climate and workplace of Basic resources development free and open Strategy etc contribute to society communication Accelerate growth by capitalizing on the rapidly increasing with advanced materials developing human demand for telecommunications infrastructure and devices and reducing CO₂ esources able to adapt to a new age and new **Technology Development** Establish a mechanism for creating new businesses as a technology-based company

Summary of Business Results for Fiscal 2021

Copper and other nonferrous metals are indispensable for the wider adoption of renewable energy and electric vehicles (EVs). Demand is growing as the world works toward achieving decarbonized, circular economies. The JX Nippon Mining & Metals Group engages in a number of measures in response to this trend.

Although production volume declined in the Mineral Resources Business due to a strike at the Caserones Copper Mine, profit increased, mainly due to higher copper prices. The Metals & Recycling Business posted higher profit due to rising prices

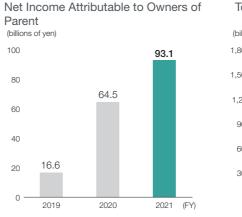
for precious metals and an improvement in the international market for sulfuric acid, even as conditions deteriorated with respect to purchasing raw copper concentrates.

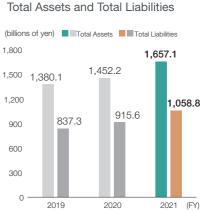
Sales volume for each product in the Functional Materials and Thin Film Materials Businesses generally exceeded previous fiscal year due to strong demand in the high-functional IT field.

The JX Nippon Mining & Metals Group operating profit for the period under review increased 102.6% from the previous year to 158.2 billion yen, mainly due to higher metal prices and increased sales of electronic materials.

Financial Performance (Consolidated, IFRS)







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Changes in Social Trends

With significant changes in social trends, the Group formulated a Long-Term Vision out of a sense of crisis about continuing with our conventional business model. We are now aiming at transforming ourselves into a technology-based company. Fiscal 2021 saw changes in the industry structure due to the impact of the spread of COVID-19, growing momentum toward the SDGs and ESG management, and accelerated movement toward social demands for carbon neutrality. In response, the JX

Nippon Mining & Metals Group reaffirmed our recognition in August 2022 that Copper is an essential material for achieving carbon neutrality. We developed the Sustainable Copper Vision as a policy for the supply and ongoing evolution of sustainable copper. Given that the environment surrounding the Group will continue to change throughout fiscal 2022 and beyond, by clearly understanding these social changes, we aim to fundamentally change our organizational culture.

Environmental Awareness

Creating the Long-Term Vision

Expanding Needs for Advanced Materials	In addition to IT and mobility, digital data is being used in a variety of industries, including healthcare, energy, and construction. The need for advanced materials used in these fields will further expand	
Shrinking Domestic Market/ Focus on Emerging Economies for Sustainable Growth are Issues	The domestic market is shrinking due to the declining birthrate, aging population, and the industry hollowing out. The focus of economic growth is shifting to emerging economies in Asia and other regions, but the challenge is to deal with the environmental problems that are beginning to emerge even in emerging economies	
Increasing Scarcity and Depletion of Resources due to the Expansion of the Middle Class	As the middle class increases, the amount of resources consumed also increases. Acquiring good quality and inexpensive resources will be subject to competition. Resource shortages and depletion, as well as uneven regional distribution, will become more serious	

At Present

Expanding Demand for Advanced Materials	The spread of COVID-19 has accelerated the development of a data-driven society, and demand for smart devices and telecommunications infrastructure has increased To solve the shortage of semiconductors, demand for materials is rapidly increasing			
Global Acceleration in Addressing Climate Change	As environmental problems become more apparent around the world, global companies are accelerating their response to climate change, especially concrete actions for decarbonization			
Deepening Mineral Resource Shortages/ Depletion	With the increase in mineral resources consumed, competition for high-quality, inexpensive mineral resources is intensifying Focus on nonferrous metals to support future infrastructure and growing concerns about depletion Competition to collect recycled raw materials and scrap will intensify, as prices of nonferrous metals remain high and the world transitions to circular societies			

Targets and Progress of the Medium-Term Management Plan for Fiscal 2020 - 2022

When we formulated the current medium-term management plan, we set the operating income target at 170 billion yen for the three-year cumulative period. However, against the backdrop of the aforementioned business environment, we expect to increase profits in both Base and Focus Businesses. We increased our Base Business target by 192.0 billion yen over our original medium-term management plan, despite the impact of COVID-19. This revision mainly reflects higher prices for copper,

precious metals, and sulfuric acid. In the Focus Business, we have raised our target 43.0 billion yen over the original 100.0 billion yen target in our plan. This revision reflects increasing sales stemming from strong demand growth. Based on this outlook, we will continue to make company-wide efforts to establish earnings and a financial base. In addition, we will promote the use of ESG-related indicators as important management indicators.

Operating Profit (Unit: billions of ven)

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		Results for Fiscal 2020	Results for Fiscal 2021	Outlook for Fiscal 2022	2020-2022 Three-Year Cumulative Total
Base Businesses	Mineral Resources Business	34.9	72.1	80.0	287.3
Dase Dusillesses	Metals & Recycling Business	27.3	41.0	32.0	201.3
Focus Businesses	Functional Materials Business, Thin Film Materials Business, Other	31.1	54.5	57.0	142.6
Common Business Expenses		(15.2)	(9.4)	(39.0)	(63.6)
Total		78.1	158.2	130.0	366.3

^{*}The outlook for Fiscal 2022 and the three-year cumulative outlook are current as of May 2022.

Strategic Investment

In the medium-term plan for fiscal 2020 - 2022, we will invest 300 billion yen over the three years in the development of advanced materials. Of this amount, 160 billion yen will be allocated to strategic investments for future growth, including capacity expansion, development of new materials, and exploration of minor metal mining interests. In addition, we will redefine our

ESG investment quota of 20 billion yen to stimulate ESG activities, such as decarbonization and resource recycling. Cumulative Total of Investment Plan for Three years: 300 billion yen



(Unit: billions of ven)

Our Group Initiatives

Base Businesses



- Improve operations at the Caserones Copper Mine, continue to reduce costs at all stages of the process, and strengthen maintenance systems
- Implementing plans for increased collection and processing of recycled raw materials; acquired a major recycler in Canada. Accelerate technological development to increase the percentage of recycled raw materials (input ratio of raw materials or content ratio in products) to 50% or more by 2040 to achieve our Green Hybrid Smelting plan by 2050

Focus Businesses



- Increase production capacity and construct a new plant to meet growing demand.
 In anticipation of the next medium-term business plan and beyond, we have decided to construct a new plant in Hitachinaka City, Ibaraki Prefecture; we will also acquire a large site in the United States
- Create a more resilient supply chain by increasing production capacity flexibly
 in parallel with business continuity measures such as strengthening overseas
 locations in preparation for disasters and geopolitical risks, securing raw materials
 in cooperation with other companies, including making a tantalum and niobium
 smelting and processing manufacturer a wholly owned subsidiary, etc.

Technology Development



- Nurture and quickly commercialize businesses that will become pillars of the next generation (next-generation semiconductor materials, metal powder for 3D printers, crystalline materials, battery materials, LiB recycling (closed loop))
- Promote industry-academia collaboration (FY2021 onward; new Materials and Technology Collaborative Research Laboratory in cooperation with The National Institute of Advanced Industrial Science and Technology, Endowed Research Unit for Nonferrous Metal Resource Recovery Engineering (JX Metals Endowed Unit, the University of Tokyo) [Phase 3], etc.)
- JX Nippon Research Institute for Technology & Strategy Co., Ltd. aims to become a think tank in the field of nonferrous metals with a diverse pool of high-level human resources

ESG Management

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- Promote initiatives to achieve long-term environmental targets (50% reduction of Group CO₂ emissions by fiscal 2030 compared to fiscal 2018, and net zero CO₂ emissions by fiscal 2050) as a response to climate change
 - Develop the Sustainable Copper Vision and fulfill the dual missions of establishing stable supply systems and conducting ESG-oriented production/supply of copper, indispensable for achieving carbon neutrality, through Green Hybrid Smelting
 - Establish technologies and business models for closed-loop recycling of automotive LiBs with partners in Japan and overseas

Organization and Human



 Develop human resources across four perspectives: (1) digital and DX human resources; (2) value-added human resources; (3) ESG human resources; and (4) global human resources

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