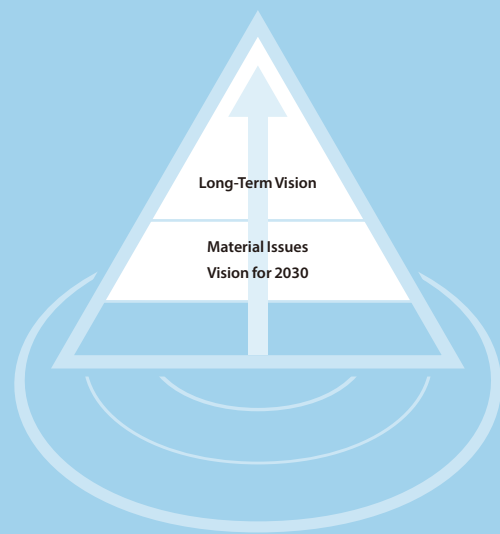




# Vision for the SMM Group

- 34 Long-Term Vision
- 36 Material Issues and Vision for 2030
- 38 Vision for 2030—Formulation Approach
- 40 Risks and Opportunities



SMM has identified material issues and formulated Vision for 2030 by backcasting from our long-term vision of becoming the “world leader in the non-ferrous metals industry.” In addition, by stipulating KPIs starting from our vision, we are promoting the creation of social impact through business activities that take into account risks and opportunities.

## What we want to convey in this chapter

To aim for our long-term vision of becoming the “world leader in the non-ferrous metals industry,” we have stipulated targets relating to nickel, copper, gold, materials, and net income on this term. To understand the progress made here, from this term we are publishing the most recent performance figures.

In the process of deciding Vision for 2030, we guaranteed objectivity by indicating a standpoint taking account of changes in the situation surrounding SMM and changes in assumed information toward business continuity.

Regarding risks and opportunities, we help readers to understand the risks and opportunities in our businesses comprehensively by detailing risks and opportunities connected to risk factors and explaining our strategies to deal with them and, moreover, our specific responses.

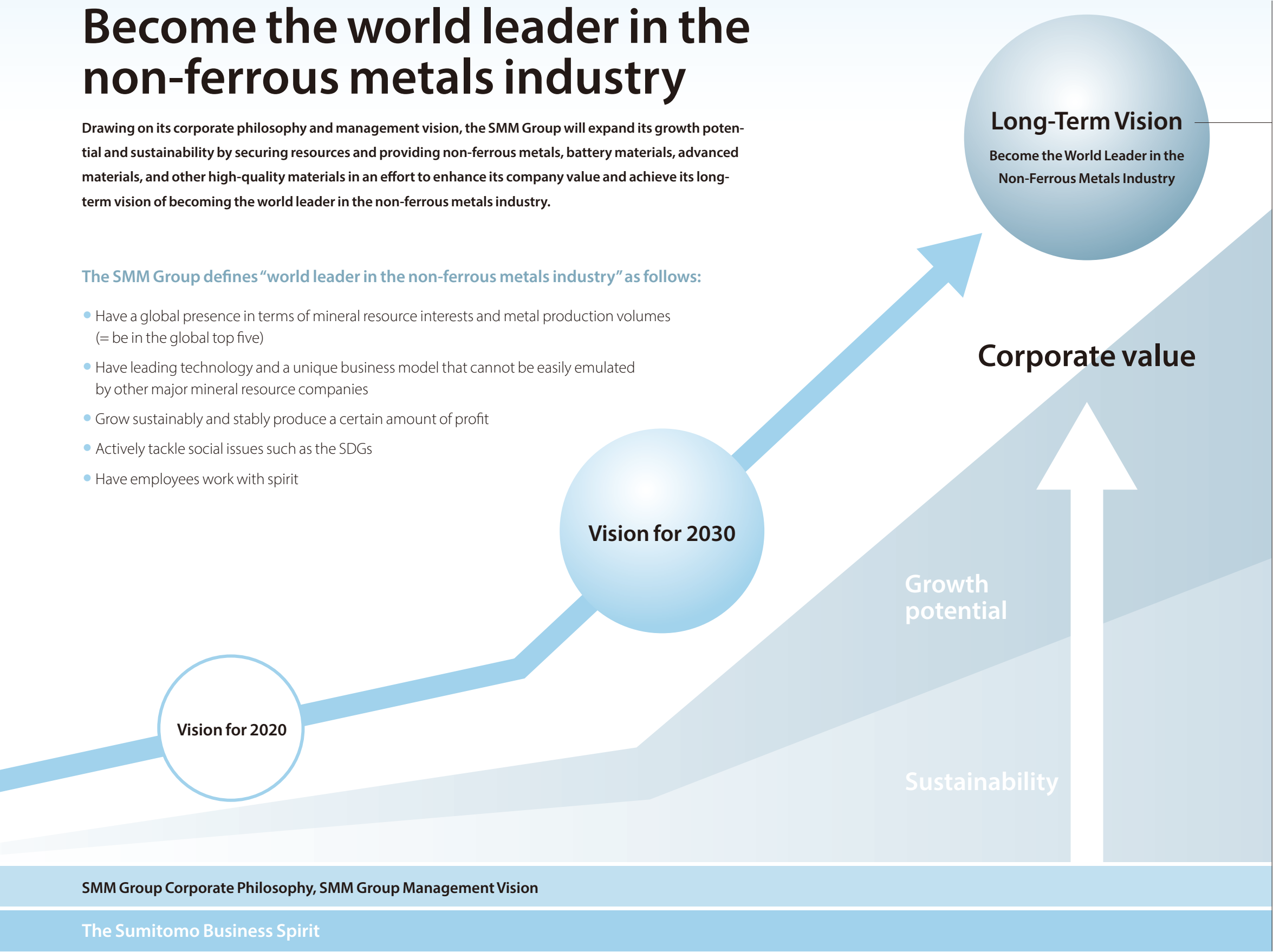
Long-Term Vision

Become the world leader in the non-ferrous metals industry

Drawing on its corporate philosophy and management vision, the SMM Group will expand its growth potential and sustainability by securing resources and providing non-ferrous metals, battery materials, advanced materials, and other high-quality materials in an effort to enhance its company value and achieve its long-term vision of becoming the world leader in the non-ferrous metals industry.

The SMM Group defines “world leader in the non-ferrous metals industry” as follows:

- Have a global presence in terms of mineral resource interests and metal production volumes (= be in the global top five)
- Have leading technology and a unique business model that cannot be easily emulated by other major mineral resource companies
- Grow sustainably and stably produce a certain amount of profit
- Actively tackle social issues such as the SDGs
- Have employees work with spirit



Targets and results of our Long-Term Vision

Nickel	
Target	Annual production capacity of 150 kt
FY2023	Annual production capacity of 81 kt
Copper	
Target	Annual production interest of 300 kt
FY2023	Annual production interest of 209 kt
Gold	
Target	Participation in new mine operations through the acquisition of superior interest
FY2023	Production to commence in 2024 at the Cote Gold development project. Our engineers are also taking on important positions and are working toward full-scale production.
Materials Business	
Target	Segment profit before tax through portfolio management of JPY25 billion
FY2023	Segment loss of- JPY7.2 billion
Profit	
Target	Annual profit attributable to owners of parent of JPY150 billion
FY2023	Annual profit attributable to owners of parent of JPY58.6 billion

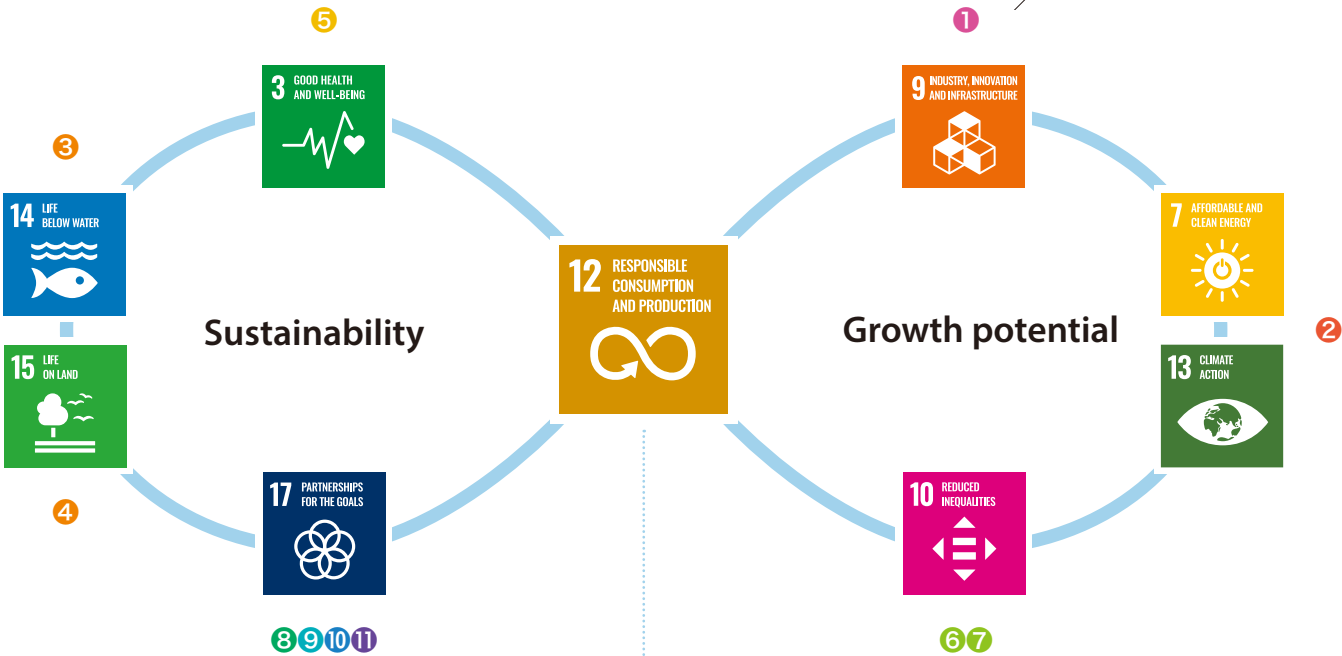
Targets and Progress of Our Long-Term Vision ▶ P.144-145

# Material Issues and Vision for 2030

To realize our long-term vision of becoming the “world leader in the non-ferrous metals industry,” we have set 11 material issues. Based on these material issues, Vision for 2030 indicates specifically what we want to realize and by when.

The 11 material issues are the challenges that our Group should tackle by 2030. In the light of our assessment of and reflections on Vision for 2020, we sorted out and identified issues that our Group is required to address and expected to solve, including such social challenges as the SDGs, which have the same target year. In addition, Vision for 2030 and KPIs were deliberated for these 11 material issues and formulated and re-leased in March 2020.

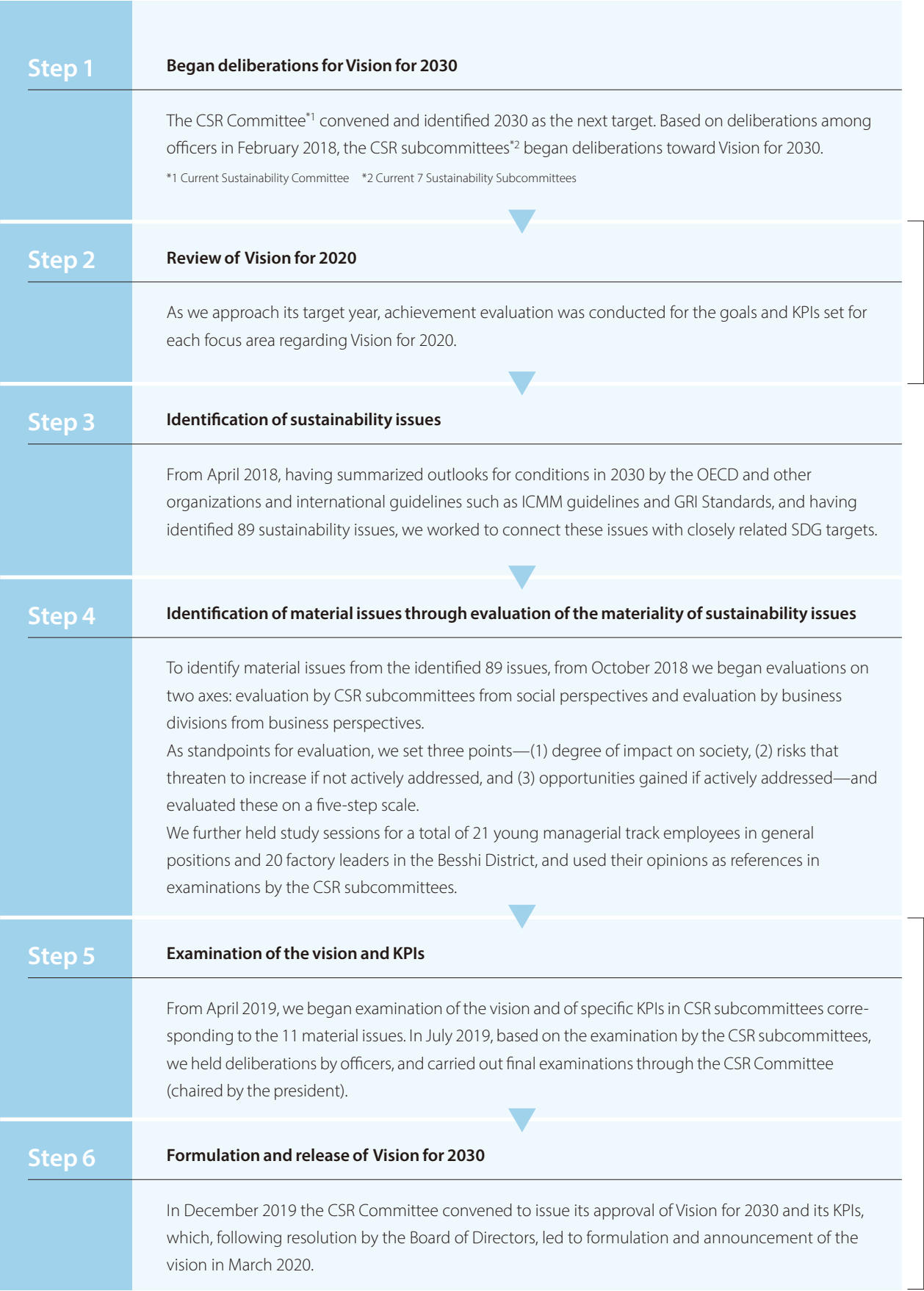
Diagram of Relationship with the SDGs



Material Issues	Vision for 2030 and Their Background
1 Effective Use of Non-Ferrous Metal Resources	<ul style="list-style-type: none"><li>A company that generates resources through high technological capabilities</li></ul> <p>The SMM Group is engaged in the mining of natural resources, the production of highly advanced materials, and everything in between. We handle a wide range of non-ferrous metal materials in the process. We believe that it is the SMM Group's responsibility to take on the challenge of making more effective use of limited non-ferrous metal resources without waste through the utilization of resources that could hitherto not be used due to technical obstacles and through the development of recycling technologies.</p>
2 Climate Change	<ul style="list-style-type: none"><li>A company that actively undertakes climate change countermeasures, by reducing emissions and stably supplying products contributing to a low-carbon society, a future with zero greenhouse gases (GHGs)</li></ul> <p>Society's demand for companies to reduce GHG emissions has increased dramatically, and the business risks associated with climate change are also increasing. On the other hand, a stable supply of products contributing to a low-carbon society, such as the secondary battery materials for electric vehicles and the near-infrared absorbing materials both produced by our Group, are expected to contribute to the reduction of GHG emissions.</p>
3 Significant Environmental Accidents	<ul style="list-style-type: none"><li>A company that values water resources and biodiversity, and protects the richness of the sea and land</li></ul> <p>The SMM Group recognizes that there are risks of adverse impacts on the natural environment when developing natural resources and using chemical substances. In addition to preventing significant environmental accidents, we recognize that minimizing our negative environmental impacts, including rationalization the use of water, and preserving biodiversity in our day-to-day management of operations are prerequisites for business continuity.</p>
4 Biodiversity	
5 Employees' Occupational Health and Safety	<ul style="list-style-type: none"><li>A company where all employees work together with safety first the priority in a comfortable working environment as well as safe facilities and operations</li></ul> <p>It is the responsibility of management to prevent work-related accidents and illnesses, provide a safe, healthy and comfortable work environment, and strive to improve employee comfort. All of these also lead to greater motivation and productivity among employees. The SMM Group bases management on job classification, striving to ensure the safety and health of our employees through intrinsic equipment safety improvements and safety education.</p>
6 Diverse Human Resources	<ul style="list-style-type: none"><li>A company where all employees can take a vibrant and active part</li></ul> <p>The source of the SMM Group's growth is its employees. We respect individuality and diversity, and aim to create an open and vibrant organizational climate in which everyone can demonstrate their strengths and thrive. With the globalization of business and the rapid development of DX, it is a management challenge to develop human resources who can think and act on their own initiative based on their expertise.</p>
7 Development and Participation of Human Resources	
8 Engagement with Stakeholders	<ul style="list-style-type: none"><li>A company that is appreciated and understood to be the world leader in non-ferrous metals industry</li><li>A company that contributes to regional development and earns trust as a member of the local community</li><li>A company that understands and respects the traditions and culture of indigenous peoples</li></ul> <p>The SMM Group's main premise for business continuity is to earn a social license to operate. To this end, we recognize the importance of promoting information disclosure and transparency to the greatest extent possible, as well as deepening mutual understanding and building relationships of trust through ongoing dialogue with local communities and other stakeholders. In particular, when there is a risk that development may affect the livelihood of indigenous peoples, we gain a thorough understanding of their culture, traditions and history and engage in a continuing dialogue prior to development. It is then necessary to proceed carefully to prevent such impacts of development.</p>
9 Co-Existence and Mutual Prosperity with Local Communities	
10 Rights of Indigenous Peoples	
11 Human Rights in the Supply Chain	<ul style="list-style-type: none"><li>A company that undertakes sustainable procurement across the supply chain</li></ul> <p>As for Business and Human Rights, the calls for companies to take strong measures to prevent human rights violations throughout their supply chains are increasing. It is necessary for the SMM Group to construct sustainable supply chains in collaboration with business partners to prevent our business activities from having negative impacts on human rights along our diverse supply chains.</p>



Vision for 2030 – Formulation Approach



Observations from Reflection on Vision for 2020

The first observation from a reflection on Vision for 2020 concerned the rapid progress made in the digitalization of society. In this trend, metallic materials, such as copper and nickel, and highly advanced materials have come to fulfill a more important role. The second observation concerned such social requirements as the avoidance of

involvement in human rights issues in mineral procurement and human rights violations through the supply chain. Furthermore, we realized that the active tackling of various social issues, such as the SDGs, is essential in the growth strategy of each business.

Major trends in the materials industry

- Metallic materials and highly advanced materials will play an important role in technological innovations and energy transition toward the rapid advancement of digitalization, such as IoT and CASE, and the realization of a decarbonized society.

Grand premise of business continuity and sustained growth

- In response to the heightened social requirement to avoid involvement in human rights issues in mineral procurement and human rights violations through the supply chain, our Group, which is a resource enterprise, has a responsibility to actively tackle such issues.
- The active tackling of various social issues, such as the SDGs, through CSR and TCFD is essential for achieving the growth strategies of the resource and smelting businesses.

Thinking Behind Formulation of Vision for 2030

In the review, unlike the Vision for 2020, we extracted, evaluated, and selected the material issues by including the perspective of not only sustainability challenges but also management issues. In formulating Vision for 2030 relating to each material issue, while forecasting changes in social re-

quirements going forward, we conducted backcasting from our long-term vision, and management goal, of becoming the world leader in the non-ferrous metals industry and set it as a milestone in the realization of our long-term vision as of FY2030.

In our appraisal, we evaluated 89 sustainable issues in five stages from a social viewpoint and a business viewpoint.  
[Evaluation viewpoints] ● Degree of impact on society ● Increased risk if not actively addressed ● Opportunities gained by active engagement

Identification of 11 Issues as Material Issues of Importance to Both Society and Business

Material Issues	Approach
1 Effective Use of Non-Ferrous Metal Resources	Exploration and development of superior non-ferrous metal resources Effective utilization of recycled materials, low-grade minerals, and high-impurity materials
2 Climate Change	Technological improvements toward transition to and replacement by low-carbon energy, etc. and energy saving Development and sale of products contributing to energy saving and low carbon
3 Significant Environmental Accidents	Strengthening of earthquake resistance and weather resistance of equipment, tailings dams, and deposit sites
4 Biodiversity	Reduction of discharge of chemical substances into rivers, ocean, and air
5 Employees' Occupational Health and Safety	Maintenance of safe workplace environments Maintenance of hygienic workplace environments Maintenance of healthy workplace environments
6 Diverse Human Resources	Promotion of diversity
7 Development and Participation of Human Resources	Skill development, education, and training for employees
8 Engagement with Stakeholders	Establishment of open communication with stakeholders Branding to shareholders, investors, customers, local communities, and employees
9 Co-Existence and Mutual Prosperity with Local Communities	Planning and implementation of measures to avoid or minimize adverse impact on the economic lives and living environment of local residents
10 Rights of Indigenous Peoples	Respect for the cultural, economic, and social rights of indigenous peoples
11 Human Rights in the Supply Chain	Checking that partners, suppliers, and subcontractors are not involved in child labor or forced labor

Risks and Opportunities

Risk Factors (External/Internal)		Risks (Threats) and Opportunities		Strategies	Specific Responses
1	<b>Governments and Policy</b> <ul style="list-style-type: none"><li>• Changes in laws and regulations (rise in mineral resource nationalism, increase in environmental awareness, etc.)</li><li>• Conflicts and friction between countries</li></ul>	<b>Risks</b>	<ul style="list-style-type: none"><li>• Nationalization of mines; increased taxation</li><li>• Prohibition of export of mineral ores and intermediates</li><li>• Stricter approval for development and operation</li><li>• Negative impacts on production, including supply and demand and supply chains</li></ul>	<ul style="list-style-type: none"><li>• Full consideration of country risk and making investment decisions while expanding the business globally</li><li>• Cooperation with overseas local partners to monitor the status of the market entry and taking appropriate measures as needed to respond to changes after entering a new market</li></ul>	<ul style="list-style-type: none"><li>• Conclusion of contracts that make allowances for resource nationalism</li><li>• Information gathering through embassies, governments, and JV partners</li><li>• Approach to local communities and indigenous people</li><li>• Diversification of materials suppliers and product customers</li><li>• Establishment of BCP and crisis management framework</li><li>• Consideration of establishment of next plant to increase production of battery materials</li></ul>
		<b>Opportunities</b>	<ul style="list-style-type: none"><li>• Introduction of preferential taxation in the automobile market</li></ul>		
2	<b>Economic Environment</b> <ul style="list-style-type: none"><li>• Metal price and forex movement</li><li>• Soaring energy prices</li></ul>	<b>Risks</b>	<ul style="list-style-type: none"><li>• Adverse impacts on business performance due to lower metal prices and exchange rate fluctuations</li><li>• Switch to alternative materials due to a sharp rise in metal prices</li><li>• Decrease in competitiveness due to higher operating costs</li></ul>	<ul style="list-style-type: none"><li>• Aiming to reduce costs in the Mineral Resources and Smelting &amp; Refining businesses and stabilizing earnings in the Materials business, which is relatively insensitive to non-ferrous metal price fluctuations</li><li>• Steadily pursuing the growth strategy based on the 3-business collaboration</li></ul>	<ul style="list-style-type: none"><li>• Formulation of project plans based on market fluctuation risks</li><li>• Prior analysis of management impacts caused by fluctuations in metal prices and exchange rates</li><li>• Entrance into alternative materials and technologies businesses (e.g., LFP), and expansion of the advanced materials business</li><li>• Promotion of energy conservation (switch to high-efficiency equipment and improvement of manufacturing processes)</li><li>• Promotion of large-scale projects</li></ul>
		<b>Opportunities</b>	<ul style="list-style-type: none"><li>• Expanding demand for non-ferrous metals, especially copper and nickel, which are indispensable for the electrification of automobiles, etc.</li></ul>		
3	<b>Social Environment</b> <ul style="list-style-type: none"><li>• Increased social responsibility for climate change</li><li>• Acceleration of the carbon neutrality movement</li><li>• Emergence of issues related to Business and Human Rights</li></ul>	<b>Risks</b>	<ul style="list-style-type: none"><li>• Exclusion from investment due to lagging approach to ESG and insufficient information disclosure</li><li>• Decline in competitiveness and reputation due to lagging approach to greenhouse gas (GHG) emissions reduction</li><li>• Delays in or withdrawal from projects due to opposition from local communities or due to infringement of the rights of local communities and indigenous peoples</li></ul>	<ul style="list-style-type: none"><li>• Participating in the GX League and introducing clean energy and energy-saving equipment at production sites to achieve net zero GHG emissions by 2050</li><li>• Proceeding with reducing GHG emissions, and promoting initiatives for research and development of products that contribute to the realization of a carbon-neutral society, etc.</li><li>• Support the United Nations Guiding Principles on Business and Human Rights, and conduct due diligence and operate a complaint resolution (remedy) mechanism based on the Sumitomo Metal Mining Group Policy on Human Rights</li><li>• Deliver appropriate and accurate information to stakeholders</li></ul>	<ul style="list-style-type: none"><li>• GHG emissions reduction activities</li><li>• Dialogues and co-existence with local communities and enhancement of understanding of indigenous cultures</li><li>• Due diligence for mineral procurement</li><li>• Expansion of business for products that contribute to a low-carbon society (e.g., battery materials and the near-infrared absorbing material SOLAMENT ®)</li><li>• Enhancement of ESG information disclosure</li></ul>
		<b>Opportunities</b>	<ul style="list-style-type: none"><li>• Growing demand for low-carbon products that contribute to GHG reduction, such as battery materials</li></ul>		
4	<b>Work Environments</b> <ul style="list-style-type: none"><li>• Shrinking and increasingly mobile Japanese labor market</li><li>• Securing human resources and diversifying work styles</li></ul>	<b>Risks</b>	<ul style="list-style-type: none"><li>• Labor shortages due to fiercer competition in hiring, outflow of human resources, and increase in mandatory retirements</li><li>• Personnel shortages due to inadequate career support and delays in training management human resources</li><li>• Drop in employee engagement due to delays in improvements in work styles and the working environment</li></ul>	<ul style="list-style-type: none"><li>• Provide employees with safe and healthy work opportunities by reforming work styles, improving the working environment, and rebuilding an open and vibrant organization climate</li><li>• Promote human resource development, encourage and evaluate efforts to address long-term issues, build a corporate culture that enables continuous “taking on of challenges,” “change,” and “growth,” and secure, foster, and utilize a diverse human capital</li><li>• Provide improvements and a venue for the system suitable for career support and human resource development</li></ul>	<ul style="list-style-type: none"><li>• Strengthening of engagement by raising the brand profile within the Group</li><li>• Rationalization and reduction of labor through the introduction of DX, etc. to reduce working hours</li><li>• Promotion of health and productivity management</li><li>• Revision of the personnel system for managerial-track employees</li><li>• Raising company recognition and actively recruiting by strengthening corporate branding</li></ul>
		<b>Opportunities</b>	<ul style="list-style-type: none"><li>• Attract diverse human resources and create innovation</li></ul>		
5	<b>Technology</b> <ul style="list-style-type: none"><li>• Evolution of technology in the field of information and communication</li><li>• Catching up with the technology by overseas competitors</li><li>• Increasing and growing cybersecurity risks</li><li>• Growing importance of intellectual property due to globalization</li></ul>	<b>Risks</b>	<ul style="list-style-type: none"><li>• Decline in competitiveness due to lagging response to DX</li><li>• Delays in new product development and improvements to existing products in the Materials Business</li><li>• External leakage, destruction, falsification, etc. of information due to delays in establishing an information security system</li><li>• Delay in protecting intellectual property, infringement on other companies (patent infringement, filing of lawsuits related to intellectual property)</li></ul>	<ul style="list-style-type: none"><li>• Developing DX infrastructure to address human resources in an era of declining birthrate, improve management efficiency, and create business reforms and new businesses</li><li>• Speeding up development of new products and improvements to existing products based on customer needs</li><li>• In addition to information security education for employees, migrating to a cloud service with advanced security features regardless of the usage environment</li><li>• Establishing a department dedicated to intellectual property management to ensure acquisition and preservation of intellectual property</li><li>• Promoting development of new technologies conducive to GHG emissions reduction</li></ul>	<ul style="list-style-type: none"><li>• Developing human resources proficient with digital technologies</li><li>• Improving operations through data analysis</li><li>• Strengthening of information security</li><li>• Enforcement of and support for intellectual property management</li><li>• Application of DX to model factories and business sites</li><li>• Developing and expanding new business in hydrogen production catalysts, catalysts for use in artificial photosynthesis, and fuel cell materials</li></ul>
		<b>Opportunities</b>	<ul style="list-style-type: none"><li>• Improving productivity by introducing DX and utilizing new technologies</li><li>• Heightened demand for new technologies conducive to GHG emissions reduction</li></ul>		
6	<b>Development of Resources, Smelting &amp; Refining Operations, Manufacturing and Development of Highly Advanced Materials</b> <b>Development of Resources</b> <ul style="list-style-type: none"><li>• Decrease in superior mines and increased uncertainty in mining investment</li></ul>	<b>Risks</b>	<ul style="list-style-type: none"><li>• Increased difficulty in acquiring interests due to a decline in the grade of mines and intensified competition</li><li>• Increase in the cost of investing in and operating mines</li></ul>	<ul style="list-style-type: none"><li>• Emphasizing acquiring social license centered on co-existence with local communities</li><li>• In addition to our own exploration activities, working with business partners overseas to acquire new projects</li><li>• Careful selection of investments based on a decision of profitability from our many years of experience in exploration and mine evaluation know-how, and striving to reduce and avoid the risk of uncertainty from the preparatory stage of development</li></ul>	<ul style="list-style-type: none"><li>• Operational improvements (dispatch of engineers for stable operation and streamlining, improvement of existing operating equipment, enhancement of process capacities)</li><li>• Securing of a sound financial base</li><li>• Participation in development of and investment in superior overseas mines, etc.</li></ul>
		<b>Opportunities</b>	<ul style="list-style-type: none"><li>• Expanding demand for non-ferrous metals, especially copper and nickel, which are indispensable for the electrification of automobiles, etc.</li></ul>		
	<b>Smelting &amp; Refining Operations</b> <ul style="list-style-type: none"><li>• Instability in procurement of non-ferrous metal raw materials and equipment</li></ul>	<b>Risks</b>	<ul style="list-style-type: none"><li>• Deterioration of raw material purchase conditions, plant shutdown</li><li>• Difficulty in procurement of raw materials and equipment and skyrocketing prices</li></ul>	<ul style="list-style-type: none"><li>• Securing stable raw material sources (own mines) and conflict-free raw materials by investing in and participating in the management of superior overseas mines, etc.</li><li>• The materials procurement department will consider multiple purchases and alternative materials while improving basic unit, and will take appropriate measures as needed in response to changes when responding to difficulties in the supply of materials and equipment and price hikes</li><li>• Proactively working on battery to battery horizontal recycling of used lithium-ion secondary batteries, contributing to the formation of a sustainable recycling-oriented society and strengthening the promotion of resource recycling to cope with global resource depletion</li></ul>	<ul style="list-style-type: none"><li>• Ongoing study of measures to secure mineral reserves for CBNC and THPAL</li><li>• Strengthening the search for new nickel projects in the next period</li><li>• Promoting the commercialization of battery recycling</li></ul>
		<b>Opportunities</b>	<ul style="list-style-type: none"><li>• Growth in demand for recycling associated with the increased demand for metals, increased collection of used products, etc.</li></ul>		
	<b>Development of Highly Advanced Materials</b> <ul style="list-style-type: none"><li>• Rapid changes in market demands and prolongation of new product development</li><li>• Potential huge financial burden for defects in in-vehicle products</li></ul>	<b>Risks</b>	<ul style="list-style-type: none"><li>• Obsolescence of products and technologies due to technological innovation and market change</li><li>• Outbreak of costly claims litigation and loss of reputation due to product liability(recalls and damages incurred for end products containing defective in-vehicle products)</li></ul>	<ul style="list-style-type: none"><li>• Deepening relationships with customers, accurately understanding customer and market needs, and putting in place sufficient sales and development structures to promote new product development based on this understanding and to mitigate the impact of such development</li><li>• Ensuring the effective functioning of the Group's quality management system (QMS) to further improve quality and enhance traceability</li><li>• Accelerating development through the use of government support programs, joint development with external parties, and industry-academia collaboration</li></ul>	<ul style="list-style-type: none"><li>• Speeding up development of LFP battery materials</li><li>• Creating innovations through an open platform (X-MINING®)</li><li>• Compliance with the QMS and initiatives to further improve quality and strengthen management</li><li>• Expansion of production by 24,000 tons/year, including construction of a new plant in Niihama (project eligible for a subsidy from the Ministry of Economy, Trade and Industry)</li><li>• Promoting commercialization of silicon carbide (SiC) substrates</li></ul>
		<b>Opportunities</b>	<ul style="list-style-type: none"><li>• Rising demand for cathode materials due to increasing demand for electric automobiles</li><li>• Growing demand for advanced materials used in electronic devices for the realization of a digital society</li></ul>		
7	<b>Other</b> <ul style="list-style-type: none"><li>• Increase in frequency and intensity of natural disasters</li><li>• Spread of infectious disease</li></ul>	<b>Risks</b>	<ul style="list-style-type: none"><li>• Damage to equipment/facilities and occurrence of spill accidents due to intensification of floods, storms, etc.</li><li>• Interruption of global supply chains</li><li>• Negative impacts of infectious diseases on production, including supply and demand and supply chains</li></ul>	—	<ul style="list-style-type: none"><li>• Response to large-scale disasters</li><li>• Establishment of BCP and crisis management framework</li><li>• Stable supply through an integrated supply chain</li></ul>