

Progress of the 2015 3-Year Business Plan

Status of Progress of the 2015 3-Year Business Plan

There are priorities of the 2015 3-Year Business plan in each core business.

In our mineral resources business, full-scale production at the Sierra Gorda Copper Mine and acquiring new gold mine interests are top priorities. Although the Sierra Gorda Copper Mine recorded a large impairment loss for the second consecutive year in FY2016, operation at the mine has come close to full production, and molybdenum recovery has reached the level initially planned. With regard to gold, SMM has made the decision to participate in the Côté Gold Project in Canada.

In our smelting and refining business, we focus on expanding Taganito HPAL, advancing growth strategies using peripheral HPAL technologies, and enhancing competitiveness of the business. The scandium recovery business has been showing steady progress toward its aim

of launching commercial production (intermediate product at THPAL and final product at the Harima Refinery) in FY2018.

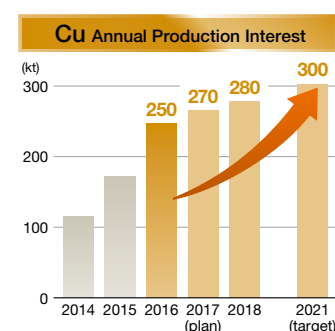
In our materials business, profit contribution from expanded production volumes of battery material and LT/LN, and sustainable innovation and adaptation of next-generation products are the main focus. In the areas of battery materials and LT/LN, profit contributions have been seen as the result of a series of decisions made on investments in a short period of time. Product innovation is underway, together with research and development departments.

In the area of management platform reinforcement, we have swiftly responded to Japan's Corporate Governance Code by increasing the number of outside directors, and so forth.

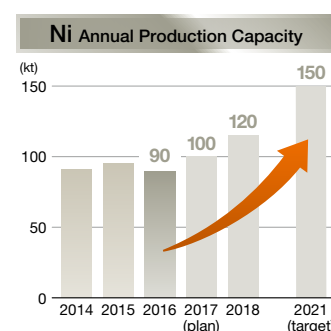
2015 3-Yr Business Plan Priorities and Status

Mineral Resources	Full-scale production at the Sierra Gorda Copper Mine	Approaching full-scale production through various initiatives
	Acquisition of new gold mine interests	Participation in the Côté Gold Project in Canada (June 20, 2017)
Smelting & Refining	Expanding Taganito HPAL	Expansion is underway, aiming at a 20% increase in production from the second half of FY2017
	Advancing growth strategies using peripheral HPAL technologies	Commercial production of scandium (planned for the beginning of FY2018)
	Enhancing competitiveness of the copper smelting business	Achievement of 450,000-ton production at the Toyo Smelter & Refinery in FY2016 Stable production to be continued in FY2017
Materials	Profit contribution from expanded battery material and LT/LN production	Battery materials: expansion of NCA production from 1,850 tons to 4,550 tons/month LT/LN: expansion from 300,000 pieces to 400,000 pieces/month
	Sustainable innovation and adaptation of next-generation products	In progress, at three laboratories and one research center
R&D	Developing new products and processes	Undertaken in areas of smelting and refining processes, materials development, new product development, and basic research on powder material

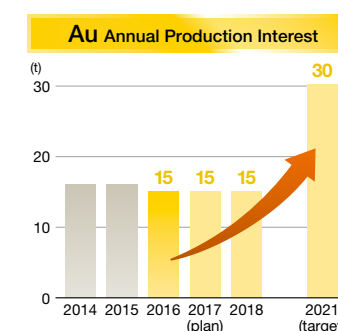
Targets of and Initiatives toward Our Long-Term Vision



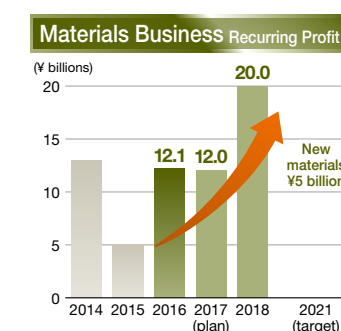
With regards to copper, our target of annual production output of 300,000 tons from our interests is in sight, with the expansion of overseas copper mines already in operation, the start of commercial production in the Sierra Gorda Project, and the acquisition of additional interests in the Morenci Copper Mine. In copper smelting, we will strive to bolster profitability through stable operation, by processing of secondary materials, and by reducing fixed costs.



With regards to nickel, both the Taganito Project and the expansion of electrolytic nickel production capacity to 65,000 tons/year were completed in 2013, completing our 100,000-ton/year nickel production structure. As an even longer vision, we are looking to raise that to 150,000 tons/year by securing alternative sources of mineral resources and expanding production capacity.



Through entry into the Côté Gold Project in Canada, we have increased our gold resources by approximately 2.7 tons/year. We will continue exploration around our operating mines, consider participation in new joint ventures, and acquire new interests through M&As.



We will aim for even greater profit growth as we head toward achieving ¥5 billion/year profit with new materials by FY2021.

SMM has been gaining positive results from R&D related to the materials business. Battery materials increased capacity and improved output characteristics by improving the grade of nickel content in electric vehicle battery cathode material. Also, crystal materials improved its growth yield for SAW filter devices, and reduced manufacturing costs of wafer.

Changes in the Business Environment Surrounding SMM

The global economy during 2016 generally continued on a gradual path to recovery without any significant slowdowns, despite the outlook becoming more unclear with uncertainty over the new U.S. administration's policies and their effectiveness and the U.K.'s exit from the EU. The slowing-down of the Chinese economy under its structural reform was a concern, but eventually signs were seen of it having bottomed out. In Europe, gradual economic recovery continued, driven primarily by personal consumption despite stagnant exports. In the United States, personal consumption remained firm against a backdrop of fundamentally strong employment. In Japan, compensation of employees continued recovering, backed by improvement in the employment situation, and personal consumption also showed signs of recovery. As for exchange rates, the yen appreciated year-on-year on average against the U.S. dollar, although it depreciated following the United States presidential election.

In 2017, the global economy is expected to continue recovering gradually with signs of a strong U.S. economy, mild uplifting of the Japanese and European economies and recovery in China and other emerging countries. However, there are growing concerns, with negative factors adding uncertainty to the outlook, such as an increase of geopolitical risks, stronger protectionism and antiforeignism sentiment by the new U.S. administration, and the U.K.'s exit from the EU.

In the non-ferrous metals industry, supply and demand of copper are expected to remain balanced, while a supply shortage is expected for nickel. Metal prices are expected to rise over the medium- to long-term since supply is forecasted to be insufficient as demand increases. For the time being, however, a significant rise cannot be expected. As for industries related to the materials business, the automotive applications and communications areas will generally continue to be favorable, despite possibilities of temporary adjustments.

Changes in the Business Environment

Mineral Resources Business and Smelting & Refining Business

Increase in mine development costs

- 1) Higher, deeper, and more remote locations of mines
- 2) Declining ore grade and increase of difficult-to-process ores (impurities)
- 3) Tightening of environmental regulations
- 4) Acquisition of operational permits becoming more challenging socially
- 5) Human resource shortages in mineral resource-producing countries due to an increase in projects in the development phase
- 6) Increase in demand for negotiating labor conditions

Growth of resource nationalism

- 1) Export restrictions on unprocessed ores, etc.
- 2) Introduction of various royalties
- 3) Stricter taxation policies

Materials Business (automobile batteries, communications)

Automotive market: In addition to the market's overall growth, a shift to EVs/HVs is accelerating against a background of implementation of environmental regulations.

Smartphone market: Although growth appears to be in a lull, robust growth is generally expected