#### Review of the 2012 3-Year Business Plan

Setting "Become a World Leader in the Non-Ferrous Metals Industry and an Excellent Company of Japan" as our Long-Term Vision, SMM has engaged in growth strategies and is undertaking the reform of its business structure, targeted to be completed by FY2021. In our three core businesses of mineral resources, smelting and refining, and materials, we have separated every large-scale project into the stages of Sowing, Planting, Nurturing, and Harvesting, and have energetically developed these projects. In particular we have pursued strategies aimed at securing interests in metal resources, a goal noted in our Long-Term Vision. However, the results of these actions have revealed remaining issues.

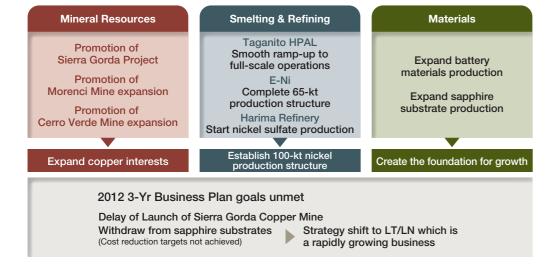
Our mineral resources business successfully launched the expansion projects at the Cerro Verde Copper Mine and the Morenci Copper Mine, while we have extended the life of the Pogo Gold Mine through greenfield exploration and development. However, the Sierra Gorda Copper Mine. in which we have newly taken part in developing, was considerably behind schedule in achieving the full-scale production targeted for the final fiscal year, 2015. At the same time, we reached an agreement on the acquisition of additional interest in the Morenci Copper Mine, and were

able to set a course for the 300-kiloton annual copper production interest structure stated in our Long-Term Vision.

In our smelting and refining business, we launched Taganito, our second HPAL refinery for nickel, and began full-scale operation of a 65-kiloton electrolytic nickel annual production structure. At the same time, we withdrew from the Goro Project due to an inability to establish stable operation, and were forced to reduce production of ferro-nickel due to the embargo of Indonesian ore. At our Harima Refinery, we ended manufacture of prime western grade zinc and have shifted the business to producing nickel sulfate.

In our materials business, we undertook a thorough reform of our mindset to pursue selection and concentration of projects, and have transitioned its core products from semiconductor materials aimed primarily at commodities markets to advanced materials. Although we withdrew from sapphire substrates, we have also moved forward by investing in increasing production in the growing fields of battery materials and crystal materials (lithium tantalate (LT) and lithium niobate (LN) substrates).

#### 2012 3-Yr Business Plan Priorities and Status



## Changes in the Business Environment Surrounding SMM

Looking at the global economy in 2013 and 2014, although the U.S. economy remained strong, Europe experienced deflation, while in China, domestic demand slumped and the conditions of the real estate market deteriorated. Despite this, overall economic growth continued, mostly led by emerging countries. In 2015, the Chinese economy continued to slow down and the economic growth of other emerging countries also slowed down. While in the U.S., the economy continued its recovery trend and, despite uncertainty in the outlook, modest growth is continuing.

At the same time, non-ferrous metal prices have fallen sharply and remain at a low level, however, improvement of supply and demand balance is expected. In addition, the circumstances surrounding mineral resource development and operations are becoming increasingly difficult due to causes including the advancement of resource nationalism. increasing remoteness of mines, declining ore grade, and increasing investment and operations costs.

The electronics parts industry is expected to be livelier in new technological fields such as energy, IoT, autonomous driving technology, and robotics, with the competition expected to continue being on a global-scale. The business environment surrounding our company is increasing in severity, and we must engage more than ever in growth initiatives by making use of our knowledge.

# Slowing growth rate in emerging countries

# Social landscape regarding metal resources

- Metal prices dropping
- Acquisition of resources by China
- Progression of resource nationalism

# Landscape regarding resource development/mining operations

- Operations becoming more difficult due to location (higher, more remote locations)
- Worsening ore grade of operating & new mines



Investment costs increasing; greater initial CAPEX Operating costs increasing

### Fierce global competition continues in the electrical/electronic parts industries

- Smartphones requiring more parts to accommodate more advanced functions and faster communication speeds
- Energy, IoT, and communications infrastructure greatly influencing next-generation tech trends

### **Future Issues**

Worsening conditions for mineral resource development Lengthening development periods, rising development expenses

Worsening return on investment due to low prices End of supercycle due to slowdown in China

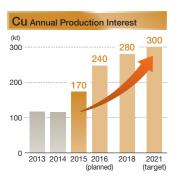
Difficulty of conventional-style growth through entering into mineral resource development projects

Prolongation of high-profitability, large-scale investment projects and HPAL development schedule

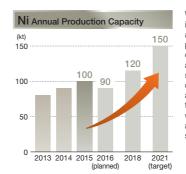
Broadening of business, development of cross-business projects, strategy for growth of materials

Necessity of unearthing new growth projects by making use of our knowledge

# **Targets of and Initiatives toward Our Long-Term Vision**



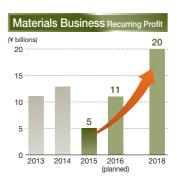
SMM is moving ahead with investments in overseas mine projects. At present, we hold mine interests in countries including the U.S., Chile, Peru, and Australia The Sierra Gorda Copper Mine began commercial production in July 2015, and we acquired an additional interest in the Morenci Copper Mine in



We began production at Taganito in 2013, and have begun a 100-kiloton nickel annual production structure. As we continue working to achieve our aim a 150-kiloton production structure, we are working on new development projects centered around HPAL technology. During the 2015 3-Year Business Plan. we will also begin operation of a commercial plant to recover scandium



SMM owns the Hishikari Mine, the only gold mine in Japan engaged in commercial production today. The development of lower ore hodies is underway with the aim of starting ore shipment in FY2019. At the Pogo Gold Mine in Alaska, we continue exploring surrounding areas to extend the life of the mine. In other regions worldwide, we are conducting activities for the purpose of exploration and interest acquisition.



SMM is reforming both the business structure and mindset concerning its materials business. As a part of the reform, we made the decision to withdraw from the sapphire substrate business. At the same time we made large-scale investments. such as constructing a new plant in the town of Naraha in Futaba County, Fukushima Prefecture, to increase production volume of battery materials, the demand of which is expected to increase for automotive use and crystal materials (LT/LN substrates), which enjoy strong demand as smartphone materials

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