## Mineral Resources, Energy, **Chemical & Electronics Business Unit**

#### **Main Fields**

- Mineral Resources & Energy
- Chemical & Electronics

#### Organization

- Planning & Coordination Dept., Mineral Resources, Energy, Chemical & Electronics Business Unit
- Project Management Dept. for Mining & E&P
- Mineral Resources Division No. 1
- Mineral Resources Division No. 2
- Energy Division
- Basic Chemicals & Electronics Division
- Life Science Division



"What We Aim to Be"

In the mineral resources and energy field, we aim to build a high-quality portfolio that is effectively diversified against risk, while in the chemical and electronics field our goal is to develop high-value-added businesses.

#### Masahiro Fujita

#### Mineral resources and energy

- · Equity interests in high-quality mines and oil and gas projects
- · Track record of participating in operation and business management of mines and experience and expertise accumulated as a result
- Stable relationships with customers and business partners with global operations

#### Chemical and electronics

- Expertise and global customer base developed through many years of trading • Electronics Manufacturing Services (EMS), which call for advanced production
- technology as well as quality control and supply chain management

#### Mineral resources and energy

- · Bringing forward completion and profit realization of projects that are in ramping up
- Strengthening of competitiveness through ongoing cost reduction in existing businesses

#### Chemical and electronics

- Rapid realization of profitability in new businesses in petrochemicals, crop
- protection products, and pharmaceuticals fields
- Participation in global fields for niche, high-value-added chemicals

- · Increase in the demand for mineral resources and energy over medium-to-long term as economic growth continues
- Based on replacement of existing assets, careful consideration of acquisition of equity interests in highly cost-competitive projects that are in production

#### **Chemical and electronics**

- · Acquisition of new businesses in step with population increases and economic development of emerging countries, mainly in Asia and South America
- Expansion and increasing sophistication of EMS value chains related to energy saving and resource saving

- Slumping demand and low resource prices stemming from slowdown of economic growth in China and emerging countries
- Competition to increase production among resource majors and continuation of oversupply
- Country risk associated with changes in legal systems of countries in which projects are located

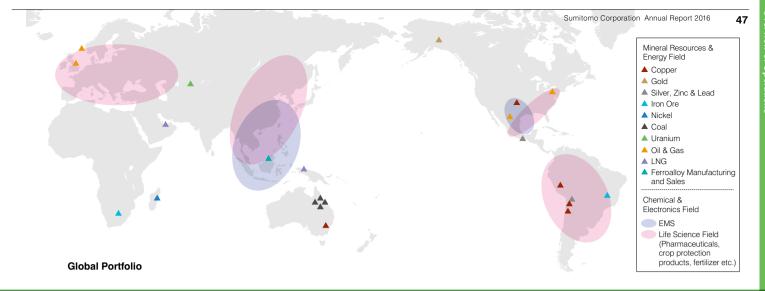
#### Chemical and electronics

- · Slowdown of economic growth and currency depreciation among emerging countries
- Market downturns due to weather and other external factors
- Loss of advantages due to technological innovation, industry reorganization, or new entry of other companies

Performance Highlights (Billions of yen)	FY2014	FY2015	FY2016 Forecast
Gross profit	86.9	80.3	67.0
Operating profit (loss)	(170.3)	5.1	-
Share of profit of investments accounted for using the equity method	(53.8)	(155.4)	_
Profit (loss) for the year (attributable to owners of the parent)	(191.0)	(151.6)	(23.0)
Basic profit (loss)	(42.0)	(145.2)	-
Total assets	1,682.7	1,434.4	_

#### Fiscal 2015 Results

In fiscal 2015, loss for the year improved ¥39.4 billion year on year, to ¥151.6 billion. As a result of revising medium-to-long-term forecasts for resource prices and business plans, impairment losses of ¥156.8 billion arose, which included losses arising from the Ambatovy nickel project in Madagascar and iron ore businesses in South Africa and Brazil. Excluding the effect of impairment losses, the results of businesses in the mineral resources and energy field were lackluster due to a further fall in market prices. In the chemical and electronics field, however, businesses performed solidly overall.



Growth Strategies for Becoming What We Aim to Be

#### **Earnings Pillars**

- Mineral resources and energy
   Increase value by strengthening cost competitiveness of existing projects that are in production
- Chemical and electronics
   Expand earnings bases of businesses related to crop protection products
   Bolster foundations of Electronics Manufacturing
   Services (EMS) businesses for automobiles

#### **Future Pillars**

- Mineral resources and energy
   Bring forward completion and profit realization of projects that are in ramping up stages
   Advance trading centered on natural gas and LNG in the United States
- Chemical and electronics
   Maximize synergy benefits with phenol manufacturing businesses
   Enter the automotive parts business field
   Strengthen capabilities and services further in the pharmaceuticals field, including cosmetic ingredients

#### Fiscal 2015 Overview

In the mineral resources and energy field, we concentrated efforts on bringing forward the start-up of projects that are in ramping up stages. For example, Ambatovy nickel project in Madagascar has achieved financial completion under project financing. Also, we prepared policies for the management of our upstream resources portfolio and established a dedicated organization with a view to strengthening market analysis capabilities and technology evaluation capabilities.

As for the chemical and electronics field, we took steps to expand businesses and strengthen earnings bases, including the establishment of a multifaceted crop-production support business in Brazil and deciding to begin an EMS business in Cambodia, where the growth of manufacturing industries is promising.

#### **BBBO2017 Growth Strategies**

In the mineral resources and energy field, we will continue to make efforts to bring forward the completion and profit realization of projects that are in the ramping up stages. Also, based on the replacement of existing assets, we will carefully consider the acquisition of high-quality, cost-competitive assets. Regarding the chemical and electronics field, we aim to enhance profitability by establishing high-value-added, differentiated businesses and trading. With this in mind, we will anticipate needs in highly changeable industries, expand our business field into manufacturing, and realize synergies with the other business fields to heighten our capabilities even further.

#### **Initiatives Aimed at Addressing Social Issues**

# The San Cristobal Mining Operation in Bolivia: Contributing to the Sustainable Development of Local Communities and Responding to the Rising Demand for Non-ferrous Metals

New mine development is necessary in order to respond to the expected medium-to-long-term growth in demand for non-ferrous metals, and contributing to the sustainable development of local communities is indispensable for the smooth development and operation of new mines. The San Cristobal mine in Bolivia, operated by the Sumitomo Corporation Group, contributes to the local economy through direct and indirect employment. Furthermore, the mine supports the sustainable development of local communities by establishing industrial and daily life infrastructure and developing human resources through technical training.



Providing instruction on vaccination of valuable livestock such as llamas

#### Mineral Resources, Energy, Chemical & Electronics Business Unit

## **Summary of Main Fields**

## **Mineral Resources** and Energy Field

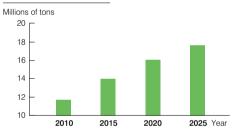


An offshore oil production platform in the British North Sea

#### Opportunities and Risks —

Over the medium-to-long term, demand for mineral resources and energy, which are used in a wide range of industries, is expected to rise as an increase in population continues to drive economic growth. Currently, however, demand remains soft and prices continue to fall due to decelerating growth among emerging countries. In these conditions, mineral resources companies continue to increase production with a view to decreasing the unit cost of products, which consequently ends in continued oversupply. Other potential threats include country risks associated with changes in the legal systems of countries in which projects are located.

#### Zinc Demand Volume



#### **Growth Strategies**

We will take advantage of the experience and expertise we have acquired through operations and participation in business management to enhance the quality of our portfolio. We intend to keep focusing efforts on bringing forward the profit realization of such projects as the nickel project in Madagascar and bringing forward the completion and profit realization of projects that are in the ramping up stages, such as the copper and molybdenum mine in Chile. In conjunction with these efforts, we will continue reducing costs in existing businesses to improve earning power. Based on the replacement of existing assets and careful consideration of timing, we will continue to make efforts to make new investments with a view to acquiring truly high-quality projects.

As the economies of emerging countries develop. demand for zinc continues to increase due to the growth in demand for galvanized automotive steel sheets and steel sheets for railway and power infrastructure. The Sumitomo Corporation Group operates the San Cristobal mine, zinc production of which ranks 6th in the world, and we will contribute to the stable supply of zinc by further increasing the mine's operational efficiency and competitiveness

## **Project Overview**

## Ferroalloy Manufacturing and Sales Business That Enables an Optimal Value Chain Linking Supply and Demand Regions

A raw material added to enhance steel's strength and wear resistance, manganese is essential in the manufacturing of high-grade automotive steel sheets. Demand for high-grade steel sheets and manganese alloys is likely to rise as emerging economies develop. With this in mind, the Sumitomo Corporation Group is advancing a manganese alloy manufacturing and sales business in Malaysia in partnership with Assmang Ltd., of South Africa, and China Steel Corporation, of Taiwan. Assmang has a wealth of manganese resources and wants to step up overseas expansion, while China Steel needs a stable supply of manganese alloys. Based on relationships of trust fostered through many years of trading with both companies, Sumitomo Corporation has developed this project, which is contributing to the expansion of their businesses and the growth of the Sumitomo Corporation Group, which coordinates the overall business.





A manganese alloy manufacturing plant in Malaysia

#### Value-Creating Business Model

## Our capital

- Global business foundations and particular expertise in new plant construction locations · Expertise in manganese industry developed through long engagement in trading manganese ore / alloys
- · Project management and coordination capabilities

## South Africa, Assmang

- Abundant, quality manganese resources
- Track record of operating own plant in safety and ferroalloy manufacturing expertise

#### Taiwan, China Steel

- · Stable procurement of manganese alloys
- Exploitation of expertise as manufacturer to provide advice on ferroalloy manufacturing operations

## Value to us

- Deepening of relationships with both companies and synergies with existing trading
- Increase in presence in value chain

# **Our function**

#### · Support for overseas business expansion of Assmang

- Support for China Steel in securing raw material suppliers
- Strengthen value chain by utilizing of our sales capabilities for manganese ore / alloys







Stable manufacturing of high-grade steel expansion

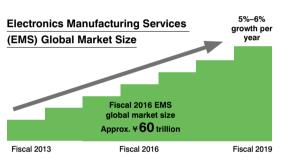
rview of Operations



A Sumitomo Corporation Group Electronics Manufacturing Services (EMS) plant in Thailand

### **Opportunities and Risks**

Given the likelihood of greater demand for food as populations rise and economies develop in emerging countries, demand is expected to increase for crop protection products and fertilizers as they are essential for enhancing the quality and yield of agricultural products. Further, we view the need for responses to the raw material procurement risk accompanying the steady decline in Japan's petrochemical production as a business opportunity. On the other hand, crop protection products businesses need to address risks that include market downturns due to external factors, such as currency depreciation in emerging countries or weather.



#### **Growth Strategies**

We will exploit the expertise and customer bases that we have acquired to develop high-value-added trading, maximize synergy benefits in phenol manufacturing businesses in China, and strengthen value chains for EMS businesses, which aim to expand in the vehicle installation field. Also, plans call for expanding our earnings base by extending our global sales network for crop protection products and bolstering existing businesses in such fields as fertilizers, pharmaceuticals, and cosmetic ingredients.

The global market for EMS continues to grow at a high rate of 5% to 6% annually, reflecting the increasing incorporation of electronics in automobiles and the spread of smartphones in emerging countries. In fiscal 2016, this market is likely to account for revenues of approximately ¥60 trillion.

Manufacturers of equipment installed in automobiles are stepping up outsourcing of manufacturing to providers of EMS. The Sumitomo Corporation Group will accurately identify such opportunities to expand FMS businesses.

## **Project Overview**

## Animal Health Business: Addressing to Growing Demand for Meat and Food Safety

In accordance with the growth of the global population and living standards in emerging countries in Asia and other regions, demand for animal protein (meat) and food safety is rising. Further, in China, the world's largest livestock (LS) market, a new law more strictly controlling residual drugs in meat products has been enforced, and much safer livestock vaccines are required in the market.

The Sumitomo Corporation Group entered into the animal medicine business in China by acquiring 25% of the stock of Shandong Sinder Technology Co., Ltd., which has particularly been focusing on animal vaccines. We are confident of being in a leading position in the animal health field due to our long business experience. Therefore, the partnership with Shandong Sinder Technology will enable us to lead Japanese animal health companies into overseas markets and contribute more to food safety and its stable supply. Our goal is to expand the animal health business globally and to achieve around ¥100 billion sales in the future.



Shandong Sinder Technology Co., Ltd., and one of its production lines

#### Value-Creating Business Model

