

# FY2016 Progress of Business Strategy

May 18, 2017

# SUMITOMO METAL MINING CO., LTD.

Yoshiaki Nakazato President and Representative Director

SUMITOMO METAL MINING CO., LTD.

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# I. Overview of FY 2016 Business Performance and Current Management Topics



Overview of FY 2016 Business Performance and Current Management Topics



Progress of Management Strategies and Individual Measures



FY 2016 Business Results and FY 2017 Business Results Outlook



Priority Measures in FY 2017



**Supplementary Materials** 

# 1) Overview of FY 2016 Business Performance

(JPY 100M)

		2016(A)	2015(B)	Difference (A) – (B)	2017 Forecast(C)	$\begin{array}{c} \text{Difference} \\ \text{(C)} - \text{(A)} \end{array}$	15 3-Yr 2018 Estimate
Net Sales		7,861	8,554	-693	8,550	689	10,600
Operating Income		764	597	167	750	-14	1,400
Recurring Profit		-16	-128	112	900	916	1,700
Equit	ty Method profit	-860	-732	-128	100	960	270
<u>t</u>	Mineral Resources	-536	-443	-93	490	1,026	660
	Smelting & Refining	333	253	80	260	-73	800
	Materials	121	60	61	120	-1	200
	Others	-1	-8	7	-10	-9	-20
	Diff. Adjustment	67	10	57	40	-27	60
	ome (Profit attributable to owners of parent)	-185	-3	-182	630	815	1,200
Copper (\$/t)		5,154	5,215	-61	5,800	646	6,000
Nickel (\$/lb)		4.56	4.71	-0.15	4.75	0.19	7.00
Gold (\$/Toz)		1,258	1,150	108	1,200	-58	1,150
Exchange (¥/\$)		108.40	120.15	-11.75	110.00	1.60	120.00

# **<u>1. The retreat of globalism and the march of populism</u>**

1) US

Protectionism under President Trump's "America First"

2) UK

Prime Minister May; move toward exit from the EU common market

3) EU

French legislative election, German Federal Diet election; possibility of populist parties emerging

4) Philippines

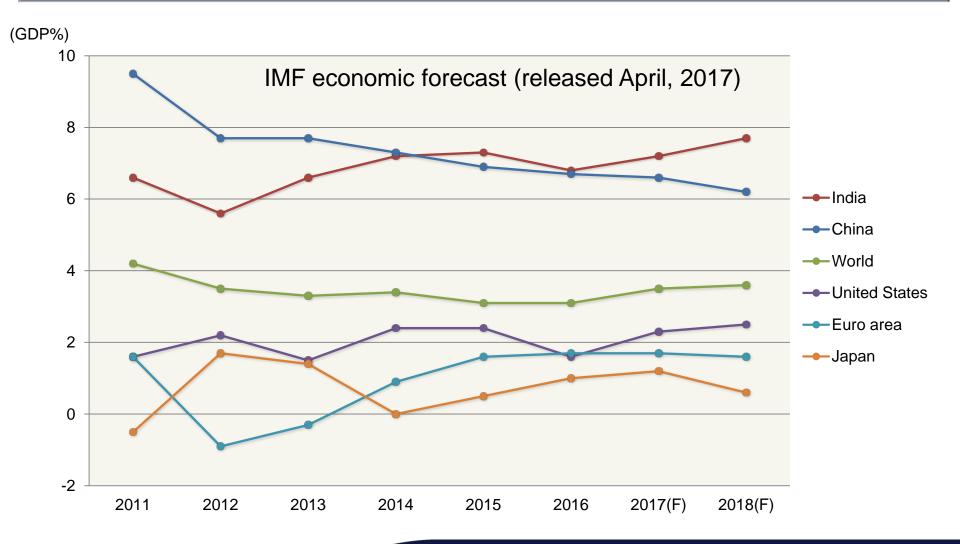
President Duterte; review of relationships with US and China

## 2. Heightened geopolitical risk

Destabilizing movements taking place in the Korean Peninsula and in Middle Eastern affairs

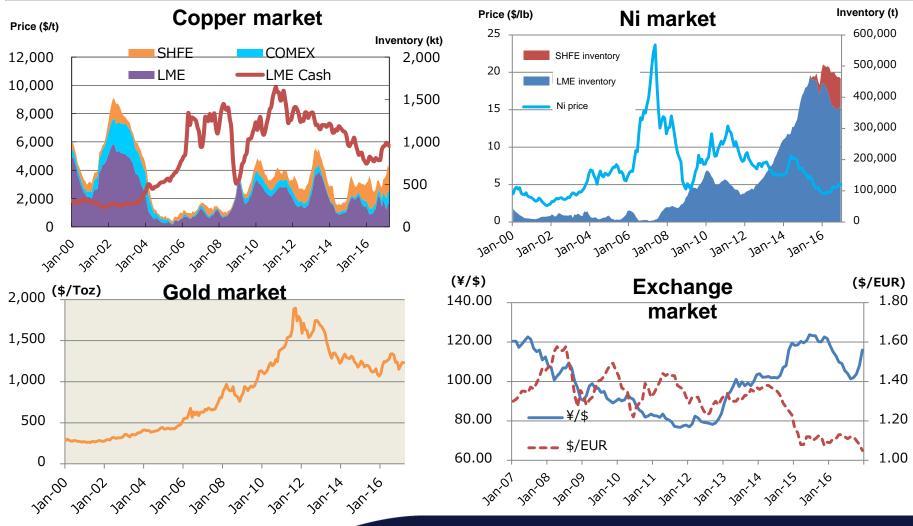
# 2) Management Environment (2) Global Economic Outlook

Overall, the outlook is for continued gradual growth, but uncertainty is increasing over geopolitical risk and overemphasis on protectionism



# 2) Management Environment (3) Nonferrous Metal Market

In the medium to long term, recovery to appropriate levels accompanying improvement in demand/supply balance is forecast, but a significant rise in the market cannot be expected.



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## 3) Changes in the Business Environment (1) Mineral Resources / Smelting & Refining Business

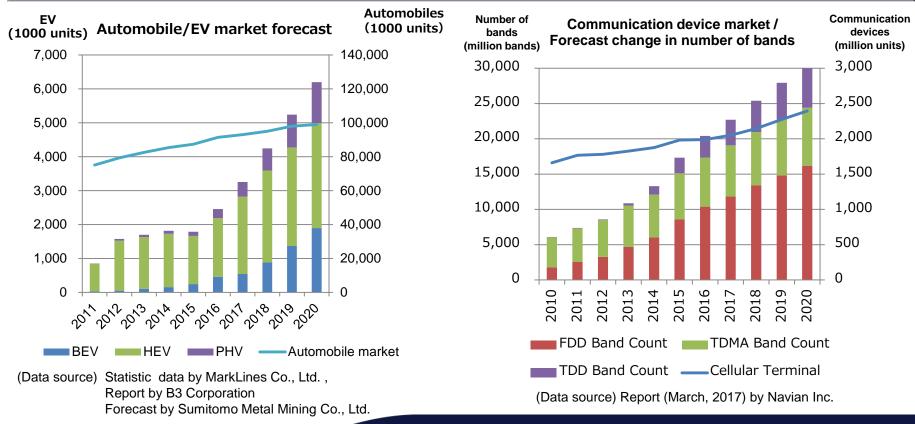
# 1. Increase in mine development costs

- 1) Higher, deeper, and more remote locations of mines
- 2) Handling declining ore grade and difficult-to-process ores (impurities)
- 3) Strengthening of environmental regulations
- 4) Higher hurdles to acquisition of social permission to operate
- 5) Human resource shortages in mineral resource-producing countries due to increase in development projects
- 6) Moves to negotiate labor conditions
- 2. Growth of mineral resource nationalism

  Export restrictions on unprocessed ores, etc.
  Moves to introduce various royalties
  Moves to strengthen taxation

## 3) Changes in the Business Environment (2) Materials Business (automobile batteries, communications)

- Automotive market: In addition to overall growth, shift to EVs/HVs accelerating against background of countries' environmental regulations
- Smartphone market: Although growth appears to be in a lull, robust growth is generally expected





Overview of FY 2016 Business Performance and Current Management Topics



Progress of Management Strategies and Individual Measures



FY 2016 Business Results and FY 2017 Business Results Outlook

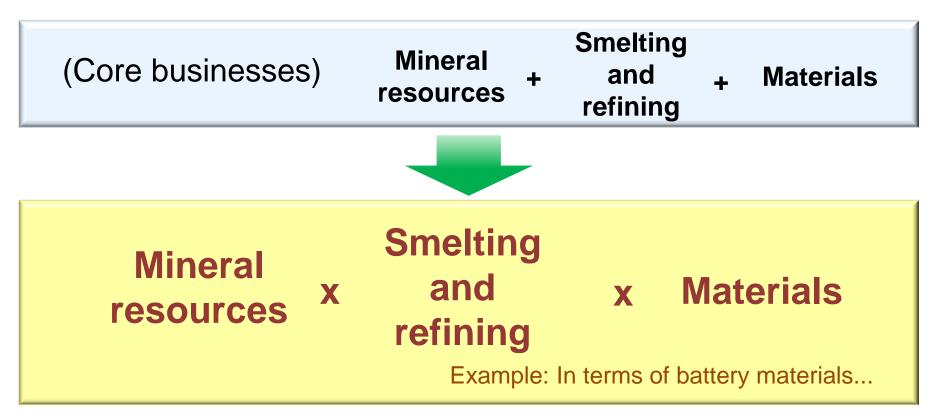


Priority Measures in FY 2017



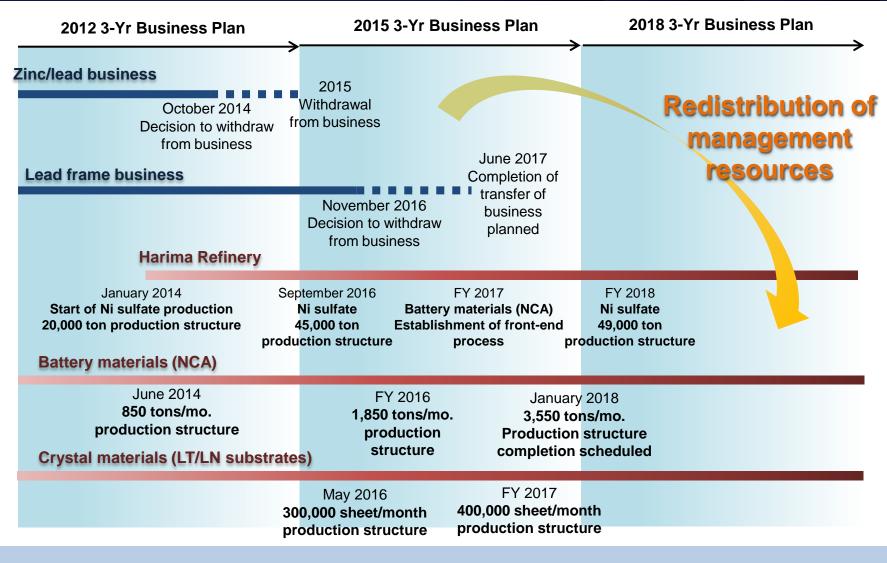
**Supplementary Materials** 

### 1) Management Strategy (1) Business structure that promotes growth strategies





## 1) Management Strategy (2) Progress of Business Restructuring

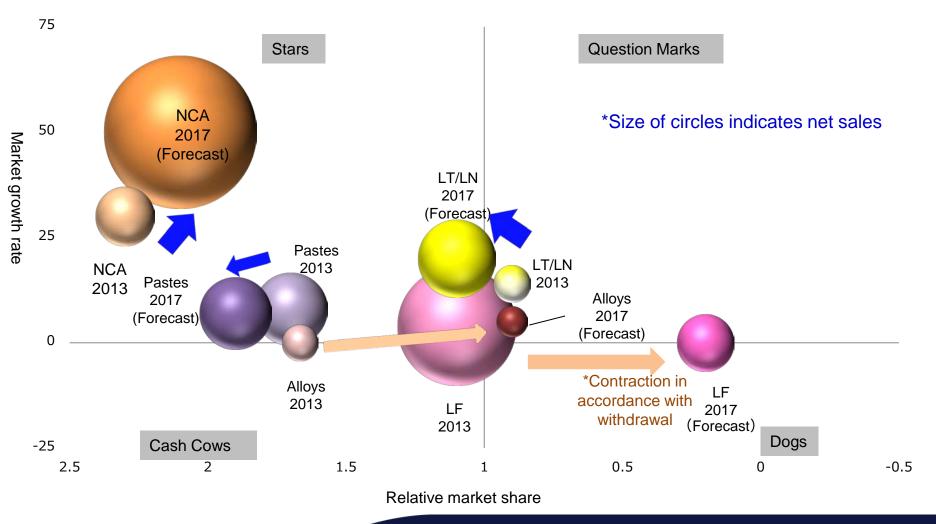


Steadily execute concentration and selection, and focus management resources on growth areas

# 1) Management Strategy (3) Reconstruction of the Materials Business (1)

## **Goal of Materials Business reconstruction**

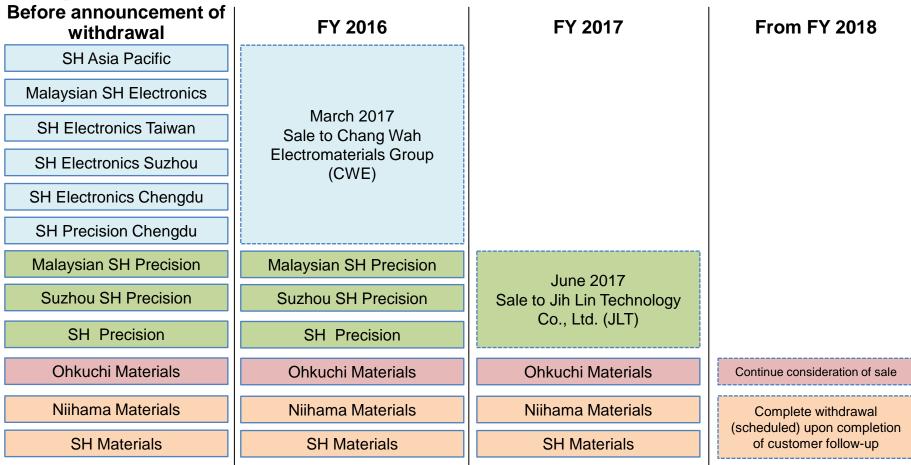
Re-concentration of resources (money, people)



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### 1) Management Strategy (3) Reconstruction of the Materials Business (2)

# **Progress of withdrawal from lead frame business**



Proceed with withdrawal according to plan, and re-distribute management resources into growth areas

### Corporate governance structure

Multiple outside directors and increased ratio of outside directors

Independent outside directors among all 8 directors: 2015: 2-person structure  $\rightarrow$  2016: Toward 3-person structure

#### From 2015

The Governance Committee regarding nominating and compensation of executive was established and started operation

#### 2016

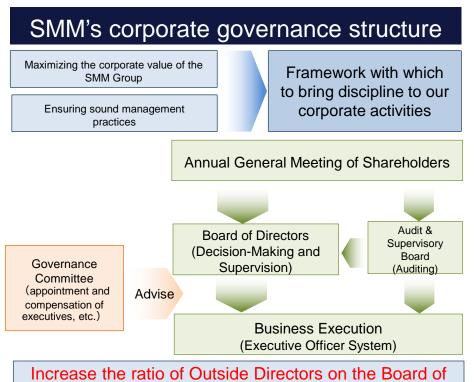
Discussion of "ideal" for Board of Directors (Decision-making model suited to SMM; scale and composition of Board of Directors; etc.)

The Board of Directors puts a high value on decision making function, and set its goal to strengthen supervisory the execution of business through its decision-making.

### Engagement

Strengthening of engagement with shareholders, etc. by company management

Continue direct dialogue by top management and explanation of business strategy to investors, etc. by persons responsible for businesses

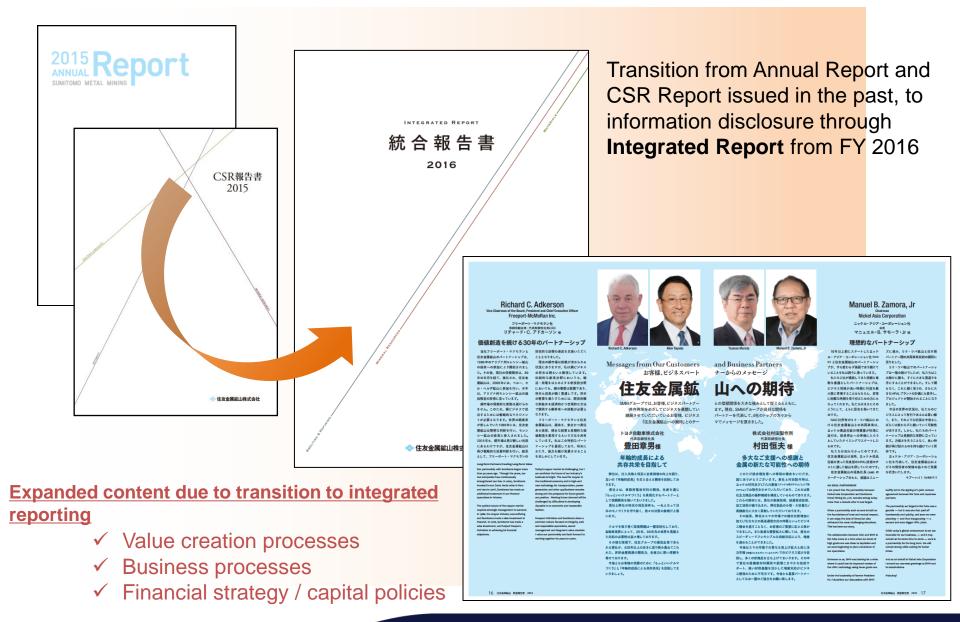


Directors to 1/3 Strengthen corporate governance



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## 1) Management Strategy (4) Response to Globalization (2) Transition to integrated reporting



1) Management Strategy (4) Response to Globalization (3) Preparation for application of international accounting standards

# Consideration of introduction of international accounting standards (IFRS)

**FY 2017: Start of preparations for introduction** 

Financial information disclosure under Japanese standards + preparation for financial statement creation based on IFRS

### ✓ From FY 2018: Start of application of IFRS scheduled

Scheduled financial information disclosure under IFRS

Strengthening of ability to communicate and explain information to stakeholders

Anton Balazh@stock.foto

# Sierra Gorda Copper Mine (Chile)

Equity	KGHM	55%
interest	SMM	31.5%
ratio	Sumitomo Corp.	13.5%

### **Progress in FY 2016**

### **Copper production output**

FY2015 86 kt  $\rightarrow$  FY2016 94 kt

FY2017 100 kt (forecast)

### **Operations**

• Ore processing and copper recovery: Achieving full operation level

### Initiatives for FY 2017

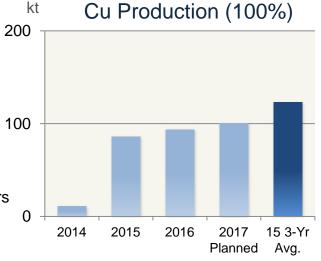
### <u>Issues</u>

- Improvement of recovery of byproduct Mo
- Optimization of flotation process, with 2017 as goal
- Support through processing and maintenance technology with shareholders

#### **Consideration of expansion**

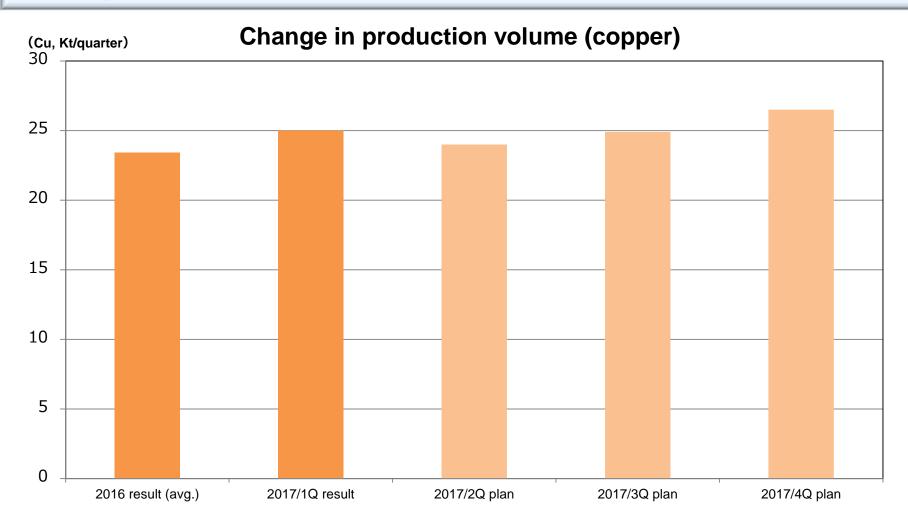
- Phase 2 expansion plan  $\rightarrow$  Change to plan that aims for a certain increased production



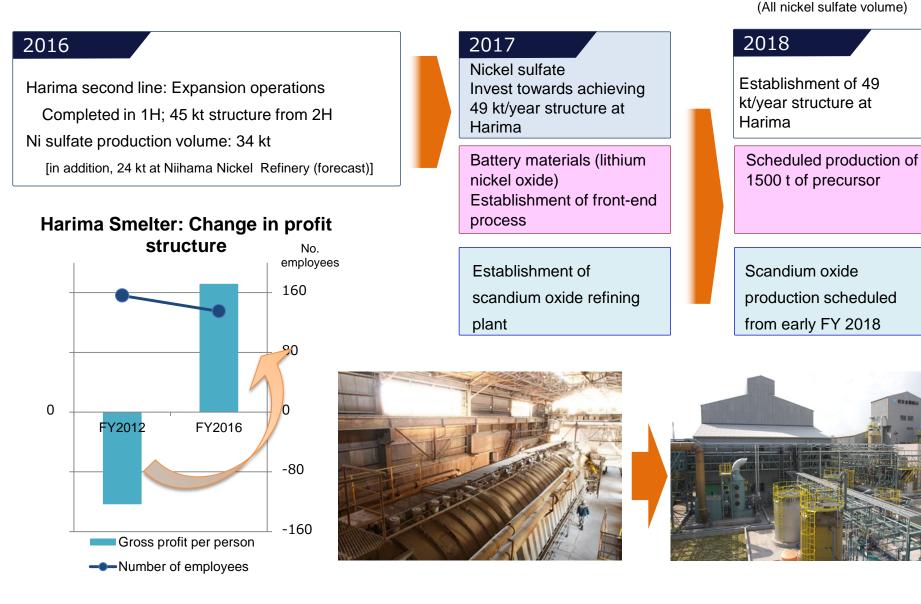


# 2) Individual Measures (1) Mineral Resources: Sierra Gorda (2)

Copper production output: Achieving full operation level, shift to continuous stable operation



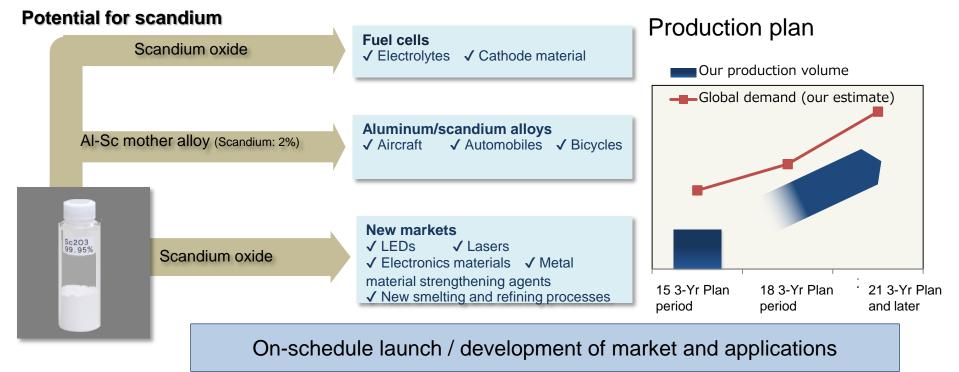
# 2) Individual Measures (2) Smelting and Refining: Business Transformation at Harima Smelter (1)



2) Individual Measures (2) Smelting and Refining: Business Transformation at Harima Smelter (2) Strengthening of HPAL competitiveness

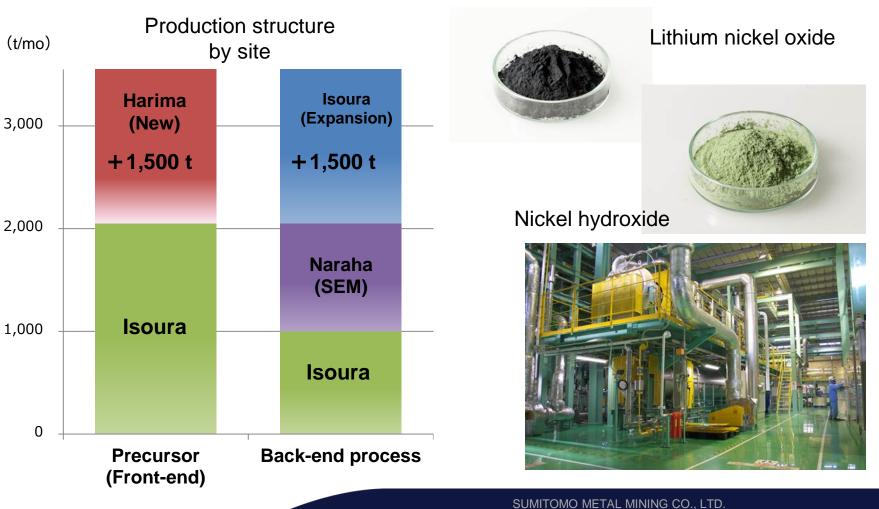
# **Scandium**

Investment	Production of semi-finished products from HPAL process at Taganito	
	amount ¥4.0 billion	Production of finished product (scandium oxide) at Harima Smelter
		Completion of investment scheduled within FY 2017; commercial production (scheduled) from FY 2018
_	Production 7.5 t	Current scale of global demand is 10-15 t/year (scandium oxide equivalent)



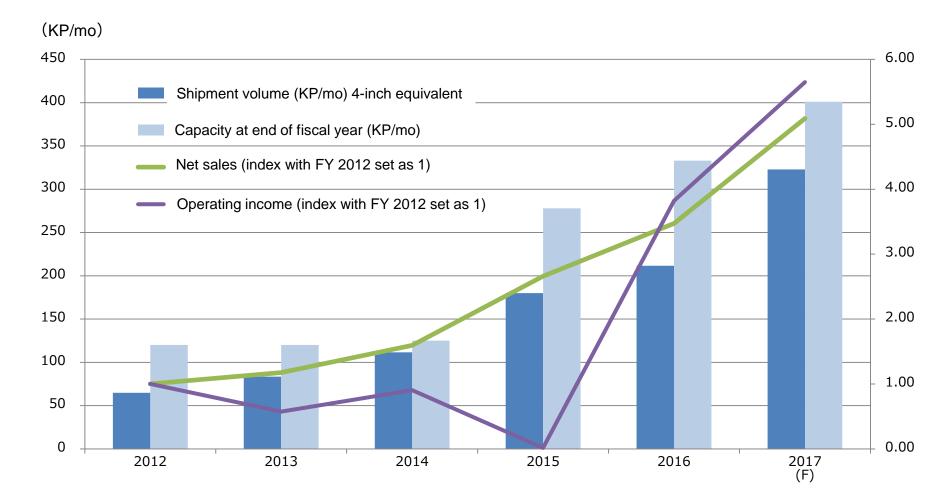
### 2) Individual Measures (3) Materials: Construction of Expansion Structure for Battery Materials Business

**NCA** Vertical launch of 3,550 t/month production structure and maintenance of stable supply structure for nickel hydroxide



## 2) Individual Measures (4) Materials: Crystal Materials Business

# **LT/LN** Aiming for investment matched to market growth and expansion of profit



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Overview of FY 2016 Business Performance and Current Management Topics



Progress of Management Strategies and Individual Measures



FY 2016 Business Results and FY 2017 Business Results Outlook

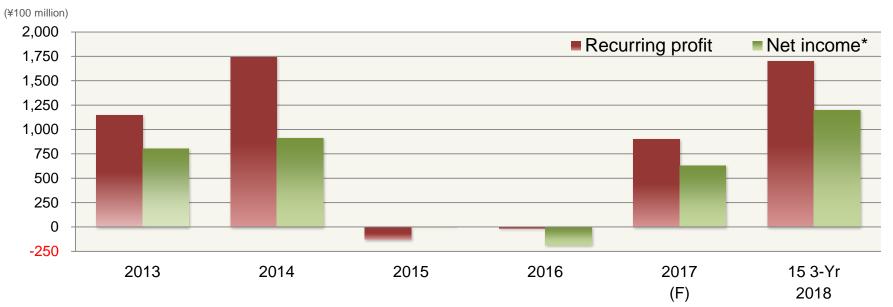


Priority Measures in FY 2017



**Supplementary Materials** 

# 1) Recurring Profit

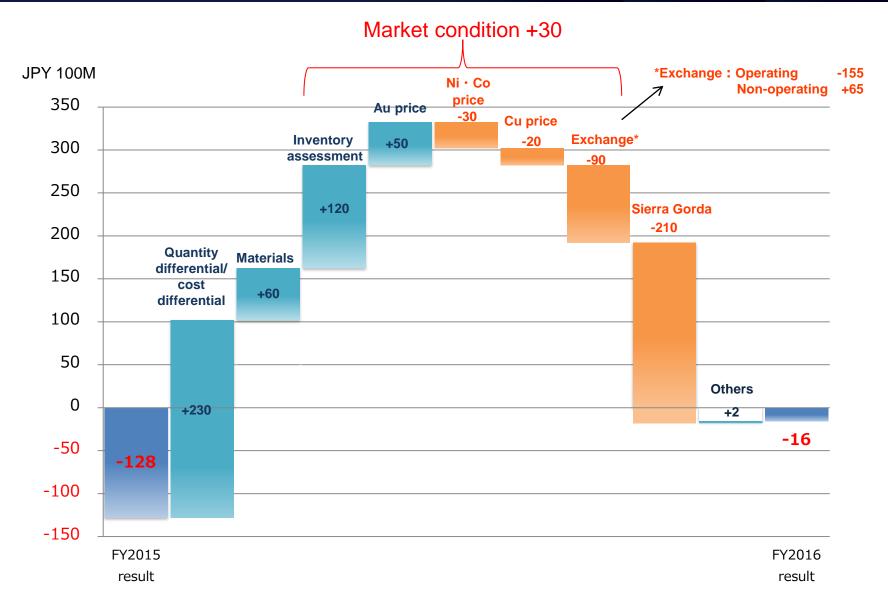


(¥100 million)

	2013	2014	2015	2016	2017 (F)	15 3-Yr 2018
Recurring profit (¥100 million)	1,144	1,742	-128	-16	900	1,700
Net income* (¥100 million) *Profit attributable to owners of parent	803	911	-3	-185	630	1,200
Cu price (\$/T)	7,104	6,554	5,215	5,154	5,800	6,000
Ni price (\$/lb)	6.51	7.62	4.71	4.56	4.75	7.00
Au price (\$/toz)	1,327	1,248	1,150	1,258	1,200	1,150
Forex (¥/\$)	100.2	109.9	120.2	108.4	110.0	120.0

# 2) Recurring Profit Analysis (1)

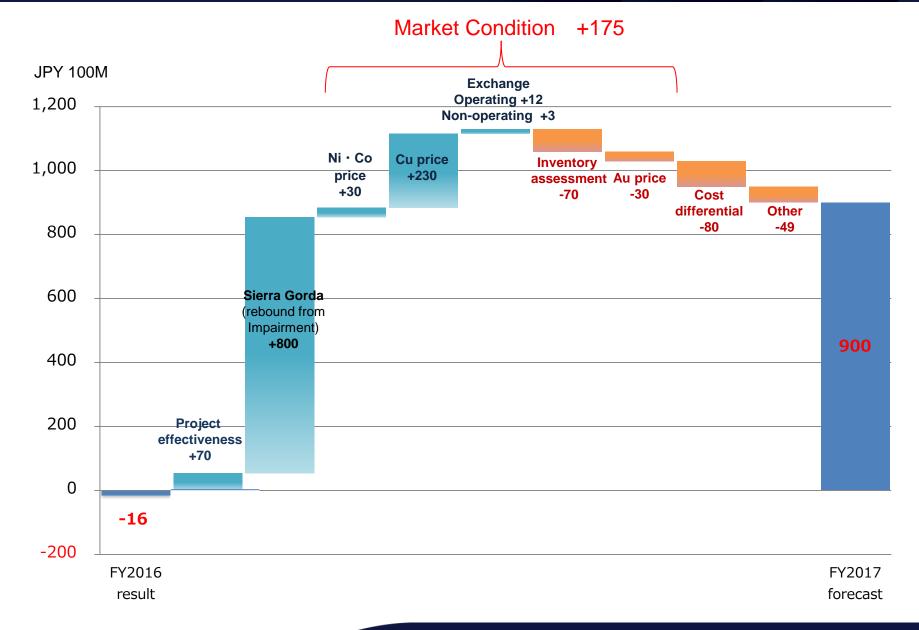
FY 2015 business performance vs FY 2016 business performance



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# 2) Recurring Profit Analysis (2)

### FY 2016 Business Performance vs FY 2017 Forecast



# Cost-Cutting Measures in 15 3-Yr Business Plan

### Cost cutting: Achievement of ¥10 billion/year

Aim for further ¥10 billion/year in cuts, based on FY 2015

- Improvement of productivity
- ✓ Switch to low-priced materials
- Careful selection of fixed costs

### FY 2016 Business Performance

Achievement of close to 1.5 times of the target in FY 2016 due to

improvement in materials prices and transport prices

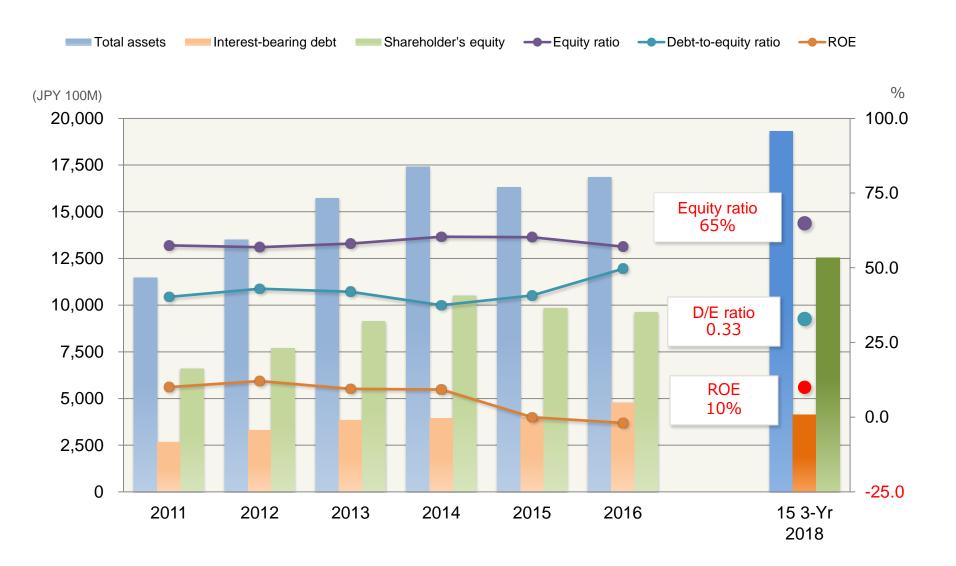
# 4) Capital Expenditure

15 3-Yr Plan FY 2016 Result FY 2017 Plan (Total of 3 Years) R&D, R&D, R&D, Other Mineral Mineral Other Other Mineral Resources Resources Resources 170 36 42 128 44 360 1,800 383 736 109 JPY JPY JPY 298 610 100M 100M 100M 274 660 188 Smelting Materials & Materials Smelting Smelting Refining Materials & & Refining Refining Acquisition of overseas interest Acquisition of overseas interest (Morenci, ¥1,120 (JPY100M)) (Morenci, ¥1,200 (JPY100M))

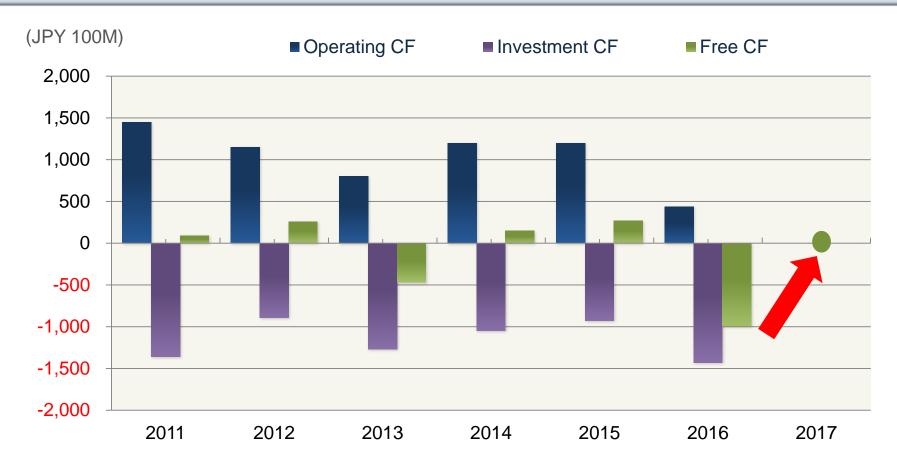
(¥100 million)

# 5) Financial Strategies

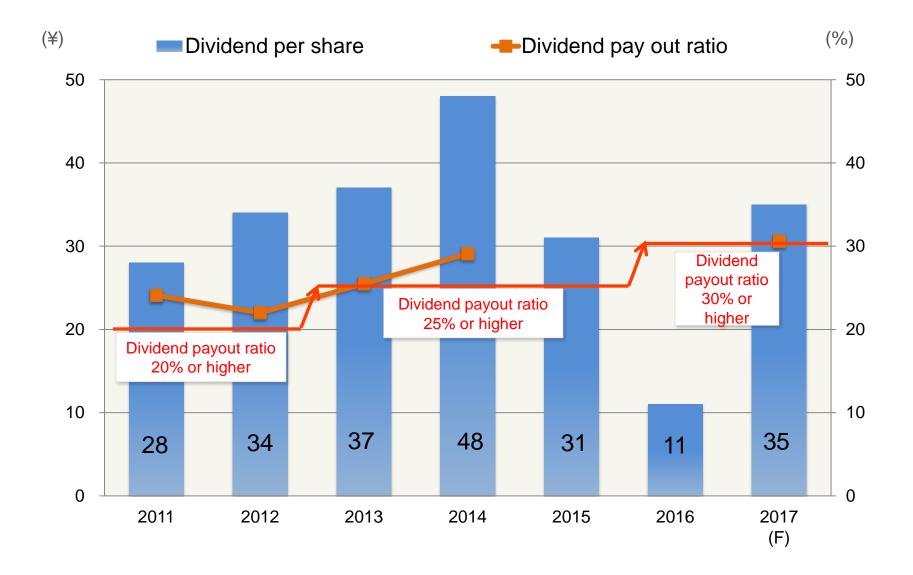
### Maintenance of a Sound Financial Structure



Although fiscal 2016 FCF will be significantly negative due to acquisition of additional interest in the Morenci Copper Mine, significant improvement is forecast for FY 2017



# 7) Trend of Dividend



# IV. Priority Measures in FY 2017



Overview of FY 2016 Business Performance and Current Management Topics



Progress of Management Strategies and Individual Measures



FY 2016 Business Results and FY 2017 Business Results Outlook



# Priority Measures in FY 2017



**Supplementary Materials** 

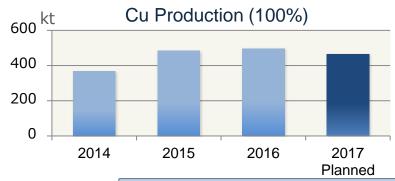
# Mineral Resources Copper: Stable Operation of Existing Mine (Morenci, Cerro Verde)

Morenci	Copper	Mine	(Arizona, US)

Equity	FCX	72%
interest	SMM	25%
ratio	Sumitomo Corp.	3%
iulio		



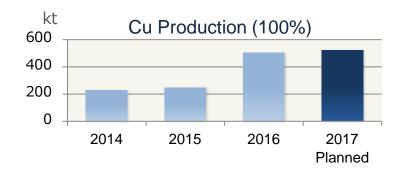
- Effect of acquisition of additional interests -> 12 months (FY 2016: 7 months)
- Production amount: FY 2017 464 kt (planned)



# Cerro Verde Copper Mine (Peru)



Production amount: FY 2017 522 kt (planned)



Concentration on stable production and cost reduction Toward a structure able to fully benefit from expansion effects

# Mineral Resources Gold: Stable Operation of Existing Mine (Hishikari, Pogo)

#### Pogo Gold Mine (Alaska, US) Hishikari Mine (Kagoshima, Japan) SMM Equity Equity 85% SMM 100% interest ratio interest ratio Sumitomo Corp. 15% Promotion of cost reduction measures and continuation of Lower ore deposit development active exploration of peripheral areas Continuing with priority on safety 2016 year-end reserves Reserve 39 t Resource 98 t · 2016 year-end reserves: 169 t (JIS standard) (Canadian standards) Au Production Au Production (100%) 10.0 12.5 7.5 10.0 7.5 5.0 5.0 2.5 2.5 0.0 0.0 2014 2015 2016 2017 2016 2017 2014 2015 Planned Planned

Initiatives aimed at extension of mine life and continuation of stable production

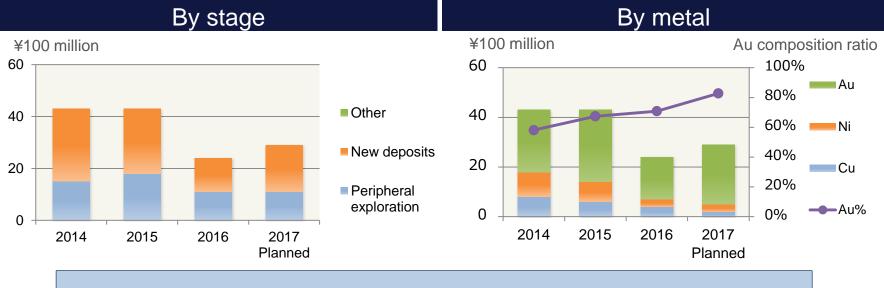
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Exploration activities Currently expanding activities with focus on Canada, Australia, and South America

### **Establishment of new Business Development Team**

Establishment of dedicated team for uncovering and evaluating gold development projects Expansion of information-gathering antenna and greater speed of gold development project evaluation Expansion of gold production interest volume through collaboration with the world's medium producers Efforts to uncover gold development projects that leverage SMM's technological capabilities and that will truly contribute to strengthening our management foundations

### Exploration costs



Engage in exploration and acquisition of interests, with gold as the main target

# 2) Smelting & Refining (1) Copper smelting and refining: Maximization of competitiveness

# **Toyo Smelter & Refinery**

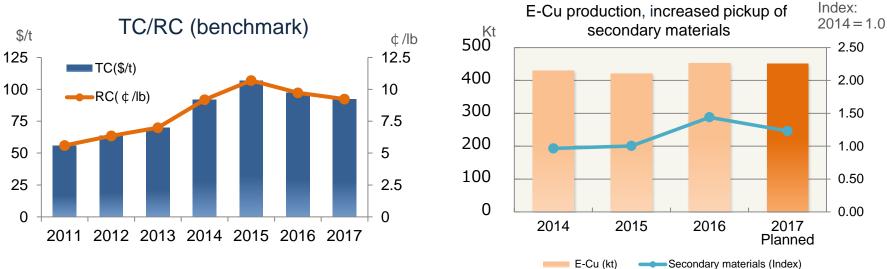
### **Production volume**

FY 2016: Achieved record-high 451 kt

FY 2017: 450 kt (planned)

Further improve profitability as world-leading copper smelter through processing expansion of profitable raw materials and cost reductions





Benefit from high-level TC/RC through full production under 450 kt production structure under stable operation

# 2) Smelting & Refining (2) Nickel smelting and refining: Stable operation of HPAL and Niihama Nickel Refinery

## **CBNC/THPAL / Niihama Nickel Refinery**

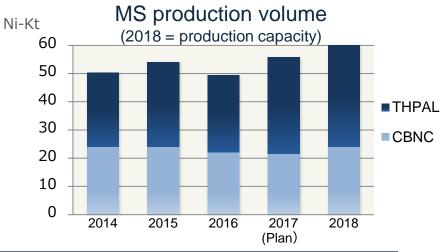


Production volume

FY 2017 plan

Electrolytic nickel 63 kt

- MS expansion at THPAL planned for FY 2017
- Due to expansion of nickel sulfate and decreased production of MS caused by decline in ore grade at CBNC, electrolytic nickel production is scheduled to decrease from previous year

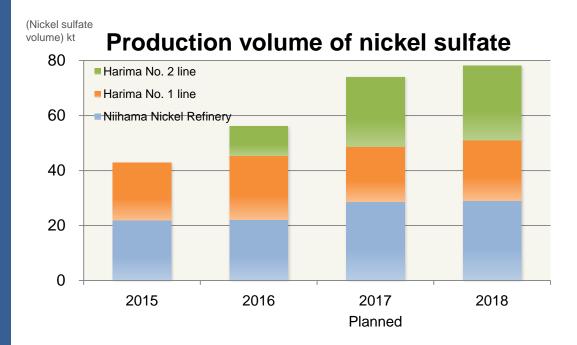


Stable operation at HPAL 2 sites; 20% expansion at Taganito

# 2) Smelting & Refining (3) Expansion of nickel sulfate business and strengthening of supply capabilities for battery materials

# **Harima Refinery**

- Expansion operations completed in FY 2016 1H; launch of full operation in 2H
- Nickel sulfate production: Complete transition to 45 kt production structure





## Promotion of expansion investment aimed at Harima 49 kt production structure

# 2) Smelting & Refining(4) Ferro-nickel Optimal Production Structure

### Hyuga Smelting Co., Ltd. Ferro-nickel production plan

Considerable increase in ore prices due to enforcement of Indonesian new Mining Law Increase of ore processing volume due to declining in ore grade

From FY2015 4Q: Transition to 2-kiln, 1-electric furnace operation

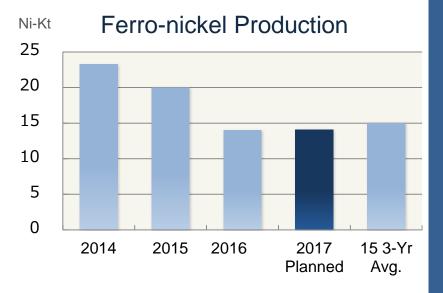
Production volume

FY2016: 14 kt

FY2017: 14 kt (planned)

Change production volume to cost-minimum level Secure profits through stable operations technology





### 3) Materials (1) Battery Materials

#### FY 2015 3-Yr Business Plan: Expansion of production structure looking ahead toward FY 2018 3-Yr Business Plan

# Change in environment surrounding battery materials

#### Restructuring of automobile battery manufacturers

Changes in automobile/battery manufacturer supply chains

#### Access to giant market

Supply chain management accompanying rapid growth of market

Securing of raw materials (nickel, cobalt, lithium)

#### **Our strengths**

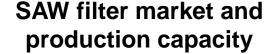
- Product development with partner customers, from the development stage
- · Production of nickel and cobalt from own raw materials
- Can offer varied product forms, from state close to raw material to high value-added products

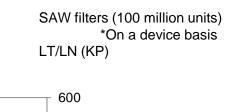
# Record of adoption of our battery materials (positive electrode material) and 2015 3-Yr Business Plan (–2018) initiatives

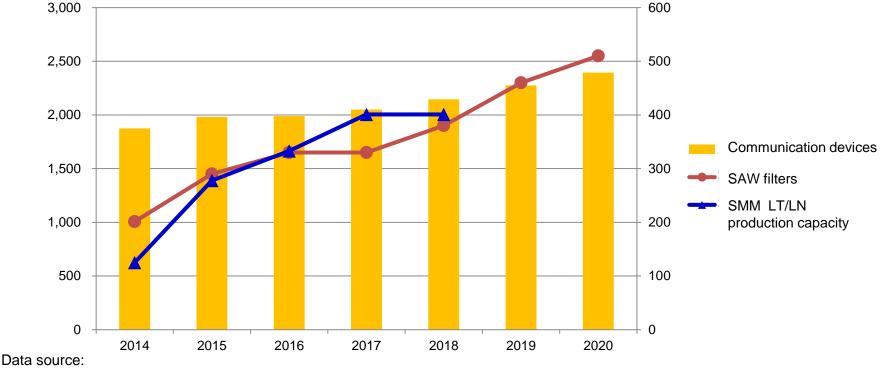
<ul> <li>Nickel hydroxide         Hybrid vehicles Used in rechargeable             batteries     </li> <li>Ternary material         Hybrid vehicles             Used in lithium-ion batteries     </li> </ul>	• Assured response to demand for automobile rechargeable batteries (Photo : TOYOTA Motor Corp.)	xEV market Toward market expansion also expected for 2020-2030
• NCA Electric vehicles Used in lithium-ion batteries	<ul> <li>Further expansion of NCA aimed at electric vehicles         <ol> <li>1,850 t/mo.</li> <li>(2015 3-Yr Plan)</li> <li>Completion scheduled for Jan 2018)</li> </ol> </li> <li>Construction of new precursor plant at Harima Refinery Toward structure of front-end process (precursor) 2 sites back-end process (firing) 2 sites</li> </ul>	<ul> <li>Establishment of further production structure</li> <li>New product development to meet needs</li> </ul>
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## 3) Materials (2) Crystal Materials (LT/LN) (1)

Number of handsets shipped (million units)







Created based on materials from Navian (March, 2017)

# Implement expansion investment matched to growth of the SAW filter market

## 3) Materials (2) Crystal Materials (LT/LN) (2)

## Build an expanded production system for crystal materials

#### LT/LN crystal substrates for SAW filters

Demand booming due to growth of multiband, high-speed communications

Market forecast

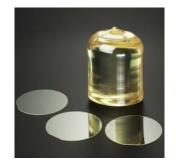
- Increase in object-to-object communication as IoT progresses
- In a 5G environment, the required number of highfrequency filters per device will become even higher

#### FY2017

Construction of further expanded structure aimed at 400 k units/mo.

(Completion scheduled for September 2017)

Toward improved productivity and further increased share



shtanzman@stock.foto

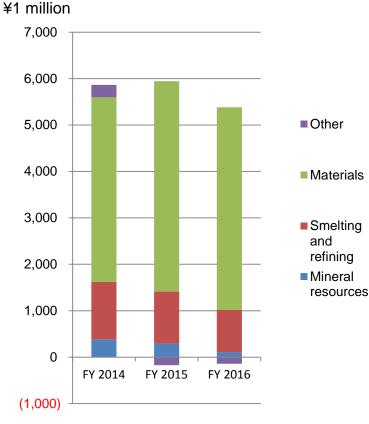


Promotion of production technology improvements, including shift to greater diameter and length

# 4) Research and Development (1) Achievements

### Research and development achievements in fiscal 2016

#### Change in research and development expenses by business segment



#### Materials Business (materials development)

#### [Battery materials]

 Increased capacity through higher nickel content in electric vehicle battery cathode material (lithium nickel oxide) and improved output characteristics through particle surface coat (particle surface modification)

#### [Crystal materials]

• Improvement in crystal growth yield lithium tantalate single crystals for SAW filter devices, and reduction in cost of wafer manufacturing

#### Smelting & Refining Business (process development)

- [Scandium recovery process]
- Recover scandium from nickel oxide ore using pilot test facilities

## 4) R&D (2) Domains and sectors



Established new ICT promotion office in October 2016. Will aim to construct mechanisms for data analysis unified across the company.

Concentration on growth strategy fields, search for "seeds" of next-generation business

# V. Supplementary Materials



Overview of FY 2016 Business Performance and Current Management Topics



Progress of Management Strategies and Individual Measures



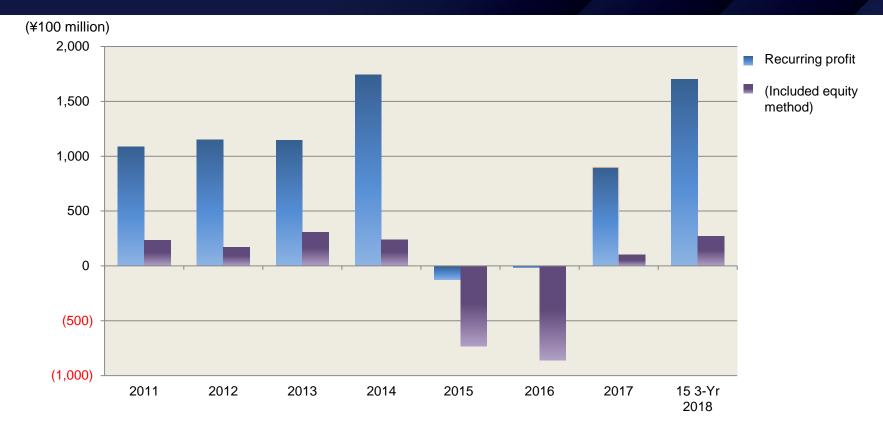
FY 2016 Business Results and FY 2017 Business Results Outlook



Priority Measures in FY 2017



## 1) Recurring Profit and Equity Method Investment Profit/Loss Trends



(Unit: ¥100 million)

	2011	2012	2013	2014	2015	2016	2017 Forecast	15 3-Yr 2018
Recurring profit	1,088	1,150	1,144	1,742	-128	-16	900	1,700
(Included equity method investment profit/loss)	232	171	298	239	-732	-860	100	270

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#### (JPY100M)

Element	Degree of variation	FY 2017 Operating income/ Recurring profit
Cu	±100\$/t	16/29
Ni	±10¢/lb	16/18
Au	±10\$/toz	5/5
JP¥/\$	±1¥/\$	10/10

(Remark) USD/JPY translation include RC-related and Conversion rate of overseas consolidated / equity-method affiliate companies' profit.

# 3) Copper, Nickel: Supply and Demand Forecast

## <u>Copper</u>

[ICSG Estimation Apr. 2017]

(kt)

	2016	2017	2018
Production	23,309	23,748	24,157
Usage	23,429	23,895	24,327
Balance	-120	-147	-170

## <u>Nickel</u>

(kt)

	INSG Estimation 2017/04			SMM Estimation 2017/04		
	2015	2016	2017	2015	2016	2017
Production	1,976	1,989	2,067	1,967	2,044	2,132
Usage	1,882	2,027	2,114	1,893	2,074	2,136
Balance	94	-38	-47	74	-30	-4

## 4) 2015 3-Yr Business Plan (1) Targets for Long-Term Vision

Aiming to be a World Leader in the Non-Ferrous Metals Industry and an Excellent Company of Japan Targets World Leader in the Non-Ferrous Metals Industry **Excellent Company of Japan** FY2021 **Nickel** Net Sales ¥1 trillion Copper interests 150 kt 300 kt Net Income\* ¥100 billion New materials Gold (Recurring profit ¥150 billion) Recurring profit 30 t ¥5 billion

- Grow steadily to achieve on our Long-Term Vision
- Reconsideration of strategy based on external business environment changes

\* Profit attributable to owners of parent

### 4) 2015 3-Yr Business Plan (2) Positioning of the 15 3-Yr Business Plan

Positioning of the 15 3-Yr Business Plan towards long-term vision achievement

Large Scale Mineral Resources/Smelting & Refining projects mostly completed in 2012 3-Yr Business Plan

Sowing seeds and planting towards further growth in the 15 3-Yr Business Plan

#### Long-Term Vision

Become a World Leader in the Non-Ferrous Metals Industry and an Excellent Company of Japan

> 3rd HPAL Sierra Gorda Expansion at low Capex Acquisition of new gold interest Exploration activities Expanded production of battery materials New materials products

Changes in the external business environment

#### 03 & 06 3-Yr Plans

Move toward growth strategies Become major player in nonferrous metals industry Achieve world top share in each of material business product

#### 09 & 12 3-Yr Plans

Promote Long-Term Visionoriented growth strategies in the three core businesses

#### 15 3-Yr Plan

Respond to external environment changes (Promote strategies focused on cost/investment benefit) Prepare for future growth **Grow materials business as core business** 

## 5) Management Strategy (1) Progress of Major Projects in 2015 3-Yr

**Business Plan** 

		Project name	FY 2015	FY 2016	FY 2017	FY 2018 onward
S	Cu	Sierra Gorda Copper Mine	Start commerci production	al 110 kt production structure	Start debottlenecking	
esource	Cu	Morenci Copper Mine	Start expanded full- scale production	● Acquisition of additional (12%→25%)	interests	
Mineral Resources	Cu	Cerro Verde Copper Mine		• Start expanded full- scale production		
	Ni	Solomon				Consideration of
ining	Ni	Taganito HPAL			36 kt production structure	
Smelting & Refining	Ni	Pomalaa Project			Conduct FS	Decision on
Smelt	Ni	Harima Refinery Nickel sulfate		Second line laur		production ructure
Materials	Battery	materials	NCA 1,850 t stru	icture	NCA 3,550 t structure	Ternary type Increase productio
Mate	Crystal	materials (LT/LN)	Decision on     production     increase	B00KP structure	400KP struct	ure

## 5) Management Strategy (2) Status of Achievement of Long-Term Vision



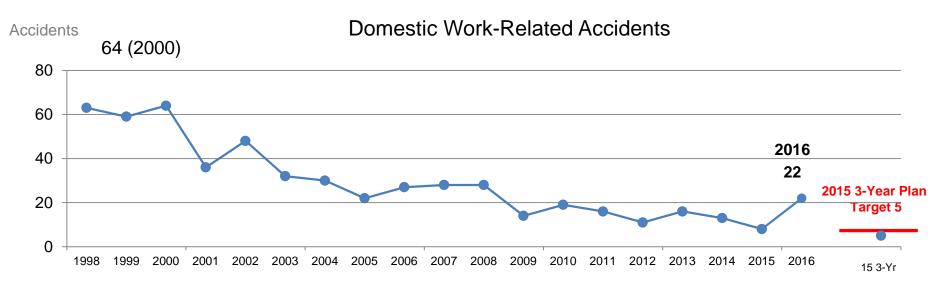
# 6) Safety Performance

### Safety — To achieve by FY2018

Use top-down approach to conduct effective safety activities at business sites and reduce major risks through appropriate equipment improvements.

Practice good communication to improve safety awareness among all employees and conduct proper line management to ensure safety.

2015 3-Yr Plan period	Limit domestic work-related accidents to ${f 5}$ or less
Targets	Limit overseas work-related accidents to ${\bf 9}$ or less



#### SUMITOMO METAL MINING CO., LTD.

#### The regional impact of mine development is large, and extends broadly to the economy, environment, human rights, and the regional community



In addition to legal permit to operate, obtaining a "Social License to Operate," based on relationships of trust with local communities, is a prerequisite for business continuity, so that development can be performed in the area where the targeted resources are located



In order to acquire social license to operate and to engage in sustainable business operations

The promotion of our Corporate Philosophy of "sustainable co-existence with society and the global environment" and related investments are essential

- Minimize negative impacts
- Effectively return positive impacts to the community, through employment, procurement, social contribution activities, etc.
- Promotion of mutual understanding through regular dialogs with local residents, and construction of relationships of trust
- Enhancement of corporate governance

# Note

The materials provided herein are not intended as disclosure under the Securities Law, and no warranty is made as to their completeness or accuracy.

Any projections included in these materials are based solely on information available at the time of this briefing, and are subject to change based on market conditions,

competitive conditions, and a number of other factors.

Therefore, we ask that you refrain from making any investment decisions based on these materials alone. The Company cannot be held responsible in any way for any losses that may occur as a result of the use of these materials.

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