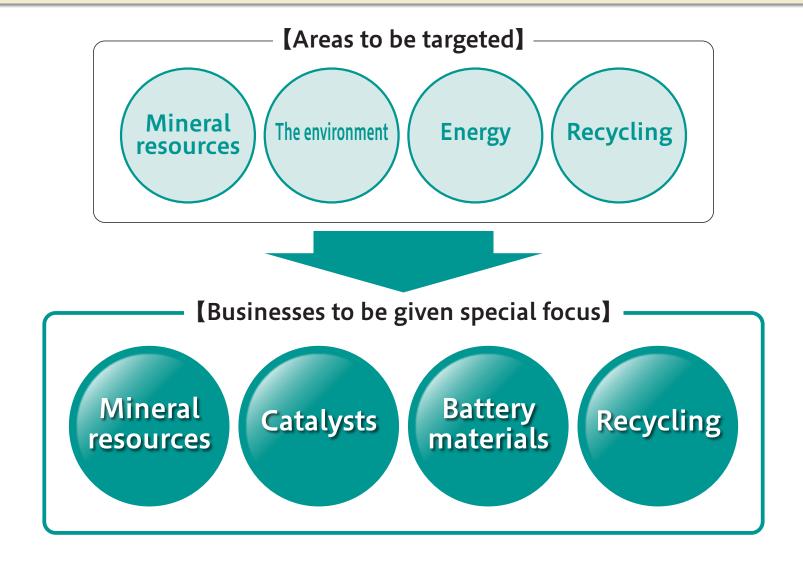


# Launch for Sustainable Growth 2013 Medium-Term Management Plan

MITSUI MINING & SMELTING CO., LTD.

A Company that is capable of sustainable growth in material businesses that utilize "Material Intelligence"

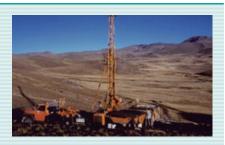


## **Businesses to be given special focus**

#### 4 businesses with growth potential in the area to be targeted

Mineral resources

- · CHILE: (Cu) Caserones Mines start up
- Peru: (Zn) Huanzala Mining Complex
- Canada: (Zn) Ruddock Creek exploration



Catalysts

- Responding to expanding demand for catalysts in emerging countries
- Development of new catalyst materials



Battery materials

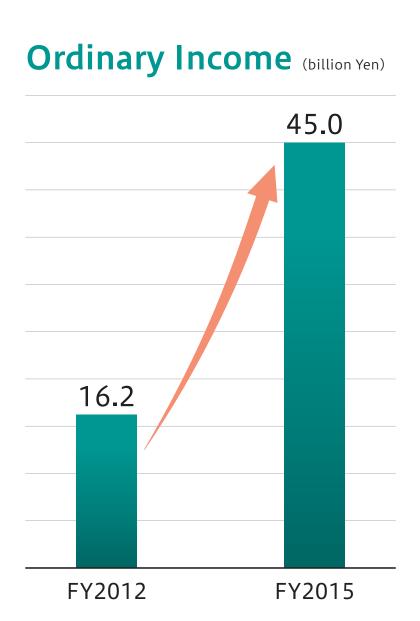
- Increasing sales of LMO for lithium ion battery(LIB), development of new materials for LIB
- Development of materials for fuel cell



Recycling

- Takehara: Melting Kiln
   (More feeding wasted electronic circuit board and secondary materials)
- Takehara, Kamioka, Shanghai etc.:
   (More collecting and feeding fresh raw materials)





# Management Objectives (FY2015)

Ordinary Income (billion Yen) 45.0

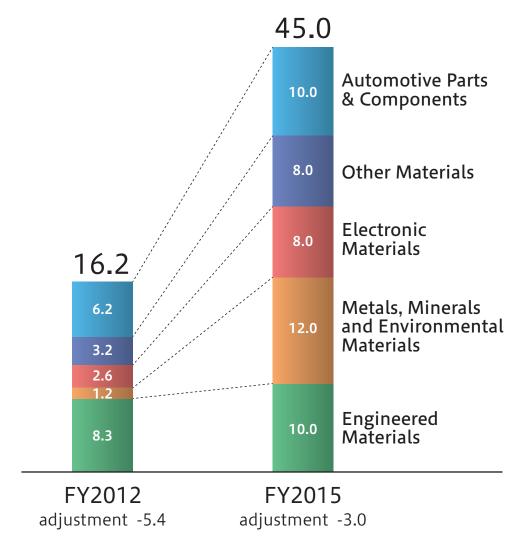
Equity Capital Ratio 38%

Metal Prices & FX

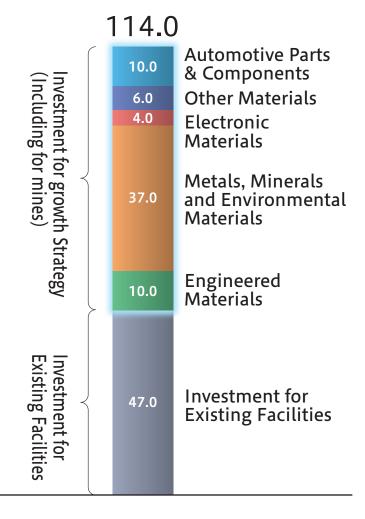
Zn LME (\$/t)	2,000
Cu LME (¢/lb)	360
FX (Yen/US\$)	90

## **Ordinary Income and Investment by Segment**

## Ordinary Income (billion Yen)



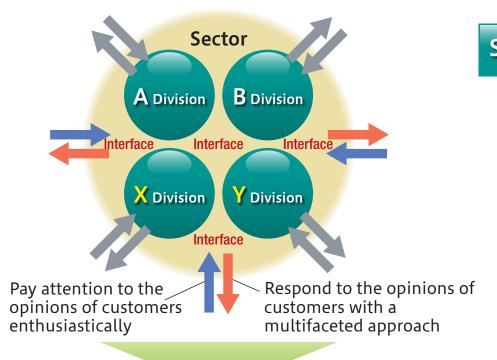
#### Investment (FY2013-15) (billion Yen)



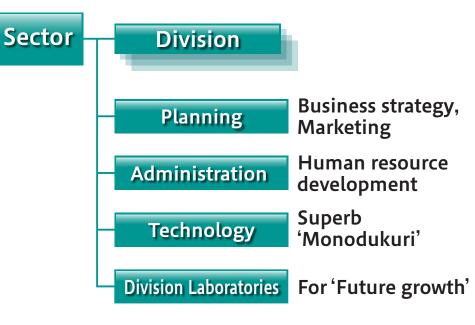
## **Concept of organizational design**

We are reorganizing the Company into sectors with new large demarcations so that the business units can independently work towards growth and realize synergies from our "Material Intelligence"

## **Enhanced Area**



## **Sector Organization**



 Create sectors with large demarcations

- Maximize business value
- Sustainable growth

## **Research and Development**

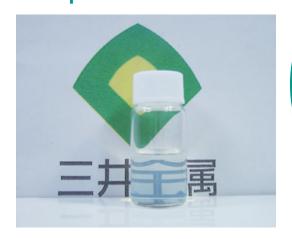
Aim to sustainable growth by taking advantage the core technology

**Corporate R&D Center** (Corporate Laboratory)

For future growth of Mitsui Mining & Smelting

⟨Example of product⟩

Transparent Dispersion Liquid for Optical Material



Core technology

Separation and purification
Alloy design
Electrolytic plating
Solution chemistry
Powder control
Crystal growth control
Processing and assembly
Material composite

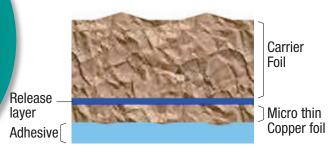
New Product & Process Development Center (Division Laboratories)

For sustainable growth of each Sectors

⟨Example of product⟩

Oltra-Thin Copper Foil with Adhesive Layer

Multi Foil® G



Cross section of Multi Foil® G

## Accurate feasibility judgment

Concerning businesses that may lose their business value, we will take countermeasures by accurately making judgments for establishing the right directions, including downsizing and withdrawal

## Making the structure even leaner

#### Emphasis on cash flow

Reducing inventory, etc.

Careful selection of investment plans and strengthening their progress management Comprehensive reviews of expenditures

#### **Cost reduction**

Improving "Monodukuri" (manufacturing capabilities) and comprehensive improvement of technical coefficient

Increasing the amount of recycled materials and profitable raw materials that we collect and process

Front-loading (reducing costs at the development and test production phases)

## **Major Strategy for Engineered Materials (1): Catalysts**



- Responding to expanding demand for catalysts in emerging countries
- Development of new catalyst materials



## Responding to expanding demand for catalysts in emerging countries

#### Reinforcing manufacturing bases in Asia

- Indonesia (mass production started in April 2013)
- · Vietnam (mass production to start in April 2014)
- Giving development functions to our bases in China and India
- Implementing other measures flexibly as appropriate for local needs

#### Development of new catalyst materials

 Development of new catalyst materials (catalysts that save precious metals, etc.)

#### Current bases for manufacturing/ developing catalysts Japan Bases Manufacturing (Kamioka) Development India Base (Haryana) (Ageo) Mitsui Kinzoku Components India Pvt. Ltd. China Base (Zhuhai) Mitsui Kinzoku Catalyst Zhuhai Co., Ltd. Vietnam Base (Hanoi) Thailand Base · Mitsui Kinzoku Catalysts (Rayong Province) Vietnam Co., Ltd. · Mitsui Kinzoku Catalysts (Thailand) Co., Ltd Indonesia Base (Karawang) • PT. Mitsui Kinzoku Catalysts Jakarta

## Well-Modulated Attack Major Strategy for Engineered Materials (2): Battery Materials

**Battery** materials

- Increasing sales of LMO for LIB, development of new materials
- Research & Development of materials for fuel cell



#### Operating the business in anticipation of the expansion of EV market

#### Cathode materials for LIB

- Focusing efforts on materials for automotive use and industrial use
- Launch of new high-capacity materials (FY2014)



I MO Plant

#### Material development for next-generation batteries

#### New Product & Process **Development Center**

- Development of materials of next-generation batteries focused on high energy density and high output density
- Corporate R&D Center
- Research and development of new materials for fuel cell

Resource Development

- · CHILE: (Cu) Caserones Mine Start Up
- Peru: (Zn) Huanzala Mining Complex Development

~Resource Development~

· Canada: (Zn) · Ruddock Creek Exploration



#### [Chile: Caserones Mine]

- MMS Equity 25.5%
- · Cathode :Start Up in March 2013 (30kmt p.a.)
- Cu Conc. : Scheduled Start Up in 4Q 2013 (150kmt-Cu p.a.)

#### **(Peru: Huanzala Mining Complex Development)**

- MMS Equity 100%
- · Huanzala deep ore Zone / Atalaya mining area exploration

#### [Canada: Ruddock Creek Exploration]

• MMS Equity 30% • After further exploration, entering into F/S stage



**Caserones Mine Site** 

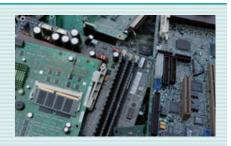


Ruddock Creek Boring Pit





- Takehara: Melting Kiln (More feeding wasted electronic circuit board and secondary materials)
- · Takehara, Kamioka, Shanghai etc.: (More collecting and feeding fresh raw materials)



#### Takehara Refinery: Melting Kiln

- Commercial Production : Oct '12
- · More feeding wasted electronic circuit boards and secondary materials: 12kt p.a('13) ⇒ 15kt p.a.('15)

#### 【Takehara Refinery·Kamioka Mining & Smelting Co., Ltd.】

 More collecting and feeding smelting process residues: approx. 10kt p.a.

#### Shanghai Mitsui Xin Yun Precious and Rare Metal Recycle Co., Ltd.

· More collecting and feeding fresh raw materials



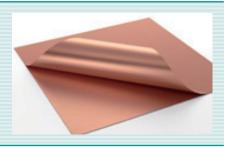
Takehara · Melting Kiln Plant



## Well-Modulated Major Strategies for Electronic Materials ~Copper Foil~

Copper Foil

- Sales Expansion of Strategic Products
- Asia Shift of Conventional Products
- New Product Development



#### Sales Expansion of Strategic Products

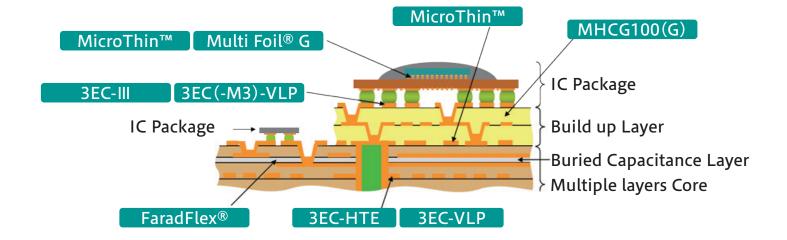
- Ultra-Thin Copper Foil with Carrier MicroThin™
- Ultra-Thin Copper Foil with Adhesive Layer Multi Foil® G
- Thin Embedded Capacitor Farad Flex®

#### Asia Shift of **Conventional Products**

- · Copper Foil for Multilayered PCB
- Copper Foil for Flexible Printed Circuit Super HTE™ etc.

#### **New Product Development**

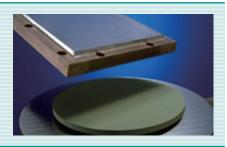
- First in the Market -Materials for Next Generation (Materials for Ultra-Fine Circuit)



## Well-Modulated Attack Major Strategies for Materials & Applications

Materials Applications

- New Products for New Market
- Production Innovation
- New Operation in China



#### **New products for New Market**

- ITO (Indium Tin Oxide)
  - · IGZO, ITO for Touch Panel
- Ceramics, Grinding Wheel
  - · Complex shape, Porous

#### **New Operation in China**

- ITO (Indium Tin Oxicide)
  - · Large Scale ITO
- Seramics
  - Automation

#### **New Operation in China**

- ITO (Indium Tin Oxide)
  - Feb. 2013 Shenzhen (China) Sales office
- Metarofilter
  - Oct. 2013 Start production Mitsui Kinzoku Advanced Ceramics (Suzhou) Co., Ltd.





## **Major Strategies for Automotive Parts & Components**

Automotive Parts & Components

- Mitsui Kinzoku ACT -
- New Factory in Emerging Market
- Competitiveness



#### **New Factory in Emerging Market**

- New Factory
  - · Mexico: Jul. 2013 Production Start
  - Indonesia : Sep. 2013 Production Start

#### Competitiveness

- Front Loading Activity
- MPW (Mitsui Production Way) **Activity**



## **Key performance indicator**

			FY2012	FY2015
Sales		(billion Yen)	417.2	470.0
Ordinary Income		(billion Yen)	16.2	45.0
Equity Capital Ratio		(%)	33.4	38.0
Net Debt / Equity Ratio			1.13	0.88
Interest-bearing debt balance (billion Yen)			165.2	169.0
Main Assumptions	Zn LME	(\$/t)	1,950	2,000
	Cu LME	(¢/lb)	356	360
	Exchange Rate	(Yen/\$)	82.6	90.0

#### Caution Concerning Forward-looking Statements

Statements contained in these materials regarding forecasts of future events are qualified by various risks, both existing and unknown, and uncertainties, which may have a material impact on the actual business conditions and operational activities. Consequently, please be aware that actual performance may differ substantially from forecasts and business plans indicated herein because of various unforeseeable factors.

Mitsui Mining & Smelting Co., Ltd. cannot guarantee the validity of the targets, assumptions, expectations, predictions, plans, assessments and other information contained in this material, and the Company also cannot guarantee that its actual business performance will be consistent with the forecasts presented within.

Regarding latent risks which might impact forecast results and other uncertainties, some items are included in the "Business and Other Risks" section of our financial statements or our website. However, please recognize that these are just a summary rather than a comprehensive list of all possible items relating to latent risks and uncertainties.

This material was compiled with the aim of furthering the understanding of our shareholders and other investors with regard to the Company's management policy and other details. This material is not for the purpose of soliciting investment through the purchase or sale of stocks. Accordingly, you are advised not to make your investment decision solely on the basis of the material presented herein.