# **Engineered materials**

[Engineered Materials Sector]

# Vision for 2024

Transform ourselves into an enterprise of market co-creation, taking full advantage of material intelligence, developing new markets, and creating new products and businesses.

# Mission Basic policy of the sector

Continually improve the profitability of each business and develop and launch new products by creating technological synergy in the fields of powders, circuit materials, and formed and fabricated materials.

# Analysis of the current business environment

# [Opportunities/Threats]

- Creation of new demand through technological innovation
- Expansion of demand for high-performance products
- Procurement of raw materials from overseas, rise of manufacturers in developing countries

## [Strengths]

High-performance products underpinned by excellent technology and quality

- $\cdot$  Global production/supply systems and sales channels
- Development of a BCP system with multiple production sites

## [Basic strategies as solutions]

Develop a timely and flexible mass-production and supply system for high-performance products

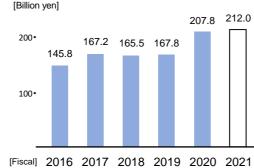
 Develop new products and create new markets by leveraging the core technologies of the engineered materials business and external networks

• Strengthen our growth strategy and corporate function by improving marketing capability, promoting digitization, and enhancing management



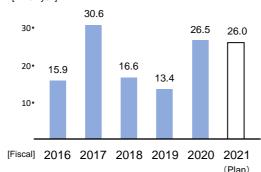
OKABE Masato Senior Executive Officer, Engineered Materials Sector

# Net sales of Engineered Materials Sector



ccal] 2016 2017 2018 2019 2020 2021 (Plan)

#### Ordinary income of Engineered Materials Sector [Billion yen]



# FY2021 outlook

and strategies to achieve the 2019 Medium-Term Management Plan

Along with the growth of 5G, IoT, CASE, and MaaS that help realize Society 5.0, related markets are also expanding. We therefore expect to see further growth in such areas as copper foil and functional powders. Taking this opportunity, we will accelerate our efforts to expand sales and to develop new products. In the catalysts business, we will maintain our share for motorcycles and expand sales for automobiles. We will also improve profitability in the PVD materials business. Through these efforts, we will work to achieve the Medium-Term Management Plan. Meanwhile, we strive to further expand our business by allocating management resources while paying attention to capital efficiency.

# Initiatives to achieve the vision for 2024

The business environment has been going through unprecedentedly drastic changes. In order to adapt to it while looking beyond 2024, we aim to continually create engineered materials with the top global share and become an enterprise contributing to society. In addition to the value optimization of our existing businesses, we are also committed to creating new products and businesses that help solve social problems.

# Strategies for each business

# [Copper foil]

We will continue to work to expand the sales of 5G products, including MicroThin<sup>™</sup> for smartphones and external memories and high-end copper foil for high-frequency communication. We will also move forward with our efforts for optimal

production sites and for smart plants to enhance price competitiveness and improve a BCP system.

## [Catalysts]

We will sustain the top market share in products for motorcycles by adapting to stricter emission norms in different countries and reducing the use of precious metals. In the automotive market, with more electrification forthcoming, we will recover our investment in GPF catalysts, while also focusing on more robust technological development for differentiation and on sales expansion.

# [Engineered powders]

We strive to expand sales of copper powder for MLCCs, other 5G products, and abrasives by further improving their quality and price competitiveness. Taking account of ever-changing market demand and product life cycle, we will also upgrade the system so that we can constantly launch new products.

# [PVD materials]

We will build a business system for better profitability through development of a flexible and global production system with price competitiveness as well as optimization of sales prices.

## [Ceramics]

We will enhance our sales activities for our main products, including tubular filtration systems for molten aluminum, and improve productivity through automation and digitization at plants.

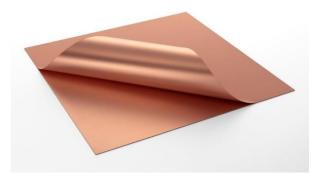
# Topics for FY2020-2021

#### License agreement with Circuit Foil Luxembourg on copper foil

Mitsui Kinzoku has entered into a non-exclusive patent license agreement with Circuit Foil Luxembourg Sarl (Wiltz, Luxembourg) for a fine line PCB fabrication process called MSAP (Modified Semi Additive Process), which extensively uses our extremely-thin copper foil with carrier MicroThin<sup>™</sup>. This agreement will help increase the awareness of our right to the MSAP method and increase sales of our extremely-thin copper foil with carrier.

#### Mass production of extremely-thin copper foil with carrier for 5G and IoT devices

We have started mass producing and shipping MT-GN, a new product of our extremely-thin copper foil with carrier MicroThin<sup>™</sup>. This launch has various potential benefits for 5G and IoT products with higher speed communication and for circuit boards using the MSAP method, which is advancing with finer circuits. Examples of such benefits include the improvement of signal integrity by reducing transmission loss and the enhancement of fine circuit formability by reducing etching amount.



Copper foil with carrier film, MicroThin<sup>™</sup>

# Decision to end production and sales at Mitsui Kinzoku Korea

Mitsui Kinzoku has decided to end production and sales activities at Mitsui Kinzoku Korea Co., Ltd. around the end of June 2021 due to a decline in demand for its core product, ITO targets, in the domestic market of South Korea. The production conducted by Mitsui Kinzoku Korea will be transferred to the Miike target plant (Omuta, Fukuoka, Japan) and Mitsui Electronic Materials Co., Ltd. (Taichung, Taiwan). Sales activities in South Korea will be taken over by the sales department of the PVD Materials Division. We strive to further strengthen our business structure through this decision to select and concentrate our management resources.

# Metals Mining and smelting

[Metals Sector]

# Vision for 2024

Our vision is to keep creating value to realize a sustainable society, by continuously improving our smelting and recycling technology and by developing resources and energy to take advantage of our network of smelters and mines.

# Mission Basic policy of the sector

Our mission is to acknowledge social recycling demands and to achieve our sustainable growth through development for a sound material-cycle society with our smelting and mining assets.

# Analysis of the current business environment

## [Opportunities/Threats]

- Stable growth of zinc and copper demand, both globally and in the long run
- $\cdot$  Global expansion of the recycle raw materials market due
- to the enhancement of environmental awareness
- $\boldsymbol{\cdot}$  Promotion of the spread of renewable energy worldwide

## [Strengths]

Know-how of operation of our own zinc mine in Peru over a long period of time

 $\boldsymbol{\cdot}$  Network of 8 smelters (Zinc, Lead, Copper and Precious Metals)

Possession of renewable energy (hydropower) facility using local backgrounds

# [Basic strategies as solutions]

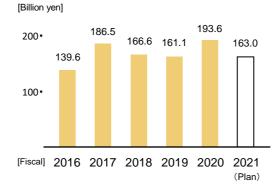
• Promote the development of a sound material-cycle society (promote materials stewardship)

Shift the business structure to the smelting of recycled materials

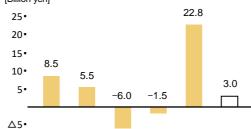


TSUNODA Satoshi Director, Senior Executive Officer, Metals Sector

# Net sales of Metals Sector



## Ordinary income of Metals Sector [Billion yen]



[Fiscal] 2016 2017 2018 2019 2020 2021 (Plan)

# FY2021 outlook

and strategies to achieve the 2019 Medium-Term Management Plan

In the zinc business, we expect the metal price stays relatively high throughout FY2021, whilst terms of concentrates are worsening for smelters and the effect of gain from inventory revaluation will also be smaller compared with the previous year. In FY2021, we therefore expect to see a decrease in profit from FY2020, although we should perform better than the goals set in the 2019 Medium-Term Management Plan.

As a common initiative across our smelters, we will promote stable operations. In lead and zinc business, we will process more recycled raw materials including zinc oxide and lead complexed materials. In the copper and precious metals business, we will promote effective use of resources by recovering more valuable metals, maximizing our copper utilization rate. As for the mining business, we will properly respond to the COVID-19 pandemic in Peru, aiming to maintain operations and ensure a profit.

# Initiatives to achieve the vision for 2024

We will continue to work on stable operations and processing of more recycled raw materials.

Also, by creating synergy through the integration of the Lead and Zinc division and the Copper & Precious Metals Division as one smelting network, we will improve efficiency in recovering valuable metals. By fully utilizing resources, we will contribute to a sound material-cycle society.

As for the Huanzala mine in Peru, we will make preparations to resume full operations while taking thorough measures against the COVID-19 pandemic. Discussions will also be held on energy sources, such as hydropower generation at Kamioka Mining and Smelting and geothermal power in Okuaizu, to improve the efficiency of power generation and explore new possibilities.

# Strategies for each business

# [Lead & Zinc]

In the zinc business, we strive both to process more recycled raw materials and to maintain productivity. We will expand sales of tailored zinc while capturing the recovery of demand after the pandemic. In the lead business, we aim to increase profit by processing more recycled raw materials with blast furnaces and recovering more byproducts. Efforts will also be made to improve its financial structure while containing the intermediate product inventory.

# [Copper & Precious Metals]

Since the reorganization of the copper smelting business, we have worked to develop a system that enables smooth business operations. Our smelting network has been rebuilt through the addition of the Hibi Corporate Group, which has enabled us to increase the volume of profitable materials being collected and processed. Leveraging this strength, we will enhance the competitiveness and value of the Hibi Corporate Group. We will continue to study further measures to strength the smelting network.

# [Mineral resources]

We aim to maximize the business value of the Huanzala mine by introducing a flexible operational methodology in accordance with surrounding factors.

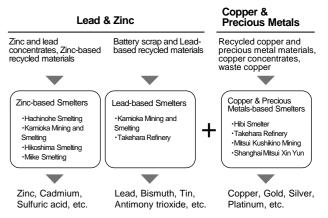
# Topics for FY2020-2021

#### Further enhancement of the smelting network

With the reorganization of the copper smelting business in April 2020, we have established a system that enables Mitsui Kinzoku to directly handle the operation and improve its competitiveness and values of Hibi Group, including its production bases such as Hibi Smelting Co., Ltd. and Hibi Kyodo Smelting Co., Ltd. The strengths of our Group's metals business include the smelting technologies we have accumulated and the smelting network that enables the recovery of various elements through the smelting of zinc, lead, copper, and precious metals. We strive to further enhance this network.

For reference, production processes of zinc, lead, copper, and precious metals are all different from each other and they have each individual pros and cons. We will make them complement each other, thereby improving the recovery rate of metals and processing recycled raw material that have been difficult to handle. Through these efforts, we will create and expand synergy between these two businesses and further boost our competitiveness.

#### Our Group's Network of Smelters



#### Copper mines in the Republic of Chile: Transfer of interests

Based on an examination of the copper smelting and mining businesses from the viewpoint of business portfolio optimization, we have concluded to proceed divestiture of these investment, which we hope to raise our corporate value. We have therefore transferred interests in the Caserones copper mine, owned through Nippon Caserones Resources Co., Ltd., to JX Nippon Mining & Metals Corporation. Another transfer of interests was made in the Collahuasi copper mine, which had been jointly owned with Mitsui & Co., Ltd. through Japan Collahuasi Resources (JCR) for 25 years since 1996. Through this transfer, Mitsui & Co., Ltd. has acquired all of our interests comprising 8.08% of the JCR equity (0.97% interest in the mine).

# Procurement of recycled raw materials and increase in their processing

In FY2020, the procurement of recycled lead materials from overseas dropped due to the COVID-19 pandemic. Still, we maintained a high ratio of recycled raw materials in total, including zinc and precious metals.

By effectively coordinating this initiative and the copper smelting process introduced in FY2020, we will continue and enhance the procurement and processing of various recycled raw materials.

# Automotive parts & components

[Mitsui Kinzoku ACT Corporation]

# Vision for 2024

Take full advantage of manufacturing intelligence and become a company that can keep offering safety, comfort, and amazing performance.

Build the ACT brand and customer confidence.



## IGATA Hiroshi

Senior Executive Officer of Mitsui Kinzoku, President and Representative Director of Mitsui Kinzoku ACT Corporation

# Mission Basic policy of the sector

Continue to offer value by proposing new products, focusing on functional components that offer greater safety and comfort for automobiles, at the cutting edge of the changing times where environmental and technological changes occur on a daily basis.

# Analysis of the current business environment

## [Opportunities/Threats]

- $\boldsymbol{\cdot}$  Increased sales opportunities for European and American OEMs
- Sales expansion of new products through the electrification and automation of automobiles
- Slowdown in the automotive market and the rise of new customers/competitors

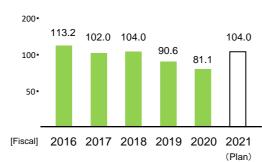
## [Strengths]

- Technological abilities as a manufacturer specializing in components for the door area
- Integrated production, from parts production to assembly, at our major production sites within and outside Japan
- · Long-standing partnerships with excellent Japanese OEMs

## [Basic strategies as solutions]

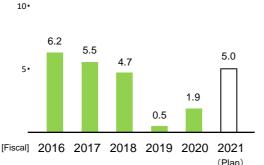
- Continually enhance quality and cost competitiveness
  Improve productivity and mass-production quality through a shift to smart factories
- Expand sales by strategically winning large orders
- = Develop and propose door systems compatible with CASE

#### Net sales of Mitsui Kinzoku ACT group [Billion yen]



Ordinary income of Mitsui Kinzoku ACT group [Billion yen]





# FY2021 outlook

and strategies to achieve the 2019 Medium-Term Management Plan

In FY2020, automotive production dropped significantly across the world because of the US-China trade friction and the COVID-19 pandemic. Anticipating a gradual recovery in the market from FY2021 and onward, Mitsui Kinzoku ACT expects to see a slight increase in sales in FY2021 from the previous year.

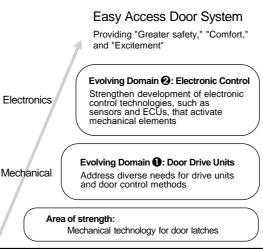
In order to respond to market changes, we will reduce costs beyond the targets set in the 2019 Medium-Term Management Plan, thereby maintaining and further enhancing our cost competitiveness with leaner management. We will also introduce ICT for the shift to smart factories, aiming to enhance productivity and massproduction quality as well as to reduce costs.

# Initiatives to achieve the vision for 2024

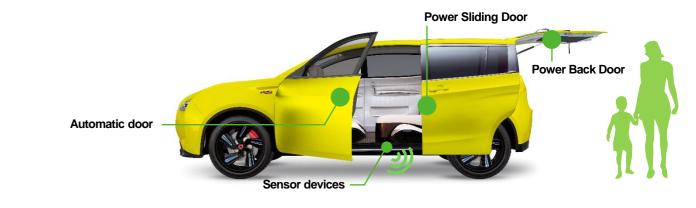
CASE, an emerging trend in the automotive industry, should fuel demand for door systems, including electric/automatic doors. By focusing efforts on combining our electronic control technology with our latch technology accumulated at Mitsui Kinzoku ACT over the years, we will offer new products as a door system supplier and promote CASE-compatible mobility applications.

#### Mitsui Kinzoku ACT "Evolution of Door Systems"

#### (Evolution of Technology)



(Time axis)



# Topics for FY2020-2021

## Moroccan plant starting door latch assembly and production

Our Moroccan plant (Tangier, northern Morocco), which opened in January 2020, started the assembly and production of door latches in February 2021. In FY2021, we will fully start supplying door latches in the European market.



MITSUI KINZOKU ACT TANGER MAROC SARL (MKAT)

#### Customer awards for our manufacturing sites (Part of the results in FY2020 and no particular order)

- Toyota Motor Thailand Co., Ltd.
  "Winner of 2020 Outstanding Quality Performance"
- Nissan Motor (Thailand) Co., Ltd.
  "Regional Supplier Quality Award Finalist 2020"
- · Honda Cars India Ltd.
- "Kaizen Competition Grand Prize at the North India Competition, Quality Category"
- PT. Honda Prospect Motor "2020 Supplier Award Excellence in Quality"
- Honda Automobile (Thailand) Co., Ltd.
  "Quality Award in 97Ki"

# Easy Access Door System

A system that provides safety, comfort, and amazing performance to everyone. It allows the elderly and young children alike to get in and out of the car safely and comfortably.