## **Overview of Medium-term** Management Strategy for FY2021-2023 With Value Creation Process

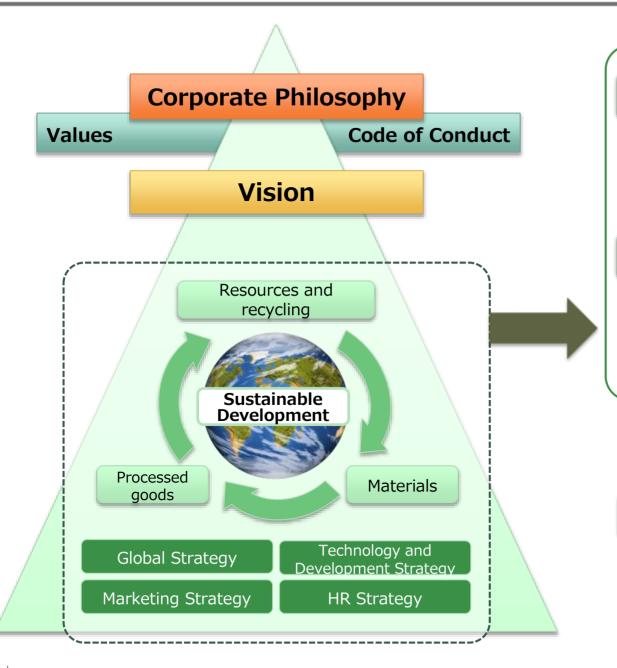
(From the year ending March 31, 2021 to the year ending March 31, 2023)

March 27, 2020



### **Contents**

- I Review of Current Medium-term Management Strategy (FY2020 Strategy)
- I Overview of New Medium-term Management Strategy (FY2023 Strategy)



#### **Long-term Management Policy**

## Medium- to Long-term Goals (the company in the future)

- Leading company in domestic and overseas key markets
- ◆Achieve high profitability and efficiency
- ◆Achieve growth that exceeds the market growth rate

#### **Group-wide Policy**

- ◆Optimization of business portfolio
- ◆Comprehensive efforts to increase business competitiveness
- Creation of new products and businesses



#### **Medium-term Management Strategy**

#### **Key Strategies in FY2020 Strategy**

- ◆Achieve growth through innovation
- ◆Create value by building a recycling-oriented society
- ◆Increase the company's market presence through investment for growth
- ◆Increase efficiency through continuous improvement

# I Review of FY2020 Strategy: Results of Major Business Expansion and Progress of Key Strategic Measures

Segments	Executed key strategic measures	Delayed key strategic measures
Advanced Products Business	<ul> <li>Acquired Special Products Division of Luvata</li> <li>Started collaboration with Denka Co., Ltd. for ceramic insulated circuit substrates with high thermal dissipation for environmentally friendly vehicles</li> <li>Pursued an absorption-type merger of Mitsubishi Shindoh, a consolidated subsidiary</li> </ul>	<ul> <li>Synergies effect with Luvata (Cause of delay: 1)</li> <li>Enhancement of thermistor sensor for automobiles and refrigerators for market expansion (Cause of delay: 3)</li> </ul>
Metal- working Solutions Business	<ul> <li>Expanded recycling capacity of tungsten by 1.5 times</li> <li>Established technical centers in various markets</li> <li>Resolved to make Mitsubishi Hitachi Tools a wholly owned subsidiary</li> </ul>	● Improvement of asset efficiency in manufacturing (Cause of delay: ②)
Metals Business	<ul> <li>Launched an E-Scrap sampling facility in the Netherlands</li> <li>Acquisition of stake in the Mantoverde copper mine in Chile</li> </ul>	● Expansion of E-Scrap processing (Cause of delay: ❸)
Cement Business	<ul> <li>Expanded waste plastic process capacity of Kyushu Plant by 1.7 times</li> <li>Expanded into Northern California area</li> <li>Signed a Letter of Intent with Ube Industries, Ltd. regarding integration of cement business, etc.</li> </ul>	<ul> <li>Development of new overseas bases</li> <li>Improvement of the cement manufacturing technology in Japan and the US (Cause of delay: §)</li> </ul>
Environ- ment and Energy Business	<ul> <li>Started joint development of recycling technology for lithium-ion battery</li> <li>Established a food waste biogas business company</li> <li>Started operations of Wasabizawa Geothermal Power Plant and construction of Appi Geothermal Power Plant</li> </ul>	<ul> <li>Incineration fly ash cleaning plant for cement recycling (Cause of delay: <a>§</a>)</li> </ul>
Group wide	<ul> <li>Sold all shares in Mitsubishi Materials Real Estate Corporation</li> <li>Invested in Incubation Alliance Inc., which develops and manufactures Graphene</li> <li>Established New Business Development &amp; Promotion Division and EV Material Development &amp; Recycling Business Promotion Department</li> <li>Established MMC Innovation Investment Business Limited Liability Partnership</li> <li>Established Smart Factory Promotion Center</li> </ul>	

#### **Cause of delay**

- Insufficient marketing activities
- 2 Insufficient gathering of customer information
- Sinsufficient ability to solve manufacturing problems on site

etc.

#### **Countermeasures**

- Strengthen marketing
- Promote digitalization
- Fortify manufacturing excellence

## I Review of FY2020 Strategy: Consolidated Performance

(Unit: billion yen)

		FY2018 Result	FY2019 Result	FY2020 Forecast (%1)	Estimated FY2020 (%2)
	Consolidated net sales	1,599.5	1,692.9	1,520.0	1,620.0-1,840.0
P/L	Consolidated net sales (excluding metal)	831.1	860.7	830.0	870.0-900.0
F/L	Consolidated operating profit	72.8	36.8	27.0	86.0-95.0
	Consolidated ordinary income	79.6	50.6	40.0	82.0-100.0
ROA (ordinary income to total assets) (%)		4.1	2.6	2.1	4.5-5.0
ROE (	%)	5.1	0.2	-	7.0-8.0
Net D/	E ratio (times)	0.6	0.6	0.8	0.7
ons	Exchange rate (yen/\$)	111	111	109	100-120
Assumptions	Exchange rate (yen/€)	130	128	121	120
Assı	Copper price (¢/lb)	292	288	268	250-270

**X1** Announced on February 12, 2020

Estimated value at the time of publishing FY2020 Strategy

## **II** Overview of FY2023 Strategy

- 1) Value Creation Process
- 2) Mission (Corporate Philosophy System)
- 3) Financial Plan
- 4) Business Strategy
- 5) Corporate Division's Strategy
- 6) Governance

### Value Creation Process

**Materiality** 

Creation of a

recycling-oriented

society

Dealing with

climate change

**Environment** 

protection

technologies

Workplace

safety and

hygiene

Governance

Stable supply of

product/material

Our strenaths

(advantage)

Value chain from raw

materials to products

with a stable supply

Unique material

and manufacturing

development

recycling technology

and business platform

Advanced

Corporate Philosophy

#### For People, Society and the Earth

#### Vision

We will become the leading business group committed to creating a sustainable society through materials innovation, with use of our unique and distinctive technologies. for People. Society and the Earth

#### Mission

Create both social and

Value **Proposition** 

comfort automobiles and

Contribute to build a prosperous society

Conservation

Waste

recyclina

environmental load Base material for

economic values

Convenience &

Safety & security

of resources

build a recyclingoriented society

Contribute to

Greenhouse

gas reduction

Recycling system

Renewable energy

Products &

Services

**High-function** 

products for

electronics

Processed

products and

services for

productivity

protection

with a low

construction

improvement and

Nonferrous metals

smelting process

products made with

environmental

Contribute to build a decarbonized society

















**Business Strategies** Corporate Strategies\*1

(Group-wide Policy)

**♦**Comprehensive efforts to increase business

Long-term business goals

Long-term strategy

**Product** 

MMC Group's

**Business** 

◆Creation of new products and businesses

♦ Optimization of business portfolio

competitiveness

Materia

Governance\*\*2

FY2023 Strategy

Digital Transformation strategy, Manufacturing excellence strategy, Quality management strategy, R&D and marketing strategy, and Human resources strategy

(\*2) Strengthening of corporate governance and group governance

Advanced Products

**Product-type Business** 

**Process-type Business** 

Business

ecycling

Metalworking Metalworking Solutions Business

Metals Business

On Cement Business

Environment & Energy Business

2030~2050

Social issues and **Materiality** 

**MMC Group's Business** 

Output

Outcome

Mission



Social issues to be

solved and SDGs

Advancing mobility

Advancement and

diversification of

digital devices

production and

business processes

Longer lifespans of

Effective measures

against disasters

Efficient treatment

mineral resources

energy resources

of urban waste

and alternative

Efficient use of

Development of

renewable and

●CO<sub>2</sub> emissions

reduction

Efficient use of

substances

Automation of

people and

buildings





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## Mission (Corporate Philosophy System)



#### Vision

The image of what we want to be

#### Mission

Concrete goals based on corporate philosophy and vision

#### **Group-wide Policy**

Long-term business target

Long-term strategy

FY2023 Medium-term management strategy

### For People, Society and the Earth

We will become the leading business group committed to creating a sustainable society through materials innovation, with use of our unique and distinctive technologies, for People, Society and the Earth

#### Create both social and economic values

Contribute to build a prosperous society by providing nonferrous metal materials, predominantly copper, and high value-added functional materials and products.

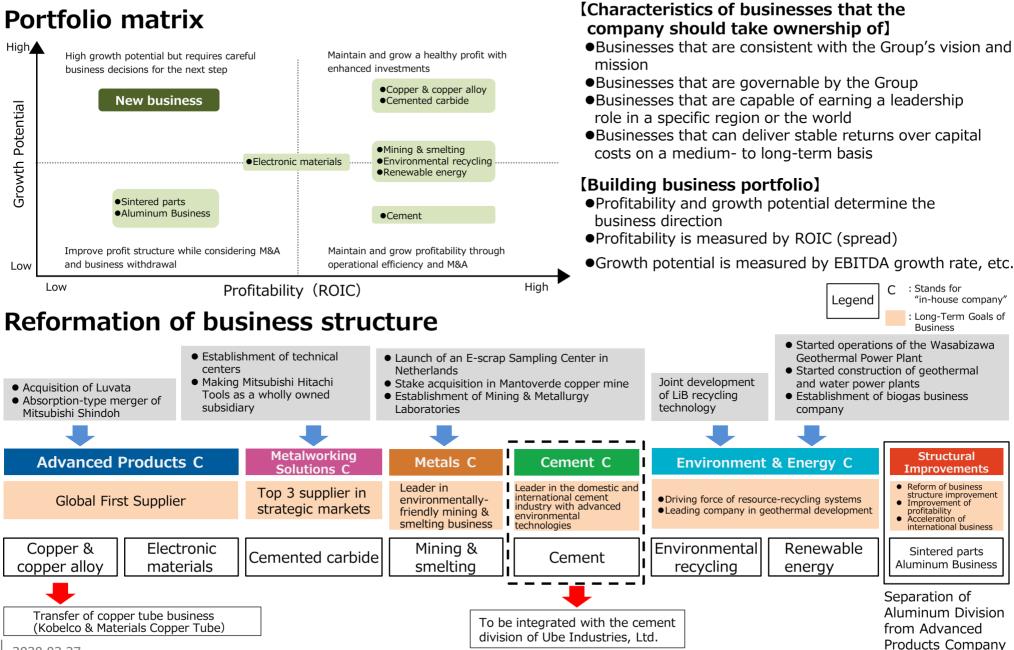
Contribute to build a recycling-oriented society by providing recyclable products and advanced technology-based waste recycling.

Contribute to build a decarbonized society by developing and promoting the use of renewable energies such as geothermal energy, and ensuring to consider the reduction of environmental impact in manufacturing.

### <Group-wide Policy>

- ◆Optimization of business portfolio
- ◆ Comprehensive efforts to increase business competitiveness
  - -> Manufacturing excellence, quality management, and digital transformation strategies
- ◆Creation of new products and businesses
  - -> R&D and marketing strategy

## Optimization of business portfolio



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## Financial Plan: Financial Goals

(Unit: billion yen)

		FY2020 Forecast (※1)	FY2023 Target (% 2)	Change rate	Remarks
ROIC (%)		-	6.0		
ROA (Ordinary income to total assets) (%)		2.1	4.0	+1.9points 🖊	
ROE (	(%)	-	7.0		
	Consolidated net sales	1,520.0	1,530.0	+1% 🖊	[Ordinary income fluctuation factors]
P/L	Consolidated net sales (excluding metal)	830.0	650.0	-22% ┪	Market conditions 23.5
1 / =	Consolidated operating profit	27.0	58.0	+115% 🖊	Performance of investment 17.0 Metal prices 3.5
	Consolidated ordinary income	40.0	75.0	+88% 🖊	Exchange rate 1.5
	Total assets	1,990.0	2,040.0	+3% 🖊	Impact of the change in accounting treatment of cement
B/S	Net interest-bearing debt	450.0	510.0	+13% 🖊	business becoming a minority share holding -9.0
	Shareholders' equity	560.0	630.0	+13% 🖊	Others -1.5 Total 35.0
Net D	/E ratio (times)	0.8	1.0 times or less		10tai 33.0
ons	Exchange rate (yen/\$)	109	110		【Sensitivity】 ◆1 yen increase in USD/JPY
Assumptions	Exchange rate (yen/€)	121	125		exchange rate: +0.8 billion yen
Assu	Copper price (¢/lb)	268	290		◆10¢/lb increase in copper price (LME) : +1.7 billion yen (Ordinary income)

<sup>%1</sup> Announced on February 12, 2020

**<sup>%</sup>**2 Assuming transition to equity method in cement business

### Financial Plan: Financial Indicators

- Focus on medium- to long-term profitability and growth potential
- Profitability is measured by ROIC and growth potential by EBITDA, etc., for each business
- Complementary use of ROA in process-type businesses
- ROIC/ROE/ROA are used together as group-wide financial indicators

		FY2017-2019 Average	End of FY2023 Target
	ROIC	4.2%	6.0%
The whole MMC group	ROA	3.4%	4.0%
	ROE	3.4%	7.0%

#### <Main Businesses>

			FY2017-2019 Average	End of FY2023 Target	By business division KGI	2016-2018 Average	End of FY2023 Target
Advanced Products	Copper & copper alloy*1		6.4%	4.0%	EBITDA	15.7 billion yen	20.0 billion yen
	Electronic materials		5.3%	6.0%	EBITDA	5.7 billion yen	16.0 billion yen
Metalworking Solutions Business	Cemented carbide	ROIC	7.9%	7.0%	EBITDA	28.5 billion yen	39.0 billion yen
<b>Metals Busin</b>	Metals Business		19.4%	10.5%	ROA <sup>*2</sup>	7.8%	6.5%
Cement Busi	ness		4.8%	6.0%	ROA	5.4%	6.0%
Environment	Environmental recycling		1.1%	4.0%	ROA	3.3%	6.0%
& Energy Business*3	Renewable energy		2.7%	4.0%	ROA	4.8%	5.5%

#### ROIC = NOPAT/ invested capital

NOPAT : (Profit before tax + interest on funds) x (1-effective tax rate)

Profit before tax includes share of profit/loss of investments accounted for using equity method and dividend income

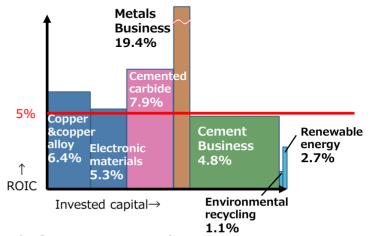
Invested capital: Excludes amount equivalent to inventories that are risk-free because of price hedging %1 Plans to invest approx. 30 billion yen starting from FY2021. Investment achievements will appear during next medium-term management plan period.

※2 Calculated by excluding the price of bullion

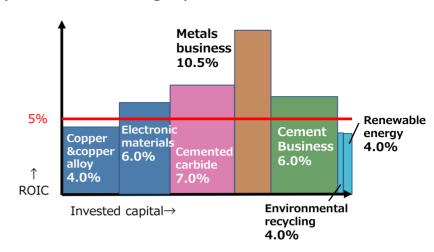
\*3 Due to the launch timing of equipment under construction, the ROICs of Environmental Recycling Business and Renewable Energy Business are expected to exceed WACC in FY2024 and FY2027, respectively.

Changes in ROIC of main businesses in FY2023 Strategy

(FY2017-2019 Average)



(End of FY2023 Target)



# Financial Plan: Resource Allocation (Investment Policy, Shareholder Return Policy, Strategic Holdings)

## Investment Policy

- Make investments using cash flows from operations, and proceeds from business restructuring and asset sales
- If there are other attractive large-scale investment projects for growth, investments will be made proactively as long as a net D/E ratio of 1.0 times or less is maintained
- ◆Cumulative cash flows from FY2021 to 2023

Casl	ı in
Operating CF	280
Others <sup>*1</sup>	60
Total	340

	Cash ou	it
	Investment for growth	190
Investing CF	Investment for maintenance and upgrading	170
	Subtotal	360
Financing CF	Dividends **2	46
T	otal	406

(Unit: billion ven)

- ※1 Business restructuring, sales of strategic holdings, etc.
- ※2 Dividends paid and dividends paid to non-controlling shareholders

◆ Cumulative investment plan from FY2021 to 2023

	Total Inves	stment 360		
Maintenance	& upgrading <b>170</b>	Growth St	rategy <b>1</b> 9	0
<b>22%</b> (Copper & copper alloy 15, Electronic materials 7	<b>30%</b> (Cemented carbide 28, Sintered 2	<b>21%</b>	8% <sup>2</sup> %	(Affiliated 2, Aluminum9, Group-wide 4
Advanced Products	Metalworking Solutions	Metals	Cement Enviro	Others nment & energy

## Shareholder return Policy

- MMC intends to pay stable dividends despite fluctuating business results, and pay out an annual dividend of 80 yen per share.
- However, if the consolidated payout ratio becomes less than 25%, MMC will temporarily increase the dividend or conduct share buybacks.

	FY2020 (actual)	FY2021-2023
Dividends	80yen/share	<b>80</b> yen/share

Strategic holdings

- Unless required for strategic objectives, MMC will not acquire or hold shares other than purely for investment purposes
- Expected reduction in FY2020: 12%

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## Business Strategy: Long-term Business Goals / Long-term Strategy and ESG/SDGs

			ES	G/SD	Gs		Mission	
	Long-term business goals	Long-term strategy	E (Environ ment)	ES	<b>S</b> (Society)	Contribute to build a prosperous society	Contribute to build a recycling-oriented society	Contribute to build a decarbonized society
Advanced Products Business	Global First Supplier	Create new businesses and products through the sophistication and integration of our core competencies (e.g. production and development of oxygen-free copper, oxygen-free copper base alloys, and functional materials as well as technical capabilities such as bonding different metals, etc.)      Accelerate marketing activities to replicate successful practice	7 mmm <sup>2</sup>	9==== & 12==== &		<ul> <li>Advance and diversifying mobility and digital devices</li> <li>Automate production and business processes</li> </ul>	<ul> <li>Develop and use materials with low environmental impact</li> <li>Efficiently use mineral resources and alternative resources</li> </ul>	Efficiently use energy resources     Reduce CO <sub>2</sub> emissions     Develop and supply products that contribute to decarbonization
Metalworking Solutions Business	Top 3 supplier in strategic markets	Promote clean manufacturing Provide high-efficiency products with advanced technology Expand advanced metal powder business in electronic devices	13 125	9 112 112 112 000		Provide high-efficiency products and digital solutions	Promote the use of recycled cemented carbide materials	Promote manufacturing renewable energy Expand electrification business by advanced metal powder technology
Metals Business	Leader in environmentally- friendly mining & smelting business	Stable supply and recycling of nonferrous metal materials, predominantly copper  • Creation of a sustainable raw material portfolio consisting of clean copper concentrate and E-Scrap  • Promotion of recycling  • Response to climate change	13 ::::	9	allo	Provide copper-based materials for advanced products	<ul><li>Provide recyclable products</li><li>Recycle waste</li></ul>	Promote the development and use of CO <sub>2</sub> reduction technologies Achieve manufacturing that considers environmental load
Cement Business	Leader in the domestic and international cement industry with advanced environmental technologies	<ul> <li>Stable supply of basic building materials for social infrastructure and disaster prevention infrastructure</li> <li>Sophistication of waste disposal</li> <li>Response to climate change by reducing CO<sub>2</sub></li> <li>Construction of a resilient domestic business foundation through business restructuring and business growth in overseas markets</li> </ul>	13 and (G)	9 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	11 200	Create a safe, secure, and functional city	Recycle waste     Promote sustainable resource recycling	Reduce CO <sub>2</sub> emissions by improving manufacturing processes
Environment and energy Business	(Environmental recycling)  Driving force of resource- recycling systems (Renewable energy)  Leading company in geothermal development	<ul> <li>Provision of a safe recycling system with thorough traceability, etc.</li> <li>Decarbonization by expanding renewable energy business</li> </ul>	13 181	9=== & 12=== &	-44	Ensure a stable supply of clean energy and recycled products	<ul> <li>Solve urban waste problems</li> <li>Build a sustainable social system</li> </ul>	Provide renewable energy

## Business Strategy: Business Strategy for Solving Social Issues

#### Mission

Contribute to build a prosperous society

Contribute to build a recycling-oriented society

Social issues

Contribute to build a decarbonized society

Advancement and diversification of digital devices

Automation of production and business processes

Longer lifespans of people and buildings Efficient treatment of urban waste

CO2 emissions reduction

Advancing mobility

Effective measures against disasters

Efficient use of mineral resources and alternative substances

Efficient use of eneray resources

Development of renewable and unutilized energies



Advanced Products **Business** 



Metalworking Solutions **Business** 



Metals Business



Cement Business



**Environment & Energy** Business

#### Advance multifunctional products

- Advance product function through failure diagnosis and prediction of materials corresponding to IoT
- Develop new materials and new parts into anchor products
- Expand advanced metal. powder business
- Achieve 80% cemented carbide recycling rate
- Promote clean manufacturing
- Advance solutions

#### FY2024-2031

- Achieve E-Scrap processing of 200,000t/Y
- Operate mines to secure stable supply of clean copper concentrate
- Reduce CO<sub>2</sub> emissions from smelters by 10%
- Advance technological development for reducing, capturing, and utilizina CO2
- Improve waste disposal
- Establish comprehensive recycling facility
- Commercialize LiB-R<sup>×2</sup>、 PV-R<sup>\*3</sup>
- Start operations of new geothermal power plants

#### FY2021-2023 (FY2023 Strategy)

- Provide composite products in key business areas\*1 and create novel materials and parts using new materials and technologies
- Respond to high current and high voltage by electric vehicles
- Respond to high frequency and large capacity communication
- Support advanced sensing technology
- Develop advanced metal powder business
- Increase cemented carbide recycling rate
- Use renewable energy
- Expand high efficiency tools
- Digitize solutions

- Advance recycling technology (e.g. dissolution/precipitation /separation technology)
- Acquire a stake in clean copper concentrate mine project
- Reduce CO<sub>2</sub> emissions from smelters by 5%
- Reduce CO₂ by introducing lowtemperature burning technology
- Expand capabilities in waste plastics processing and install chlorine dust cleaning equipment
- Expand recycling business
- Demonstrate LiB-R<sup>\*2</sup>, PV-R \*3 technology
- Complete new hydroelectric power plant (begin operations in 2023)
- Construct Appi geothermal power plant (begin operations in 2024)
- Survey new geothermal sites
- ※1···Next-generation automobile, semiconductor / electronics, industrial machinery / infrastructure
- \*2···Li-ion battery recycling \*3··· Solar panel recycling

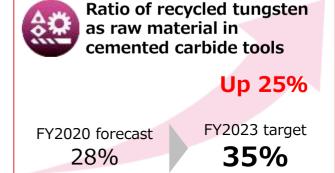
## Business Strategy: Contribution Goals for a Sustainable Society



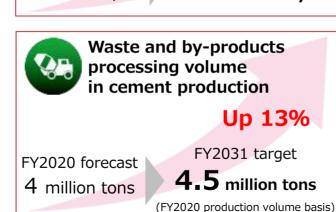


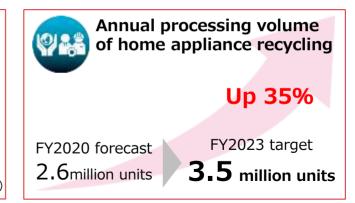
5 times or more

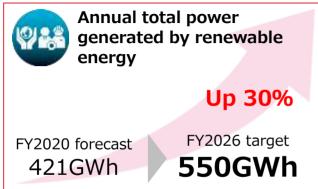
FY2020 forecast 3.4billion yen FY2023 target **20.3** billion yen











In March 2020, we endorsed the proposal of the Task Force on Climate-related Financial Disclosures (TCFD). Going forward, we will disclose important Group-related

information concerning climate change based on TCFD recommendations.

### Business Strategy: Advanced Products Business-1





## **Global First Supplier**

#### **Long-term Strategy**

- Create new businesses and products through the sophistication and integration of our core competencies
  - (e.g. production and development of oxygen-free copper, oxygen-free copper base alloys, and functional materials as well as technical capabilities such as bonding different metals, etc.)
- Accelerate marketing activities to replicate successful practice

#### **Specific Measures of the FY2023 Strategy**

- Assign key account managers acting cross-sectionally
- Enhance information analysis by digital marketing such as the employment of AI or IoT
- Share product roadmaps with customers (co-creation capabilities)
- Develop new products through collaboration with Central Research Institute
- Fortify production capabilities such as establishing a mass production system and improving productivity
- Pursue opportunities to execute M&A or business alliances

## **Projected Achievements** at the End of FY2023

In our main business fields\*, we will have:

- Earned customers' trust
- Released new products by integrating our technical capabilities
- Generated new applications of our products

X Next-generation vehicles, semiconductors/electronics, industrial machinery/infrastructure

## Business Strategy: Advanced Products Business-2



Key measures

Large-scale investment in core business (copper & copper alloy)
Collaboration among global footprint (incl. manufacturing, selling and developing bases)

<b>Key strategies</b>
for copper &
copper alloy
business

## **Expand copper alloy** sales

- Seamless value chain by integrating Mitsubishi Shindoh
- Agile investment with direct market information

## **Execute large-scale** investments

- Expanding rolling business
- Restructuring of extrusion business (About 30 billion yen capital investments from FY2021 to 2027)

## Accelerate global & downstream business

- Strengthening and optimizing value chain
- Enhancing cooperation with the Luvata Group

Enhance marketing & technical development function

- Development of new users
- Advancing new product developments by identifying next-generation market needs

Acting promptly to market needs (Next-generation vehicles, AI/IoT, environmental load reduction, etc.)

## Business Strategy: Metalworking Solutions Business-1





## Top 3 supplier in strategic markets

#### **Long-term Strategy**

- Promote clean manufacturing
- Provide high-efficiency products with advanced technology
- Expand advanced metal powder business in electronic devices

#### **Specific Measures of the FY2023 Strategy**

- Increase recycling rate in our tool recovery system and utilize renewable energy
- Provide high efficiency tools and digital solutions
- Transition to smart factory and optimization of logistics and supply chain
- Expand advanced metal powder business to rechargeable battery market

## Projected Achievement at the End of FY2023

 Establishment of a competitive global business base capable of expanding in strategic markets using digital technologies

## Business Strategy: Metalworking Solutions Business-2



Key measures

- Expansion of the utilization of new technologies and services that can solve customer issues
- Enhancement of the global supply system and functions

### **Expansion in strategic market**

Automotive, aerospace, and medical industries

- Reinforce marketing functions focused on target customers
- Expand manufacturing and sales capability through M&A or other measures
- Use digital technologies for technical assessments and simulations
- Expand advanced metal powder business for the battery market

Strategic investment in markets with high growth potential

### Build a competitive global business foundation

- Develop a global recycling system of the used cemented carbide tools
- Use digital technologies to achieve high quality and efficient manufacturing processes
- Optimize global logistics and supply chain in response to market fluctuations
- Establish manufacturing BCP to maintain stable supplies
- Encourage global collaboration of technical center functions

#### Global Technical Support Networ



















## Business Strategy: Metals Business-1





# Leader in environmentally-friendly mining & smelting business

#### **Long-term Strategy**

## Stable supply and recycling of nonferrous metal materials, predominantly copper

- Creation of a sustainable raw material portfolio consisting of clean copper concentrate and E-Scrap
- Promotion of recycling
- Response to climate change

#### **Specific Measures of the FY2023 Strategy**

- Secure clean copper concentrate by investing in new mines
- Develop impurity removal technology in copper concentrate
- Optimize valuable metal material flow
- Reduce fossil fuels

## Projected Achievement at the End of FY2023

- Optimization of valuable metal material flow derived from E-Scrap
- Reduction of smelter
   CO<sub>2</sub> emissions by 5%

### Business Strategy: Metals Business-2



### Key measures

### Stable procurement of raw materials and optimization of smelting process

#### Stable supply of materials

#### Secure clean copper concentrate by investing in new mines

- Acquisition of stake in the Mantoverde copper mine
- Implementation of Zafranal project



#### Expand opportunities to participate in blue-chip projects

- Invest from the early stages of projects
- Organize consortium

#### Develop impurity removal technology in copper concentrate

- Establish Mining & Metallurgy Laboratories (expansion of resource technology development), and conduct ioint research with a third party
- Develop/train resource engineers

#### **Promotion of recycling**

#### Optimize material flow

- Material grid Optimize material flow connecting each smelter and enhance the recovery of valuable metals at each smelter →Efficient recycling of Cu, precious metals and trace components in E-Scrap
- Improve the vield of Au and Ag by enhancing the precious metal factory process
- Understand E-Scrap input amount constraint and optimize processing process



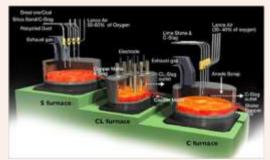
### (Pb, Bi production) Onahama (Cu production)

#### (Cu, precious metal production)

#### Response to climate change

#### Demonstrate the superiority of the Mitsubishi process

Utilize the environment-friendly Mitsubishi Process



#### Reduce fossil fuels

- Replace fuel with recycled oil, etc.
- Substitute fuel using E-Scrap

#### Improve energy conversion efficiency

- •Improve heat transfer efficiency of boiler
- Improve power generation efficiency

#### Improve energy use efficiency

- Efficiently use steam
- •Improve electrolysis current efficiency

Use renewable energy

#### Improve the ratio of stable raw-material procurement

Amount of copper contained with copper concentrate under off-take\* or long-term contract, and E-Scrap Amount of total copper production

**XOff-take:** long-term takeover rights linked to mine investment interests

## Business Strategy: Cement Business-1





# Leader in the domestic and international cement industry with advanced environmental technologies

#### **Long-term Strategy**

- •Stable supply of basic building materials for social infrastructure and disaster prevention infrastructure
- Sophistication of waste disposal
- Response to climate change by reducing CO<sub>2</sub>
- Construction of a resilient domestic business foundation through business restructuring and business growth in overseas markets

#### Specific Measures of the FY2023 Strategy

- Improve and optimize production system through domestic business restructuring
- Expand capabilities in waste plastic processing and installation of chlorine dust cleaning equipment
- Introduce low-temperature burning technology and develop CO<sub>2</sub> reduction, capture, and recycling technologies
- Expand US business and develop new overseas bases

## Projected Achievement at the End of FY2023

- Domestic business restructuring
- Optimized production systems and promotion of overall business efficiency

### Business Strategy: Cement Business-2



## Key measures

#### Reorganization of domestic business and development of new overseas bases

Reorganize the domestic business, optimize the production system, and establish a stable profit base through economies of scale in order to respond to the demand decrease for cement in Japan

Secure domestic advantage and grow overseas markets through the expansion of US and overseas businesses

#### **Domestic**

Create rationalization effects by consolidating factories, logistics facilities, sales functions, etc.

- Domestic business restructuring
- Production system optimization
- Strengthening of Kyushu Plant
- Downstream business enhancement and optimization

Benefits obtained by conducting cement business independently are limited, and therefore should pursue the merits and synergies of business consolidation Environmental business expansion, development in new technology, commercialization, etc.

- Expansion of recycling business
- Development and commercialization of new technology to reduce, capture, and recycle CO<sub>2</sub> emissions

Improve the ratio of alternative thermal energy by focusing on thermal energy waste treatment with room for expansion

#### **Overseas**

Expand business base in overseas where population growth is expected

- Expansion of US business
- Development of new overseas bases

Realize expansion of overseas business with cash obtained from domestic business

(Targets advanced and/or equivalent countries that can be developed for vertical integration, e.g. Australia)

## Business Strategy: Environment and Energy Business-1





# (Environmental recycling) Driving force of resource-recycling systems (Renewable energy) Leading company in geothermal development

#### **Long-term Strategy**

- Provision of a safe recycling system with thorough traceability, etc.
- Decarbonization by expanding renewable energy business

#### **Specific Measures of the FY2023 Strategy**

- Expand home appliance recycling business, advancement of automation, and improvement of added value of recovered products
- Demonstrate LiB recycling technology and solar panel recycling technology
- Secure stable plant operations in fly ash recycling business and biogasification business
- Complete Komatagawa new hydroelectric power plant, construction of Appi geothermal power plant, and survey of new geothermal sites

## Projected Achievement at the End of FY2023

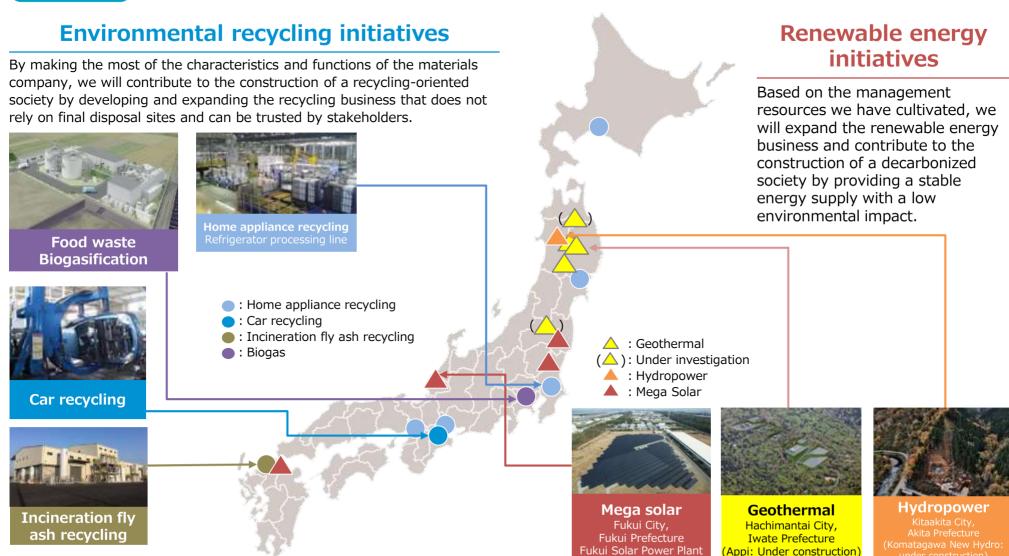
- Establishment of a stable business base for the environmental recycling business
- Expansion and stable operations of renewable energy plants and search for new geothermal sites

## Business Strategy: Environment and Energy Business-2



### Key measures

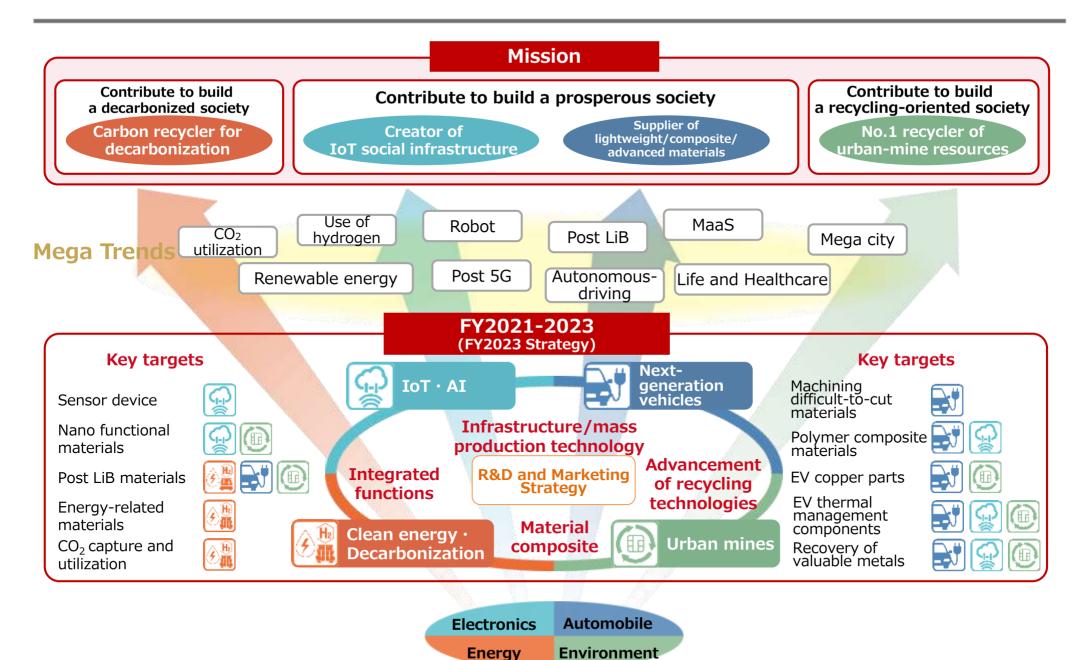
- Enhanced competitiveness and expansion of environmental recycling businesses
- Completion of Komatagawa new hydroelectric power plant, construction of Appi geothermal power plant, and survey of new geothermal sites



## **II** Overview of FY2023 Strategy

- 1) Value Creation Process
- 2) Mission (Corporate Philosophy System)
- 3) Financial Plan
- 4) Business Strategy
- 5) Corporate Division's Strategy
- 6) Governance

### Corporate Division's Strategy: **R&D** and Marketing Strategy

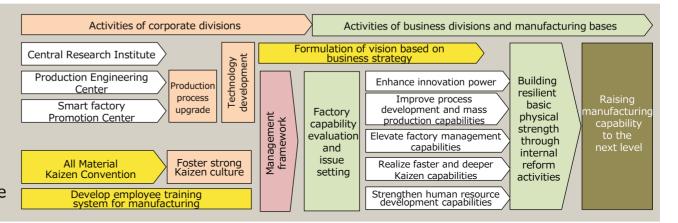


# Corporate Division's Strategy: Manufacturing Excellence Strategy/Quality Management Strategy/Digital Transformation Strategy

# Manufacturing excellence strategy

Raise manufacturing capability to the next level

- Formulation and realization of the factory vision based on its business strategy
- Enhancement of production process
- Proactive utilization of external knowledge



#### **Quality management strategy**

Proactive quality management to ensure that non-conforming products are not produced

High accuracy monitoring system ⇒Measure process

capability

Elucidation of correlation between cause and result with AI/IoT

⇒Maintain process

capability

maintenance plan ⇒Improve process capability

Optimization of

and equipment

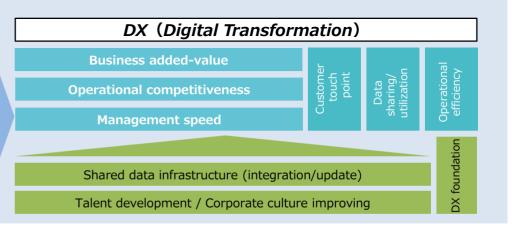
product/process design

Digital Transformation
(DX) strategy

• Use Digital Transformation to strengthen three key pillars: (1) Business added-value
(2) Business operations competitiveness (3) Management speed

- Approx. 30 billion yen investment over the next five years
- Approx. 100 digital professionals





## **II** Overview of FY2023 Strategy

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- 6) Governance

## Governance: Strengthening Corporate Governance

◆Changed to a company with a Nomination Committee in June 2019
Purpose: Accelerate decision-making by delegating authority, strengthen the Board of Directors' management supervisory functions, and improve the management transparency and fairness

### Continuous improvement of the functions of the Board of Directors

- Continuous improvement of the monitoring functions performed by the Board of Directors
- Ensure diversity of director composition

### Formulation of basic corporate governance policy (effective April 1, 2020)

• Clarification of policies to respond to each item set forth in CG code

## CEO appointment and dismissal, planning and execution of successor development plan

- Adoption of appointment and dismissal process
- Establishment of the selection of a successor candidate, as well as the planning and execution of its development plan with the involvement of the Nomination Committee

### Review of executive remuneration system

• Remuneration Committee establishment of an incentive-based executive remuneration system with a variable remuneration ratio (Start operations from FY2021)

### **Enhancement of governance of subsidiaries**

- Review of systems for director nomination and remuneration
- Proactive management of the Board of Directors

## Governance: Strengthening Group Governance

# and organization culture corporate **Fargeting**

- Organization with good and healthy communication where employees have unrestricted communication
- Organization capable of autonomously solving issues
- Organization that adequately shares the understanding of its **business**

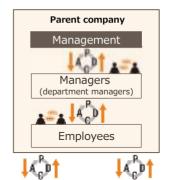
- Organization that makes prompt and resolute decisions
- Organization that manages its business with the awareness of the differences between product-type and process-type businesses
- Organization that aims for thorough digitalization

Aim for governance under which efficient and autonomous communication can take place between the parent company and subsidiaries. between the head office and plants, and among the subsidiaries

Appropriate operation through PDCA mechanism

Developed multidirectional reporting lines where information is appropriately shared between the parent company and subsidiaries and among different levels of organizations

Maintaining of interactive communication



Group company

Management

Managers

(department managers)

**Employees** 

strength varies for each in-house company, business locations and Group company

Governance whose

Management makes prompt decisions based on the information, and the Group as a whole conducts businesses appropriately

Cultivate a corporate culture that promotes active communication

•Evaluation of effectiveness and improvement of the board of directors of the Group companies

Directly controlled factory

Management

Managers

(department managers)

**Employees** 

- •The Group companies' officer training
- •Enhanced governance audits\*

\*In an audit, various issues may be identified through interviews conducted by corporate department managers with various levels of audited department employees.



Prompt decision making by delegating authority and strengthening supervisory functions



Focused management especially in R&D, manufacturing, and human resources exchange



Accelerated strategy execution by Digital Transformation Management Office

### Governance: Human Resources Strategy and Change of Organizations

### HR **Strategy**

#### Secure and foster talents adaptive to change and forge a healthy organizational culture

- **◆**Talent
- 1) Secure human resources: Reinforce hiring activities and systems, including within the Group companies, etc.
- 2 Develop human resources: Visualize capabilities of employees (talent management), etc.
- culture
- ◆Organizational ① Enhance motivation: Introduce professional talent system, etc.
  - 2) Enhance management capabilities of the Group companies: Promote personnel exchange within the Group, etc.
- ◆Improvement ① Employ diverse talents: Recruitment rate of new female graduates: 25% or more, etc.
  - of social value 2 Health & productivity management: Health company declaration, White 500 certified

#### **Business Divisions**

- 1. Promotion of Environmental and Energy Business Division to in-house Company: Positioned as a core business that can contribute to solving social issues
- 2. Separation of Aluminum Division from Advanced Products Company: Fundamental improvement of profitability and acceleration of strategic review, including overseas expansion

#### **Corporate Division**

- 1. Establishment of Marketing Department: Strengthening of corporate marketing functions
- 2. Establishment of Corporate Communications Department: Centralizing information dissemination to stakeholders

#### **Company-wide organization**

- 1. Establishment of Digital Transformation Management Office: Promotion of digitalization strategy
- 2. Establishment of Sustainable Management Office: Ensuring business sustainability

Establishment of subcommittees for Communications, Governance, Compliance, Risk Management, Climate Change, Environmental Management, Quality Management, Information Security, and Promotion of Zero Disasters

## **Forward-Looking Statements**

Future plans and other statements are based on information made available to MMC's management as of the date of the release of this material. Note that there are uncertain/risk factors inherent in plans, and there may be cases in which actual results materially differ from plans and other statements made within this material.

Mitsubishi Materials Corporation