



March 25, 2020

To All Concerned Parties

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Announcement of Medium-term Management Strategy

Mitsubishi Materials Corporation (hereinafter referred to as “MMC”) has developed a new medium-term management strategy (“FY2023 Strategy”) covering the period from FY2021 to FY2023.

1. Overview of the current medium-term management strategy (FY2018 to FY2020)

Based on the key strategies of "achieve growth through innovation," "create value by building a recycling-oriented society," "increase the company's market presence through investment for growth," and "increase efficiency through continuous improvement," the Mitsubishi Materials Corporation Group (hereinafter referred to as “MMC Group”) has implemented various measures in the current medium-term management strategy, including new product development, M&A inside and outside of Japan, the expansion of overseas production and sales bases, and the enhancement of recycling-related facilities.

Meanwhile, consolidated operating profit, consolidated ordinary income, ROA (Ratio of Ordinary Income to Total Assets), and net D/E ratio are expected to diverge from the estimates for FY2020 in the current medium-term plan.

Financial indicators	Estimate for FY2020 in the current medium-term plan	FY2018 Result	FY2019 Result	FY2020 Forecast
Consolidated operating profit	86 to 95 billion yen	72.8 billion yen	36.8 billion yen	27 billion yen
Consolidated ordinary income	82 to 100 billion yen	79.6 billion yen	50.6 billion yen	40 billion yen
ROA	4.5~5.0%	4.1%	2.6%	2.1%
Net D / E ratio	0.7 times	0.6 times	0.6 times	0.8 times

The shortfalls in meeting our FY2020 objectives are attributed to the external factors of a slowing Chinese economy, a sluggish economic growth in the Thailand and Indonesia area, a shrinking demand for automobiles and semiconductors, and a demand decline for cement in Japan, as well as the internal factor of a delayed implementation of key strategic measures caused by “insufficient marketing activities”, “insufficient gathering of customer information”, and “insufficient ability to solve manufacturing problems on site”, and other reasons. In the new medium-term management plan, MMC Group will address these problems by setting "strengthening marketing", "promoting digitalization", and "fortifying manufacturing excellence" as the key strategies to strengthen its management base.

2. Overview of the Medium-term Management Strategy (FY2023 Strategy)

1) Value creation process

MMC Group will utilize its strengths that include "an advanced recycling technology and business platform," "value chain from raw materials to products with a stable supply," "unique material development and manufacturing technology," and "a team that can unite to resolve issues," etc., to solve social issues, promote key group initiatives, and strengthen its core businesses, and thereby further both social and economic values.

2) Mission

Based on its corporate philosophy of "For People, Society and the Earth", MMC Group's vision is "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". Based on the corporate philosophy and vision, MMC Group formulated the FY2023 Strategy that sets out MMC Group's mission and medium- and long-term goals from FY 2031 to FY2051 from the perspective of creating both social and economic values.

<Mission>

(1) Contribute to build a prosperous society

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

(2) Contribute to build a recycling-oriented society

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

(3) Contribute to build a decarbonized society

We aim to 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.

MMC Group will promote the group-wide policy in the FY2023 Strategy as follows.

<Group-wide Policy>

(1) Optimization of business portfolio

In regards to businesses that MMC Group should take ownership of, it will focus on businesses that are consistent with its vision and mission, are governable by MMC Group, capable of earning a leadership role in a specific region or the world, and that can deliver stable returns over capital costs on a medium- to long-term basis. MMC Group will also determine the direction of the businesses based on profitability and growth potential, in order to build a business portfolio.

(2) Comprehensive efforts to increase business competitiveness

To provide to the market, MMC Group will sophisticate its core technologies and knowledge with the support of its corporate division's strategies (manufacturing excellence strategy, quality management strategy, and digital transformation strategy). Meanwhile, MMC Group will acquire lacking or complementary businesses through M&A and business alliances to relentlessly enhance business competitiveness.

(3) Creation of new products and businesses

With the support of MMC Group's corporate division's strategy (R&D and marketing strategy), MMC Group will create new products and businesses that meet customer needs and wants.

3) Financial plan

(1) Financial indicators and targets

The FY2023 Strategy emphasizes medium- to long-term profitability and growth potential for each business, and profitability and growth potential primarily by ROIC and EBITDA growth rate, respectively. In the process-type business, ROA is used as a complement, and ROIC, ROE, and ROA are used together as corporate financial indicators. The company's financial targets for FY2023 are: ROIC 6.0%, ROA 4.0%, ROE 7.0%, a consolidated operating profit of ¥58 billion, a consolidated ordinary income of ¥75 billion, and a net D / E ratio of 1.0 times or less.

(2) Investment policy

For the period of the FY2023 Strategy, total investment is estimated to be ¥360 billion, with a growth strategy investment of ¥190 billion and a maintenance and upgrading investment of ¥170 billion. Financial resources for investment will be generated by using cash flows from operations and proceeds from business restructuring and asset sales. If attractive large-scale investment projects for growth emerge, investments will be made proactively as long as there is a net D/E ratio within the range of 1.0 times or less.

(3) Shareholder return policy

In order to return profits to shareholders, MMC will determine its profit allocation based on a comprehensive assessment of concerned factors, which include earnings for the period, internal reserves, and financial standing. With regard to profit allocation during the FY2023 Strategy period, MMC will focus on providing stable dividends despite fluctuating consolidated business results, and will pay out an annual dividend of ¥80 per share from FY2021 to FY2023. In cases that the consolidated payout ratio is less than 25%, MMC will temporarily increase the dividend or conduct share buybacks.

(4) Strategic holdings

Unless required for strategic objectives, MMC will not acquire or hold shares other than purely for investment purposes.

4) Business strategy of each segment

<Advanced Products Business>

Long-term business goals	Global First Supplier
Long-term strategy	<ul style="list-style-type: none">■ 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 of marketing activities to replicate successful practice
Specific measures of the FY2023 Strategy	<ul style="list-style-type: none">➢ 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

<Metalworking Solutions Business>

Long-term business goals	Top 3 supplier in strategic markets
Long-term strategy	<ul style="list-style-type: none">■ Promote clean manufacturing■ Provide high-efficiency products with advanced technology■ Expand advanced metal powder business in electronic devices
Specific measures of the FY2023 Strategy	<ul style="list-style-type: none">➢ 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

<Metals Business>

Long-term business goals	Leader in environmentally-friendly mining & smelting business
Long-term strategy	<p>Stable supply and recycling of nonferrous metal materials, predominantly copper</p> <ul style="list-style-type: none"> ■ 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	<ul style="list-style-type: none"> ➢ Secure clean copper concentrate by investing in new mines ➢ Develop impurity removal technology in copper concentrate ➢ Optimize valuable metal material flow ➢ Reduce fossil fuels

<Cement Business>

Long-term business goals	Leader in the domestic and international cement industry with advanced environmental technologies
Long-term strategy	<ul style="list-style-type: none"> ■ Stable supply of basic building materials for social infrastructure and disaster prevention infrastructure ■ Sophistication of waste disposal ■ Response to climate change by reducing CO₂ ■ Construction of a resilient domestic business foundation through business restructuring and business growth in overseas markets
Specific measures of the FY2023 Strategy	<ul style="list-style-type: none"> ➢ 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 CO₂ reduction, capture, and recycling technologies ➢ Expand US business and develop new overseas bases

<Environment & Energy Business>

Long-term business goals	<p>(Environmental recycling) Driving force of resource-recycling systems</p> <p>(Renewable energy) Leading company in geothermal development</p>
Long-term strategy	<ul style="list-style-type: none"> ■ Provision of a safe recycling system with thorough traceability, etc. ■ Decarbonization by expanding renewable energy business
Specific measures of the FY2023 Strategy	<ul style="list-style-type: none"> ➢ 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

5) Corporate division's strategy

The following are the key corporate division's strategies for supporting each business segment in the FY2023 Strategy.

R&D and marketing strategy	<p>By focusing on changes in the external environment such as megatrends, etc., MMC Group will create high value-added products and services mainly in IoT and AI, next-generation vehicles, urban mines, and clean energy and decarbonization areas to meet customer needs based on its integrated functions, material composite, infrastructure and mass production, and recycling technologies.</p>
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Manufacturing excellence strategy	By formulating and realizing the factory vision based on the business strategy, as well as enhancing the production process, and proactively utilizing external knowledge, MMC Group will raise its manufacturing capability to the next level.
Quality management strategy	By optimizing its product/process design and equipment maintenance plan, MMC Group will implement proactive quality management to ensure that non-conforming products are not produced.
Digital Transformation strategy	MMC Group will use Digital Transformation to strengthen our three key pillars: “Business added-value”, “Business operations competitiveness”, and “Management speed”. In the next five years, MMC will invest approximately ¥30 billion and allocate 100 digital professionals.

6) Governance

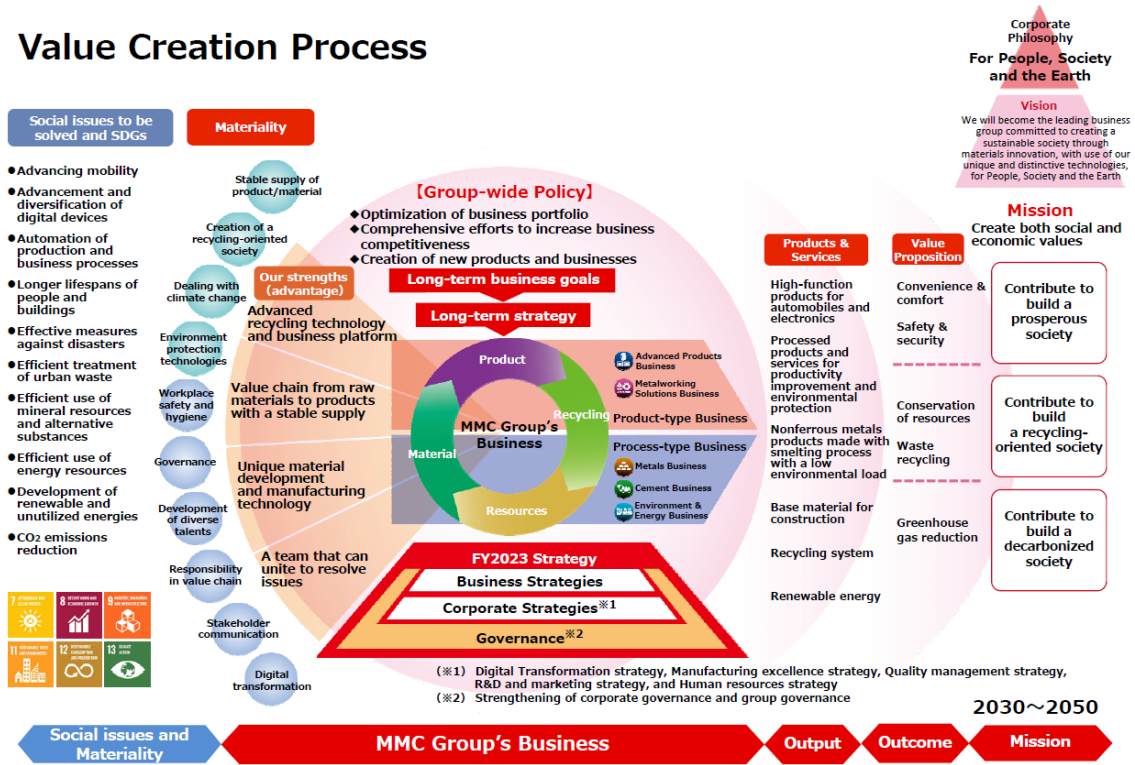
The following are the main measures for MMC Group’s governance in the FY2023 Strategy.

Strengthening corporate governance	<p>In June 2019, MMC transitioned to a company with a nomination committee, etc., and is working on the following measures.</p> <ul style="list-style-type: none"> ➤ Continuous improvement of the functions of the Board of Directors ➤ Formulation of basic corporate governance policy (effective April 1, 2020) ➤ CEO appointment and dismissal, planning and execution of successor development plan ➤ Review of executive remuneration system ➤ Enhancement of governance of subsidiaries
Strengthening group governance	<p>MMC Group will implement the following measures to establish a governance system in which communications can be carried out smoothly and autonomously between the parent and its subsidiaries, the head office and its respective bases, and among respective bases and the Group companies.</p> <ul style="list-style-type: none"> ➤ Evaluation of effectiveness and improvement of the board of directors of the Group companies ➤ The Group companies’ officer training ➤ Enhancement of governance audits ➤ Prompt decision making by delegating authority and strengthening supervisory functions ➤ Promotion of business operations with an awareness of differing managements within R&D, manufacturing, and human resources exchange ➤ Accelerated strategy execution by Digital Transformation Management Office
HR strategy	<p>MMC Group will work on the following measures with the aim of securing and fostering adaptive human resources and forging a healthy organizational culture.</p> <ul style="list-style-type: none"> ➤ (Talent) Secure and develop human resources ➤ (Organizational culture) Enhance motivation and management capabilities of the Group companies ➤ (Improvement of social value) Engage in the employment of diverse talents and health & productivity management
Change of organizations	<p>(Business Divisions)</p> <ul style="list-style-type: none"> ➤ Promotion of Environmental and Energy Business Division to in-house Company ➤ Separation of Aluminum Division from Advanced Products Company <p>(Corporate Division)</p> <ul style="list-style-type: none"> ➤ Establishment of Marketing Department ➤ Establishment of Corporate Communications Department <p>(Group-wide organization)</p> <ul style="list-style-type: none"> ➤ Establishment of Digital Transformation Management Office ➤ Establishment of Sustainable Management Office

<Reference>

1. Value creation process and company vision

Value Creation Process



Mission (Corporate Philosophy System)



2. Financial target and investment amount

The estimated financial targets and investment amounts for the implementation of all measures included in the FY2023 Strategy are as follows.

1) Financial figures (consolidated)

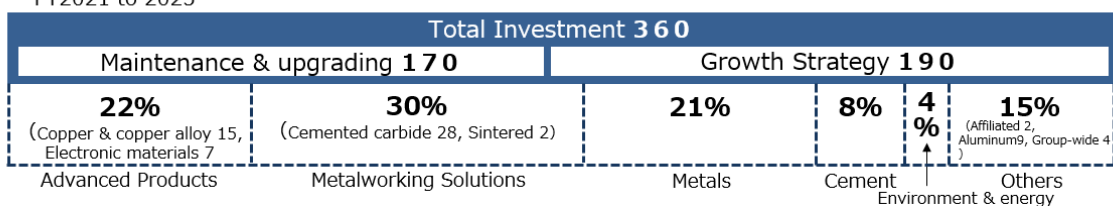
(Unit: billion yen)

		FY2020 Forecast	FY2023 Target
ROIC		-	6.0%
ROA (ordinary income to total assets)		2.1%	4.0%
ROE		-	7.0%
PL	Consolidated net sales	1,520	1,530
	Consolidated net sales (excluding metal)	830	650
	Consolidated ordinary income	40	75
BS	Total assets	1,990	2,040
	Net interest-bearing debt	450	510
	Shareholders' Equity	560	630
Net D / E ratio		0.8 times	1.0 times or less
Assumptions	Exchange rate	109 yen / US dollar	110 yen / US dollar
		121 yen / Euro	125 yen / Euro
	Copper price	268 ¢ /1b	290 ¢ /1b

2) Investment amount

(Unit: billion yen)

◆ Cumulative investment plan from
FY2021 to 2023



End of document

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

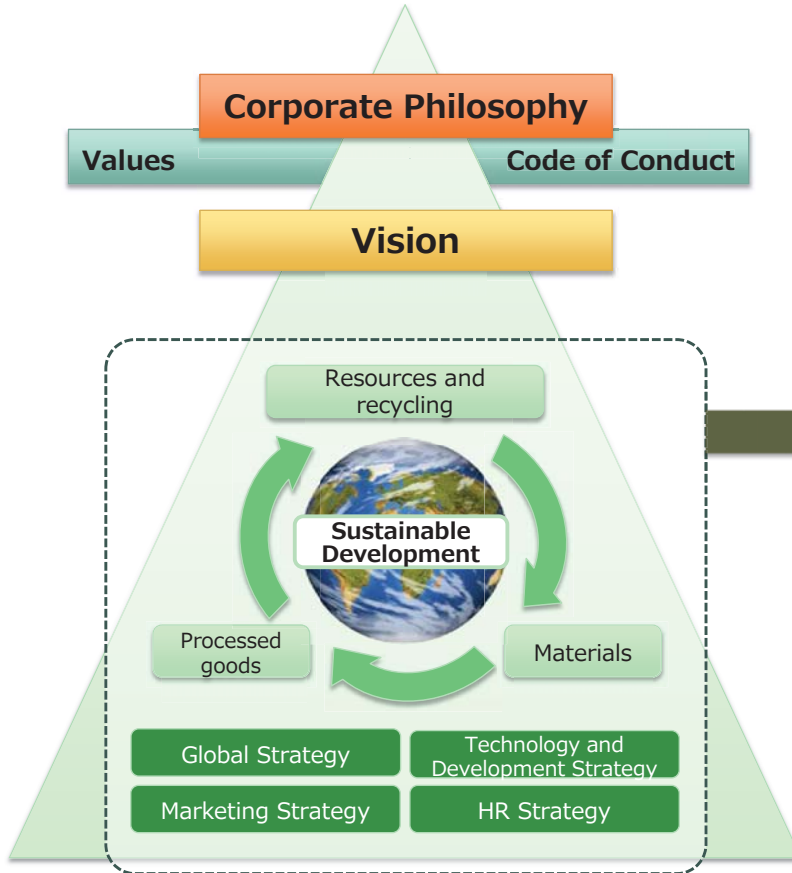
(From the year ending March 31, 2021 to the year ending March 31, 2023)

March 25, 2020

- I Review of Current Medium-term Management Strategy (FY2020 Strategy)**

- II Overview of New Medium-term Management Strategy (FY2023 Strategy)**

I Review of FY2020 Strategy : **Overview**



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 style="list-style-type: none"> ● Acquired Special Products Division of Luvata ● Started collaboration with Denka Co., Ltd. for ceramic insulated circuit substrates with high thermal dissipation for environmentally friendly vehicles ● Pursued an absorption-type merger of Mitsubishi Shindoh, a consolidated subsidiary 	<ul style="list-style-type: none"> ● Synergies effect with Luvata (Cause of delay: ❶) ● Enhancement of thermistor sensor for automobiles and refrigerators for market expansion (Cause of delay: ❸)
Metal-working Solutions Business	<ul style="list-style-type: none"> ● Expanded recycling capacity of tungsten by 1.5 times ● Established technical centers in various markets ● Resolved to make Mitsubishi Hitachi Tools a wholly owned subsidiary 	<ul style="list-style-type: none"> ● Improvement of asset efficiency in manufacturing (Cause of delay: ❷)
Metals Business	<ul style="list-style-type: none"> ● Launched an E-Scrap sampling facility in the Netherlands ● Acquisition of stake in the Mantoverde copper mine in Chile 	<ul style="list-style-type: none"> ● Expansion of E-Scrap processing (Cause of delay: ❸)
Cement Business	<ul style="list-style-type: none"> ● Expanded waste plastic process capacity of Kyushu Plant by 1.7 times ● Expanded into Northern California area ● Signed a Letter of Intent with Ube Industries, Ltd. regarding integration of cement business, etc. 	<ul style="list-style-type: none"> ● Development of new overseas bases ● Improvement of the cement manufacturing technology in Japan and the US (Cause of delay: ❸)
Environment and Energy Business	<ul style="list-style-type: none"> ● Started joint development of recycling technology for lithium-ion battery ● Established a food waste biogas business company ● Started operations of Wasabizawa Geothermal Power Plant and construction of Appi Geothermal Power Plant 	<ul style="list-style-type: none"> ● Incineration fly ash cleaning plant for cement recycling (Cause of delay: ❸)
Group wide	<ul style="list-style-type: none"> ● Sold all shares in Mitsubishi Materials Real Estate Corporation ● Invested in Incubation Alliance Inc., which develops and manufactures Graphene ● Established New Business Development & Promotion Division and EV Material Development & Recycling Business Promotion Department ● Established MMC Innovation Investment Business Limited Liability Partnership ● Established Smart Factory Promotion Center 	

Cause of delay

- ❶ Insufficient marketing activities
 - ❷ Insufficient gathering of customer information
 - ❸ Insufficient 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)
P/L	Consolidated net sales	1,599.5	1,692.9	1,520.0	1,620.0-1,840.0
	Consolidated net sales (excluding metal)	831.1	860.7	830.0	870.0-900.0
	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
Assumptions	Exchange rate (yen/\$)	111	111	109	100-120
	Exchange rate (yen/€)	130	128	121	120
	Copper price (¢/lb)	292	288	268	250-270

※1 Announced on February 12, 2020

※2 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

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 economic values

Contribute to build a prosperous society

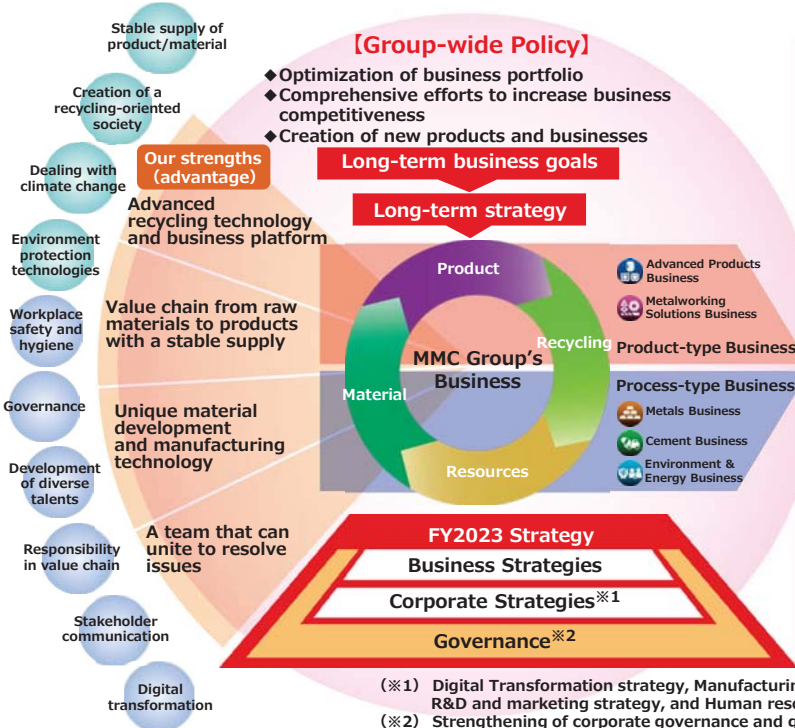
Contribute to build a recycling-oriented society

Contribute to build a decarbonized society

Social issues to be solved and SDGs

Materiality

- Advancing mobility
- Advancement and diversification of digital devices
- Automation of production and business processes
- Longer lifespans of people and buildings
- Effective measures against disasters
- Efficient treatment of urban waste
- Efficient use of mineral resources and alternative substances
- Efficient use of energy resources
- Development of renewable and unused energies
- CO2 emissions reduction



Products & Services

- High-function products for automobiles and electronics
- Processed products and services for productivity improvement and environmental protection
- Nonferrous metals products made with smelting process with a low environmental load
- Base material for construction
- Recycling system
- Renewable energy

Value Proposition

- Convenience & comfort
- Safety & security
- Conservation of resources
- Waste recycling
- Greenhouse gas reduction



(※1) 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

2030~2050



II Overview of FY2023 Strategy

- 1) Value Creation Process
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Mission (Corporate Philosophy System)

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

Corporate
Philosophy

Vision

The image of what
we want to be

Mission

Concrete goals based
on corporate
philosophy and vision

Group-wide Policy

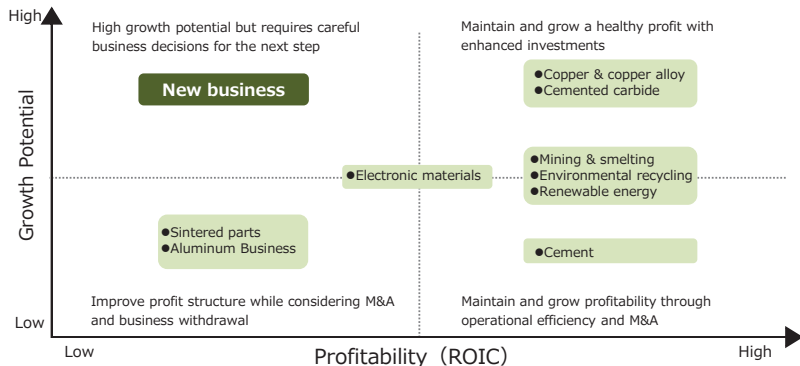
Long-term
business target

Long-term strategy

FY2023 Medium-term
management strategy

Optimization of business portfolio

Portfolio matrix



[Characteristics of businesses that the company should take ownership of]

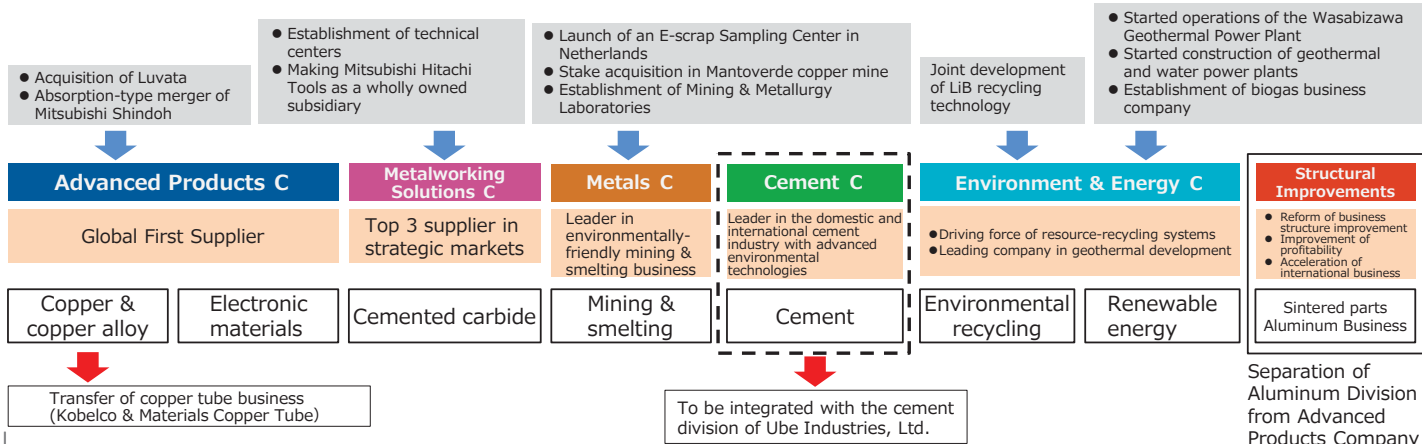
- Businesses that are consistent with the Group's vision and mission
- Businesses that are governable by the Group
- Businesses that are capable of earning a leadership role in a specific region or the world
- Businesses that can deliver stable returns over capital costs on a medium- to long-term basis

[Building business portfolio]

- Profitability and growth potential determine the business direction
- Profitability is measured by ROIC (spread)
- Growth potential is measured by EBITDA growth rate, etc.

Legend
C : Stands for "in-house company"
 : Long-Term Goals of Business

Reformation of business structure



II Overview of FY2023 Strategy

- 1) Value Creation Process
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- 6) Governance

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

※1 Announced on February 12, 2020

※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
The whole MMC group	ROIC	4.2%	6.0%
	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 Business	Copper & copper alloy ^{*1}	ROIC	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		7.9%	7.0%	EBITDA	28.5 billion yen	39.0 billion yen
Metals Business			19.4%	10.5%	ROA ^{*2}	7.8%	6.5%
Cement Business			4.8%	6.0%	ROA	5.4%	6.0%
Environment & Energy Business ^{*3}	Environmental recycling		1.1%	4.0%	ROA	3.3%	6.0%
	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

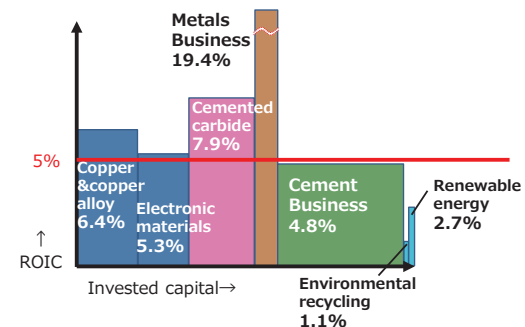
^{*1} Plans to invest approx. 30 billion yen starting from FY2021. Investment achievements will appear during next medium-term management plan period.

^{*2} Calculated by excluding the price of bullion

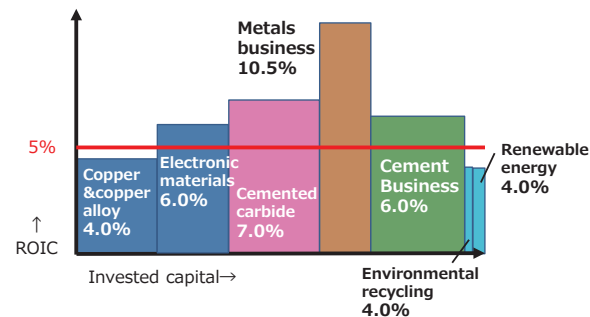
^{*3} Due to the launch timing of equipment under construction, the ROICs of Environmental Recycling Business and Renewable Energy Business are expected to exceed WACC in FY2024 and FY2027, respectively.

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

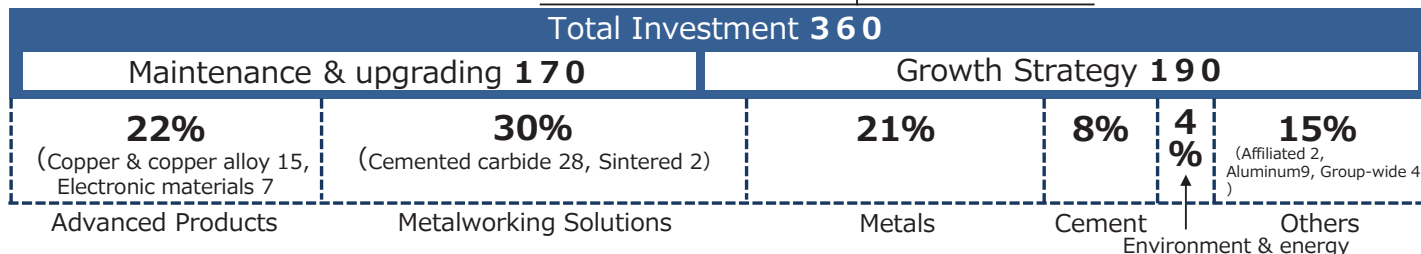
(Unit: billion yen)

Cash in	
Operating CF	280
Others ^{※1}	60
Total	340

Cash out		
Investing CF	Investment for growth	190
	Investment for maintenance and upgrading	170
	Subtotal	360
Financing CF	Dividends ^{※2}	46
Total		406

- ※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



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	80yen/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%

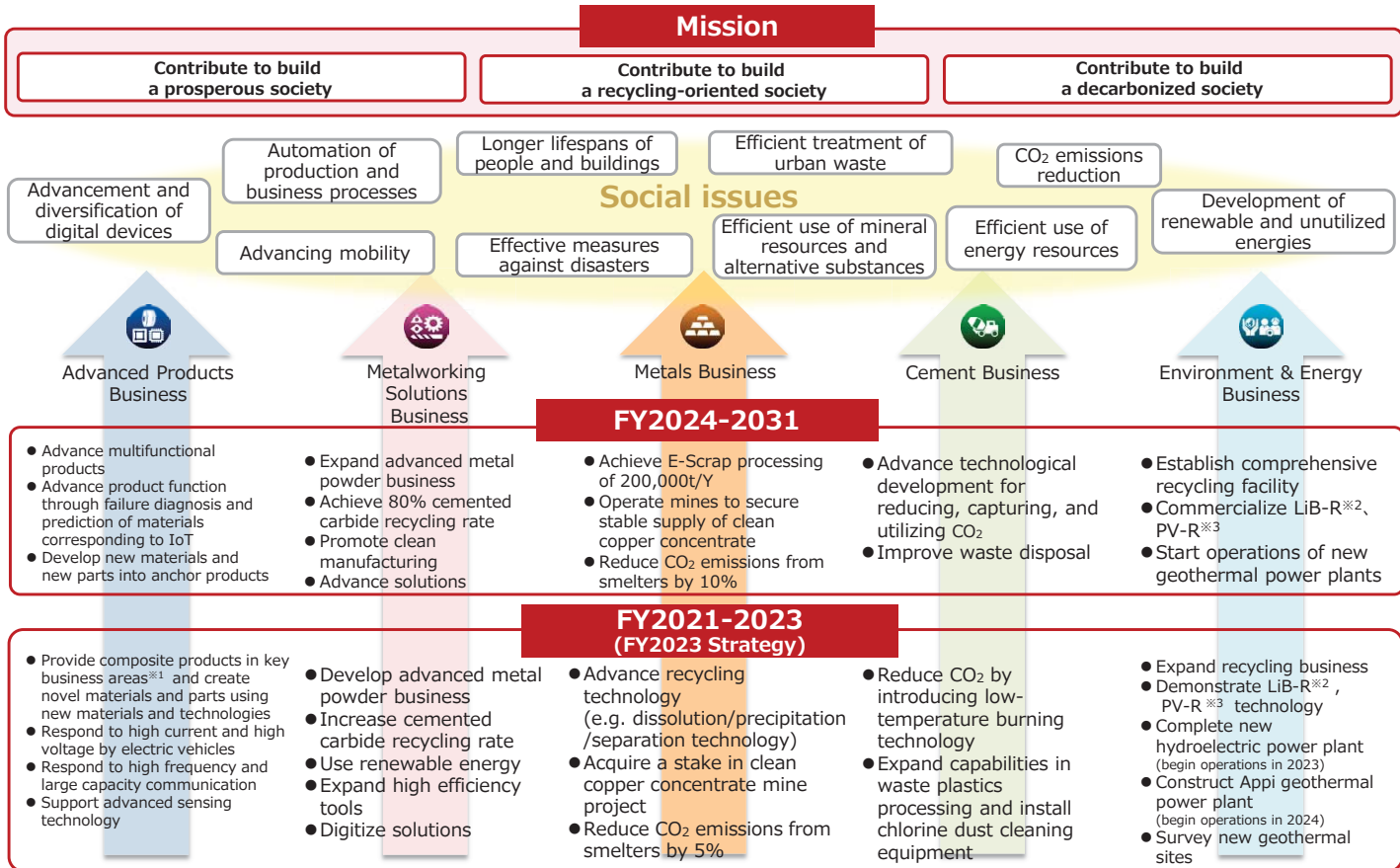
II Overview of FY2023 Strategy

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

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

	Long-term business goals	Long-term strategy	ESG/SDGs			Mission		
			E (Environment)	ES	S (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	<ul style="list-style-type: none"> ● 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 	 	 		<ul style="list-style-type: none"> ● Advance and diversifying mobility and digital devices ● Automate production and business processes 	<ul style="list-style-type: none"> ● Develop and use materials with low environmental impact ● Efficiently use mineral resources and alternative resources 	<ul style="list-style-type: none"> ● Efficiently use energy resources ● Reduce CO₂ emissions ● Develop and supply products that contribute to decarbonization
Metalworking Solutions Business	Top 3 supplier in strategic markets	<ul style="list-style-type: none"> ● Promote clean manufacturing ● Provide high-efficiency products with advanced technology ● Expand advanced metal powder business in electronic devices 	 	 		<ul style="list-style-type: none"> ● Provide high-efficiency products and digital solutions 	<ul style="list-style-type: none"> ● Promote the use of recycled cemented carbide materials 	<ul style="list-style-type: none"> ● Promote manufacturing renewable energy ● Expand electrification business by advanced metal powder technology
Metals Business	Leader in environmentally-friendly mining & smelting business	<p>Stable supply and recycling of nonferrous metal materials, predominantly copper</p> <ul style="list-style-type: none"> ● Creation of a sustainable raw material portfolio consisting of clean copper concentrate and E-Scrap ● Promotion of recycling ● Response to climate change 	 	  	<ul style="list-style-type: none"> ● Provide copper-based materials for advanced products 	<ul style="list-style-type: none"> ● Provide recyclable products ● Recycle waste 	<ul style="list-style-type: none"> ● Promote the development and use of CO₂ reduction technologies ● Achieve manufacturing that considers environmental load 	
Cement Business	Leader in the domestic and international cement industry with advanced environmental technologies	<ul style="list-style-type: none"> ● Stable supply of basic building materials for social infrastructure and disaster prevention infrastructure ● Sophistication of waste disposal ● Response to climate change by reducing CO₂ ● Construction of a resilient domestic business foundation through business restructuring and business growth in overseas markets 	 	  	<ul style="list-style-type: none"> ● Create a safe, secure, and functional city 	<ul style="list-style-type: none"> ● Recycle waste ● Promote sustainable resource recycling 	<ul style="list-style-type: none"> ● Reduce CO₂ 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 style="list-style-type: none"> ● Provision of a safe recycling system with thorough traceability, etc. ● Decarbonization by expanding renewable energy business 	 	  	<ul style="list-style-type: none"> ● Ensure a stable supply of clean energy and recycled products 	<ul style="list-style-type: none"> ● Solve urban waste problems ● Build a sustainable social system 	<ul style="list-style-type: none"> ● 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

Contribute to build a decarbonized society

Social Issues

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 energy resources

Development of renewable and unutilized energies

Advanced Products Business

Metalworking Solutions Business

Metals Business

Cement Business

Environment & Energy Business

FY2024-2031

- 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

- Achieve E-Scrap processing of 200,000t/Y
- Operate mines to secure stable supply of clean copper concentrate
- Reduce CO₂ emissions from smelters by 10%

- Advance technological development for reducing, capturing, and utilizing CO₂
- Improve waste disposal

- Establish comprehensive recycling facility
- Commercialize LIB-R^{※2}, PV-R^{※3}
- 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 CO₂ emissions from smelters by 5%

- Reduce CO₂ by introducing low-temperature burning technology
- Expand capabilities in waste plastics processing and install chlorine dust cleaning equipment

- Expand recycling business
- Demonstrate LIB-R^{※2}, 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



Sales volume of copper materials for new HV/EV

2.5 times or more

FY2020 forecast
396t

FY2023 target
1,000t



Sales volume of materials for next-generation vehicles and environmentally friendly products

5 times or more

FY2020 forecast
3.4billion yen

FY2023 target
20.3 billion yen



Ratio of recycled tungsten as raw material in cemented carbide tools

Up 25%

FY2020 forecast
28%

FY2023 target
35%



E-Scrap processing capacity

Up 25%

FY2020
160,000t

FY2031 target
200,000t



Waste and by-products processing volume in cement production

Up 13%

FY2020 forecast
4 million tons

FY2031 target
4.5 million tons
(FY2020 production volume basis)



Annual processing volume of home appliance recycling

Up 35%

FY2020 forecast
2.6million units

FY2023 target
3.5 million units



Annual total power generated by renewable energy

Up 30%

FY2020 forecast
421GWh

FY2026 target
550GWh

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.



Long-term
business goals

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

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



Key measures

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

Key strategies 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.)



Long-term
business goals

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



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 Network





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 CO₂ emissions by 5%



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

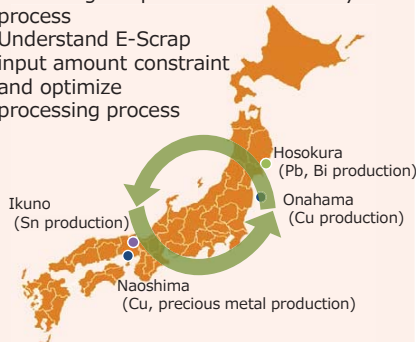
Develop impurity removal technology in copper concentrate

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

Promotion of recycling

Optimize material flow

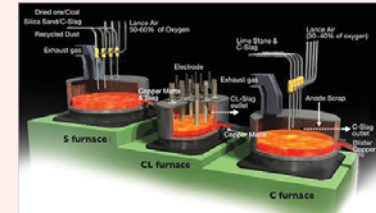
- Material grid
Optimize material flow connecting each smelter and enhance the recovery of valuable metals at each smelter
→ Efficient recycling of Cu, precious metals and trace components in E-Scrap
- Improve the yield of Au and Ag by enhancing the precious metal factory process
- Understand E-Scrap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



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

※Off-take: long-term takeover rights linked to mine investment interests



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 CO₂
- 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 CO₂ 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



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 CO₂ 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)



(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

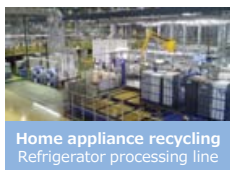


Key measures

- 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

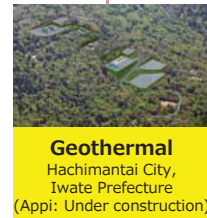
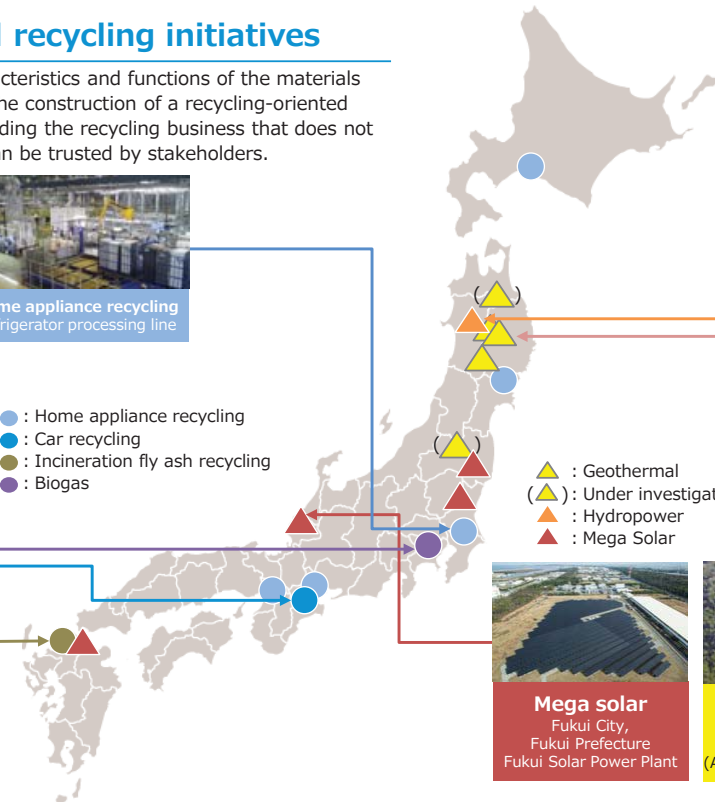
Environmental recycling initiatives

By making the most of the characteristics and functions of the materials company, we will contribute to the construction of a recycling-oriented society by developing and expanding the recycling business that does not rely on final disposal sites and can be trusted by stakeholders.



- : Home appliance recycling
- : Car recycling
- : Incineration fly ash recycling
- : Biogas

- ▲ : Geothermal
- (▲) : Under investigation
- ▲ : Hydropower
- ▲ : Mega Solar



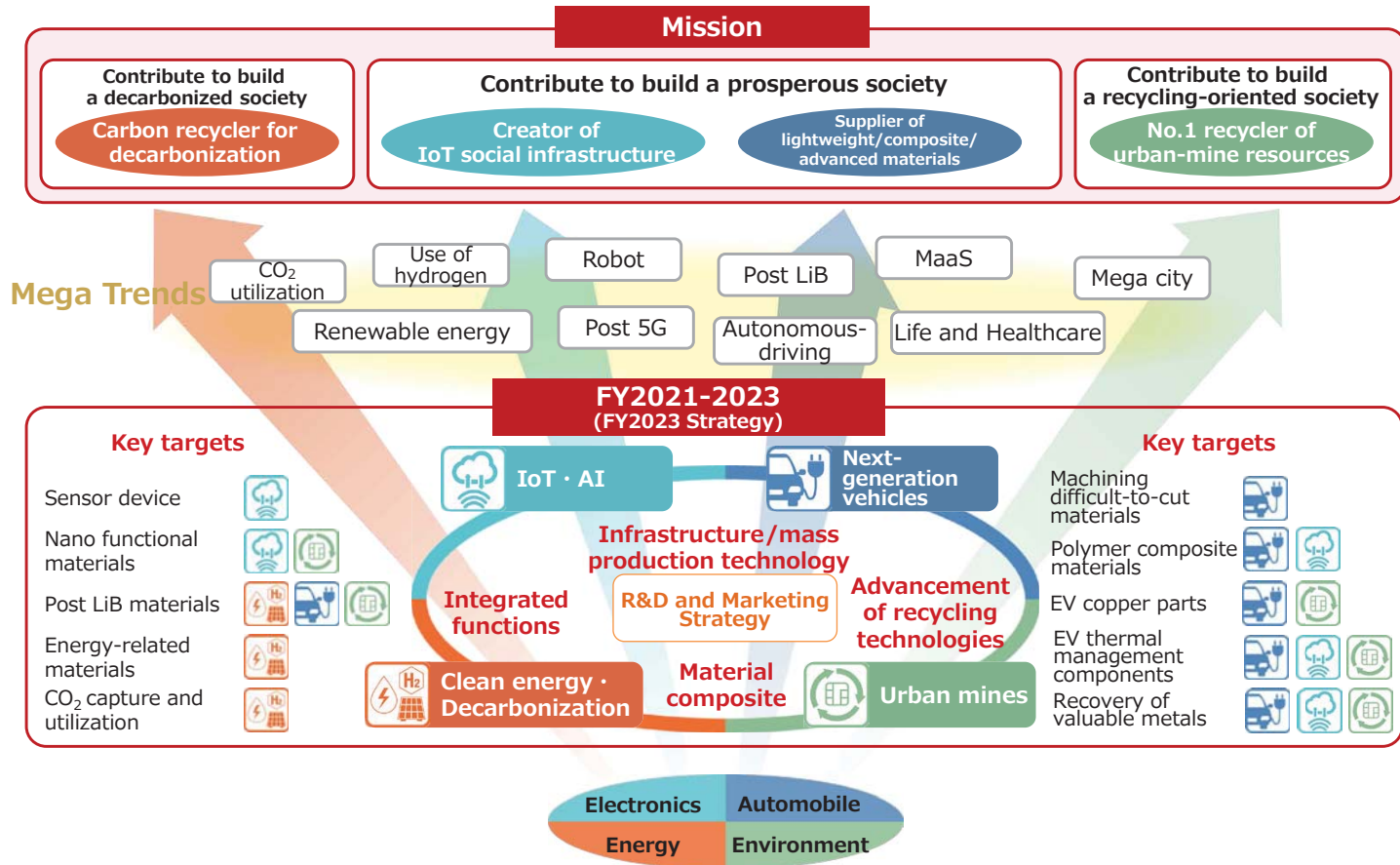
Renewable energy initiatives

Based on the management resources we have cultivated, we will expand the renewable energy business and contribute to the construction of a decarbonized society by providing a stable energy supply with a low environmental impact.

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

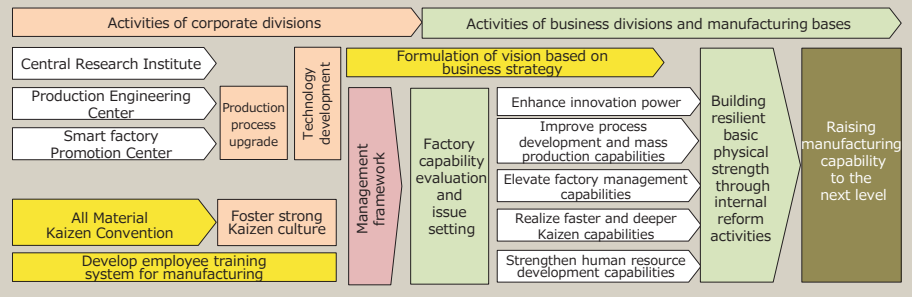


Corporate Division's Strategy : Manufacturing Excellence Strategy/Quality Management Strategy/Digital Transformation Strategy

Manufacturing excellence strategy

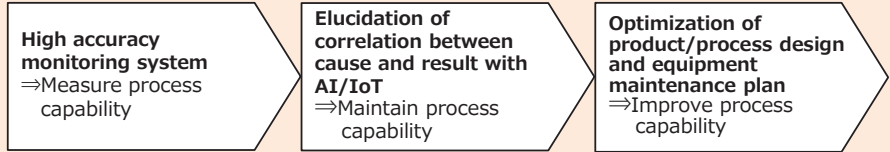
Raise manufacturing capability to the next level

- 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

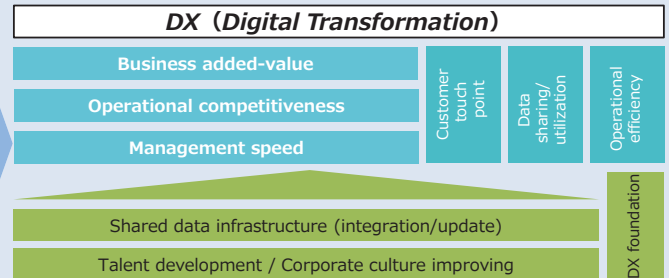
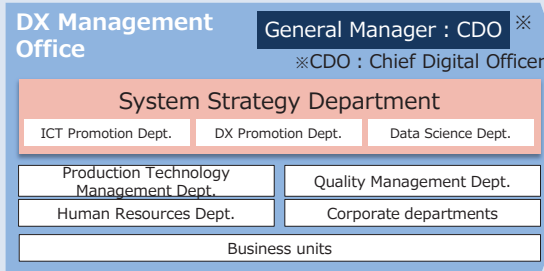


Digital Transformation (DX) strategy

- 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



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◆ 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

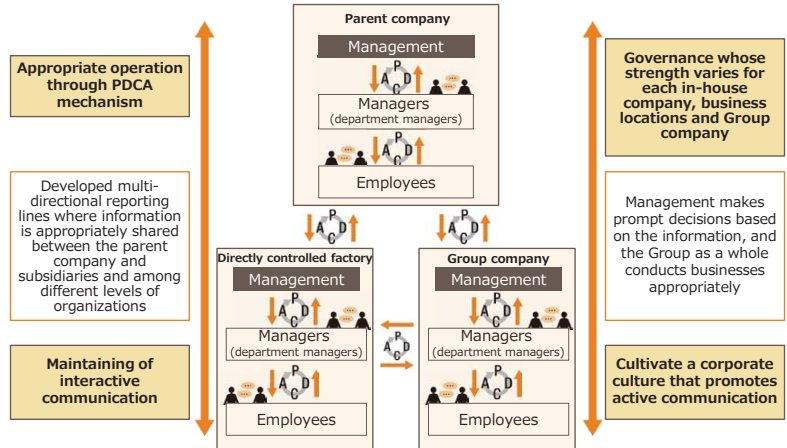
- Review of systems for director nomination and remuneration
- Proactive management of the Board of Directors

Governance : Strengthening Group Governance

Targeting organization and corporate culture

- 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



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

HR Strategy	Secure and foster talents adaptive to change and forge a healthy organizational culture	
	◆ Talent	<ul style="list-style-type: none"> 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.
	◆ Organizational culture	<ul style="list-style-type: none"> ① Enhance motivation: Introduce professional talent system, etc. ② Enhance management capabilities of the Group companies: Promote personnel exchange within the Group, etc.
	◆ Improvement of social value	<ul style="list-style-type: none"> ① Employ diverse talents: Recruitment rate of new female graduates: 25% or more, etc. ② Health & productivity management: Health company declaration, White 500 certified

Change of organizations	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