Overview of Medium-term Management Strategy for FY2018-2020

(From the year ending March 31, 2018 to the year ending March 31, 2020)

~Transformation for Growth~

May 16, 2017
Akira Takeuchi, President,
Mitsubishi Materials Corporation



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- II. Overview of New Medium-term Management Strategy ("FY2020 Strategy")
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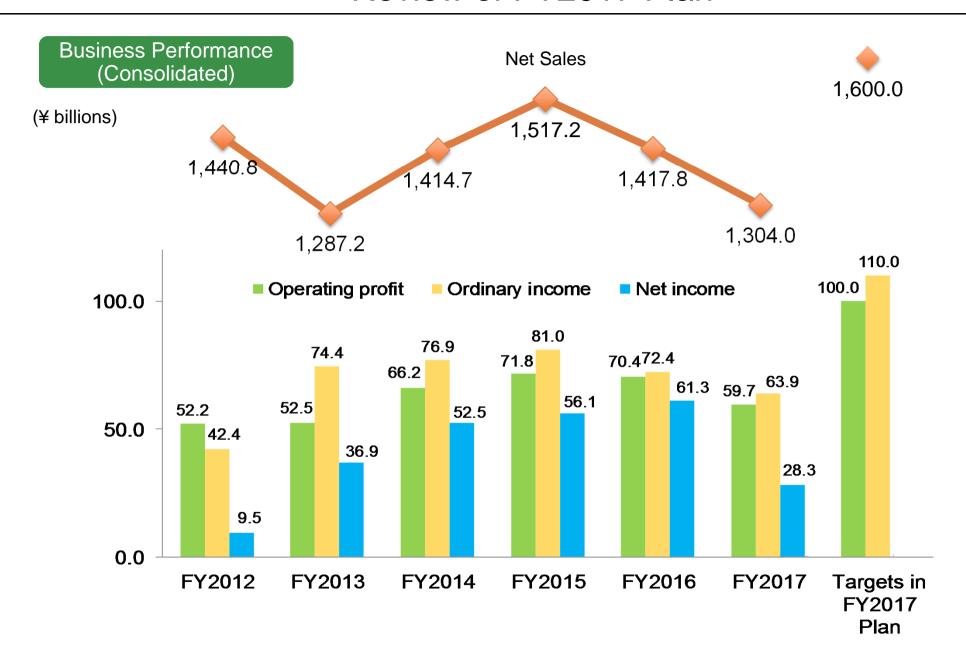
Management targets for the final fiscal year

•	Operating profit	100 billion yen
•	Ordinary income	110 billion yen
•	ROA (ordinary income to total assets)	6 %
•	Net D/E ratio	1.0 time or lower

Group-wide growth strategy

- Fortifying the foundation for growth
- Strengthening global competitiveness
- Pursuing a recycling-based business model





Business Performance (Consolidated)

	(Consolidated)					
		FY2017	Result			
	Financial Indicators	Targets	FY2015	FY2016	FY2017	
	Operating profit (¥ billions)	100	71.8	70.4	59.7	
	Ordinary income (¥ billions)	110	81.0	72.4	63.9	
(0	ROA ordinary income to total assets, %)	6	4.4	3.9	3.5	
	Net D/E ratio (times)	1.0 or lower	1.0	0.8	0.6	
	Assumptions	Assumptions for FY2017 Plan			FY2017 Results	
	Average TTM (yen/\$)	100			108	
	Average TTM (yen/€)	130			119	
	Copper price (¢/lb)	300			234	

Profit Targets Not Met by Final Year of FY2017 Plan

Profit falling short of targets in FY2017 Plan (ordinary income)

Total -46.1 billion yen

Cement -14.4 billion yen

Metals
-12.4 billion yen

Advanced
Materials & Tools
-13.0 billion yen

Others -6.0 billion yen External factors -25.3 billion yen

Metal prices: down 11.6 billion yen Market conditions, etc.: down 13.7 billion yen

Internal factors -20.8 billion yen

Sales falling short of target: -18.8 billion yen

Accommodate to changes in the external environment

- ◆As a medium-term management strategy, review the growth strategy and investment plan for upcoming three years once a year.
- Review the long-term management policy every three years as necessary.

Build a structure focusing on strategy

- Focus on growth strategy, rather than financial plans, and prioritize the implementation and checking of the strategy.
- Focus on marketing when developing the strategy.

I. Review of Previous Medium-term Management Plan ("FY2017 Plan")

II. Overview of New Medium-term Management Strategy ("FY2020 Strategy")

Transformation for Growth

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Financials

III. Business Strategy by Segment

Transformation for Growth

Undertake a range of "Transformations" to achieve the sustainable development of the Mitsubishi Materials Group

Sharing a sound sense of crisis

Transformation

Transformation of Corporate Culture (Mind, System, Process)

Clear targets (strategy, indicators) and passion to achieve the targets

Three driving forces



For Implementation of Transformations



Corporate Philosophy

For People, Society and the Earth

Vision

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

Values

- Respect Diversity and Teamwork
- Act with Integrity, Speed and Determination
- Tireless Efforts to Meet the Needs of our Customers and Society

Code of Conduct

Chapter 1: Respect Human Rights

Chapter 2: Safety First Chapter 3: Compliance

Chapter 4: Mutual Prosperity

Chapter 5: Environmental Management

For Implementation of Transformations

Transformation of Corporate Culture

Employees are the source of value creation and competitiveness

The thoughts and actions of the leaders influence the future of the company

Leadership Values in Mitsubishi Materials Group

Personality and spirit as a leader

Ability to envision a business model

Ability to make a vision into reality

Change the company logo.

Established on April 1, 2017

New company logo







Aim to increase the recognition and brand power of the Group in its global business operation.

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Transformation for Growth

Overview of FY2020 Strategy

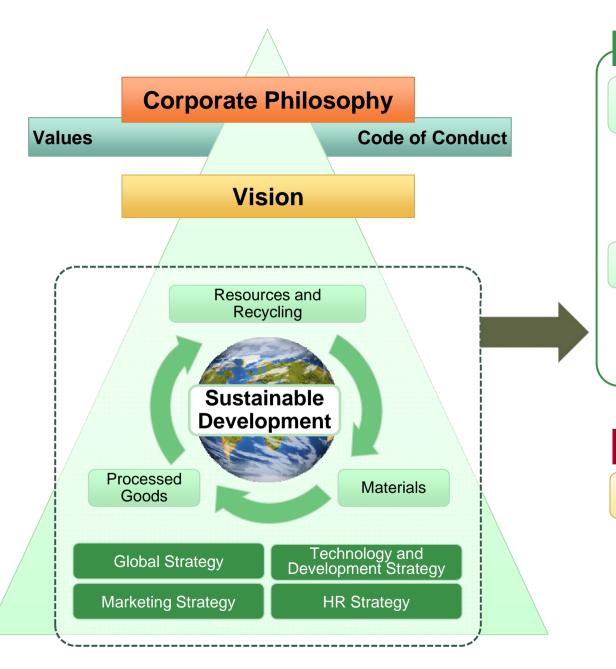
Financials

III. Business Strategy by Segment

Perception of External Environment (10 years from now)

Segment	Japan	Overseas
Overall	 ◆ Super-aged society ◆ Infrastructure development for disaster prevention and reduction ◆ Hollowing out of domestic market due to progress of globalization ◆ Increasing environmental consciousness (increase in EVs, recycling needs, etc.) ◆ Super-advanced information society based on AI and IoT (accelerated speed of change) 	 ◆ Change in international order ◆ Increase in protectionism ◆ Slowdown in the growth of emerging BRICS economies ◆ Increase in the need for infrastructure development due to growing population ◆ Increasing environmental consciousness (increase in EVs, recycling needs, etc.) ◆ Super-advanced information society based on AI and IoT (accelerated speed of change)
Cement	 ◆Possibility of a decline in demand ◆Possible further reorganization of the industry due to oversupply 	 ◆Growth of demand in emerging countries ◆Excessive production capacity in emerging countries ◆China's oversupply, export drive, and prolonged market stagnation ◆Strong demand in the US
Metals	◆ Progress of commoditization◆ Possibility of a decline in demand for copper & copper alloy products	◆Decline in copper quality in mines, increase in operational costs ◆Global lead-free movement
Advanced Materials & Tools	 ◆ Declining tendency in the number of automobiles manufactured ◆ Increase in the number of airplanes manufactured, increasing hard-to-machine materials 	 ◆Increase in the number of automobiles manufactured in emerging countries ◆Increase in the number of airplanes manufactured, increasing hard-to-machine materials
Electronic Materials & Components	 ◆Low-cost products from emerging countries and intensifying competition ◆Super-advanced information society based on AI and IoT (accelerated speed of change) 	◆Growth of demand in emerging countries ◆Super-advanced information society based on AI and IoT (accelerated speed of change)
Aluminum	 ◆Possibility of rolled products market shrinkage ◆Gradual shrinking of beverage can market due to declining population 	 ◆Growth of rolled products market (for automotive panel, and bevarage cans) ◆Growth of heat exchange materials for automobiles ◆Growth of beverage can market in Southeast Asia

Overview of FY2020 Strategy



Long-term Management Policy

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

- Leading company in domestic and overseas key markets
- Achieving high profitability and efficiency
- Achieving 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



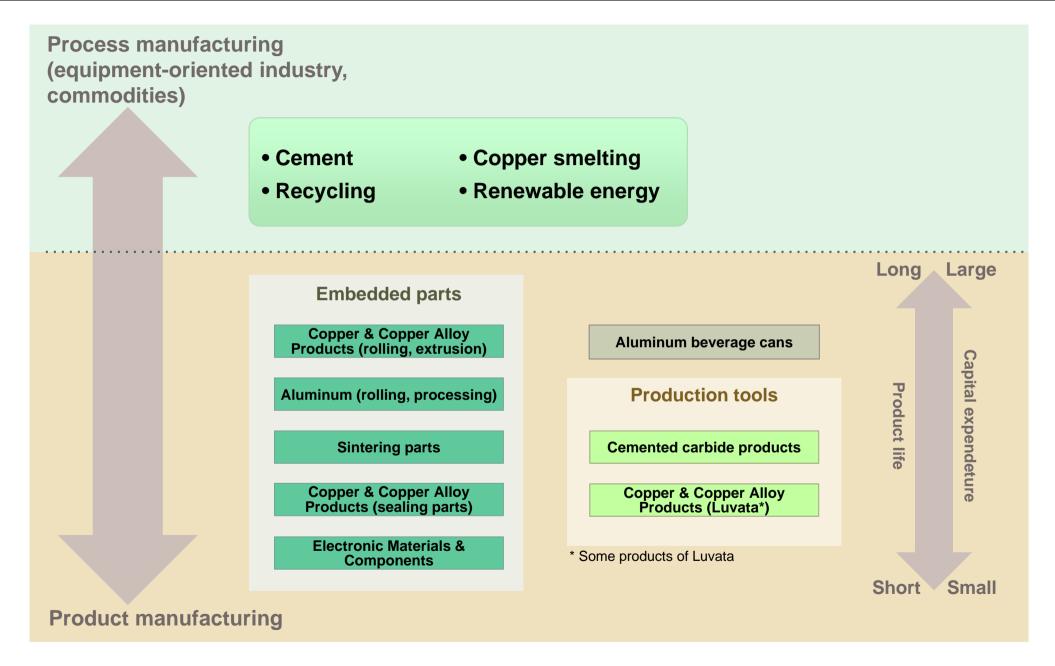
Medium-term Management Strategy

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



Group-wide Policy: Optimization of Business Portfolio



Group-wide Policy: Optimization of Business Portfolio

		Direction	(Indicator to watch)
Stable growth business	Cement Metals (smelting) Recycling Renewable energy	◆ Aim to strengthen the business foundation by increasing and maintaining cost competitiveness using recycling revenues, etc. and seek carefully selected opportunities for large investments	
Growth promotion business	Metals (Copper & Copper Alloy Products) Advanced Materials & Tools	 ◆ Promote growth by matching customer and market needs and the Company's strength ◆ Business development in adjacent fields and global markets 	EBITDA growth rate
Profitability restructuring business	Electronic Materials & Components Aluminum	 ◆Work promptly to solve issues and define the future direction of growth. • Make investments in competitive advantages and support technological development • Ensure thorough selection and concentration 	ROS comparison with competitors

Group-wide Policy: Comprehensive Efforts to Increase Business Competitiveness

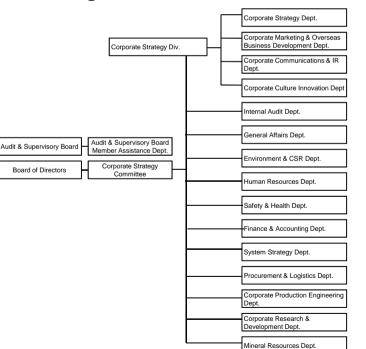
Reorganization of the Corporate Div. at Head Office

- Unified implementation of process development and product development by the Technology Div.
- Strengthening the function of group-wide strategy development and business support
- Providing one-stop services to business divisions

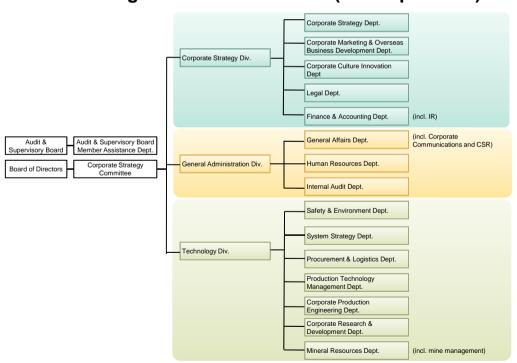


Reforming the organization to support the efforts to increase business competitiveness

Organization before reform



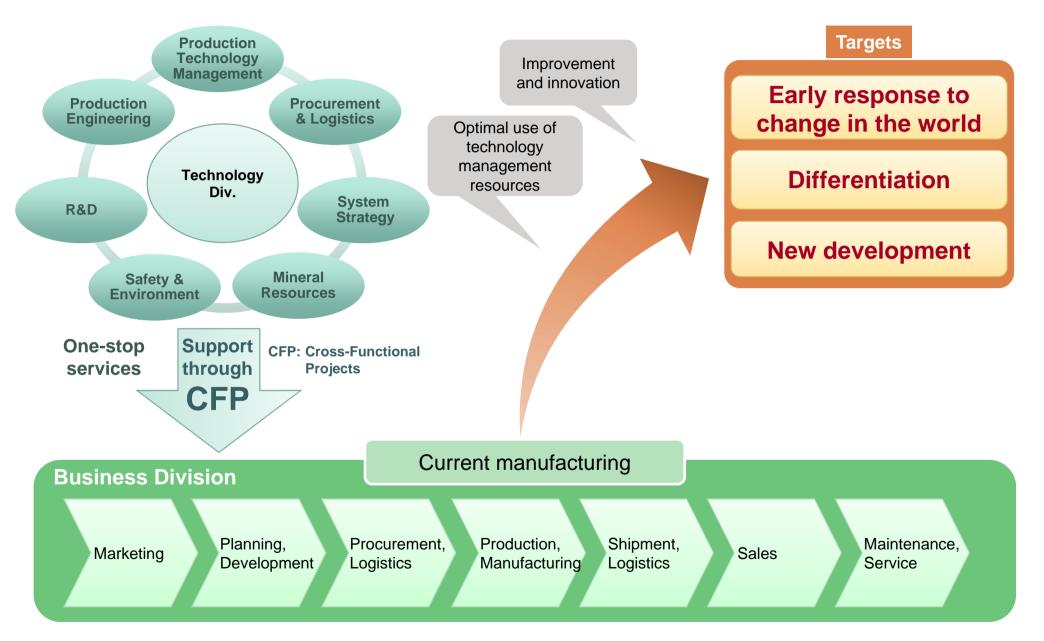
Organization after reform (from April 2017)



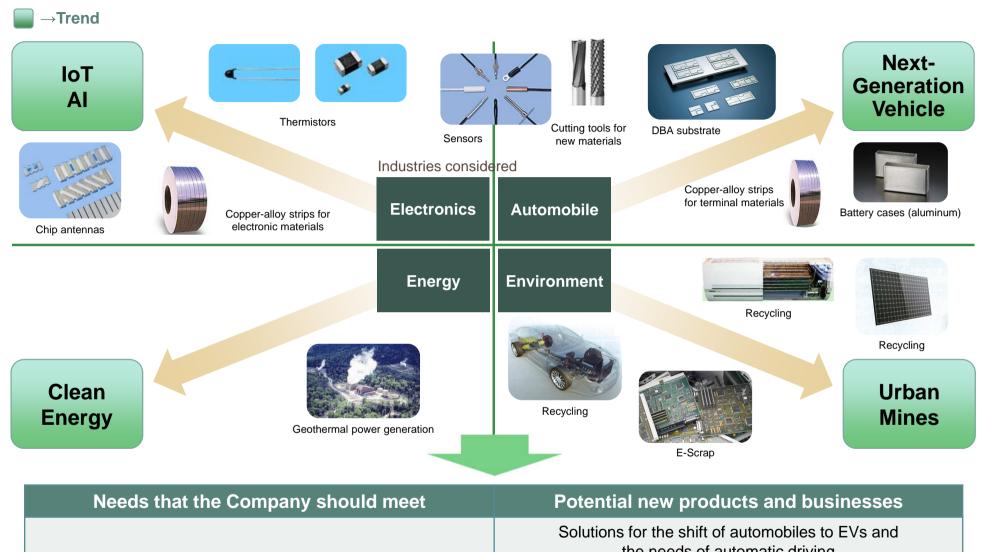
^{*} Modify the business department organization in the FY2020 Strategy.



Group-wide Policy: Comprehensive Efforts to Increase Business Competitiveness



Group-wide Policy: Creation of New Products and Business



Needs that the Company should meet	Potential new products and businesses
Next-generation vehicle, IoT and AI	Solutions for the shift of automobiles to EVs and the needs of automatic driving Heat management materials Sensors, antenna modules, and etc.
Building a rich, sustainable society	Recycling, renewable energy, businesses related to hydrogen-energy society, and etc.

Global Strategy

Promote growth and strengthen presence in the global market

Expansion of existing bases

- Expand the cement business in North America
- Improve functions of overseas bases for cemented carbide products

Develop new production and sales bases

- Boost sales of copper/copper alloy products using Luvata's facilities
- Expand sales bases for cemented carbide products

New customer and market development

- Boost sales of cemented carbide products in aerospace and medical applications sectors (EU/US)
- Boost sales of aluminum heat-exchanger materials for automobiles

Strengthening overseas marketing

- (US) Strengthen sales support system
- (India) Strengthen sales support system
- (Other regions) Consider business advancement based on market research

(¥ billions)

Overseas sales				
Results for FY2017	416.0			
Provisional Financial Calculations for FY2020	535.0 ~ 606.0			

(excl. gold bullion)



Marketing Strategy

Differentiate the company's products, technologies, and services

Development of a solution-based business model

Carry out project activities with the participation of group companies in order to build a relationship with target customers as a solution partner

Visualization of value sought by customers

Shift from proposals for individual components to the style of proposing modules and systems with embedded components and visualize the value sought by customers

Unified management of customer information

Share information on customer trends and needs used for effective development, sales, and marketing activities

Development and improvement of marketing human resources

Develop and improve human resources using outside consultants and internal and external training

HR Strategy

HR Strategy

Improve the development and retention of human resources equipped with high strategic skills and practical abilities and strengthen the Group's management capacity through the appropriate placement of human resources

Human Resources

- Development of next-generation management executives
- Development of human resources for global operation
- Promotion of human resource diversity
- Appropriate placement of human resources

System

- Appropriate operations and continuous improvement of HR systems and programs
- Effective use of HR systems
- System that supports a range of working styles

Corporate Culture

- Diffusion and practice of the "Leadership values in MMC Group"
- Creation of opportunities to improve communication
- Creation of a corporate culture in which diversity is accepted

Technology and Development Strategy

- Overall optimization of group development (understand the strengths of the group and present the direction of development)
- ◆ Establish a firm technology base (strengthen existing core technologies, get new technologies ahead)
- ◆ Technology and development support for existing business (support for new product / new technology development, technical support for strengthening business)
- **♦ Innovation (creation of new business, etc.)**

Process Manufacturing (Cement, and Metals(smelting))

- ◆Process innovation (stable operation, plant efficiency (cost competitiveness), CO₂ countermeasures)
- ◆Urban resource recycling No. 1 (maximizing waste utilization, increasing E-Scrap recycling volume)
- ◆ Reduction of domestic demand, Response to labor shortage (technology transfer, etc.)

Product manufacturing (Metals (Copper/copper alloy products), Advanced Materials & Tools, Electronic Materials & Components, and Aluminum)

- ◆ Response to diversification of customer needs
 ⇒ Differentiated product development (new copper alloy, plating, etc.)
- ◆Shorter product cycle ⇒ Speed up development, utilize external technologies, etc.
- ◆Globalization, Commoditization
 ⇒Mass production, automation, intellectual property enhancement

Innovation (New business)

- ◆ Next-generation vehicles, IoT, AI (solutions of the shift of automobile to EVs and needs of automatic driving), heat management materials, sensors, antenna modules, etc.)
- ◆Building a rich, sustainable society (recycling, renewable energy, hydrogen-energy, etc.)

Key Strategies in FY2020 Strategy (Group-wide)

Mediumto Longterm Goals

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



Groupwide Policy

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

Key strategies

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
 Become a partner prioritized by customers Provide optimal solutions Implement open innovations 	 Reduce waste by pursuing value chains Expand the recycling business by establishing the Company's original business model 	 Expand global business bases by increasing production, sales, and service establishments Promote local production for local consumption Determine and strengthen core technology 	 Strengthen safety management system Carry out stable operation Increase productivity Increase energy efficiency Increase productivity and improve services using IT Develop sales skills comparable to competitors

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Group-wide: Investment Strategy

- ◆ Strengthen the businesses by utilizing operating cash flow and revenue from sale of assets
- ◆ If there is any other favorable large investment for growth, however, the Company will positively implement such an investment as far as keeping Net D/E ratio of 1.0 time or lower

FY2018 - 2020 Cumulative Cash Flow

Cash in				
Operat		240.0		
Investing CF	Sale of assets		60.0	
То		300.0		
Sales of share in SUMCO Corporation (moved forward in the previous period) 26.				
		•	326.0	

	± DIIIIO115		
	Investment for growth	150.0	
Investing CF	Investment for maintenance and upgrading	170.0	
	Subtotal	320.0	•¬
Financing CF	Dividend, etc*1	46.0	000.0
Total		366.0	280.0
Acquisition of L	• –		
		326.0	

FY2018 – 2020 Cumulative Investment Plan

	Total amount of invest	tment 280.0*2				
Maintenance/u	upgrading 170.0	Growth strate	ду	110	0.0 *2	
Cement 22%	Metals*2 33%	Advanced Materials & Tools 21%	4 %	8 %	7 %	5 %
Total amounts of dividend payment from MMC and dividend payment to non-controlling interests from consolidated subsidiary Excludes the cost of acquiring Luvata (Approx. 40 billion yen) carried forward from the previous period.					Environment & Energy	Common investment

¥ hillions

Group-wide: Capital Policy

	FY2017 (Results)	FY2018-2020
Dividend	60 yen/share	80 yen/share

- ◆ While the Company's performance is changed, its policy is to maintain stable dividends, and annual dividends during the FY2018-2020 period will be 80 yen per share (dividend amount in 2019).
- ◆ If the consolidated dividend payout ratio is lower than 25%, however, the Company will temporarily increase the dividend or purchase treasury stock.

^{*} A consolidation of shares of the Company's common stock at a 10:1 ratio was executed, with an effective date of October 1, 2016. According to this, dividend per share for FY2017 is calculated on the assumption that the consolidation of its shares was conducted at the beginning of the FY2017.



Group-wide: Provisional Financial Calculations

(¥ billions)

		Results for FY2017	Provisional Financial Calculations for FY2020	Remarks
	Consolidated net sales	1,304.0	1,620.0~1,840.0	
Income statement	Consolidated net sales (excl. metals costs)	757.1	870.0~910.0	
	Consolidated ordinary income	63.9	82.0~100.0	[Principal reasons of changes, ordinary
	Total assets	1,896.9	1,950.0	income base] Market conditions 12.0
Balance sheet	Net interest-bearing debt	386.9	450.0	Investment effect 15.0 Metal prices 3.0~7.0
onoot	Shareholders' equity	621.2	640.0	Foreign exchange -6.0~8.0
ROA (ordin	ary income to total assets) (%)	3.5	4.5~5.0	Other -6.0 Total 18.1~36.1
ROE (%)		4.8	7.0~8.0	
Net D/E ratio (times)		0.6	0.7	
	Exchange rate USD (yen/\$)	108	100~120	[Sensitivity]
Assumption (*)	ns Exchange rate EUR (yen/€)	119	120	◆ Exchange rate 1 yen/\$ (yen depreciation) 0.7 billion yen
	Copper price (LME) (¢/lb)	234	250~270	◆Copper price (LME) +10 ¢/lb 2.2 billion yen (Ordinary income)

^{*} Median used for BS



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Cement Business

Mediumto Longterm Goals

- ♦ Become a leading company in terms of efficiency in the cement industry
- ♦ Become a local-area champion in overseas



Business Policy

- **♦** Become superior in the domestic market that is contracting as it matures
- **♦** Grow overseas businesses with the support of stable cash income from domestic businesses

Key strategies

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
 R&D and Innovation Develop technology to reuse waste for cement manufacturing Enhance concrete technology Reduce CO₂ 	 Expand the environmental business Develop new business in growth segment Increase the alternative thermal energy rate 	 Fortifying the domestic foundation for competitiveness Kyushu Plant: increase global competitiveness Downstream business: fortifying the sales foundation in Tokyo metropolitan area, etc. Expand the US business Expand the ready-mixed concrete business Establish and reinforce MCC terminals Develop new overseas business bases 	 Improve domestic and the US cement manufacturing technology Establish a stable operation system Reduce costs Thoroughly conserve energy Increase workplace capability

Cement Business

Priority measures: Expansion of the US business and development of new business bases



Cushenbury Plant

Long Beach import terminal

Cement supply and sales

Ready-mixed concrete and aggregate business



Ready-mixed concrete plant



Aggregate quarries

Cement manufacturing measures **Cement supply Ready-mixed** concrete business

Increased cost competitiveness

Expansion of supply system

Expansion of revenue foundation

Stable operation through renovation, energy cost reduction, and recycling expansion achieved through

Accommodation to demand for cement-concrete admixture (LBT* expansion and new SDT* facilities)

Expansion of ready-mixed concrete business area (north and east LA), aggregate quarries development and enhancement

* LBT: Long Beach Terminal * SDT: San Diego Terminal



(Overseas) Consider the **Business acquisition**

Area where a vertical integration model can be built

◆ Maximize profit throughout the value chains

Area with high import dependence

◆Increase synergy with plants in Japan

Emerging market

- **◆**Upstream business (manufacturing and sales of cement)
- More differentiating elements than downstream business (readymixed concrete, etc)
- Waterfront location
- Export is available in case of change in supply-demand balance



Metals Business

Mediumto Longterm Goals

- ♦Increase synergy between new copper mine development and smelting
- **♦** Expand the recycling business and increase its profitability
- **♦** Build high rolling-margin profitability



Business Policy

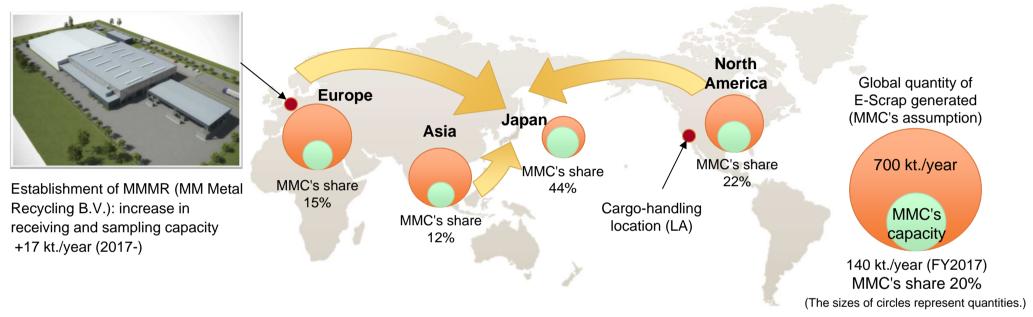
Contribute to a recycling-oriented society through metals from manufacturing to recycling

Key strategies

	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
Mining			◆Develop new projects	 Improve the system of improving and making decisions on existing projects
Smelting		◆Increase E-Scrap recycling		Increase process efficiencyOptimize the smelting business
Copper & Copper Alloy Products	◆ Sell products meeting customer needs - Increase sales of terminal materials and new alloys - Develop high-performance plating	◆Promote alloy recycling	 Create synergy with Luvata Make use of synergy effects Establish global sales system Expand sealing materials business 	 Fortify the manufacturing system of rolling business Strengthen cost competitiveness of extrusion business

Metals Business

Priority measures: Increasing E-Scrap recycling







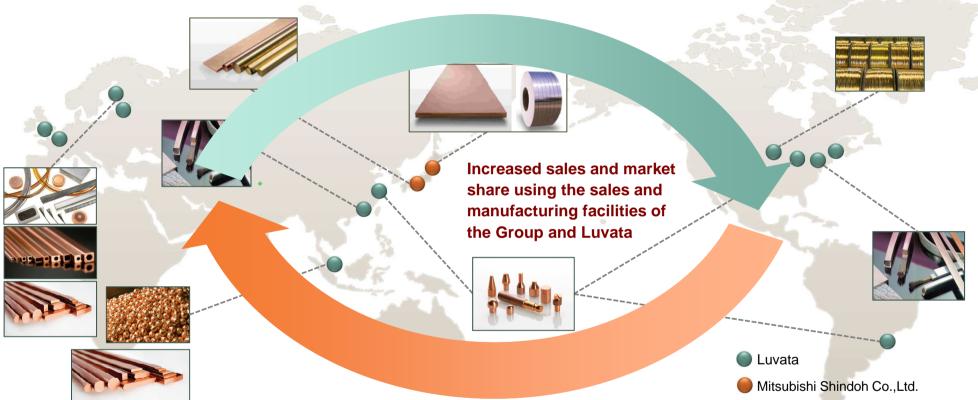
Naoshima Smelter & Refinery Increase in receiving, sampling, analysis, and treatment capacities (from 2016)



Onahama Smelting & Refining Co., Ltd. Increase in capacity +3kt./year (from 2018)

Metals Business

Priority measures: Synergy with Luvata



- ◆Increased sales of copper & copper alloy products of the Group using the sales and manufacturing facilities of Luvata located mostly in North America and Europe
- ◆ Boost sales using the Company's domestic facilities for Luvata's products
 - **→** Establish global sales and manufacturing systems using Luvata's facilities
 - **→**Optimize product mix and increase market share with the cooperation of Luvata

Advanced Materials & Tools Business

Mediumto Longterm Goals

Become a global player capable of providing high value-added products and service solutions



Business **Policy**

We aspire to become an energetic company with a "WakuWaku" feeling as well as a trusted genuine partner of our customers through a relentless pursuit of "speed" and "innovation" from our customers' perspective, consistently making things happen.

Key strategies

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
Enhance the power of solution by industry oriented teamsCreate key technologies	◆Promote tungsten recycling	 Promote local production for local consumption by reinforcing factories and using local venders 	 Reinforce the Key Account strategy Decrease cost Improve asset efficiency at factories
through the Company's original development and open innovation		Expand sales and technical center networks	
◆Get closer to the customers by utilizing IoT and Big Data and enhance the level of manufacturing capability		 Create synergies with Mitsubishi Hitachi Tool Engineering 	

Advanced Materials & Tools Business

Priority measures: Increase capacity to provide solutions through industry specific teams

Medical

Key industries Aerospace **Automotive** Aerospace industry "Technological "Organizational capabilities" capabilities" Marketing R&D **Prototyping** X Manufacturing Sales Strengths in hard-to-machine Establishment of Aerospace materials and new materials Dept. Utilize management resources preferentially because of its growing stage Accumulate expertise and build close relationships with customers Participate in new projects from the initial stage and respond promptly to prototypes

Automotive industry

- Organize an engineering team and respond to customers with wide range
- Enhance relationships with machine tool and tool holder manufacturers

Mold&Die

Medical applications industry

 Establishing a specialized team in the US, retaining personnel with specialized skills, increasing product line up, and potential M&A and/or collaboration

Mold industry

Effectively use resources with Mitsubishi Hitachi Tool
 Engineering to acquire new customers and gain the largest share in the global mold industry

Electronic Materials & Components Business & Aluminum Business

Electronic Materials & Components Business

Mediumto Longterm Goals

Become a highly profitable business entity that provides materials (solutions as well as products) required by growth market in timely manner by responding to changes in the business environment quickly



Business Policy

- **♦** Lineup of high-value added products
- ♦ Generate and expand profits by concentrating resources on growth businesses and products
- ◆ Develop and nurture strong new businesses

Key **Strategies**

- ♦ New products and sales expansion in the IoT- related market (antenna modules, thermistor sensors, etc.)
- ♦ New products and sales expansion in the next-generation vehicle market

(insulated substrates with high thermal conductivity, in-vehicle sensors, solar heat-ray shielding, etc.)

Aluminum Business

Mediumto Longterm Goals

Rolled and processing

♦ Establish a presence in the global market for automotive heat exchanger materials



- Gain the No. 1 share of the domestic aluminum can market and expand business overseas
- Development overseas business



Business Policy

♦ Pursue business strategies that utilize the strengths of the rolling and can manufacturing businesses, respectively

Key **Strategies**

- ♦ Implement a selection and concentration strategy in rolling and processing businesses (shift to heat exchanger materials)
- ◆ Respond to increased production of beverage bottle-cans and develop next-generation products

Other Business

Efforts in environment and recycling

Play a part in the development of a recycling-oriented society by creating and expanding a recycling business that uses the characteristics and functions of the material industry without relying on landfill disposal, and that is trusted by stakeholders.



"E-waste" (used electronics and electrical products)
Recycling process of

refrigerators

Automobile recycling

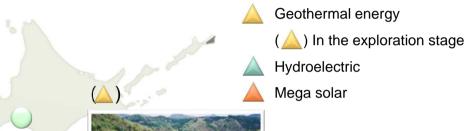
Fly ash treatment

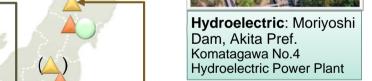


Automobile recycling

Efforts in renewable energy business

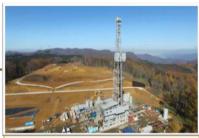
Expand the renewable energy business based on the management resources developed by the Company and provide a stable supply of low environmental-load energies to contribute to the development of a sustainable society.







Mega solar: Fukui Photovoltaic Power Plant, Fukui, Fukui Pref.



Geothermal power: Yuzawa, Akita Pref. (Wasabizawa, under construction)

Forward-Looking Statements

These future plans and other statements are based on information available to the Company's management as of the day for releasing this material.

There are many uncertain or risk factors inherent in plans, and there might be cases in which actual results materially differ from plans and other statements of this material.

Mitsubishi Materials Corporation