

## Mitsubishi Materials Corporation

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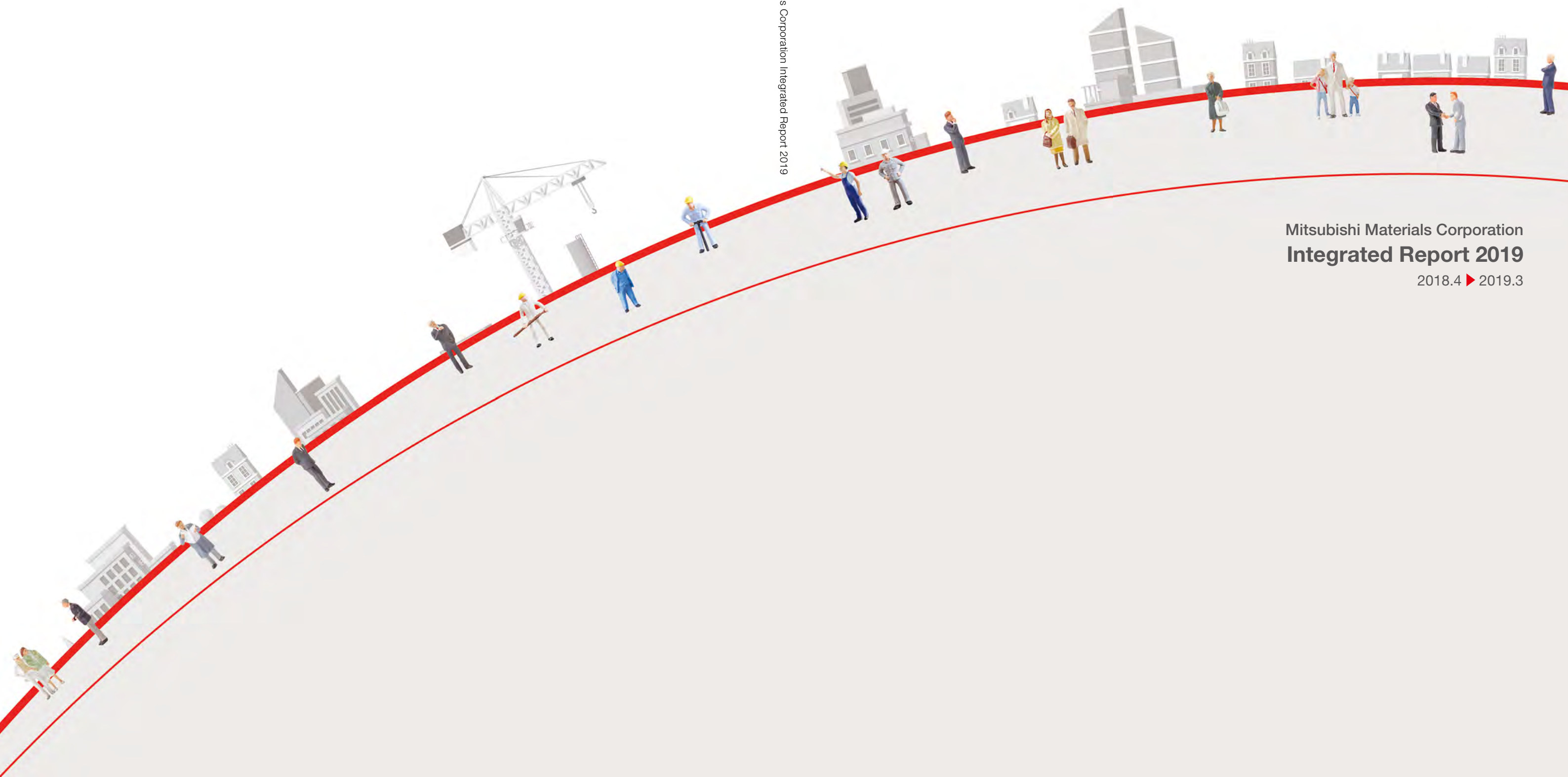


For People, Society and the Earth

Mitsubishi Materials Corporation Integrated Report 2019

## Mitsubishi Materials Corporation Integrated Report 2019

2018.4 ▶ 2019.3





# For People, Society and the Earth



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.

## Note on the Issuance of the Integrated Report 2019

We first started issuing the Integrated Report in fiscal 2019.

Although we laid out a direction for the Mitsubishi Materials Group over the medium to long-term in 2017, which formed the basis for our three-year Medium-term Management Strategy ending in fiscal 2020, quality issues that occurred in fiscal 2018 have resulted in the Group facing new challenges that need addressing. This Integrated Report presents the strategies of each business, the issues we must face, and the direction of our response to such should take as we head into the future, while taking the state of our response to the aforementioned quality issues, and in particular, the state of governance enhancement measures into account. In addition, the Integrated Report also outlines the approach the Group sees as best for improving corporate value and in striving for sustainable development as comprehensively as is possible.

For the preparation of this Report we engaged in active debates and discussion between each division within the Company with connections to a broad range of stakeholders to produce a storyline for the Company - one that focuses on the long-term, and organically fuses both the financial and non-financial aspects of the Company. I feel this has allowed us to deepen our integrated outlook of the Company in a much greater way than ever before.

I understand that an integrated report is a policy statement of the manager as well. In this sense, the discussions during the preparation of this Integrated Report keenly reminded us of the essential question of how the business should be.

I hope that this Report serves as the basis for dialog with all stakeholders of the Group. I see each comment and request we receive as a result of this initiative as a valuable clue that will lead to future improvements and, in turn, in enhancing the corporate value of the Group. I very much look forward to engaging in a constructive dialog with our stakeholders.

As of June 21, 2019 the Company changed to a Company with a Nomination Committee. Discussions on the next Medium-term Management Strategy due to commence in fiscal 2021 are now getting underway under this new management structure. The next Medium-term Management Strategy will look to outlining Company targets, and detailing the specific measures to be taken to achieve the goals set for the period of the strategy based on a clear long-term outlook, while also taking into consideration the changes in the business environment facing the Group from an even broader perspective, and also considering the capital condition. We are looking to expand upon the details of such in the next Integrated Report.

Mitsubishi Materials Corporation  
Chief Executive Officer

Naoki Ono

A handwritten signature in black ink, appearing to read 'Naoki Ono'.





# CONTENTS



## 4 About Mitsubishi Materials

- 4 Overview of Corporate Activities under the Corporate Philosophy System
- 5 Mitsubishi Materials DNA of Transformation
- 6 Business Growth Model
- 8 Business Operations & Sustainable Development Goals (SDGs)
- 10 Performance Highlights

## 12 Feature The Advanced Products Company was founded to help enrich society with high value-added functional materials and products

- 14 Where Are These Materials Being Used? "Look Where Mitsubishi Materials Leaves Its Mark"

## 16 Top Message Striving for Both Economic Value and Social Value.

- 17 Quality Issues and Governance Enhancement
- 18 Group Strengths as Viewed from Our History
- 18 Boost Both Economic and Social Value
- 20 Progress of the Medium-term Management Strategy
- 21 Basic Management Policy for Fiscal 2020
- 23 In Conclusion

## 24 Governance

- 24 Directors and Executive Officers

## 28 Three-way Talk with Our Outside Directors

- 32 Corporate Governance
- 38 Toward the Enhancement of Group Governance
- 40 Group Governance Framework Enhancement Measures
- 42 Restructuring of the Governance Framework for Quality Control in Our Group
- 44 Risk Management
- 46 Compliance

## 48 MMC Group Businesses

- 48 Net sales / Ordinary income by segment
- 49 Recycling-Oriented Business Model of Mitsubishi Materials Group
- 50 Advanced Products
- 54 Metalworking Solutions Business
- 58 Metals Business
- 62 Cement Business
- 66 Other Business  
(Environment & Energy Business / Affiliated Business)

## 68 Foundations for Growth

- 68 Human Resources Strategies
- 72 Research and Development
- 74 Manufacturing Innovation
- 76 Stakeholder Relations
- 78 Responsible raw materials procurement
- 80 Environmental Management
- 84 Basic Approach to CSR and Material Issues

## 86 Financial Sections/Corporate Data

- 86 Ten-Year Summary
- 88 Consolidated Balance Sheets
- 90 Consolidated Statements of Income
- 91 Consolidated Statements of Cash Flows  
Consolidated Statements of Changes in Net Assets
- 92 Profile  
Domestic Network
- 93 Investor Information

### ■ Boundary

Including group companies, with Mitsubishi Materials Corporation playing a central role.  
Please refer to CSR Data Book for coverage area of non-financial performance data.

### ■ Period

Fiscal 2019 (1st April, 2018 - 31st March, 2019)  
\*This report may also include information from April 2019 onwards, in an effort to provide the most up-to-date information.

### ■ Date of Publication: July 2019

### ■ Caution Regarding Forecasts and Forward-Looking Statements

The final decision, including any investment decisions, rests with individuals. The Company assumes no responsibility or liability whatsoever for any losses or damages resulting from investments or other actions based on information in this report.

### Adoption of the stocks that make up stock indexes for ESG investment (As of July 2019)



We are included in the stocks comprising the MSCI Japan ESG Select Leaders Index and MSCI Japan Empowering Women Index (WIN), which are both administered by MSCI. Made up of companies demonstrating outstanding initiatives with respect to ESG and gender diversity, respectively, we have been selected as part of the operation index for ESG investment operated by the Government Pension Investment Fund, Japan (GPIF).  
\*MSCI: Morgan Stanley Capital International Inc.

THE INCLUSION OF Mitsubishi Materials Corporation IN ANY MSCI INDEX, AND THE USE OF MSCI LOGOS, TRADEMARKS, SERVICE MARKS OR INDEX NAMES HEREIN, DO NOT CONSTITUTE A SPONSORSHIP, ENDORSEMENT OR PROMOTION OF Mitsubishi Materials Corporation BY MSCI OR ANY OF ITS AFFILIATES.  
THE MSCI INDEXES ARE THE EXCLUSIVE PROPERTY OF MSCI. MSCI AND THE MSCI INDEX NAMES AND LOGOS ARE TRADEMARKS OR SERVICE MARKS OF MSCI OR ITS AFFILIATES.



Based in Luxembourg and Milan, ECPI provides investment and sustainability advisory services. ECPI maintains indexes for individual industries, regions, and themes that are composed of global companies whose ESG activities satisfy certain standards. Mitsubishi Materials Group has been selected for the index.

### Editorial Policy

We are issuing this report to help our diverse stakeholders, including customers, shareholders, and investors understand our financial and non-financial business direction.

Taking advantage of the Group's strengths to meet various social requirements, we will create new values to convey our efforts for sustainable growth. This report is intended as a tool for communicating such in an easy-to-understand format.

In editing the report, we have referred to the "International Integrated Reporting Framework" as recommended by the International Integrated Reporting Council (IIRC), and the "GRI Standards" by Global Reporting Initiatives.

The description of performance is based on information current as of May 13, 2019.



### Integrated Report

Japanese version and English version are available published in booklet and PDF format.



### Financial Section in PDF format (English version only)

Regarding financial information for Mitsubishi Materials Group, detailed data concerning performance and outlook are reported.



### CSR Data Book in PDF format (Japanese and English versions)

CSR Management and CSR material issues at Mitsubishi Materials are reported including detailed data.



## Overview of Corporate Activities under the Corporate Philosophy System

The Mitsubishi Materials Group Philosophy is  
“For People, Society and the Earth.”

We pursue business operations by applying our corporate resources  
and contributing to the sustainable development of society to realize the  
Corporate Philosophy.

**Vision:** The image of what we want to be

**Governance:** Long-term activities implemented to increase our corporate value through efficient operation that improves our competitive power and profitability and prevents inappropriate and dishonest practices

**Business activities:** Our main operations for sustainable corporate growth

**Foundations for growth:** Initiatives and corporate resources responding to continually changing times and supporting our business activities

**Our Values:** Values we should cherish as daily guidelines toward realizing our Corporate Philosophy and Vision

**Code of Conduct:** Rules we abide by

**SCQDE:** The order of priority in our business decisions, and a guideline that supplements our Code of Contact

Related article ► P.46 Compliance



## Mitsubishi Materials DNA of Transformation

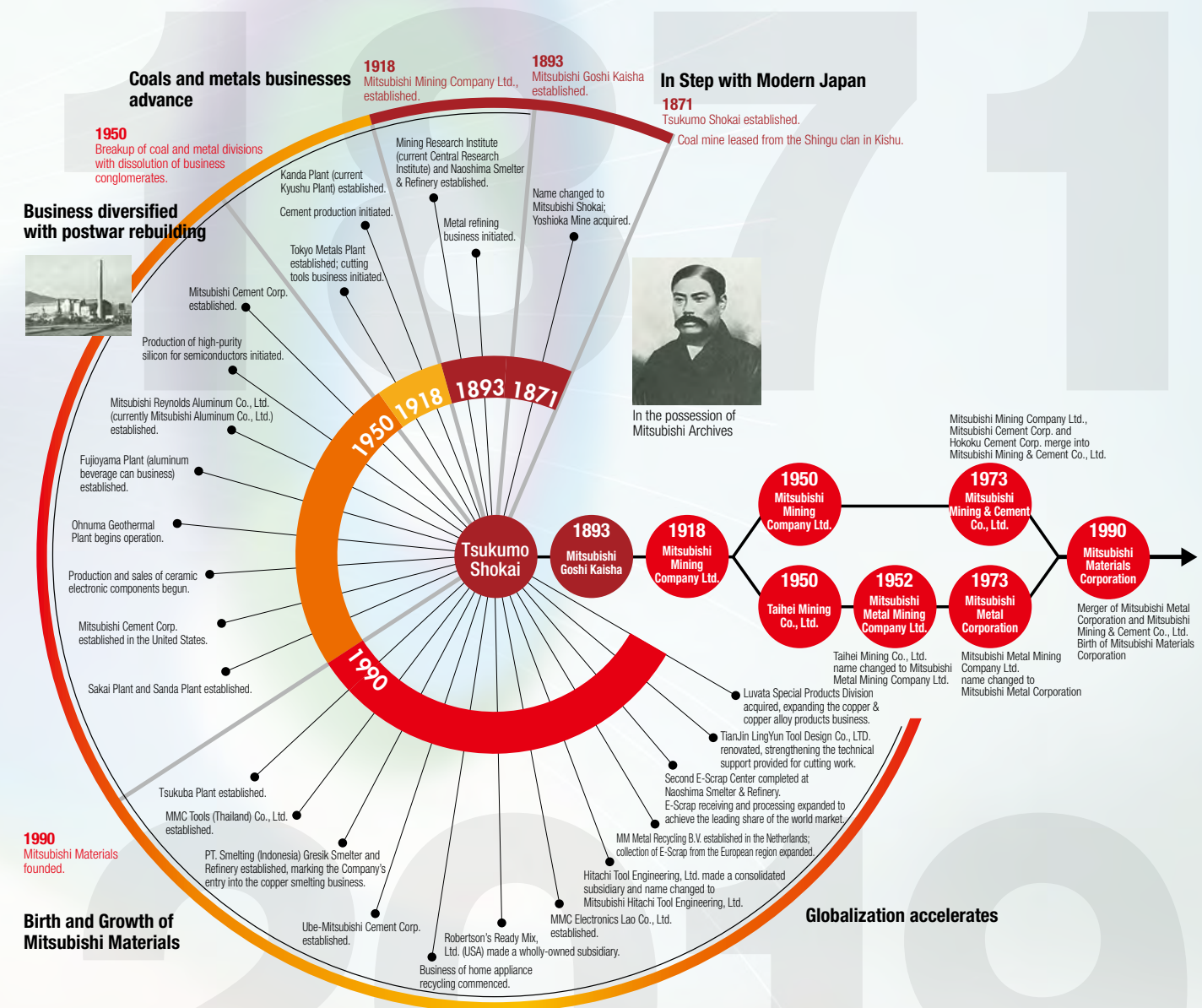
From the past & into the future.

Mitsubishi Materials will achieve “Transformation for Growth”  
by meeting social needs that change with the times.

The Mitsubishi Group was born when Tsukumo Shokai, the forerunner of Mitsubishi Materials Corporation, entered the coal and metal mining business.

For nearly 150 years, the Company has supported Japan’s rapid development as it has grown by diversifying its operations and reforming its business structures to meet social needs that changed with the times.

We will continue our tradition of creating new raw materials, products and solutions, and contribute to the sustainable development of society.





## Business Growth Model

We are committed to creating a sustainable world through materials innovation making use of our unique and distinctive technologies, “for People, Society and the Earth.”

Mitsubishi Materials Corporation is a diversified materials manufacturer operating according to its Corporate Philosophy, “For People, Society and the Earth.” We have been providing superior products in response to increasingly diversified global needs. Through our fair business operations we continue to meet the expectations of our stakeholders and contribute to the sustainable development of society.



### Perception of external environment <10 years from now>

#### Japan

- Super-aged society
- Infrastructure development for disaster prevention and reduction
- Hollowing out of domestic market due to progress of globalization

#### Overseas

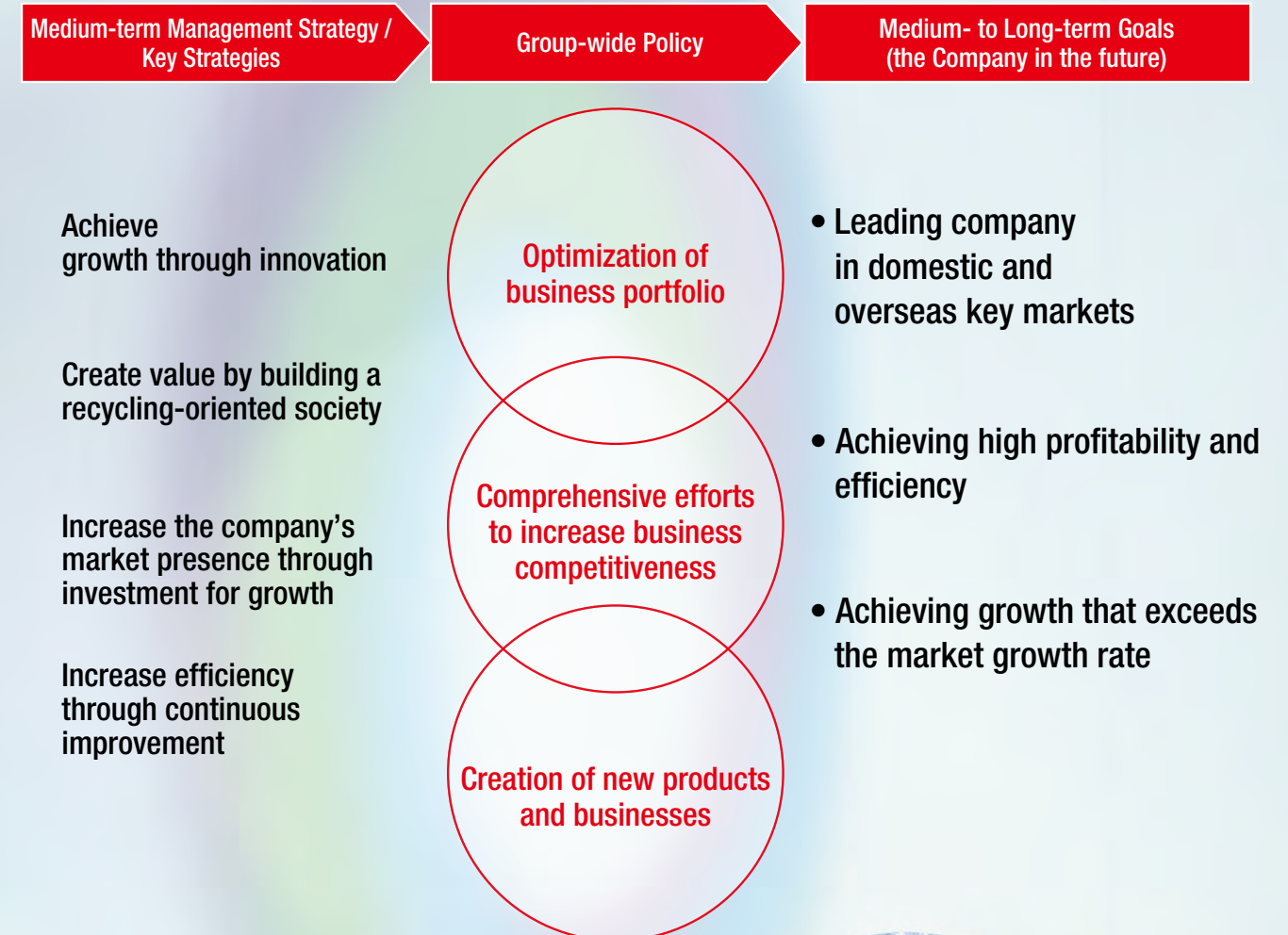
- Changes in international order
- Increase in protectionism
- Growth of demand in emerging countries
- Increase in the need for infrastructure development due to growing population

#### Global

- Increasing environmental consciousness (increase in EVs, recycling needs, etc.)
- Super-advanced information society based on AI and IoT (accelerated speed of change)

## Sustainable Development of Corporate Values

### Transformation for Growth





Business Operations & Sustainable Development Goals (SDGs)

The Mitsubishi Materials Group conducts business on a global scale in a manner that contributes to the Sustainable Development Goals (SDGs) set by the United Nations in a number of areas.

Universal Long-term Goals for the International Community

In September 2015, all 193 members of the United Nations signed onto the 2030 Agenda for Sustainable Development, a plan aimed at combating poverty, inequality and injustice, preserving the global environment and creating a better future in various other ways. As the centerpiece of the Agenda, the SDGs present a vision of the world as it should be by the year 2030. Formulated to replace the Millennium Development Goals (MDGs), toward which the international community had been working for 15 years since 2001, the SDGs are positioned as universal goals to which every country should aspire.



The Group's Business Operations and the SDGs

The Mitsubishi Materials Group is a diversified materials manufacturer—operating according to its Corporate Philosophy, “For People, Society and the Earth.” The Group’s operations are defined further in its 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.”

The United Nations’ adoption of the SDGs has reaffirmed that we have followed an appropriate course in our Group business operations, and have provided us with a perspective from which to assess future long-term risks and opportunities, and to identify the issues we should address and the paths we should follow going forward.

Among the 17 goals comprising the SDGs, numbers 9 (Industry, Innovation and Infrastructure), 12 (Responsible Consumption and Production), 7 (Affordable and Clean Energy) and 5 (Gender Equality) are of particular relevance to the areas on which we are focusing attention as a Group.

Internal Dialogue Concerning the SDGs

We employ the SDGs as guidelines to help clarify the medium- to long-term needs of the international community (and the global marketplace).

In fiscal 2017, After exploring the SDGs’ relevance to our business and the most appropriate ways for the relevant departments to respond to them in the future, the CSR Dept. communicated its findings to the various business divisions and top management. It also held stakeholders’ meetings that included experts from outside the Group.

Upon analyzing the results of these investigations, the CSR Dept. shared its findings with members of the CSR Committee and related departments. We plan to incorporate this process, which has strengthened awareness of the importance of a long-term perspective to both management and operations, more effectively into our future business activities to facilitate our responsiveness to social issues.

Exploring ways of incorporating the SDGs into Group operations (CSR and related departments)

Communicating with the various business divisions and top management

Convening of stakeholders’ meetings

Analyzing the findings and sharing the results with members of the CSR Committee

We are incorporating the SDG perspective into our strategies for the dual purposes of strengthening our current operations’ competitiveness and creating new products and businesses. We are also working in partnership with various other companies to create value over the medium- to long-term.

Priority Initiatives



Worldwide Supply of Essential Materials for Industry, Innovation and Infrastructure

As a diversified materials manufacturer, our Group supplies the world with indispensable basic materials. Our wide-ranging products, systems and services support infrastructure development and industry worldwide, while at the same time providing a constant flow of innovative solutions to society’s energy and resource conservation and cleaner processing needs.

In addition to conducting wide-ranging product and technological development in our various businesses, the Central Research Institute pursues basic research and development from a medium- to long-term perspective. The Institute deploys an abundance of accumulated technologies to this end, from materials analysis technologies and basic technologies employing computer analysis in support of materials, process and product development to core technologies in such fields as reaction processes, metals, processing, interfaces and thin films. These operations place a special priority on developing environmental products and technologies over the medium term.



Efforts to Increase the Availability of Renewable Energy and Improve Energy Efficiency

Mitsubishi Materials has a long history of supplying renewable energy. We leveraged the technologies accumulated through our mining business to enter the geothermal development business and commenced operation of our Ohnuma Geothermal Plant (Kazuno, Akita Prefecture) in this field in 1974.

We are currently also promoting efforts to harness ground-source heat, which is regarded as a promising new source of renewable energy. We have developed a commercial system that uses heat pump technology to produce heat, and we have already supplied over 100 of these systems to customers in Japan. We are developing technologies with a focus on improving work efficiency as well.

We have set targets for steady improvement by 2020 of energy efficiency at major production plants in each of our businesses.



Contributing to a Recycling-oriented Society from a Global Perspective

In its ongoing concern for assuring the most effective possible use and reuse of the limited resources required for product manufacturing, the Group engages in development of recycling operations in all its fields of business. Besides making careful use of resources and materials supplied by nature, we recycle waste and byproducts in an effort to contribute to creation of a recycling-oriented society.

We have positioned this objective as a key aspect of our Corporate Philosophy, Vision and management strategies with an eye to creating value that can contribute to resolving social issues. We are pursuing ongoing efforts to achieve further advances in recycling technologies, and to develop more efficient collection and processing methods in order to expand the possibilities for resources recycling.



Expanding Opportunities for Female Employees to Maximize their Potential

We are promoting the advancement of women in the workplace as a means of securing a stable domestic workforce despite Japan’s declining birthrate, and of creating new added value from diverse human resources working together.

We consider these efforts to create more opportunities for female employees as part of the reformation of our corporate culture. We are intent on creating a company in which women as well as a diverse selection of other human resources, including seniors, employees with disabilities and people from other countries, can work together effectively and in good physical and mental health.

We are determined to keep these efforts from ending as a temporary surge in momentum, but rather to extend their pursuit continuously into the future.

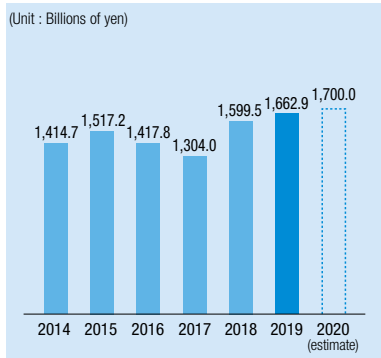


## Performance Highlights

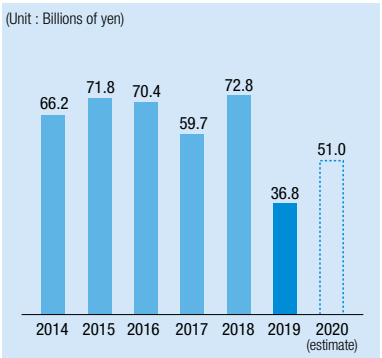
### Financial Performance (Consolidated)

“2020 (estimate)” figures are announced on May 13, 2019.

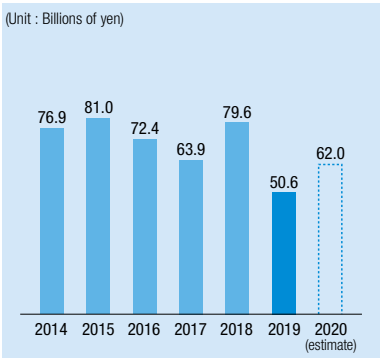
#### Net sales



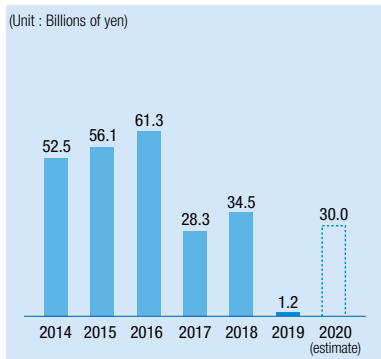
#### Operating profit



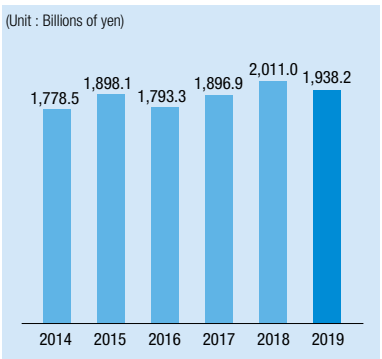
#### Ordinary income



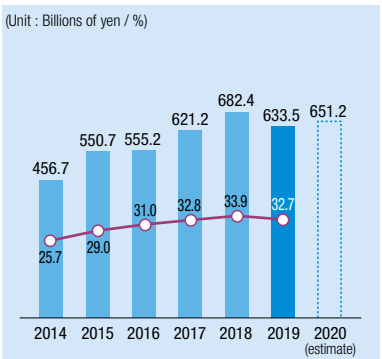
#### Net income attributable to owners of parent



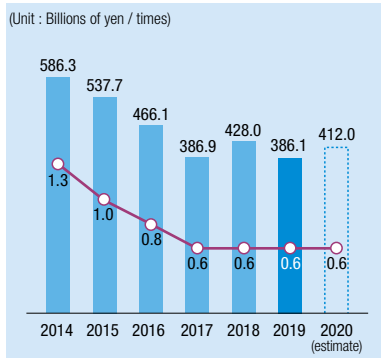
#### Total assets\*



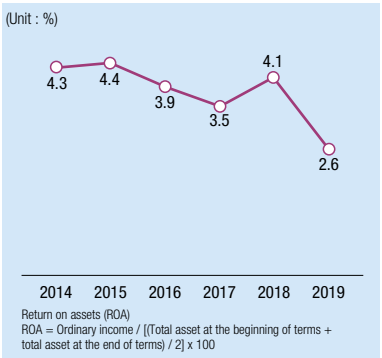
#### Shareholders' equity / Shareholders' equity ratio\*



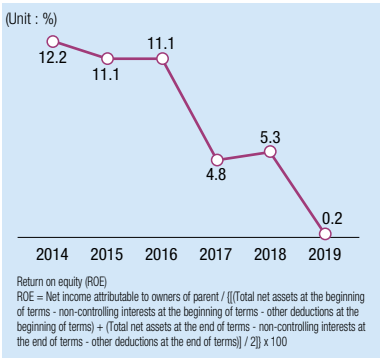
#### Net interest-bearing debt Net D/E ratio



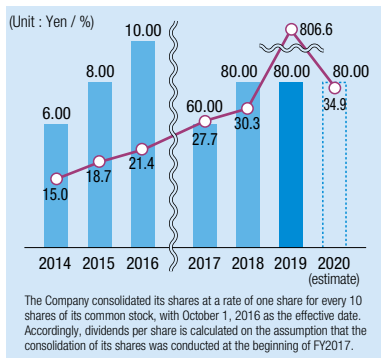
#### Return on asset (ROA)\*



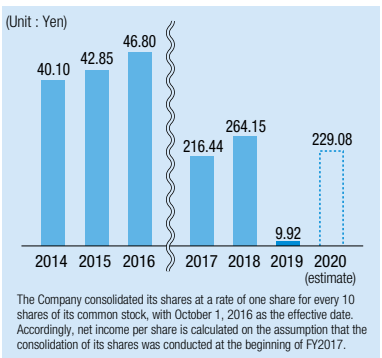
#### Return on equity (ROE)



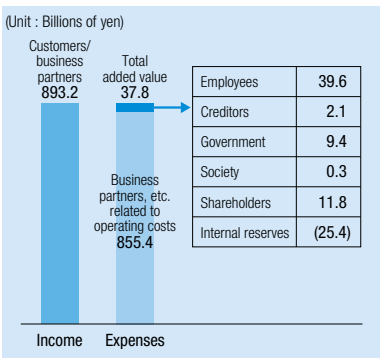
#### Dividends per share / Dividend payout ratio



#### Net income per share

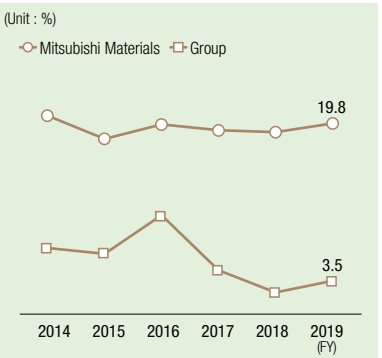


#### Economic added value



### Non-Financial Performance (Non-consolidated unless stated otherwise)

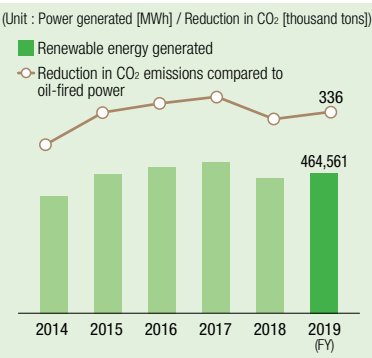
#### Percentage of recycled raw materials used



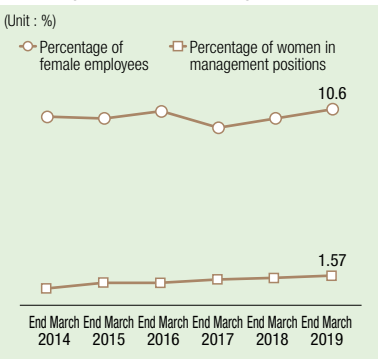
#### Total greenhouse gas emissions



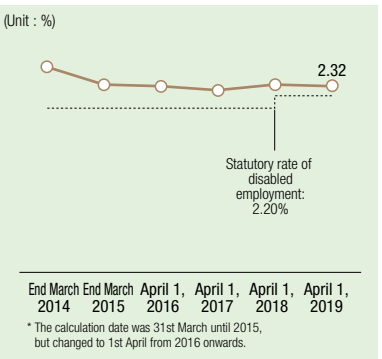
#### Renewable energy generated/ Reduction in CO<sub>2</sub> emissions



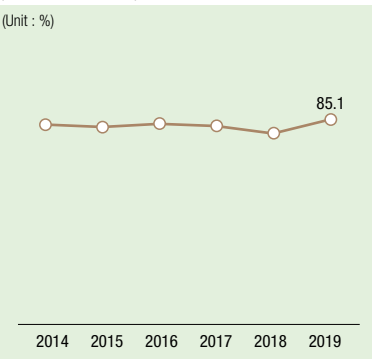
#### Percentage of female employees Percentage of women in management positions



#### Disabled persons' employment rate

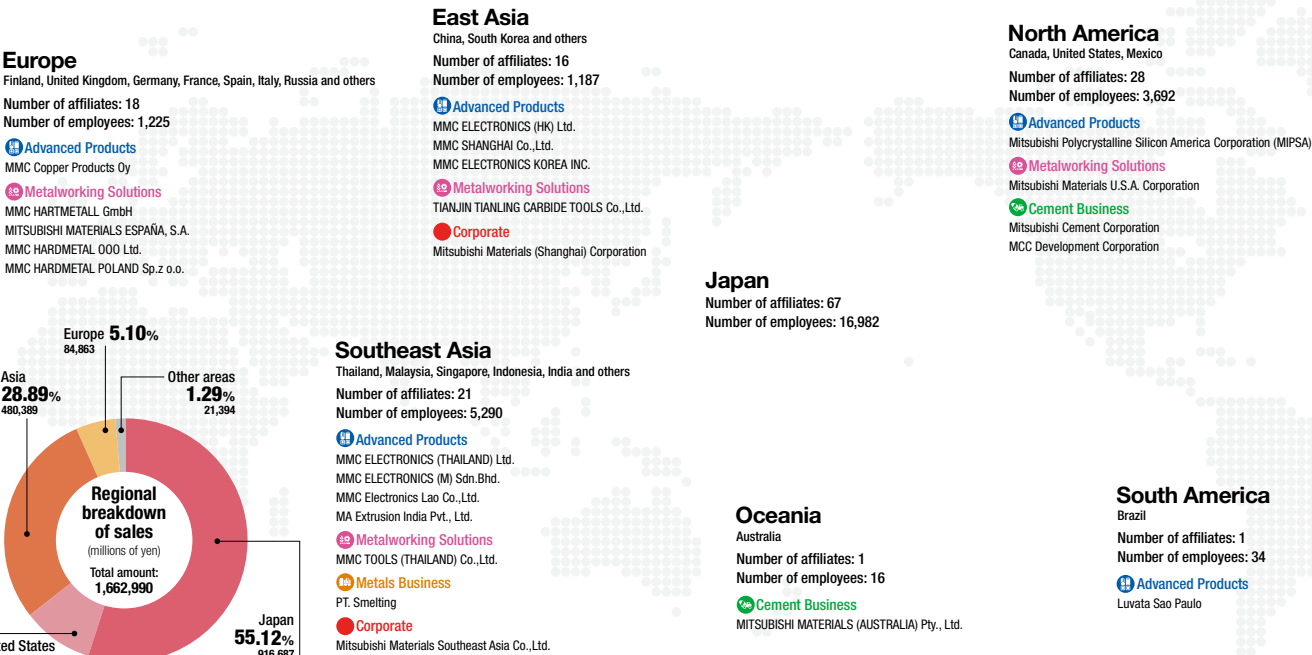


#### Percentage of paid holidays taken (union members)



### Sales by areas / Numbers of affiliates / Numbers of employees

(As of March 2019)



\* The Company has been applying "Partial Amendments to Accounting Standard for Tax Effect Accounting" (ASBJ Statement No. 28 on February 16, 2018) from the beginning of FY2019. Individual figures related to FY2018 have had the accounting standards applied retroactively.



# The Advanced Products Company was founded to help enrich society with high value-added functional materials and products

The Advanced Products Company was formed by consolidating the Copper & Copper Alloy Division, Electronic Materials & Components Division and Aluminum Division lines under a single company. Rapidly changing market needs and relatively short product life cycles are common to each of these businesses, and by integrating them under the one company we will look to creating a sense of synergy between each to help deliver product proposals that achieve greater levels of customer satisfaction.

The core business areas of the Advanced Products Company include automobiles and other transport equipment, semiconductor manufacturing equipment and other electronics, robotics, industrial machinery, medical devices, infrastructure and other such fields, and each of these fields are expected to grow globally in the future. We help develop growth markets and create a brighter future with our customers through the provision of unique products and services that remain a step ahead of market needs, leveraging our advanced processing technologies, and our knowledge of materials such as nonferrous metals, light metals and ceramics, etc. we have developed over the years, while also flexibly responding to global mega trends.

Correlation diagram of the business structure and product groups in each priority field





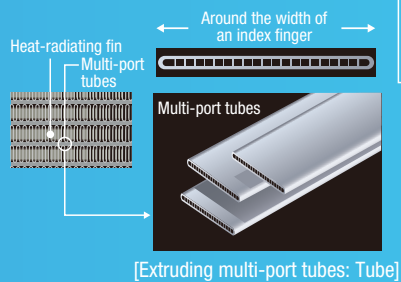
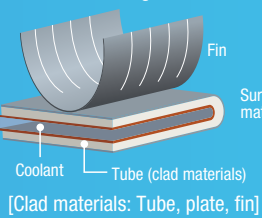
# Where Are These Materials Being Used?

## “Look Where Mitsubishi Materials Leaves Its Mark”

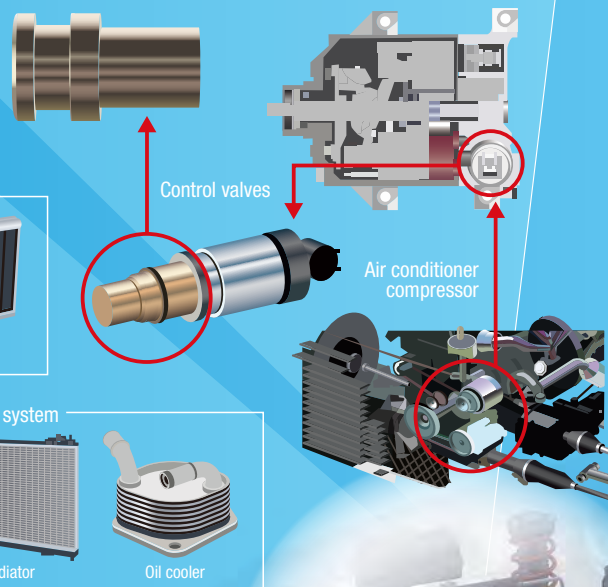
Let's look at some of the flagship automobile products that the Advanced Products Company came up with.

### Aluminum materials for heat exchangers (cooling and air conditioning)

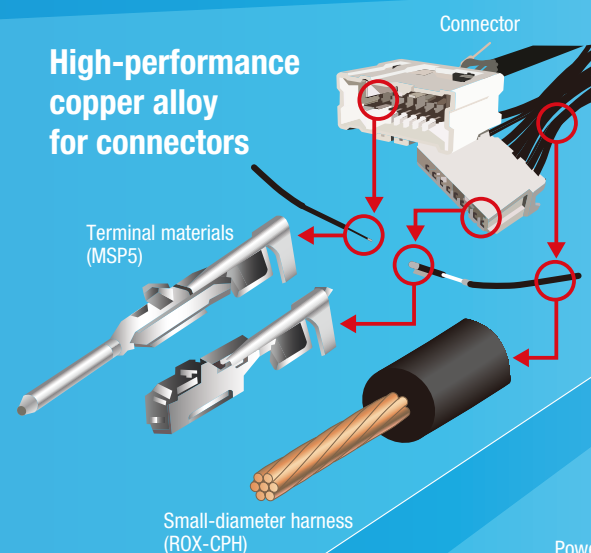
Aluminum materials for heat exchangers



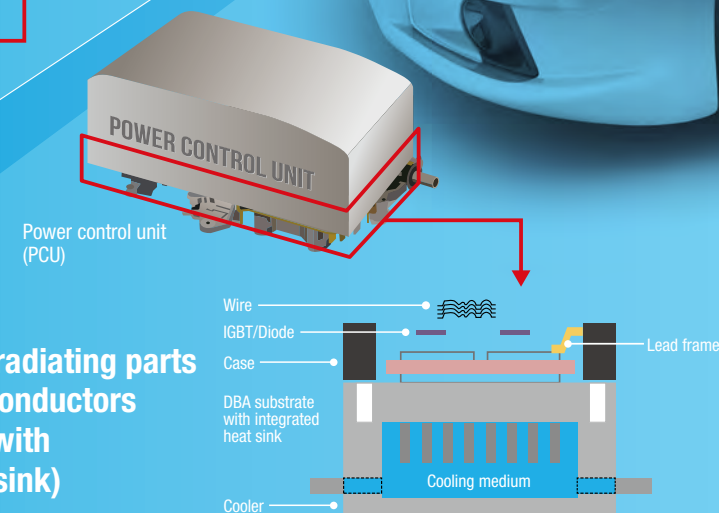
### Lead-free copper alloy with excellent machinability for control valves (ECO BRASS)



### High-performance copper alloy for connectors

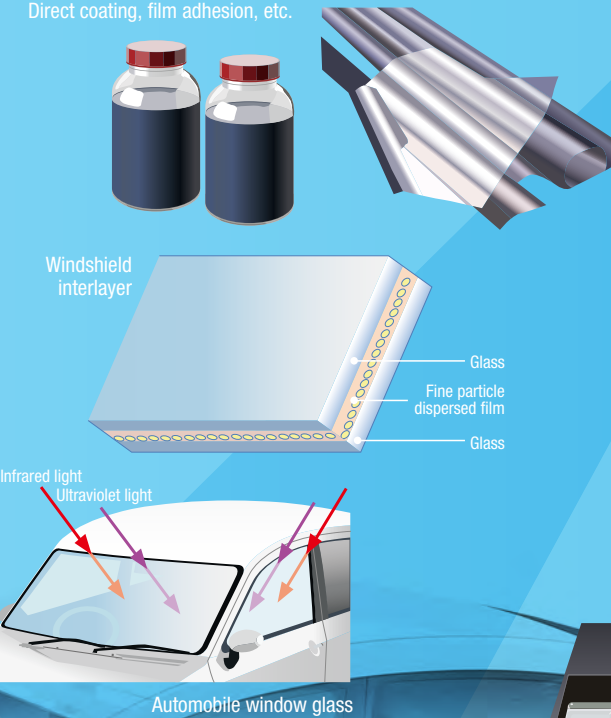


### Insulating heat-radiating parts for power semiconductors (DBA substrate with integrated heat sink)

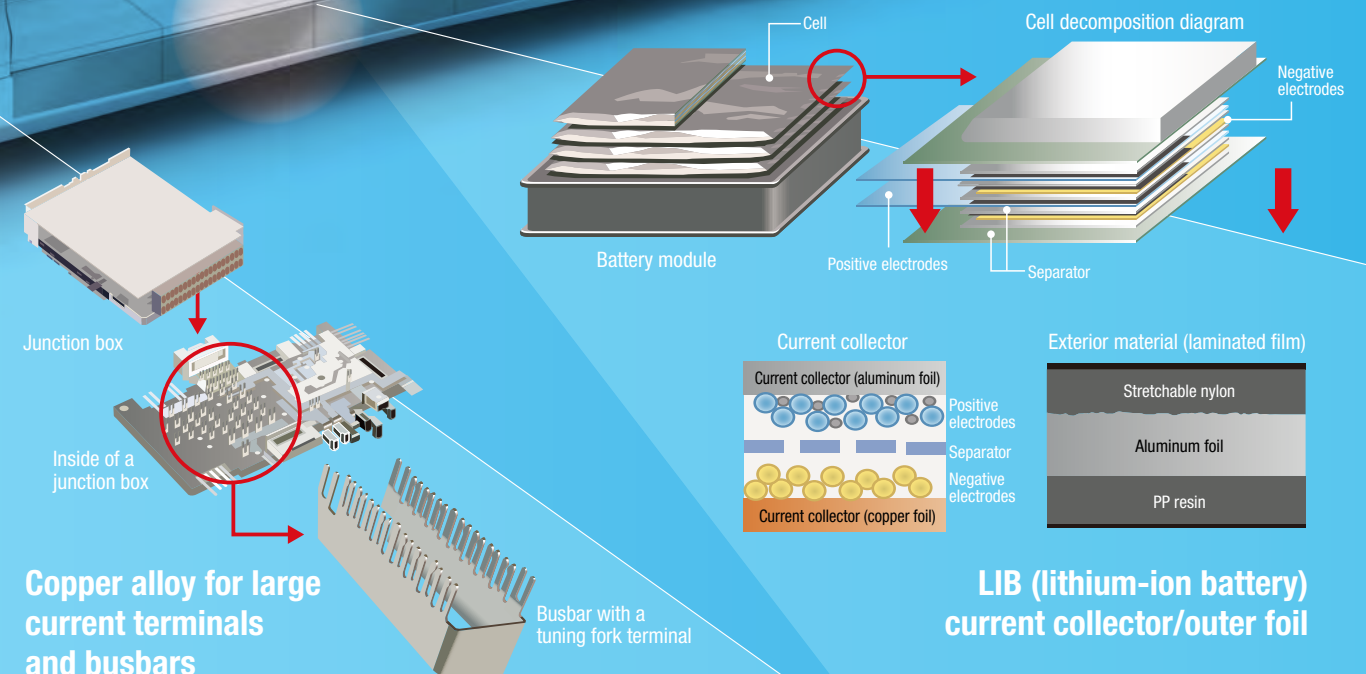
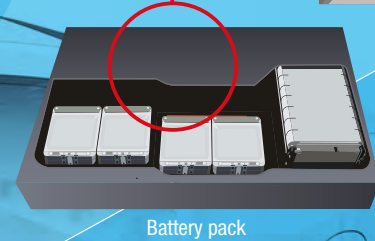
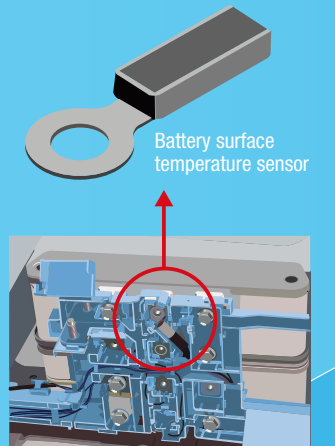


### Heat shield coated film used as the heat shield interlayer

Direct coating, film adhesion, etc.



### Temperature measurement thermistors







# Striving for Both Economic Value and Social Value.

## Quality Issues and Governance Enhancement

We are currently in the process of developing and implementing Group Governance Framework Enhancement Measures, including quality controls, to ensure that the quality issues that occurred in November 2017 onwards would not be repeated.

Throughout fiscal 2019 we focused our efforts on tackling three core Group governance-related issues, namely, “a lack in the communication in terms of both quantity and quality” “the fragility and low standards of our compliance framework and awareness,” and “the insufficient resource allocation.”

First, in terms of our communication issues, we increased the opportunities for a direct exchange of opinions through gatherings and workshops attended by employees from every level within the organization where members of top management, myself included, personally visited manufacturing sites and a wide range of work environments. Opinion exchanges were held on the steadfast belief that only mutual relationships of trust and understanding can lead to good communication, and top members of management placed even greater emphasis on firstly “listening to the voices of others” when engaging in these activities. I feel these efforts have led to a notable increase in the amount of communication, and paved the foundation to better improve the quality of communication in the future. Looking ahead, we will take further strides toward promptly sharing negative information among executives, and developing a frank and open workplace environment that allows for the kind of free and easy style of communication we are aiming for.

Next, with regard to improving our compliance framework and awareness, we are bolstering the functions for management departments and increasing the frequency of audits, while also launching Governance Deliberative Council, which engages in all-encompassing discussions on the governance plans in place at each business site, and introducing avenues to follow up on these discussions. We have also engaged in initiatives taken on a broad range of levels within the organization, implementing

training for members of management of Group companies with the aim to enhance systems of governance through the Board of Directors of Group companies, while also having the employees standing at the front line of our business address governance and compliance-themed issues in their small-group activities. We will continue these efforts in striving to establish ourselves as an organization of individuals that can find and resolve issues on our own. We are also monitoring the effectiveness of measures implemented and their state of penetration by continuing to hold an investigation regarding compliance awareness to gain an understanding of changes in the level of compliance awareness among employees. We plan to continue along these lines in an effort to uncover hints for further improvements.

Lastly, with regard to the resource allocation, we put forth efforts to balance the distribution of management resources while keeping track of our cash flow. Further, the “aging and deterioration of equipment” and “gap between the work volume and available human resources” have been put forth as risks that need to be attended to on a company-wide basis in fiscal 2020, and steps are underway to properly understand and manage such risks. We also established the “SCQDE” approach, a guiding principle intended to supplement our Code of Conduct used to clarify an order of priority to apply when performing business activities. The S stands for Safety and Health, C for Compliance and Environment, Q for Quality, D for Delivery and E for Earnings, and these serve as the order of priority when making decisions on the execution of business tasks. To this end, we worked to disseminate awareness of this approach across the entire Group, including overseas sites, starting from top members of management. In fiscal 2020 we will keep working to further spread an awareness for this initiative and establish it as common place.

While I saw our efforts over the course of fiscal 2019 have a definite effect, we still need more time to have this approach take root as part of the organization’s culture. We will look to steadfastly continuing such efforts in an unrelenting push to have these efforts lead to the sustainable development of the Group.



## Group Strengths as Viewed from Our History

Based on a corporate philosophy of “For People, Society and the Earth,” our Group has a vision of “becoming 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.”

The Group traces its roots back to 1871, where it began with the operation of a coal mine. Two years later the Group started mining for metals with the purchase of a copper mine and, following this, the Group has continued to expand its business domain to include a broad range of metalworking operations and alloy development, etc., and reshape its business portfolio, from the operation of coal mines to its cement business, the operation of metal mines in Japan to the development of mines overseas, its metalworking operations, its electronic materials and components business and recycling operations, all while responding to major changes in the business environment, such as the shift from coal to oil, and the drying up of domestic mineral resources.

We are proud of the fact that, no matter the era, we have always pursued business operations based on our current corporate philosophy of “For People, Society and the Earth.” I feel that we have inherited an underlying “mindset towards transformation” - one that accepts any challenge without fear of what change may bring - as a core part of our DNA. Looking ahead, I see this mindset towards transformation as a major driving force in enhancing our systems of governance, including addressing the urgent quality-related issues we see before us, as we strive to bolster both our social and economic standing.

## Boost Both Economic and Social Value

The Group aims to boost both economic and social value in the following three directions based on a corporate philosophy of “For People, Society and the Earth.”

1. Leverage the Group’s background in providing copper, precious metals, cement and other materials and copper-based alloys, cemented carbide, ceramics and other functional materials to contribute to the building of a richer society through the provision of new products and applications utilizing new materials, and the combination of such.
2. Leverage the Group’s background in the recovering waste as resources at smelters & refineries and cement plants, recycling aluminum beverage cans, home appliances and automobiles, and processing food waste and incineration fly ash to contribute to the building of a sustainable world where the Group plays a central role in the ever-evolving recycling-oriented society of today through the development and advancement of waste treatment technologies.
3. Leverage the Group’s background in the development and use of geothermal energy, hydroelectricity and other forms of renewable energy, and its promotion of energy-saving activities at its plants to contribute to the building of a low-carbon society where our environmental impact is reduced through the development of new sites and technologies.

The elements needed to build a rich society continue to change at a dizzying pace as new technology development continues, and the materials and functional characteristics needed for such are set to undergo similar changes. I would like to see the Group draw from the technological resources it has accumulated up to this point to develop new materials and functional capabilities, and deliver these as solutions to issues faced in society. In business in particular, the Group deals with many products with short life

cycles in the advanced products and cemented carbide products fields, which we classify as product manufacturing businesses, and we see a need to remain conscious of combinations of product groups at different stages of this life cycle. Also, it goes without saying that the speed at which a product must go from product development, to commercialization and mass production is quicker than ever before.

Many of the materials and products we have delivered in the past are based on the Earth’s mineral resources, and the reuse beyond the simple consumption of such finite resources remains a major issue for mankind. The most important mission for the Group to strive to meet is the provision of solutions to this social issue while continuing to improve our competitive strength as a company. To achieve this, we will actively pursue the development of solutions to far-reaching social issues through the use of existing infrastructure (smelters & refineries, cement plants), the development and advancement of recycling technologies, extending the range of materials that can be recycled, and the improvement of our corporate value through such activities. We also recognize that IoT and AI-assisted automation in this field is also an issue that needs to be actively dealt with, particularly in relation to the future decline in Japan’s



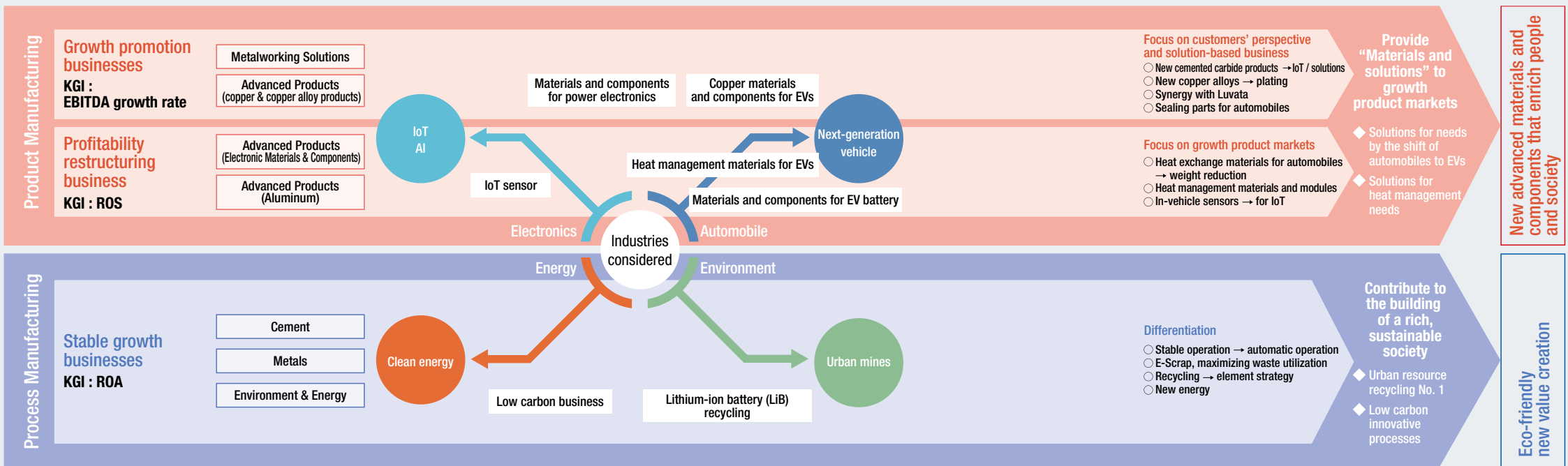
population, and in the evolution of the prevailing work style in such an aging society. We also view our recycling-related business as process manufacturing business with a focus on waste treatment plants, and we see the long-term implementation of such efforts as key to resolving a greater range of social issues.

On the other hand, as a manufacturing company, I also feel we need to work toward facilitating the recycling of the products we produce.

The Group has succeeded in developing clean energy through our efforts in geothermal power generation, an extension of the underground technologies we built up in the original arm of our business—our mining development operations, and our hydroelectric business, which was established by the Company as part of our mining operations. Having said that, we cannot ignore the significant amount of energy consumption used for manufacturing in our cement plants, smelters & refineries and other process manufacturing business, nor the amount of CO<sub>2</sub> these produce. While facing up to these issues in a sincere manner, we aim to continue to promote energy-saving in the realm of manufacturing while casting an eye to introducing new technologies to this end.

Looking ahead, I would like to see the Group will continue to work towards the persistent improvement of its corporate value while I wish in mind that someday we could build a world of manufacturing where we are capable of developing and supplying the same amount of clean energy as that required, where all products manufactured and provided by the Group can be recycled, and their resources recovered, one in which the Group contributes to people, society and the Earth through these efforts, and a wide range of other recycling initiatives.

### ■ Medium-term Management Strategy (fiscal 2018-2020) Optimization of business portfolio / Creation of new products and businesses





## Progress of the Medium-term Management Strategy

The Group has established its Medium- to Long-term Goals (the future goal of the company) and its Group-wide policy in the Long-term Management Policy announced in May 2017. As part of its Medium-term Management Strategy (fiscal 2018-2020), the Group implemented measures toward the Group-wide policies; “Optimization of business portfolio,” “Comprehensive efforts to increase business competitiveness” and the “Creation of new products and businesses”, themed around “Transformation for Growth.”

Fiscal 2019 (year ending March 2019) marks the second year of the Medium-term Management Strategy, and while net sales saw a 63.4 billion yen increase over the previous term to jump to 1,662.9 billion yen, operating profit slumped to 36.8 billion yen (down 35.9 billion yen from the previous term) with ordinary income also dropping to 50.6 billion yen (down 28.9 billion yen over the same period). This was due, in part, to higher costs for smelting and an inventory shortage loss posted at the end of the fiscal year in the Metals business. Further, net income attributable to owners of parent company ended at 1.2 billion yen (down 33.2 billion yen over the same period) as a result of the use of

deferred tax assets taken out of consideration for the business performance and forecast for the current fiscal year. The annual dividend per share was set to the same amount as the preceding year (80 yen) based on the capital policy put forth in the Medium-term Management Strategy.

In fiscal 2020 we will focus our efforts on maintaining a well-prepared production system in an effort to avoid a repeat of the equipment issues that occurred in fiscal 2019, which resulted in temporary production cutbacks along with other adverse effects. The current market environment lacks a sense of dynamism across all business areas due to the stagnation of the Chinese economy, and the ongoing power struggle between the U.S. and China and other geopolitical risks. Having said that, the importance of the social needs that need addressing by the Group as put forth in the Medium-term Management Strategy regarding “next-generation vehicles,” “IoT/AI,” and “building a rich, sustainable society” remain unchanged, and the development of electric vehicles and 5G (fifth generation wireless systems) are expected to bring about an upswing in demand for products reliant on copper. Due to this, we intend to proceed with capital expenditure plans set for fiscal 2020 with the intention of securing profits tied to this recovery in demand.

In terms of the strategy put forth in the Medium-term Management Strategy, in the Advanced Products Company we established in October 2018 we proceeded with R&D into thermal management and plating-related technologies, materials and products for next-generation vehicles. We worked to enhance the solution providing capabilities of our Metalworking Solutions Business by growing our technical centers. We further pushed for waste disposal processing in our Cement Business by bolstering our waste plastic disposal capabilities. In the Environment & Energy Business, we worked on joint R&D efforts on recycling technologies for recovering cobalt, nickel and other rare metals for LIB (lithium-ion batteries), and entered the food waste biogas business. Further, we launched the “New Business Development & Promotion Div.” and “EV Material Development & Recycling Business Promotion Dept.,” and established a flexible funding system for investing in venture companies through the establishment of the “MMC Innovation Investment Business Limited Liability Partnership” as part of new product and new business creation efforts.

In terms of the Group’s finances, the drop in profit levels in fiscal 2019 has unfortunately made it extremely difficult to reach our ROE and ROA targets. Conversely, in terms of cash flow management, operating CF (cash flow) for the three year period starting in fiscal 2018 is expected to proceed largely according to plan and, investment and lending for this three year period is also proceeding according to plan, so we can expect a net debt to equity ratio in the 0.6 range for the end of fiscal 2019, achieving our target of 0.7 or less.

## Basic Management Policy for Fiscal 2020

The proposed partial amendments to the Articles of Incorporation were approved at the 94th Ordinary General Meeting of Shareholders held June 21, 2019 and, as a result, the Company has changed from a Company with an Audit & Supervisory Board to a Company with a Nomination Committee.

The Board of Directors will now allocate time to review the basic principles and management strategy of the Company, and risks and business opportunities, as a result of this change. We have decided that, in addition to our management strategy over the medium and long-term, the Board of Directors also determines the basic management policy for each fiscal year.

The basic management policy for fiscal 2020 is as follows:

1.	Strengthen corporate governance and build a structure for prompt management
2.	Continue to implement and deepen measures to enhance our governance structure, along with measures to rebuild our governance structure related to quality control
3.	Build an organization that supports sustainable corporate value
4.	Continuing capital investments

### 1. Strengthen corporate governance and build a structure for prompt management

With the transition to a Company with a Nomination Committee, we will strive to achieve the following three objectives:

- (1) Ensure faster, higher-quality decision-making and business execution
- (2) Strengthen the function for supervising business execution
- (3) Improve the transparency and fairness of management

In an era where the business environment that surrounds us and people’s values continue to change at a breakneck pace, we run the risk of being left behind the times if we do not adopt a sense of speed in all that we do. This lack of speed was something that was raised in relation to our response to the quality issues that occurred in fiscal 2018. At the same time, we must avoid this push for greater speed resulting in us becoming overly hasty, leading to a drop in the quality of decision making.

The decision was made to adopt and apply a Company with a Nomination Committee as this was seen as the most appropriate for improving speed and quality of decision making. With this, we hope to not only speed up the decision making process by transferring authority to Chief Executive Officer and other Executive Officers, but aim to achieve the three objectives listed above and build a better corporate governance system by fleshing out governance functions and having the Board of Directors devote itself to supervising the execution of business tasks.

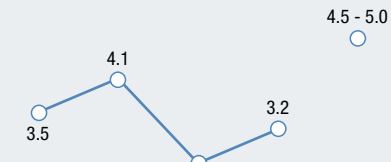
### 2. Continue to implement and deepen measures to enhance our governance structure, along with measures to rebuild our governance structure related to quality control

As mentioned previously, in fiscal 2020 we will continue and expand upon measures already put in place while taking into account the results of initiatives implemented in the previous fiscal year.

We will also make continued efforts to educate employees of the “SCQDE” approach to further disseminate and establish this mode of thinking.

#### ROA

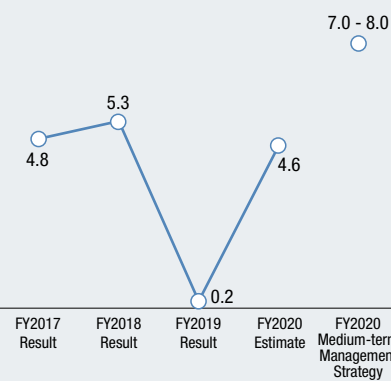
(Unit : %)



\* The Company has been applying “Partial Amendments to Accounting Standard for Tax Effect Accounting” (ASBJ Statement No. 28 on February 16, 2018) from the beginning of FY2019. Individual figures related to FY2018 have had the accounting standards applied retroactively.

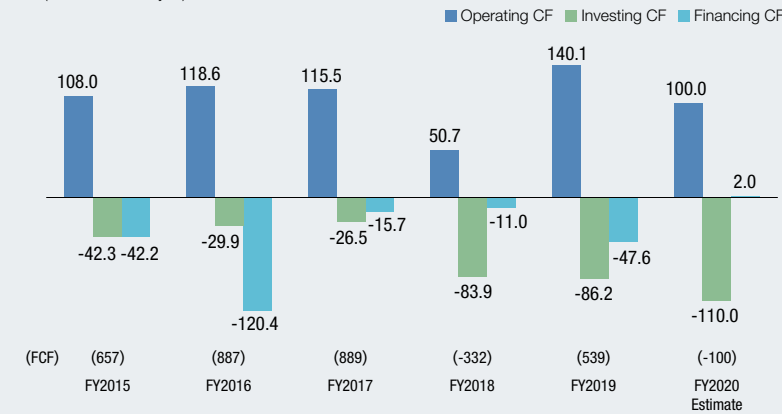
#### ROE

(Unit : %)



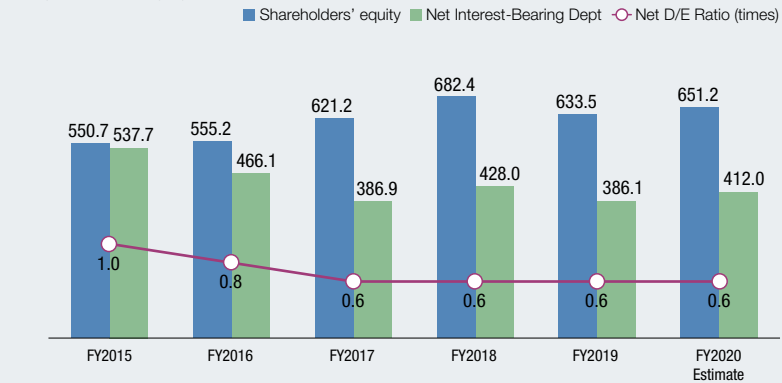
#### Free Cash Flow

(Unit : Billions of yen)



#### Shareholders’ equity, Net Interest-Bearing Debt and Net D/E Ratio

(Unit : Billions of yen)





3. Build an organization that supports sustainable corporate value

We feel that, for sustainable growth of corporate value, it is essential to mold the Company into an organization capable of supporting it. Starting in the current fiscal year, the Group has outlined the following six organization features as goals to strive for, with corresponding measures to be tackled on either a company-wide or division basis.

These efforts will extend beyond this fiscal year, and will be implemented on a continual basis in the next Medium-term Management Strategy due to commence from the following fiscal year.

1)	Organization with good and healthy communication where employee has unrestricted communication
2)	Organization capable of autonomously solving issues
3)	Organization that adequately shares the understanding of its business
4)	Organization that makes prompt and resolute decisions
5)	Organization that manages business with awareness of the differences between the product manufacturing business and the process manufacturing business
6)	Organization that aims for thorough digitization

1) Organization with good and healthy communication where employee has unrestricted communication  
Based on an awareness of a lack of communication, both in terms of quality and quantity, seen in the quality issues that occurred, we will strive to revitalize two-way communication from the top down, and vice versa, both between and within organizations, to not only prevent a recurrence of the quality issues, but to build relationships based on mutual understanding and trust within the Group well into the future.

2) Organization capable of autonomously solving issues (the governance system to strive for)  
We will strive to have each business site and each company (even if said company is a subsidiary or a sub-subsidiary) to form organizations with the ability to resolve issues on their own, in other words, to have some form of self-cleaning capacity with the ability to independently govern themselves, to find and expose issues on their own, and to autonomously work toward their resolution.  
However, due to the difficulty in completely resolving all issues independently, the corporate divisions of the Company, and/or the individual Companies or Business Divisions under the purview of the Company, shall provide assistance and support where needed to help guide the independent arms of the business to where they need to be. As the Group is involved in a broad range of industries, with vast differences in terms of the scope of business, we will push towards this goal with the awareness that a one size fits all approach may not always be the optimal stance when applying this across all aspects of the business.

3) Organization that adequately shares the understanding of its business  
We strive to become a corporate group that constantly retains human resources across all layers of the Group that are well-versed in the 3Cs of the business activities conducted by the Group (whether by the parent company, a subsidiary or a sub-subsidiary), namely Company (our Company), Customer

(individual customers and the market at large) and Competitor (our competitors), in order to formulate and execute management strategies to improve corporate value, and to establish systems for high quality, appropriate and swift decision-making and governance.

I feel there is a need to eliminate businesses of which we do not have a sufficient understanding, and to engage in any business activity while sharing a sufficient level of understanding of that business. In other words, I hope to strive for an organization that leaves a tactile sense of its business activities.

4) Organization that makes prompt and resolute decisions  
The shift to a Company with a Nomination Committee is one such measure. We will use this change as an opportunity to pursue the optimal relationship in the transfer of authority and allocation of responsibility from the Board of Directors to Executive Officers' Meeting, Business Divisions and Group Companies, while also pursuing monitoring systems for such. We will also proceed with reviews into the form that cross-functional activities of functional divisions should take.

5) Organization that manages business with awareness of the differences between the product manufacturing business and the process manufacturing business  
In areas where it is effective to split operations and management into two separate business types, in R&D, quality management, production process management, exchanges between technical personnel, we will look to implementing pin-point measures that do not fold into general initiatives taken on a company-wide basis. We are also looking to take different ways of the extension of measures to other areas and the sharing of information depending on the two different business types to further improve speed and effectiveness.

6) Organization that aims for thorough digitization  
In addition to our ongoing efforts to automate inspections, we will look to avenues for applying collected data to advance processes in our production departments.  
Meanwhile, we will also promote increased digitalization across the entire Group. This push towards digitalization involves aiming to establish a sequence of processes going from digitalize -> analyze -> optimize -> prophesize in an effort to bolster our competitive strength by applying this to advance our production, sales and distribution systems. We will promote continual investments into IT and systemization as a management policy. We will also develop management systems for safety and environment issues, and other related issues, those are made more effective through the increased application of IT.

4. Continuing capital investments

The “aging and deterioration of equipment” and “gap between the work volume and available human resources” have been raised as critical risks that must be tackled company-wide in fiscal 2020. We plan to continue the level of capital expenditure seen in fiscal 2019 without slowing down, in order to properly respond to these risks, and to prepare for the aforementioned upswing in demand due for the near future.

In Conclusion

The Group has successfully continued to transform itself and grow over for nearly 150 years, while overcoming many twists and turns. In present times an ESG response is an essential part of any business more than ever before, but the push as a company to produce both economic and social value over the long-term remains as true as ever.

The Group's current efforts to strengthen the Group governance system, including the governance of quality issues, contributes to the G aspect of our outlook toward ESG, and I view the shift to a Company with a Nomination Committee in an aim to enhance our corporate governance system as on the same line.

Moreover, this fiscal year will also be a time where we clearly define the organizational framework used to improve corporate value, and we will commence efforts toward the building of such.

The speed at which the results of these efforts can take shape is vital to the future development of the Group.

In order to achieve our corporate philosophy of “For People, Society and the Earth,” we need to become an organization capable of supporting sustainable improvements to our corporate value, develop an environment where all members of the Group can work in a lively manner, and foster human resources capable of boldly taking on the challenge of achieving all this, in addition to pursuing an optimal business portfolio tailored to solving social issues, while providing products as a manufacturing company that closely match the needs of the market.

Looking ahead, we are prepared to further transform and evolve ourselves in order to take sure strides toward what we aim to be.





# Directors and Executive Officers

(As of June 21, 2019)

## Directors



**Akira Takeuchi**  
Chairman

**Apr. 1977** Joined the Company  
**Apr. 2009** Senior Executive Officer; General Manager, Legal & General Affairs Div.  
**Jun. 2009** Managing Director  
**Apr. 2014** Executive Vice President  
**Apr. 2015** President  
**Jun. 2018** Chairman (to present)

**[Reasons for Appointment]** Mr. Akira Takeuchi's primary experience stems from his involvement in the general affairs and personnel departments, and he has served as General Manager of the Administration & Legal Affairs Division and the Legal & General Affairs Division. Following his appointment as Managing Director in 2009, he has been responsible for corporate communications, general affairs, the environment, human resources and the affiliated corporations business. He was appointed to the position of President in April 2015 and Chairman in June 2018.

Mr. Takeuchi has promoted numerous overseas business development and domestic business restructuring efforts that have been central to the group's structure, and played a role in strengthening its business foundations. In addition, after being appointed to the position of Chairman, he has been guiding, monitoring, assisting, and advising on enhancing the Group's governance. He has extensive knowledge and experience related to the Company's business and operations. For these reasons, the Company believes that Mr. Takeuchi is suitable for the position of Director.



**Naoki Ono**  
Director; Chief Executive Officer  
(Representative Executive Officer)

**Apr. 1979** Joined Mitsubishi Mining & Cement Co., Ltd.  
**Apr. 2014** Managing Executive Officer; President, Cement Company  
**Jun. 2014** Managing Director, President, Cement Company  
**Apr. 2016** Executive Vice President; President, Cement Company  
**Jun. 2016** Director; Executive Vice President, Cement Company  
**Apr. 2017** Director; Executive Vice President; General Manager, Corporate Strategy Div.  
**Jun. 2018** President  
**Jun. 2019** Director; Chief Executive Officer (to present)

**[Reasons for Appointment]** Mr. Naoki Ono's primary experience stems from his involvement in departments related to the cement business. He has served as General Manager of the Higashitani Mine and Vice Chairman of Mitsubishi Cement Corporation in the United States. Following his appointment as Managing Director in 2014, he has served as President of the Cement Company and General Manager of the Corporate Strategy Division. He was appointed to the position of President in June 2018.

After quality issues of the Group had arisen, he has been demonstrating strong leadership as a head of the taskforce, and involved in finding solutions to these issues such as confirming safety, investigating the causes and formulating the recurrence preventive measures. After being appointed to the position of President, he has promoted Group Governance Framework Enhancement Measures rapidly and steadily, and advanced management reforms. He has extensive knowledge and experience related to the Company's business and operations. For these reasons, the Company believes that Mr. Ono is suitable for the position of Director and Chief Executive Officer.



**Makoto Shibata**  
Director; Managing Executive Officer;  
General Manager, Corporate Strategy Div.

**Apr. 1984** Joined the Company  
**Apr. 2013** General Manager, Energy Business Div., Mineral Resources & Recycling Business Unit  
**Apr. 2016** Operating Officer; General Manager, Environment & Energy Business Unit  
**Apr. 2017** Managing Executive Officer; General Manager, General Administration Div.  
**Apr. 2018** Managing Executive Officer; General Manager, Governance Div.  
**Jun. 2018** Director; Managing Executive Officer; General Manager, Governance Div.  
**Apr. 2019** Director; Managing Executive Officer; General Manager, Corporate Strategy Div.  
**Jun. 2019** Director; Managing Executive Officer; General Manager, Corporate Strategy Div. (to present)

**[Reasons for Appointment]** Mr. Makoto Shibata's primary experience stems from his involvement in departments related to nuclear power and corporate strategy. He has served as General Manager of the Planning and Administration Department of the Mineral Resources and Recycling Business Unit, and General Manager of the Environment and Energy Business Unit. He was appointed Managing Executive Officer in 2017 and Director and Managing Executive Officer in June 2018.

As General Manager of the General Administration Division, he has been instrumental in establishing systems to support various workstyles and to accelerate communications throughout the Group. And since April 2018 as General Manager of the Governance Division, he has directed overall Group Governance Framework Enhancement Measures, emphasizing onsite dialog. He has extensive knowledge and experience related to the Company's business and operations. For these reasons, the Company believes that Mr. Shibata is suitable for the position of Director and Managing Executive Officer.



**Hiroshi Watanabe**  
Outside Director

**Apr. 1972** Joined the Ministry of Finance Japan (MOF)  
**Jul. 1998** Deputy Director-General, MOF  
Personal Secretary to the Minister, MOF  
**Jul. 2001** Deputy Director-General, MOF  
**Jul. 2002** Senior Deputy Director-General, International Bureau, MOF  
**Jan. 2003** Director-General, International Bureau, MOF  
**Jul. 2004** Vice Minister of Finance for International Affairs, MOF  
**Oct. 2007** Special Advisor to the Minister of Finance  
**Apr. 2008** Professor, Hitotsubashi University-Graduate School of Commerce and Management /Faculty of Commerce and Management  
Deputy Governor, Japan Finance Corporation  
**Oct. 2008** Governor, Japan Bank for International Cooperation (resigned in Jun. 2016)  
**Apr. 2012** CEO, Executive Managing Director, Japan Bank for International Cooperation  
**Dec. 2013** Governor, Japan Bank for International Cooperation (resigned in Jun. 2016)  
**Oct. 2016** President, Institute for International Monetary Affairs (to present)  
**Jun. 2017** Director of the Company (to present)

**[Reasons for Appointment]** Mr. Hiroshi Watanabe has knowledge of domestic and overseas finance, economics, and other general aspects of management gained through his experience in key positions at the MOF and government-affiliated financial institutions. The Company believes that Mr. Watanabe is suitable for Outside Director to appropriately monitor the Company's management and provide effective advice.



**Hikaru Sugi**  
Outside Director

**Apr. 1974** Joined Nippondenso Co., Ltd. (currently DENSO CORPORATION)  
**Jun. 2002** Executive Director, Member of the Board; General Manager, Air-Conditioning Product Div.  
**Jun. 2004** Executive Director; General Manager, Air-Conditioning Product Div.  
**Jun. 2005** Executive Director; General Manager, Thermal Systems Business Div.  
**Jun. 2008** Senior Executive Director, Member of the Board; General Manager, Engineering Research & Development Center  
Senior Executive Director, DENSO CORPORATION;  
President and CEO, DENSO INTERNATIONAL AMERICA, INC.  
**Jun. 2011** Executive Vice President, DENSO CORPORATION;  
President and CEO, DENSO INTERNATIONAL AMERICA, INC.  
**Jun. 2014** Advisor, Senior Technical Executive, DENSO CORPORATION  
**Jun. 2016** Advisor (resigned in Jun. 2017)  
**Jun. 2018** Director of the Company (to present)

**[Reasons for Appointment]** Mr. Hikaru Sugi has extensive technical knowledge in development design and manufacturing processes. He also has insight into corporate strategy from a global perspective and overall management through his experience as a manager of a manufacturer that develops its business all over the world. The Company believes that Mr. Sugi is suitable for Outside Director to appropriately monitor the Company's management and provide effective advice.



**Hiroshi Sato**  
Outside Director

**Apr. 1980** Joined The Mitsubishi Bank, Ltd. (MUFG Bank, Ltd.)  
**Jun. 2007** Executive Officer; Manager, Credit Div.  
**Apr. 2008** Executive Officer; Senior Superintendent  
**Jun. 2008** Standing Audit & Supervisory Board Member  
**Jun. 2011** Managing Director, Mitsubishi Steel MFG. Co., Ltd. (resigned in Jun. 2017)  
**Jun. 2017** Standing Audit & Supervisory Board Member of the Company  
**Jun. 2019** Director of the Company (to present)

**[Reasons for Appointment]** Mr. Hiroshi Sato has insight in finance, accounting and other aspects of corporate management from his experience as a corporate auditor at a financial institution and in management at a manufacturer. As an Outside Audit & Supervisory Board Member since June 2017, he has taken part in overall audit of the Group. The Company believes that Mr. Sato is suitable for Outside Director to appropriately monitor the Company's management and provide effective advice.



**Hiroshi Kubota**  
Director

**Apr. 1981** Joined Mitsubishi Mining & Cement Co., Ltd.  
**Apr. 2014** General Manager, Internal Audit Dept., Fellow  
**Jun. 2016** Standing Audit & Supervisory Board Member  
**Jun. 2019** Director (to present)

**[Reasons for Appointment]** Mr. Hiroshi Kubota's primary experience stems from his involvement in departments related to finance and accounting. He has served at Mitsubishi Cement Corporations in the United States and the Southeast Asian Business Support Center (now Mitsubishi Materials Southeast Asia Co., Ltd.). He has served as General Manager of the Internal Audit Department and was appointed as Standing Member of the Audit & Supervisory Board in June 2016.

Leveraging his knowledge cultivated as General Manager in charge of internal audit operations, he has been instrumental in proposing and implementing measures for improving the effectiveness of audits by Audit & Supervisory Board Members as well as in strengthening collaboration with the Group's corporate auditors and internal audit operations. He has extensive knowledge and experience related to the Company's business and operations as well as specialized insight in finance and accounting. For these reasons, the Company believes that Mr. Kubota is suitable for the position of Director.



**Soichi Fukui**  
Director

**Apr. 1983** Joined the Company  
**Apr. 2014** Operating Officer; Vice President, Electronic Materials & Components Company  
**Apr. 2015** Managing Executive Officer; President, Electronic Materials & Components Company  
**Apr. 2017** Executive Councilor  
**Jun. 2017** Standing Audit & Supervisory Board Member  
**Jun. 2019** Director (to present)

**[Reasons for Appointment]** Mr. Soichi Fukui's primary experience stems from his involvement with the Electronic Materials & Components business. He has served as General Manager of the Sanda Plant, and then as Vice President of Electronic Materials & Components Company. Following his appointment as Managing Executive Officer in 2015, he was appointed to the position of Standing Audit & Supervisory Board Member in June 2017.

Leveraging his knowledge cultivated from managing business divisions, he has been instrumental in proposing and implementing measures for improving the effectiveness of audits by Audit & Supervisory Board Members as well as in strengthening collaboration with the Group's corporate auditors and internal audit operations. He has extensive knowledge and experience related to the Company's business and operations. For these reasons, the Company believes that Mr. Fukui is suitable for the position of Director.



**Mariko Tokuno**  
Outside Director

**Jan. 1994** Joined Louis Vuitton Japan K.K.  
**Apr. 2002** Senior Director, Sales Administration  
**Mar. 2004** Vice President, Tiffany & Co., Japan Inc.  
**Aug. 2010** President and Representative Director, Christian Dior K.K.  
**Sep. 2013** President, Representative Director and CEO, Ferragamo Japan K.K. (resigned in Sept. 2016)  
**Jun. 2016** Director of the Company (to present)

**[Reasons for Appointment]** Ms. Mariko Tokuno has insight into corporate strategy and general management from a global perspective gained through her extensive experience as a manager of the Japanese operations of leading international firms. The Company believes that Ms. Tokuno is suitable for Outside Director to appropriately monitor the Company's management and provide effective advice.



**Naoto Kasai**  
Outside Director

**Apr. 1990** Registered as a lawyer  
Joined Kashiwagi Sogo Law Offices  
**Apr. 1995** Joined Kasai Sogo Law Office  
**Jan. 2008** Representative Lawyer, Kasai Sogo Law Office (to present)  
**Apr. 2010** Vice President, Daini Tokyo Bar Association  
**Jun. 2014** Part time engagement, Audit & Supervisory Board Member of the Company  
**Apr. 2018** Chairman, Daini Tokyo Bar Association (resigned in Mar. 2019)  
Vice President, Japan Federation of Bar Associations (resigned in Mar. 2019)  
**Jun. 2019** Director of the Company (to present)

**[Reasons for Appointment]** Mr. Naoto Kasai has long experience of working as a lawyer and broad perspectives supported by his broad knowledge of the law. As an Outside Audit & Supervisory Board Member since June 2014, he has taken part in overall audit of the Group. The Company believes that Mr. Kasai is suitable for Outside Director to appropriately monitor the Company's management and provide effective advice.



**Tatsuo Wakabayashi**  
Outside Director

**Apr. 1977** Joined Mitsubishi Trust Bank (currently Mitsubishi UFJ Trust and Banking Corporation)  
**Jun. 2008** Managing Director, Mitsubishi UFJ Trust and Banking Corporation (MUTB)  
**Jun. 2009** Senior Managing Director, MUTB  
**Jun. 2010** Senior Managing Director and Chief Executive, Trust Assets Division, MUTB;  
Managing Officer and Group Head, Integrated Trust Assets Business Group, Mitsubishi UFJ Financial Group, Inc. (MUFG)  
Senior Managing Director, MUTB;  
**Jun. 2011** Director, MUFG  
**Apr. 2012** President, MUFG  
Director, MUFG  
**Apr. 2013** President, MUTB;  
Deputy Chairman, MUFG

**[Reasons for Appointment]** Mr. Tatsuo Wakabayashi has insight in finance, accounting and other aspects of corporate management from his experience as a manager of a financial institution. As an Outside Audit & Supervisory Board Member since June 2018, he has taken part in overall audit of the Group. The Company believes that Mr. Wakabayashi is suitable for Outside Director to appropriately monitor the Company's management and provide effective advice.



# Directors and Executive Officers

(As of June 21, 2019)

## Executive Officers



### Osamu Iida

Executive Vice President and Executive Officer  
(Representative Executive Officer)  
General Manager, Technology Div.

**Apr. 1980** Joined the Company  
**Apr. 2013** Managing Executive Officer; President, Metals Company  
**Jun. 2013** Managing Director; President, Metals Company  
**Apr. 2014** Managing Director; President, Metals Company  
**Apr. 2016** Executive Vice President; President, Metals Company  
**Jun. 2016** Director; Executive Vice President; President, Metals Company  
**Apr. 2017** Director; Executive Vice President; General Manager, Technology Div.  
**Jun. 2019** Executive Vice President and Executive Officer; General Manager, Technology Div. (to present)

**[Reasons for Appointment]** Mr. Osamu Iida's primary experience stems from his involvement in the metals business. He has served as General Manager of the Metallurgy Department of the Metals Company and General Manager of the Naoshima Smelter & Refinery. Following his appointment as Managing Director in June 2013, he was appointed to the positions of Executive Vice President in April 2016 and Director and Executive Vice President in June 2016.

As President of the Metals Company, he has been instrumental in establishing an earnings foundation in recycling operations. As General Manager of the Technology Division since April 2017, he has been instrumental in promoting improvements and innovation in "Production Technology" and in particular, he has displayed leadership in the automation of inspection equipment in response to quality issues, As a Corporate Strategy Committee member, he has taken part in overall management of the Company. He has extensive knowledge and experience related to the Company's business and operations. The Company believes that Mr. Iida is suitable for the position of Executive Officer.



### Yasunobu Suzuki

Senior Managing Executive Officer  
President, Advanced Products Company

**Apr. 1982** Joined the Company  
**Apr. 2014** Operating Officer; Vice President, Metals Company; Executive Vice President, PT. Smelting in Indonesia  
**Apr. 2015** Managing Executive Officer; General Manager, Corporate Strategy Div.  
**Jun. 2016** Director; Senior Managing Executive Officer; General Manager, Corporate Strategy Div.  
**Apr. 2017** Director; Senior Managing Executive Officer; President, Metals Company  
**Sep. 2018** Director; Senior Managing Executive Officer; President of Metals Company and Electronic Materials & Components Company  
**Oct. 2018** Director; Senior Managing Executive Officer; President, Advanced Products Company  
**Jun. 2019** Senior Managing Executive Officer; President, Advanced Products Company (to present)

**[Reasons for Appointment]** Mr. Yasunobu Suzuki's primary experience stems from his involvement in departments related to the metals business, and he has served as General Manager of the Raw Materials Department of the Metals Company, as well as Executive Vice President of PT. Smelting in Indonesia. Following his appointment as Managing Executive Officer in 2015, he was appointed to the positions of Director and Senior Managing Executive Officer in June 2016.

As General Manager of the Corporate Strategy Division, Mr. Suzuki planned and formulated the Medium-term Management Strategy, then as President of the Metals Company he has been instrumental in pursuing synergistic effects with MMC Copper Products. As President of Advanced Products Company since October 2018, he has dialogued repeatedly with its subsidiaries that have faced quality issues, uncovered challenges and worked to resolve them, and as a Corporate Strategy Committee member, has actively made proposals to improve the business from the customers' perspective and concerning overseas business. He has extensive knowledge and experience related to the Company's business and operations. The Company believes that Mr. Suzuki is suitable for the position of Executive Officer.



### Kazuhiro Kishi

Managing Executive Officer  
President, Cement Company

**Apr. 1984** Joined Mitsubishi Mining & Cement Co., Ltd.  
**Apr. 2014** Operating Officer; General Manager, Kyushu Plant  
**Apr. 2016** Operating Officer; Vice President, Cement Company  
**Apr. 2017** Managing Executive Officer; President, Cement Company  
**Jun. 2018** Director; Managing Executive Officer; President, Cement Company  
**Jun. 2019** Managing Executive Officer; President, Cement Company (to present)

**[Reasons for Appointment]** Mr. Kazuhiro Kishi's primary experience stems from his involvement in departments related to cement production technology, and he has served as General Manager of the Iwate Plant, General Manager of the Production Department of the Cement Company, and General Manager of the Kyushu Plant. Following his appointment as Managing Executive Officer in 2017, he became Director and Managing Executive Officer in June 2018.

As President of the Cement Company, he has been instrumental in promoting the restructuring and enhancement of overseas business and in promoting the reconstruction of production systems to strengthen the competitiveness of domestic business. As a Corporate Strategy Committee Member, he has offered comments on safety and health based on his rich experience, and has made constructive proposals concerning the management and operation of the process manufacturing business. He has extensive knowledge and experience related to the Company's business and operations and the Company believes that Mr. Kishi is suitable for the position of Executive Officer.



### Tetsuro Sakai

Managing Executive Officer  
President, Metals Company

**Apr. 1986** Joined the Company  
**Apr. 2014** General Manager, Metallurgy Dept., Metals Company  
**Apr. 2015** Executive Vice President, PT. Smelting in Indonesia  
**Apr. 2016** Operating Officer; Vice President, Metals Company; Executive Vice President, PT. Smelting in Indonesia  
**Apr. 2018** Operating Officer; Vice President, Metals Company  
**Oct. 2018** Managing Executive Officer; President, Metals Company  
**Jun. 2019** Managing Executive Officer; President, Metals Company (to present)

**[Reasons for Appointment]** Mr. Tetsuro Sakai's primary experience stems from his involvement in departments related to metal smelting and refining business, and he has served as General Manager of the Onahama Plant of the Onahama Smelting and Refining Co., Ltd., and as Executive Vice President of PT Smelting in Indonesia.

Following his appointment as Managing Executive Officer in October 2018, as President of the Metals Company, he has been instrumental in rapidly and decisively responding to technical problems at refineries and as a Corporate Strategy Committee member, in boldly and realistically conceptualizing future images of the business without being shackled by the past. He has extensive knowledge and experience related to the Company's business and operations and the Company believes that Mr. Sakai is suitable for the position of Executive Officer.



### Shogo Yamaguchi

Executive Officer  
General Manager, Environment & Energy Business Unit

**Apr. 1983** Joined the Company  
**Apr. 2013** General Manager, Eco-Business Div., Mineral Resources & Recycling Business Unit  
**Apr. 2016** Deputy General Manager, Environment & Energy Business Unit  
**Apr. 2018** Operating Officer; General Manager, Environment & Energy Business Unit  
**Jun. 2019** Executive Officer; General Manager, Environment & Energy Business Unit (to present)

**[Reasons for Appointment]** Mr. Shogo Yamaguchi's primary experience stems from his involvement in departments related to production engineering and the home appliance recycling business and he has served as General Manager of the Eco-Business Department of the Mineal Resources and Recycling Business Unit, and has rich knowledge, experience, and human connections related to the Company's recycling business.

Following his appointment as Operating Officer in April 2018, as General Manager of the Environment and Energy Business Unit, he has been instrumental in conducting the recycling of incineration ash as a raw material for cement production and the business of converting food waste to biogas. The Company believes that Mr. Yamaguchi is suitable for the position of Executive Officer.



### Shinichi Nakamura

Managing Executive Officer  
President, Metalworking Solutions Company

**Apr. 1983** Joined the Company  
**Jan. 2013** Deputy General Manager, Carbide & Tools Div., Metalworking Solutions Company  
**Oct. 2014** General Manager, Tsukuba Plant  
**Apr. 2015** Operating Officer; General Manager, Tsukuba Plant  
**Apr. 2017** Operating Officer; Vice President, Metalworking Solutions Company  
**Feb. 2018** Managing Executive Officer; President, Metalworking Solutions Company  
**Jun. 2019** Managing Executive Officer; President, Metalworking Solutions Company (to present)

**[Reasons for Appointment]** Mr. Shinichi Nakamura's primary experience stems from his involvement in departments related to the metalworking solutions business, and he has served as General Manager of the Tsukuba Plant and Vice President of the Metalworking Solutions Company.

Following his appointment as Managing Executive Officer in February 2018, as President of the Metalworking Solutions Company, he has been instrumental in strengthening communication with overseas and domestic manufacturing and sales bases, and has anticipated the trend of "local production for local consumption" in metalworking to take steps to reconstruct the international production, sales, and logistics systems, and as a Corporate Strategy Committee Member, has made proposals beneficial for production management and R&D of the product manufacturing business. He has extensive knowledge and experience related to the Company's business. The Company believes that Mr. Nakamura is suitable for the position of Executive Officer.



### Yoshikazu Yasui

Managing Executive Officer  
General Manager, Human Resources & General Affairs Div.

**Apr. 1984** Joined the Company  
**Jun. 2011** General Manager, Aluminum Div.  
**Apr. 2015** Operating Officer; General Manager, Human Resources Dept.  
**Apr. 2017** Operating Officer; General Manager, Human Resources Dept., General Administration Div.  
**Apr. 2018** Managing Executive Officer; General Manager, Human Resources & General Affairs Div.  
**Jun. 2019** Managing Executive Officer; General Manager, Human Resources & General Affairs Div. (to present)

**[Reasons for Appointment]** Mr. Yoshikazu Yasui's primary experience stems from his involvement in domestic and overseas bases including related companies focused on human resources and labor related issues and he has served as General Manager, Human Resources Department.

Following his appointment as Managing Executive Officer in April 2018, as General Manager, Human Resources and General Affairs Division and executive in charge of affiliated business, he has been instrumental in promoting personnel training and personnel exchanges as Governance Enhancement Measures, and through sincere dialogues with labor unions, in obtaining their understanding of the background to and countermeasures to resolve quality issues, and in establishing directions for affiliated businesses. And as a Corporate Strategy Committee Member, he has raised practical questions concerning management of subsidiaries and the form this management should take in the future. He has extensive knowledge and experience related to the Company's business and operations and the Company believes that Mr. Yasui is suitable for the position of Executive Officer.



### Susumu Sasaki

Managing Executive Officer  
General Manager, Governance Div.

**Apr. 1985** Joined the Company  
**Apr. 2013** General Manager, Corporate Strategy Dept., Corporate Strategy Div.  
**Apr. 2016** Operating Officer; General Manager, Corporate Strategy Dept., Corporate Strategy Div.  
**Apr. 2017** Operating Officer; Deputy General Manager, Corporate Strategy Div.  
**Jun. 2018** Managing Executive Officer; General Manager, Corporate Strategy Div.  
**Apr. 2019** Managing Executive Officer; General Manager, Governance Div.  
**Jun. 2019** Managing Executive Officer; General Manager, Governance Div. (to present)

**[Reasons for Appointment]** Mr. Susumu Sasaki's primary experience stems from his involvement in departments concerned with finance and accounting and he has served as General Manager of Accounting Department, Finance Department of Finance and Accounting Division, and General Manager of the Corporate Strategy Department of the Corporate Strategy Division. As a member of the taskforce solving quality issues from the first stage.

Following his appointment as Managing Executive Officer in June 2018, as General Manager, Corporate Strategy Div, he has been instrumental in promoting policies based on the Medium-term Management Strategy, and as a Corporate Strategy Committee member, in offering proposals from a company-wide perspective on the review of the form of value creation and business portfolio. He has extensive knowledge and experience related to the Company's business and operations and the Company believes that Mr. Sasaki is suitable for the position of Executive Officer.



## Three-way Talk with Our Outside Directors



Outside Director  
**Hikaru Sugi**

Outside Director  
**Mariko Tokuno**

Outside Director  
**Hiroshi Watanabe**

## Infusing Objective Perspectives in Company Management Under a New Corporate Governance System

In June 2019 Mitsubishi Materials shifted from a Company with an Audit & Supervisory Board to a Company with a Nomination Committee.

Under this new corporate governance system, not only do outside directors make up the majority of the Board of Directors, they also make up the majority of the three newly established committees - the Nomination Committee, Audit Committee and Remuneration Committee - and serve as the chairperson of each.

In this three-way talk we hear from three outside directors who played a role in this shift to a new corporate governance system and ask them for their thoughts on the most pressing issues currently facing the Company, and the potential for future growth.

### How do you see the Company's efforts in response to the recent quality issues through to the present day?

#### Tokuno

My personal involvement with Mitsubishi Materials began immediately following the public announcement of such quality issues. While serving as chairperson of the special investigation committee, my immediate impression was of the sense of crisis keenly felt as the Company went about initiating a response. These quality issues were seen as the result of an accumulation of long dormant issues with the Company's business activities that had previously gone unnoticed. The Company painstakingly analyzed the root causes of such issues from multiple angles before tying this into a follow-up response. These efforts went deep, getting into the crux of the problem.



I also feel the "multi-layered" nature of the organizational structure as part of the cause of these quality issues. The complex hierarchical nature of the organization, including down to the subsidiary level, caused significant problems with communication, particularly in terms of communication from the "lower levels to the higher levels" of the organization. Going out to each business site you get a real sense of how identified issues are addressed, and of the robustness of the response implemented. I felt that, without improving and resolving issues with the opinions of those at manufacturing sites not reaching those up top, there is no way the Company could start heading in a better direction.

#### Watanabe

Since these quality issues were not specific to any individual business site, but rather common to multiple business fields, the special investigation committee adopted a fairly broad view of the issues present instead of looking at the problem in parts

when investigating the cause of these issues. Amidst these circumstances, I was particularly impressed at how Company executives and employees at manufacturing sites saw these issues not as a result of the decisions or errors on the part of any individual, but as a problem with the management structure itself, always maintaining a view that "the problem lies with all of us" when implementing a response.

When speaking with employees at business sites, I was impressed by their sincere and honest approach to the problem, analyzing and demonstrating the issues present in their own way. In this case, everyone's backs were placed against the wall due to accepting orders that exceeded the production capabilities of the site. These issues were also methodically raised and debated within the Company, with the special investigation committee also picking up on this at an early stage.

I feel that future preventive measures intended at preventing a recurrence of such issues need to go beyond simply ensuring quality in the short-term, but rather they need to involve improvements to the entire production process, including measures such as introducing automatic inspections, etc.

#### Sugi

As someone with a manufacturing background, I have always had a firm belief in "Japan's manufacturing capabilities," and watched with keen interest in how Mitsubishi Materials would restore customer trust in a short period of time. When assuming the office of Outside Director, I paid a visit to various business sites and heard from those on site about the overall nature of the quality issues



present, and what struck me was the greater than expected sense of crisis everyone had in their approach to these issues. In particular, the prevailing outlook that the manufacturing capabilities of the entire Company, and the manner in which opinions are raised when abnormalities occur, should be fundamentally reevaluated, and the view that these issues should be viewed from both a "human resources" and "system" perspective, matched the image I held of the response that should be taken to this problem. Not only that, employees at business sites approached these issues in such a serious manner that left even me incredulous.

Meanwhile, in addition to implementing emergency measures to these quality issues, a significant degree of analysis was performed to substantiate technical and system-side issues with a view to introducing more permanent measures. Having said that, I did have concerns with the notable difference in the actions taken by each business site in light of these analysis results.

While efforts were later made to overcome this issue, I feel this served as a

good opportunity for Mitsubishi Materials, for which the level of information sharing between business divisions had been lacking, to have the Corporate Division further fulfill a cross-functional support role.



## Three-way Talk with Our Outside Directors

### How do you view the newly established corporate governance system, and the administration of such?

#### Watanabe

I feel that to improve governance functions, us outside directors, including myself, need to push ourselves even further. To sufficiently perform the role expected of an outside director, it is important to have a system in place to receive information from executive officers. For example, I would like the Company to increase opportunities for us to speak directly face to face. If this happens, the role of an outside director will undoubtedly become a busy one. This is how I feel it should be.

Additionally, I feel the significant number of Member of the Audit Committee, and the increased focus on auditing both financial and business affairs, seen in the new management system employed by Mitsubishi Materials ties back to experiences with the recent quality issues.

With the increased transfer of authority to executive officers, there is an element that may lead to increased slack in business affairs. It is essential that we draw from lessons learned from other companies facing a similar predicament, and ensure that authority and responsibility is concentrated on executive officers in important positions, and that effective supervisory functions are in place for executive officers on the Board of Directors.

#### Tokuno

When I first heard about plans for the Company to move to a Company with a Nomination Committee I instinctively felt that this was the right call. As the world around us continues to change at an increasing pace, companies likewise need to act with a sense of speed. For this reason, the decision to transfer authority to executive officers, and for the Board of Directors to perform a supervisory role, is a rational one.

I feel that building good relationships between those in executive and supervisory role lies key to having this new governance system function effectively. In other words, when directors are able to accurately grasp

the information and knowledge held by executive officers, only then can the Board of Directors give way to lively discussion.

Further, I see the establishment of the Nomination Committee and the Remuneration Committee as other, extremely positive, steps in the right direction. Presenting the process used to determine the next President for the world to see clearly shows Mitsubishi Materials' intention to grow and select personnel in a fair and just manner. This also creates a venue to discuss important matters, such as the characteristics sought after in a President and the process used for human resource development, as well as providing ample opportunity to make preparations for the new President coming into the fold as a successor. With the approach to remuneration for executives in Japan remaining a hot topic within the global economy, I see moves by Mitsubishi Materials, a renowned Japanese company, to establish a Remuneration Committee and taking a step towards reforming remuneration practices as greatly significant.

#### Sugi

While the Board of Directors at Mitsubishi Materials were open to dialog, they were not exactly a forum for debate in the truest sense of the word. When presented with questions or opinions on a proposal by outside directors, as leaders in charge of the execution of business activities, internal directors would have often already discussed the matter at length internally, and found themselves explaining the conclusions reached to outside directors. This led to meetings of the Board of Directors being split between those

providing explanations and those listening to such explanations.

All participants in the new form of Board of Directors engage in discussion from a level perspective, and this is sure to be more conducive to debate. While this may result in clashes of conflicting opinions, I hope this further facilitates multi-faceted discussion of various proposals presented as solutions to issues. Although everyone has always felt welcome to freely presenting their opinion on matters, I hope this newly reformed approach to Board of Directors leads to more constructive, broader-reaching debate.



I hope to see executive officers analyze their own issues and the means for resolving such, and work on their ability to communicate in a concise manner. Ideally, the executive officers granted more authority should become stronger in a positive sense, while the Board of Directors maintains a keen understanding of all matters posed from a broad perspective. I feel the Board of Directors should not only have the authority to give instructions, but also the ability to outline concrete initiatives.

### Where should the Mitsubishi Materials Group further develop its strengths, and what issues should it resolve to achieve further growth?

#### Sugi

In addition to the copper, aluminum and other non-ferrous metal materials, Mitsubishi Materials also has a background in manufacturing and selling a broad range of processed goods and electronic components. As companies handling everything from materials to processed goods within the one group are few and far between, I feel that Mitsubishi Materials can further demonstrate its strengths by pursuing composite products and advanced functionality while keeping a close eye on market and technology trends, such as in relation to electric vehicles. The Advanced Products Company that started in 2018 is an organization that is exactly in line with these aims. If the Company could combine the development of advanced products with the development of the materials used themselves it would have an overwhelming advantage over the competition. Delivering products befitting of the name "advanced products" and enhancing the Company's sales capabilities will surely result in significant business growth for the Company.

Having said that, a broad, diverse scope of business activities can be both a blessing and a curse. While previously the diverse portfolio of products resulted in significant barriers being formed along organization lines, recent steps taken toward improving quality have placed increased emphasis on crossing organizational boundaries in such areas. These activities will lead to



the creation of a shared company-wide platform, upon which the set strengths of each business are incorporated, and the common integration of such a platform will, in turn, enhance the Company as a whole. I see this as the catalyst for such.

Further, there are not many companies that can boast about their efforts to not only avoid the production of waste materials, but also play a vital role in the formation of resource recycling efforts in greater society. To further expand on this function, the Company must communicate the role it plays in society to make stakeholders broadly aware of this. Additionally, R&D into recycling technologies needs to be actively pursued while also seeking out tie-ups with venture companies with expertise in specific fields. Not only that, increasing the range of partners willing to cooperate on the recovery and collection of resources—the entry point for recycling—is also vitally important. I feel these initiatives will help serve as a great boon for the future growth of the Mitsubishi Materials Group.

#### Tokuno

While only emblematic of the Company's outlook, I believe the clearly defined corporate philosophy of "For People, Society and the Earth," and vision of "becoming 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" as an excellent approach to have for Mitsubishi Materials to achieve future growth.

Efforts to recycle metal resources through so-called "urban mines recycling" and provide renewable energy through geothermal power generation are anticipated to form a major pillar of the Company's business activities as drivers of further growth, and this is an area where I personally have great expectations for.

The recent quality issues show us the need to promote further governance enhancements, and for members of management at Mitsubishi Materials to take on greater responsibility for the business. Further, these issues also raise questions as to how many subsidiaries should the Company have, and is the business portfolio configured how it should be? Answering questions as to "which direction should the Company take?" and "how should we select and concentrate our resources?"—all while leading the Company to further growth without spreading managerial resources too thin—are jobs for none other than those involved in the management of the Company.



#### Watanabe

I also see "contributing to a sustainable world" as an outstanding message in terms of the image of Mitsubishi Materials that the Company presents to the world. The Company's smelting and refining process also functions in the role of urban mines recycling, and the Company's smelters & refineries and cement plants accept and treat shredder dust and other forms of industrial waste, and high-chlorine waste plastics and other waste matter that cannot be readily treated. Further, the excavation technology developed for other business activities is being reapplied to geothermal power generation. In other words, the Company's past efforts form the foundation to tackle new challenges, from which the Company's contributions to society are made.

The fact that Mitsubishi Materials has already established the foothold needed to enter so-called areas referred to in relation to "social responsibility" and "green industry" is something that I feel could be emphasized even further.

However, just as there are two sides to every coin, this comes with its own strengths and weaknesses. The Company as it stands today is the result of an extensive history of companies in a variety of difficult fields coming together. While the Company has many avenues from which it can contribute to society, the sheer diversity and breadth of such only complicates management. I feel that if Mitsubishi Materials could only organize parts of its business it engages in through the concentration of management resources, and parts set to see further growth through collaborations with other companies, into a coherent whole, a new outlook could open up as a stronger company that better combines the best aspects of each.



# Corporate Governance

We make every effort to further the sustainable development of the company and maximize the corporate value through fair business activities in adherence to the corporate philosophy, vision, values and code of conduct of the MMC Group.



## Basic Approach

We have established a corporate philosophy, vision, values and code of conduct that apply to the entire MMC Group, and make every effort to further the sustainable development of the company and maximize the corporate value through fair business activities. We recognize that for this purpose, it is vital that we engage in efficient and transparent management, and have long implemented a range of measures aimed at enhancing our corporate governance.

## Overview of Corporate Governance and Reason for Adopting a Corporate Governance System

The Company changed to a Company with a Nomination Committee following the approval for said proposal at the 94th Ordinary General Meeting of Shareholders held June 21, 2019.

With the change, we will accelerate business execution and decision making with the transfer of authority to Executive Officers, while strengthening the Board of Directors' management supervisory functions and improving the management transparency and fairness.

We have also adopted an in-house company system in order to operate more flexibly and appropriately as an integrated business entity involved in Advanced Products, Metalworking Solutions, Metals, Cement and other businesses.

### (Board of Directors)

The Board of Directors determines matters which may have a serious impact on the management of the Group, such as the basic policy of the Company's management - in accordance with the provisions of laws and regulations, the articles of incorporation and the Board of Directors Rules - in order to achieve the sustainable development of the Group and maximize corporate value. Further, the Board of Directors monitors the performance of business tasks by Directors and Executive Officers, and works to ensure shareholder value over the mid- to long-term.

The Board of Directors is comprised of 11 Directors (including six Outside Directors), and the Chairman of the Board of Directors is performed by the Chairman of the Company.

### (Nomination Committee)

The Nomination Committee determines the content of proposals, etc. concerning the election and dismissal of Directors to be submitted to General Meeting of Shareholders. In addition to this, the Nomination Committee reviews and responds to inquiries from the Board of Directors concerning the election and dismissal, etc. of Executive Officers. The Nomination Committee is comprised of five Directors (including three Outside Directors), and the Chairman of the Nomination Committee is performed by an Outside Director.

### (Audit Committee)

The Audit Committee audits the legality and validity of duties performed by Directors and Executive Officers, either via internal audits conducted by the department in charge of internal audits, or directly by the Audit Committee member elected. The Audit Committee is comprised of five Directors (including three Outside Directors), and the Chairman of the Audit Committee is performed by an Outside Director. The Audit Committee also elects three Full time Member of the Audit Committee in order to improve the effectiveness of audits conducted by the Audit Committee.

### (Remuneration Committee)

The Remuneration Committee sets policies for determining individual remuneration received by Directors and Executive Officers, and determines the individual remuneration received by Directors and Executive Officers based on these policies. The Remuneration Committee is comprised of five Directors (including three Outside Directors), and the Chairman of the Remuneration Committee is performed by an Outside Director.

### (Executive Officer)

Executive Officers perform business tasks according to the segregation of duties set, based on the transfer of authority from the Board of Directors. The Company has 10 Executive Officers, of which the Chief Executive Officer Naoki Ono, and the Executive Vice President and Executive Officer Osamu Iida, are elected as Representative Executive Officers upon the decision of the Board of Directors.

### (Executive Officers' Meeting)

Following the transfer of authority from the Board of Directors, Executive Officers' Meetings review and determine important matters concerning the management of the entire Group. Executive Officers' Meeting are attended by all 10 Executive Officers, and the Chairman of the Executive Officers' Meeting is performed by the Chief Executive Officer.



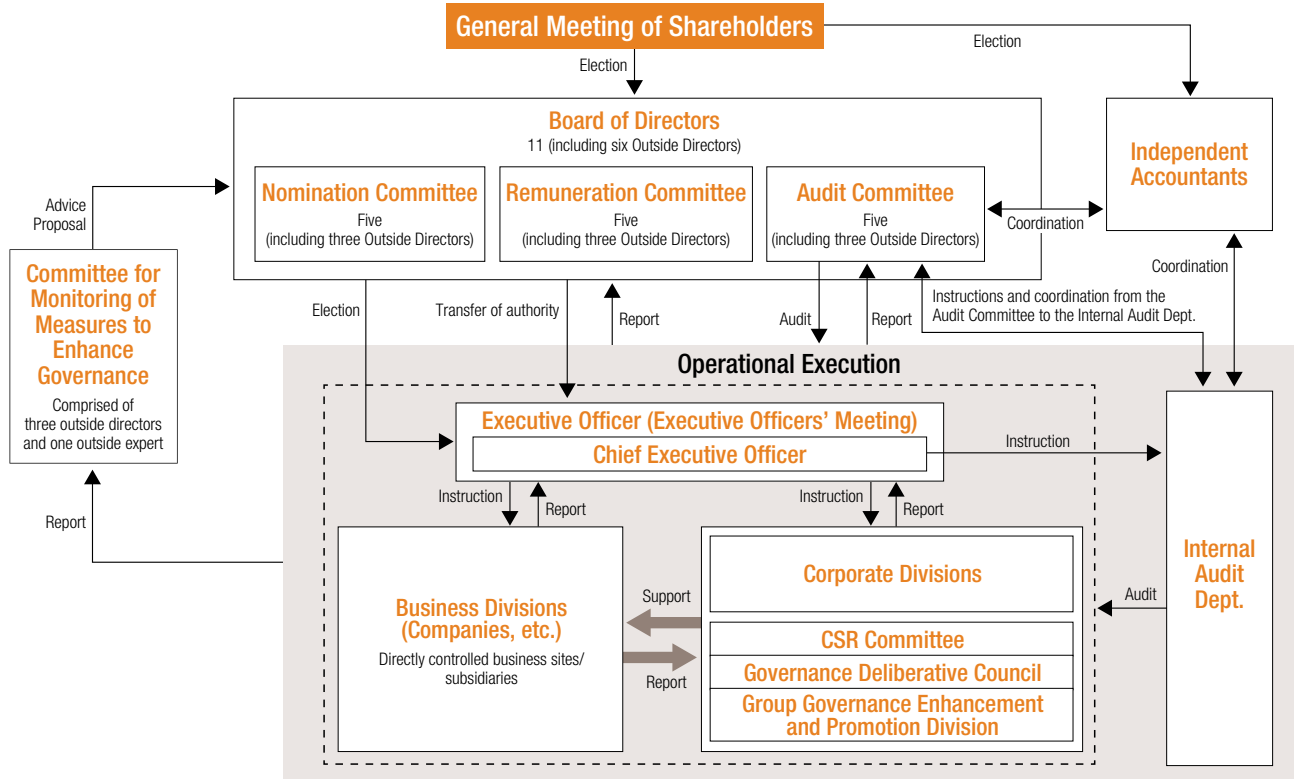
# Corporate Governance

**(Committee for Monitoring of Measures to Enhance Governance)**

The Committee for Monitoring of Measures to Enhance Governance monitors the status of “the Restructuring Measures of the Governance Framework for Quality Control in the MMC Group” and “MMC Group Governance Framework Enhancement

Measures” from a more independent position than management, as well as providing necessary advice and proposals on related issues to the Board of Directors. The Committee for Monitoring of Measures to Enhance Governance is comprised of three Outside Directors and one outside expert, and is headed up by an Outside Director.

■ Overview of the Corporate Governance System



**Nomination of Candidates for Director and the Election and Dismissal of Executive Officers**

Mitsubishi Materials is an integrated business entity involved in Advanced Products, Metalworking Solutions, Metals, Cement and other businesses, and our basic approach to the structure of the Board of Directors, which fulfills the roles of determining on important matters and exercising supervision over management, is to ensure that it comprises a diverse range of human resources with different expert knowledge, experience, and other qualities. In light of this approach, the Nomination Committee endeavors to nominate and select individuals of exceptional insight and character as candidate directors, regardless of attributes such as gender or nationality.

Candidates for Outside Director should be individuals who will supervise the appropriateness of Directors and Executive Officers in the execution of their duties from an independent and objective standpoint, and should be able to provide a diverse range of values and advice regarding the management of the Company based on expert knowledge, extensive experience, and broad, advanced insight that differs from those of Directors who have advanced internally, or possess expert knowledge, extensive experience, and broad, advanced insight in relation to finance and

accounting, financial affairs, legal matters, administrative affairs, or science and technology, etc. These candidates are nominated by the Nomination Committee with reference to standards for determining independence.

Conversely, proposals are made to the General Meeting of Shareholders concerning the dismissal of Directors for those deemed to not satisfy the abovementioned policy for nomination as determined by the Nomination Committee.

Further, persons well-versed in company management and the business activities of the Company shall be elected as Executive Officers responsible for the execution of business tasks, regardless of individual attributes concerning sex and nationality, etc. Following reviews by the Nomination Committee, said candidates for Executive Officer shall be elected based on a comprehensive review into the candidate's work history and achievements, and specialist knowledge and other capabilities by the Board of Directors.

Conversely, Executive Officers deemed to not satisfy the requirements of this selection policy shall be dismissed on the decision of the Board of Directors following a review by the Nomination Committee.

**Policy regarding the determination of remuneration**

As of June 2019 we made it a basic policy to appropriately link the remuneration for Directors and titled Operating Officers to corporate performance as well as individual performance. Drawing on the advice of external experts, steps have been taken to design a system that was highly objective. Remuneration was comprised of a basic fixed component as well as a bonus that was linked to performance. Further, the maximum monthly amount of the basic remuneration to Director remuneration was set at 49 million yen (6 million yen for Outside Directors), with the maximum annual bonus amount for the same was set at 170 million yen based on the resolution passed by the General Meeting of Shareholders.

The amount of the basic remuneration was determined in accordance with the title and individual performance of each Director or Operating Officer. A portion of basic remuneration was paid in a fixed monthly amount as stock-based remuneration (not paid to outside directors) and used for purchasing the company's shares through the company's director shareholding association. The Company's shares acquired based on the remuneration could not be sold at least during each director's and operating officer's term of office. This aimed to link the remuneration to medium and long term corporate performance.

Secondly, the amount of the bonuses, as remuneration linked to short-term corporate performance, was determined after the end of the fiscal year using the net income attributable to owners of parent and consolidated ordinary income for that year as important indicators tied to the evaluation of corporate value, and taking into consideration individual performance. Although no target metrics were set concerning bonuses for the fiscal year as a formula tied to performance in relation to net income attributable to owners of parent and consolidated ordinary income is already applied, bonuses can be reduced or removed entirely depending

on factors such as business conditions and the amount of the dividends for the fiscal year.

Due to the role fulfilled by Outside Directors in supervising the appropriateness of Directors in the execution of their duties from an outside, independent, and objective standpoint, their remuneration comprised only a fixed amount, which is determined in light of individual circumstances based on internal regulations approved by the Board of Directors.

While these basic policies were determined by the Board of Directors, on June 22, 2018, the Company established the “Committee for Nomination and Compensation” as a consultative body to the Board of Directors in order to ensure the transparency and objectivity of the Board of Directors' decisions regarding the election and dismissal of Directors and Operating Officers, as well as their remuneration. The Committee for Nomination and Compensation met six times in fiscal 2019 to review the Directors and Operating Officers' remuneration system and standards, etc. based on this basic policy.

Further, with the Company changing to a Company with a Nomination Committee following the approval for said proposal at the 94th Ordinary General Meeting of Shareholders held June 21, 2019, the policy concerning the determination of remuneration for Directors and Executive Officers, and individual remuneration decisions will be made by the Remuneration Committee. The Remuneration Committee has determined Director and Executive Officer remuneration from July 2019 in accordance with the abovementioned policy. Looking ahead, the Remuneration Committee will deliberate on the ideal format for Directors and Executive Officers remuneration to take, appropriate standards for remuneration and policies for determining Directors remuneration with a view to applying such findings from the fiscal year starting April 1, 2020.

■ Directors' Remuneration (fiscal 2019)

Position	Total Amount of Remuneration (Millions of yen)	Remuneration by Type (Millions of yen)		Number of Executives (persons) <sup>1)</sup>
		Basic <sup>3)</sup>	Bonus <sup>4)</sup>	
Directors (of which Outside Directors)	413 <sup>2)</sup> (56)	318 (56)	94	12 (4)

Note 1: The number of Directors includes three Directors whose terms ended during the fiscal 2019. There are nine Directors as of the end of the fiscal 2019.

Note 2: It was resolved at the 91st Ordinary General Meeting of Shareholders held on June 29, 2016 that the amount of remuneration to the Directors should not exceed ¥49 million per month (excluding salaries as employees for Directors who also serve as employees), including remuneration not exceeding ¥6 million for Outside Directors.

Note 3: Of the basic remuneration for Directors, the stock-based remuneration is ¥28 million.

Note 4: It was resolved at the 81st Ordinary General Meeting of Shareholders held on June 29, 2006 that the amount of the bonuses for Directors other than Outside Directors should not exceed ¥170 million per annum.

\*As the Company changed to a Company with a Nomination Committee following the approval for said proposal at the 94th Ordinary General Meeting of Shareholders held June 21, 2019, no remuneration, etc. was provided to Executive Officers for fiscal 2019.



# Corporate Governance

## Evaluation of the Effectiveness of the Board of Directors

The Board of Directors evaluates the role, composition, management method, etc. of the Board of Directors on an annual basis, based on which the effectiveness of such is analyzed and evaluated at meetings of the Board of Directors.

The method applied to evaluate the effectiveness of the Board of Directors in fiscal 2019, and a summary of the results of such are outlined below.

### 1. Method of analysis/evaluation

Answers to a questionnaire distributed to the nine Directors and five Audit & Supervisory Board Members in January 2019 were retrieved. Based on the results of this questionnaire, a review of the effectiveness of the Board of Directors was conducted at a meeting of the Board of Directors held in February 2019, with a resolution reached on evaluations of the effectiveness of the Board of Directors in fiscal 2019 at a meeting of the Board of Directors held in March 2019.

Further, in consideration of efforts to enhance the Group governance system, including in relation to quality control, this questionnaire was implemented with additional questions referencing the views of external organizations.

### 2. Fiscal 2019 questionnaire items

The core questionnaire items are as follows.

- (1) Effectiveness of management monitoring
  - Matters pertaining to the enhancement of Group governance systems, including quality control, and other compliance-related issues, etc.
- (2) Matters considered particularly important for improving corporate value
  - Matters pertaining to committee use, cross-shareholdings and management strategies, etc.
- (3) Monitoring of issues in consideration of evaluations of the effectiveness of the Board of Directors for fiscal 2018
  - Matters pertaining to the composition of the Board of Directors, the frequency of meetings, proposals and discussion materials, etc.

### 3. Summary of fiscal 2019 evaluation results

As a result of deliberations by the Board of Directors, the Board of Directors was able to verify that it achieved a sufficient level of effectiveness for fiscal 2019. A summary of questionnaire responses and discussions within the Board of Directors is provided below.

#### (1) Effectiveness of management monitoring

While the view was raised that there was a sufficient level of discussion by the Committee for Monitoring of Measures to Enhance Governance in relation to measures to enhance Group governance system, including quality control, some opinions were raised that there was further room for improvement with regard to the means of provision and content of information provided to the Board of Directors from this Committee, and in terms of the time allotted for discussion by the Board of Directors.

In view of this feedback, the Board of Directors will look to taking further steps to improve the effectiveness of management monitoring measures.

#### (2) Matters considered particularly important for improving corporate value

The feedback provided showed that while proper reports on the cost of capital, the setting of appropriate indicators, and strategy decisions were being provided to the Board of Directors, there was room for further improvement in relation to the frequency, method and content of reports concerning the progress of the Medium-term Management Strategy, and the response to such, and of strategies concerning business portfolio reviews, etc.

In view of this feedback, the Board of Directors will review the appropriate means of supervising strategies in relation to the Medium-term Management Strategy and reviews of the business portfolio, etc.

#### (3) Monitoring of issues in consideration of evaluations of the effectiveness of the Board of Directors for fiscal 2018

With regard to proposals that should be put before the Board of Directors for debate, responses showed that there was room to review the standards set for discussions based on the importance of proposed matters, and that there was further room for improvement in terms of preparing materials that take a finer look at key matters up for discussion.

In view of this feedback, the Board of Directors will review appropriate items for discussion by the Board of Directors, and the form in which materials should take in order to facilitate smoother discussion.

Looking ahead, the Board of Directors will keep making continuous efforts toward further effectiveness improvements, including in relation to the above matters.

## Status of Audits

### Status of audits performed by the Audit Committee

In addition to attending the Executive Officers' Meeting and other important meetings, members of the Audit Committee conduct interviews with Directors, Executive Officers, departments in charge of internal audits and other departments in charge of internal control concerning progress on the execution of their duties, and view important approval documentation, etc. Selected members of the Audit Committee investigate the state of business and assets at the Company headquarters and important business sites according to the audit standards and audit plans, etc. of the Audit Committee as established by the Audit Committee, and conduct visiting audits of subsidiaries, etc. as needed, as well as forming a framework for conducting audits of the state of the execution of duties by Directors and Executive Officers. Additionally, the Audit Committee holds regular meetings with Corporate Auditors at major Group companies as part of efforts to enhance coordination of audit systems in line with Group management measures in place. An organization has been set up within departments responsible for internal audits to assist the Audit Committee in its duties concerning such audits performed by members of the Audit Committee.

### Status of internal audits

The Internal Audit Dept. responsible for conducting internal audits works with the Audit Committee on the instructions of the Chief Executive Officer to investigate whether internal control systems are configured and applied in an appropriate manner, and audit the effectiveness and efficiency of company operations across the Group, the credibility of financial reports, the state of asset preservation and use, the risk management status, and the state of compliance with laws and regulations, and internal rules and standards, based on internal audit plans approved by the Chief Executive Officer and the Audit Committee.

Further, in addition to conducting joint audits with the department responsible for internal audits after conferring on the audit plans for both at the beginning of the term, the Audit Committee engages in audits in close cooperation with the department responsible for internal audits, receiving reports from said department on audit results on a regular basis, sharing this information, and receiving reports on the status of the execution of duties from the department responsible for internal control, etc.

Additionally, the Audit Committee regularly receives reports from independent accountants on audit results, shares this information, and engages in audits in close cooperation with said independent auditors after conferring on the audit plans for both with them.

We begin our basic internal auditing procedure by conducting a "Paper Questionnaire" across all facilities (business divisions and subsidiaries of Mitsubishi Materials). The Paper Questionnaire consists of a comprehensive range of questions on the subject of laws, regulations, and control procedures that are of particular relevance to the group. We revise the Paper Questionnaire annually to reflect the latest legislation, and include supporting evidence for the questions and details of remedial measures to enable facilities to rectify issues themselves and use Paper Questionnaire as a manual. To encourage facilities to rectify issues themselves, we also carry out "Comprehensive Internal Audits" at selected facilities based on the risk-based approach to the results of the Paper Questionnaire.

Starting from fiscal 2019, the five-to-six-year cycle of the Comprehensive Internal Audits has been revised to a two-year cycle for an increased frequency of audits. Moreover, the audit contents will be improved taking into consideration collaboration with the Governance Div. and use of external resources.

In addition to Comprehensive Internal Audits, we conduct specific "Theme Audits" in order to focus auditing activities on such areas as compliance with important legislation. Combining these auditing techniques, we follow up on the found flaws every six months if they have been duly corrected in an effort to make the audits more effective and enhance the corporate value of the group as a whole.

We also make every effort to improve our group-wide internal auditing framework by sharing information through measures such as holding semiannual meetings with group companies that have their own internal auditing organizations, and also by planning joint audits with our subsidiaries on the companies affiliated with them.

## Internal Control

Since the establishment of the Internal Control System Management Committee in January 2006, we have taken steps such as developing a set of basic principles for improving the Group's internal control systems, and ensuring compliance with the requirements to introduce internal control evaluation and disclosure systems in relation to financial reporting, in an effort to ensure compliance with the Companies Act, the Financial Instruments and Exchange Act, and other relevant legislation, and to establish the optimal internal control systems for both Mitsubishi Materials and the Mitsubishi Materials Group companies.

Evaluations conducted during fiscal 2019 found our internal control systems in relation to financial reporting to be sufficient and effective, with no material weaknesses identified. The results were then submitted in June 2019 in the form of an Internal Control Report with the qualified opinion of an auditing firm.



# Toward the Enhancement of Group Governance

In light of the recent quality issues facing the Group, we are implementing several measures based on an understanding for the need to further enhance Group governance, including quality control, in order to resolve the issues with the Group that led to these quality concerns, and to avoid the same situation repeating itself in the future.



**Susumu Sasaki**, Managing Executive Officer

The Group sees the three primary issues confronting the governance systems in place as issues with Communication, Compliance Framework and Awareness, and Resource Allocation, and we are introducing and executing measures to address these. The progress of response measures to these issues is reported to the “Committee for Monitoring of Measures to Enhance Governance,” which is comprised of Outside Directors and outside experts independent from the execution of the Company’s business activities, which then verifies and supervises such measures from an objective standpoint.

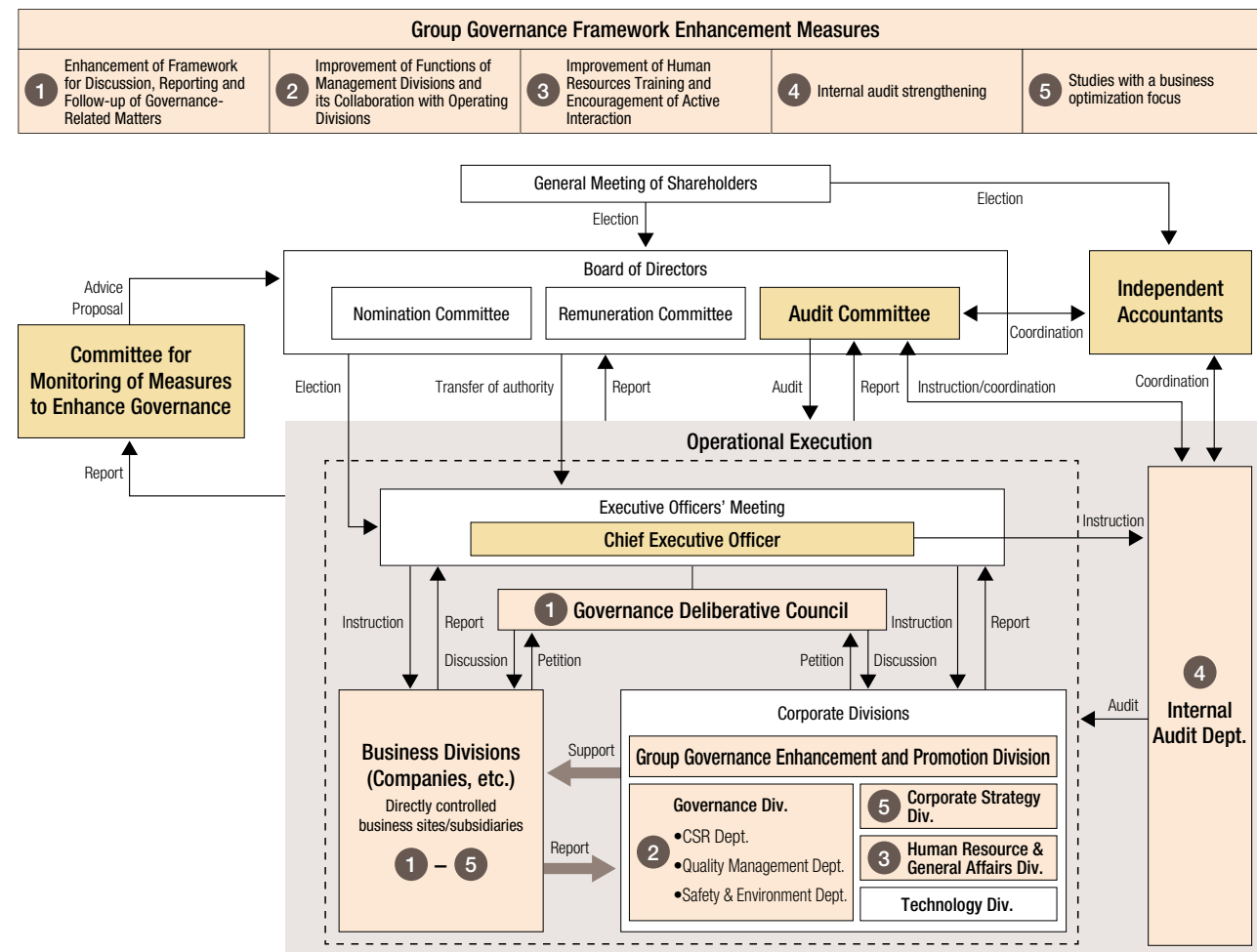
The system of governance that the Group strives for is one where each business site and Group company finds issues in all aspects of its business operations and resolves them by themselves, in other words, to become an affiliated group with the PDCA mechanisms and framework in place and in use to allow for each business site to exercise its self-cleaning capabilities on an organizational level.

We strive to establish bidirectional routes for communication between our Headquarters and business sites, the parent company and subsidiaries, and across hierarchies within the organization, and for management to

make prompt decisions based on the information shared, and for the Group as a whole to carry out its business appropriately.

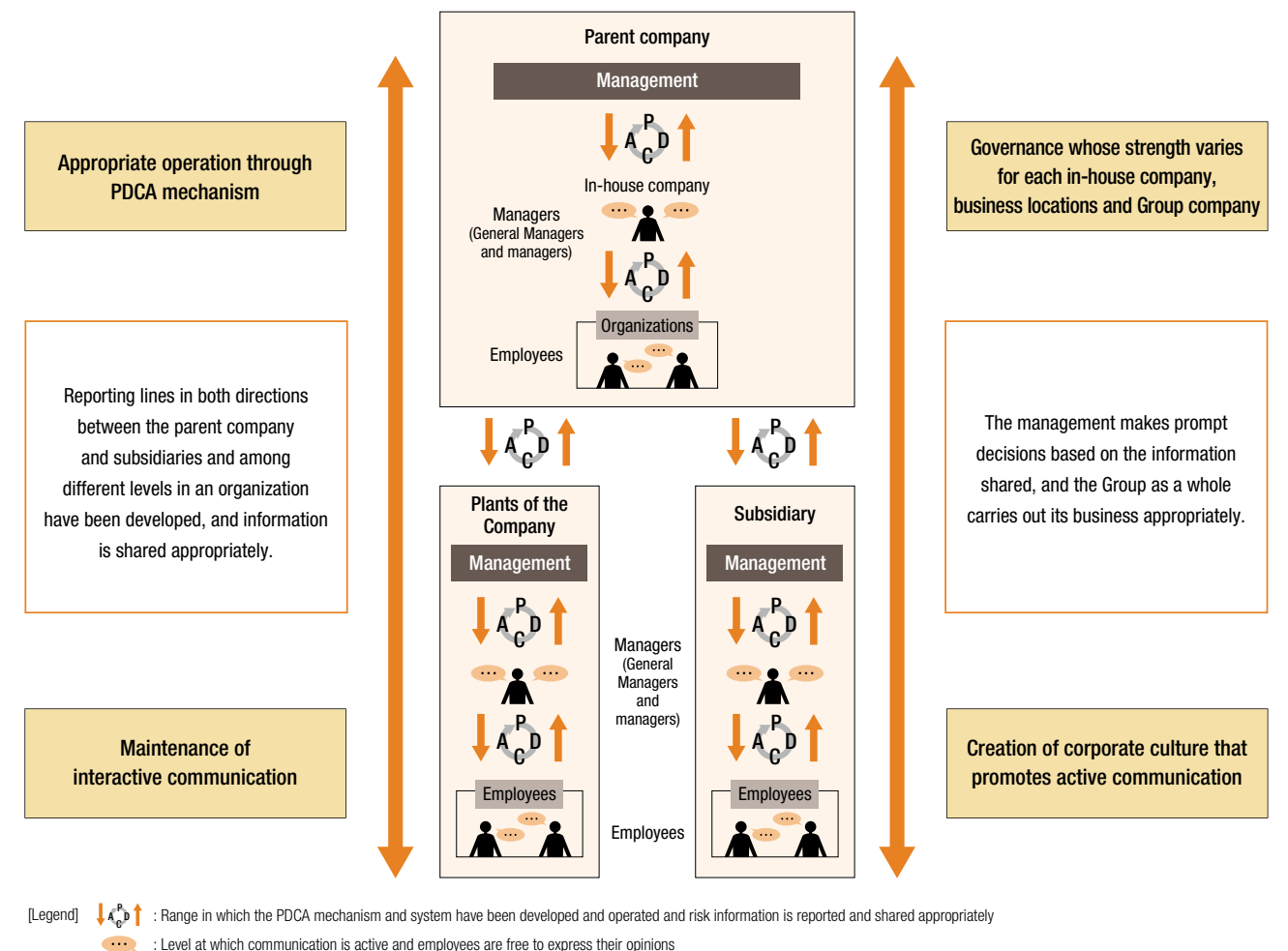
To achieve this, we will strive to foster a corporate culture that encourages communication, with the Governance Div. fulfilling a role that guides the organization along the right path, working to maintain an understanding of the circumstances at each business site and Group company, and providing the appropriate level of assistance and support based on the situation at hand.

## Promotion Framework for Governance Framework Enhancement



## The Target of Group Governance that the Mitsubishi Materials Group Aims to Achieve

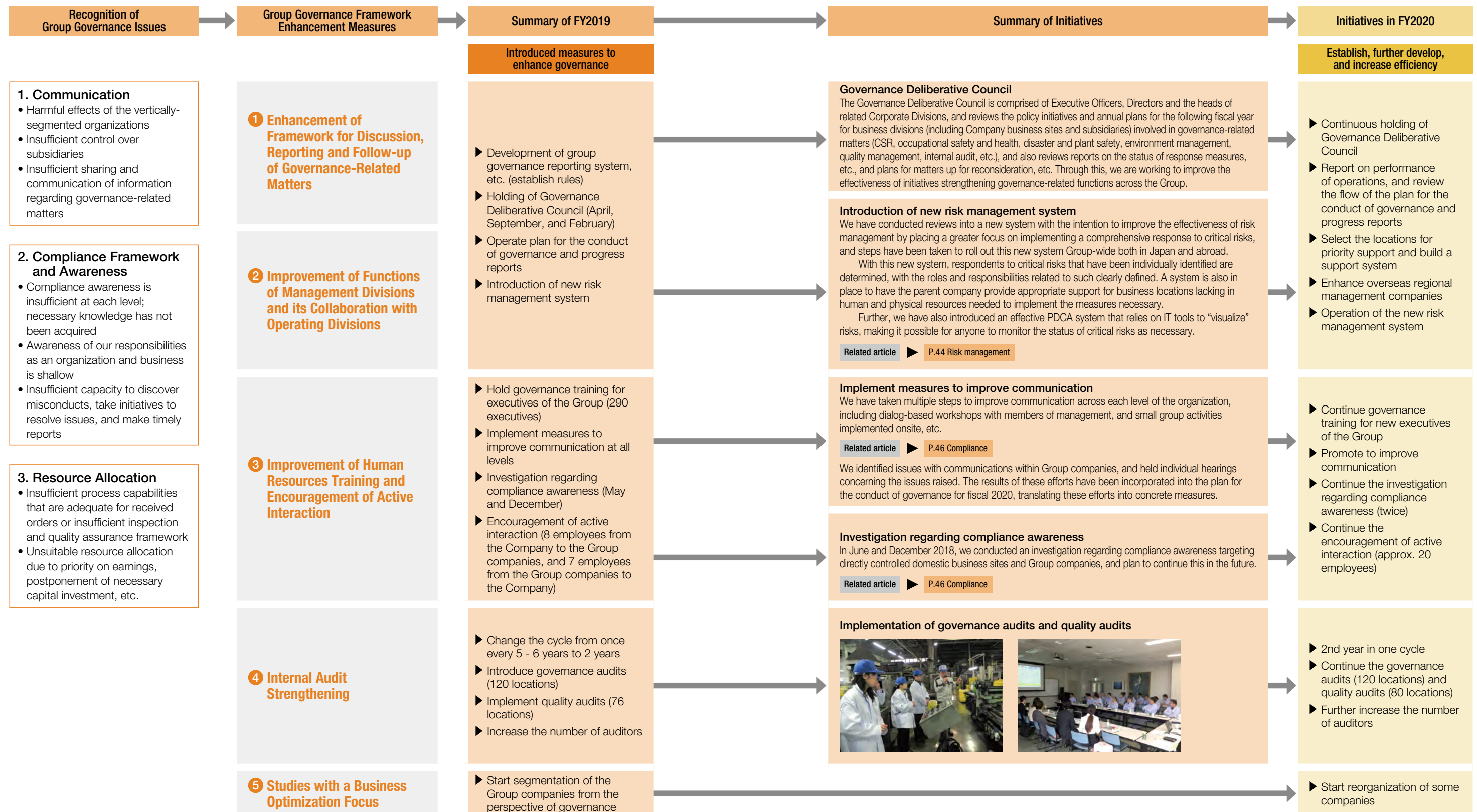
We aim for governance under which efficient and autonomous communication takes place between the parent company and subsidiaries, between the head office and plants, and among the subsidiaries.





# Group Governance Framework Enhancement Measures

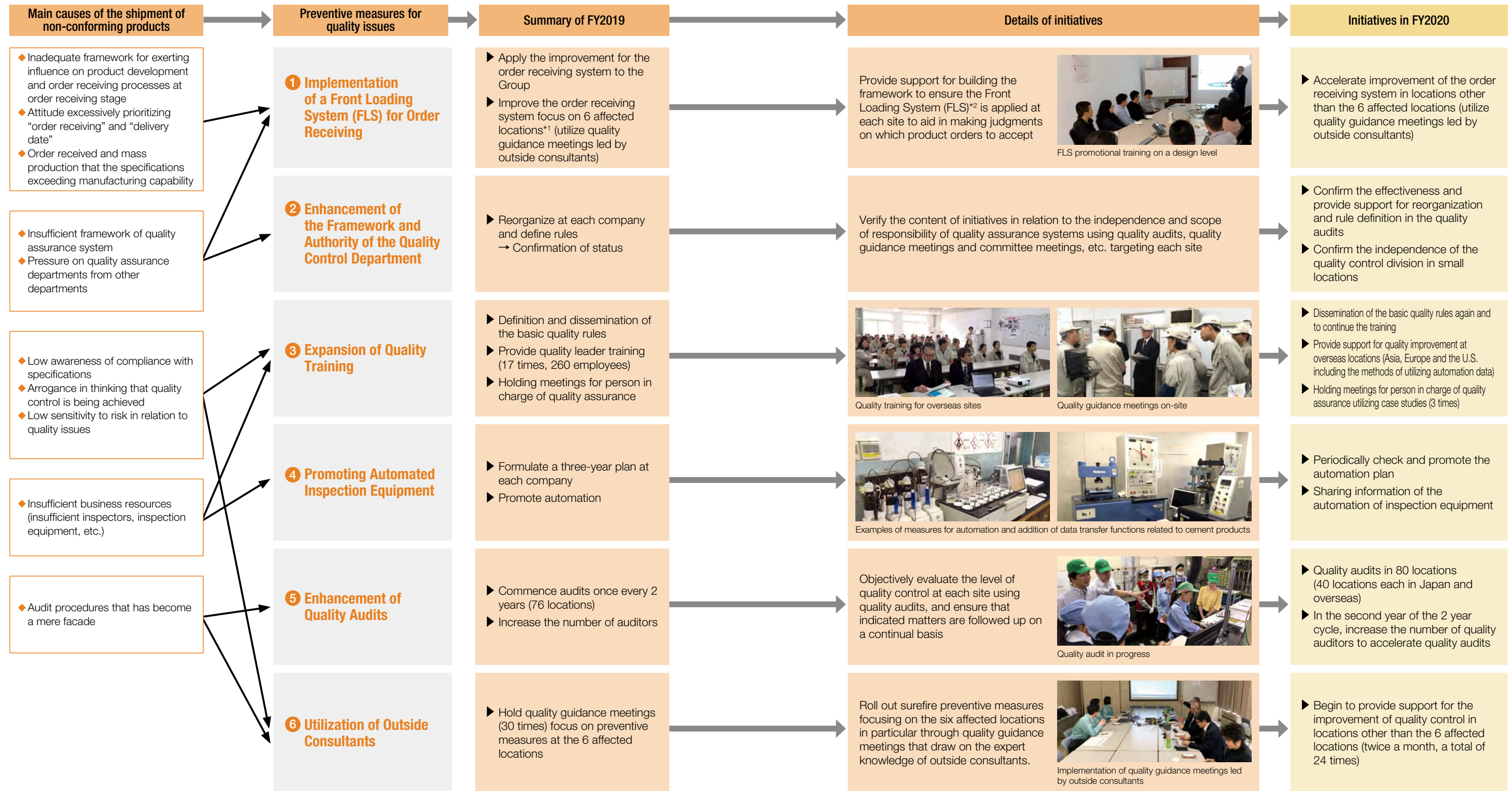
The Company formulated and began to implement the measures for the solution of the Group governance issues, based on the analysis of the background and root causes of the quality issues.





# Restructuring of the Governance Framework for Quality Control in Our Group

To realize the quality policy of the Mitsubishi Materials Group of “manufacturing and providing the first class quality products that meet customers’ requirements and that guarantee their satisfaction,” we have formulated and implemented measures against the causes of the shipment of non-conforming products to prevent a recurrence of quality issues. The series of quality issues showed that a range of problems and issues seen from various perspectives contributed to causing the shipment of non-conforming products. Based on the lessons we have learned from these failures, the Group is firmly resolved to make steady progress on measures for enhancing the quality control systems in place in an effort to restore trust in the Group.



\*1 Six affected locations: Mitsubishi Cable Industries, Ltd., Mitsubishi Shindoh Co., Ltd., Mitsubishi Aluminum Co., Ltd., Tachibana Metal Mfg. Co., Ltd., Diamet Corporation, Naoshima Smelter & Refinery

\*2 A system used to review and make judgments on specifications and receiving orders across multiple related departments in advance in order to avoid accepting orders for difficult-to-produce products that exceed our production capabilities



## Risk Management Activities

We conduct risk management activities aimed at controlling factors that could exert a negative impact on our business performance and providing steady support for sound business operations throughout the Mitsubishi Materials Group. To assure achievement of these goals, we are conducting activities under the following three basic policies:

- 1. Responding to high priority risks:**  
Prioritizing risks and implementing measures accordingly
- 2. Identifying unrecognized risks:**  
Using risk management records to establish a comprehensive overview of all risks
- 3. Sharing risk information:**  
Disclosing the details of Group risks to all concerned parties

While critical risks inherent to each field of business are identified by individual business divisions, the Group identifies serious, high-priority risks at a management level which share a high degree of commonality across the Group, and are thought to have a severe impact on the business management of the Group.

The matter and plan for addressing critical risks given priority across the whole Group, and critical risks tackled by each business division, are discussed at length by the Company's CSR Committee, Executive Officers' Meeting and Board of Directors, and set on an annual basis. Each business site formulates activity implementation plans in accordance with this, which then undergo review by the Governance Deliberative Council, before being applied as part of measures to reduce risk.

A structure is in place by which the content of these activities is shared with members of management and corporate divisions and the progress of which is monitored on a regular basis by the CSR Committee, Executive Officers' Meeting, the Board of Directors, internal audits and the Committee for Monitoring of Measures to Enhance Governance, which is comprised of External Directors. Additionally, information on risks identified as part of risk management activities is provided as materials for internal audits, and a system is in place to have risks indicated through audits, etc. added as needed as subjects for risk management, making for a strict PDCA management system on the whole.

With regard to training, we are striving to boost our sensitivity to risk and enhance and raise the bar concerning our risk control capabilities by implementing training sessions featuring both internal and external consultants that are held both in Japan and abroad.

As part of Group Governance Framework Enhancement Measures in fiscal 2019, we reviewed conventional risk management mechanisms in order to further improve risk management effectiveness, building a new, enhanced risk management system that is being rolled out across the Group both in Japan and abroad in fiscal 2020 onwards.

- (1) Identifies critical risks without fail, and facilitates the implementation of focused measures
- (2) Visualizes the state of risks Group-wide, and enhances risk portfolio management and monitoring
- (3) Clarifies the roles and responsibilities of core management, corporate divisions and companies and other business divisions by business site
- (4) Enhances dialog and discussion on critical risks between the parent company and subsidiaries, and provides an appropriate support for business sites

Critical risks are classified into four categories according to the attributes of each, with roles and responsibilities set concerning the means of involvement at each level (management level, corporate division, company and other business division, business site).

In an effort to ensure that all critical risks are addressed without fail, a system has been established that allows for business sites to receive a sufficient support - following consultations with the parent company and overseeing business division, and corporate divisions specializing in the area of risk at hand—if the application of measures addressing risks proves particularly difficult for an individual business site alone.

Support ↑

Group

MMC Corporate Divisions

MMC Business Divisions

MMC Business Sites, Subsidiaries, Sub-subsidiaries

Group-wide CR

Corporate CR

Business Div. CR

Entity CR (Entity CR1, Entity CR2)

(Other R)

Policy formulation

Planning support

Monitoring

Basic planning

Implementation support

Detailed planning

Implementation

Communication between parent and subsidiaries

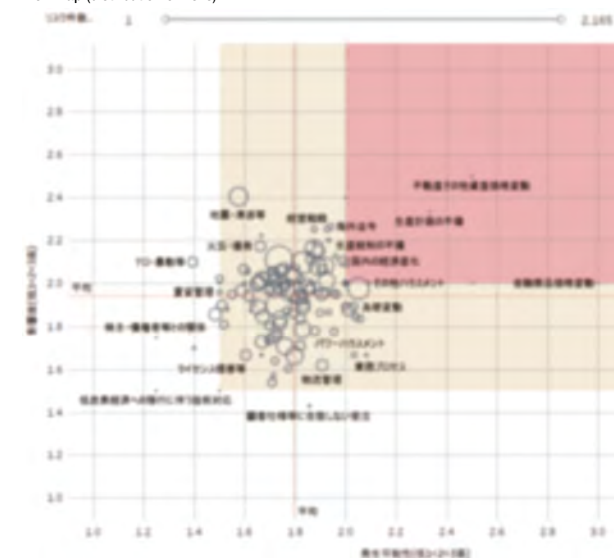
(CR: Critical Risk)

(R: Risk)

Monitoring risk information is made easy by taking steps to visualize risk conditions and the progress status of risk reduction efforts. We are working to promptly and accurately determine where to prioritize deploying management resources to address risks, and the level to which risks can be reduced, by mapping out the risks inherent to the business operations of the Group.

Further, monitoring the progress status of risk reduction efforts in an integrated manner has made it easier to identify delays, and facilitates prompt and appropriate response to risks.

Risk map (distribution of risks)



### Risk ranks



We are striving to strengthen our crisis management systems to facilitate prompt, accurate responsiveness to emergency situations, including natural disasters, accidents, terrorist attacks and pandemic events. Besides formulating crisis management measures, we institute business continuity plans for all our consolidated subsidiaries in Japan and overseas with the aim of minimizing the impact on customers of any crisis that might occur through swift restoration and continuation of operations.

We are also developing systems for obtaining information and expert advice from external consulting firms on the latest trends in crisis management around the world. We distribute regional editions of safety manuals that reflect risks unique to individual countries and regions, and moreover, perform security checks for particularly high-risk countries and regions.

In addition to crisis management measures implemented so far in preparation for natural disasters, accidents, terrorist attacks and pandemics, we are planning to formulate systems to manage other critical risks we have identified in the course of our risk management activities.

The Group implemented a crisis management system in January 2019 both in Japan and abroad in order to help quickly establish an understanding of the safety of employees and the scope of damages at business sites, and to share this across the Group, should a disaster or another state of emergency occur.

This has made it possible to initiate a prompt and adequate initial response, and has also allowed us to leverage the Group network to provide support, etc. from sites nearby disaster-afflicted areas.

The diagram illustrates a crisis management system for disaster response, organized into three main sections: Disaster-afflicted area, Crisis management system, and Headquarters, etc.

**Disaster-afflicted area:** Includes a starburst labeled "Disaster occurs", a box for "Disaster-afflicted area", "Employees", and "Emergency contact (primary and secondary)".

**Crisis management system:** A central dashed box containing:
 

- Safety verification system:** Sends an "Email" to "Employees" and a "Safety report" to the "Collective database".
- Site damage situation verification system:** Receives a "Notification of start verifying safety" from the "Disaster information service" and sends a "Site status report" to the "Collective database".
- Disaster information service:** Sends a "Notification of start verifying safety" to the "Safety verification system" and "Verify data collected" to the "Collective database".
- Collective database:** A central data hub receiving reports and providing information.

**Headquarters, etc.:** Includes a starburst labeled "Collect information in real-time" and a list of roles: "Secretariat of crisis management", "Top management", "Business divisions", and "Headquarters of Group companies".

**External Interactions:**

- Support:** Received from the "Network of Group companies" (indicated by a large orange arrow at the bottom).
- Support requests:** Sent from the "Headquarters, etc." to the "Network of Group companies" (indicated by an orange arrow at the bottom right).



# Compliance

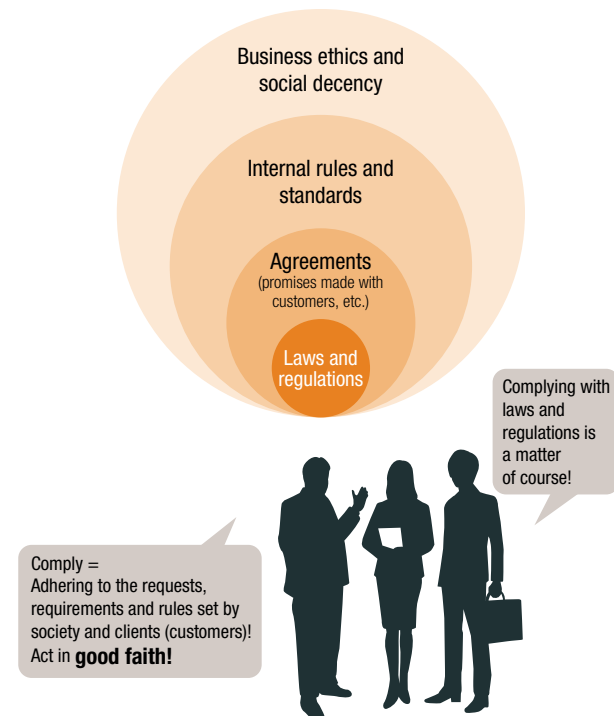
“Compliance” serves as a vital component of a company as the foundation for achieving sustainable development. Mitsubishi Materials implements measures for spreading and establishing an awareness of “compliance” as a means to fostering an ethical corporate and organizational culture.

## Spreading and Establishing an Awareness of Compliance

Our broad view of compliance encompasses such elements as corporate ethics and social norms in addition to legal compliance, reflecting our sincere determination to live up to our stakeholders’ expectations.

We are continually implementing new measures to enhance our Group-wide compliance framework, including domestic and overseas training aimed at realizing our steadfast commitment to improving compliance awareness among individual Group employees. We will strive to continue these initiatives in an aim to further spread and establish an awareness of compliance.

### Approach to compliance in the Mitsubishi Materials Group



## Activities Conducted to Raise Compliance Awareness

Since 2006, the Mitsubishi Materials Group has recognized October as **Corporate Ethics Month**. During this month each year, a message from the President is posted on the Company intranet, and the various facilities and Group companies plan and conduct unique activities.

Recognizing the importance of establishing the Corporate Philosophy system among all our employees, we produce and distribute **booklets, posters, cards** and **collections of case studies** concerning compliance issues. The booklets, posters and cards are produced in 22 languages for sharing with employees worldwide.

The “SCQDE” was established in fiscal 2019 as a measure towards enhancing Group governance. SCQDE stands for “Safety & Health (S), Compliance & Environment (C), Quality (Q), Delivery (D) and Earnings (E).” Although each element is important in its own right, SCQDE outlines an order of priority for making decisions when executing business tasks, and is positioned as a supplemental policy to the Code of Conduct. We are working to spread awareness of the SCQDE through CSR training and other educational activities, and by preparing and distributing posters and portable information cards, etc.

### Order of priority in business decisions



We see our efforts toward building an organization with good and healthy communication where employee has unrestricted communication as further enhancing Group governance, and preventing compliance violations. To this end, we are working to strengthen communication through the holding of **dialog-based workshops**.

We share the Group’s sense of crisis through **small group compliance activities**, moreover, in viewing all issues that arise as our own problems, we engage in opinion exchanges to raise compliance awareness and improve workplace communication.

An **investigation regarding corporate culture and compliance awareness** covering all employees was held in fiscal 2019, which will be continued on an annual basis as part of efforts to promote and monitor compliance-related initiatives.



Communication workshop held by Managing Executive Officers

### Results of the (2nd) investigation regarding compliance awareness, etc. (held in December 2018)

Points clarified with the 1st investigation	Points further clarified with the 2nd investigation
<b>1</b> While compliance awareness is on the rise, further work is needed in establishing specific rules and procedures, and making the employees aware of such	<ul style="list-style-type: none"> <li>•A majority of employees understand Company policies concerning compliance, and have positively received the approach taken by management</li> <li>•Almost all employees feel that they are always working with compliance in mind</li> <li>•Many employees felt that they understood the rules and procedures in place, and that they were being complied with, showing improvements in the level of awareness of rules and procedures</li> </ul>
<b>2</b> While there was a sufficient level of understanding on the need to report and share information on compliance-related matters, many employees felt a degree of uncertainty and hesitation on this subject	<ul style="list-style-type: none"> <li>•An improvement was seen in the level of understanding of the need to report and provide information on facts concerning compliance violations and suspected violations</li> <li>•Although a major improvement has been seen in resolving the uncertainty and hesitation felt when reporting and sharing information on such matters, where around half of the employee base continues to feel such uncertainty and hesitation</li> </ul>
<b>3</b> There is a need for further improvements to workplace management and communication, in addition to measures for enhancing compliance already in place through office organizations	<ul style="list-style-type: none"> <li>•While improvements were seen in the level of mutual understanding of each other’s work and circumstances within the workplace, with many employees feeling that their superiors had an understanding of the work the employees performed, a certain number of employees felt that steps towards personalizing work tasks remained insufficient</li> <li>•A certain number of employees also feel that the workplace culture and atmosphere remain unchanged, and further improvements are needed in this area</li> </ul>

[Investigation respondents] All employees (17,083 employees) of Mitsubishi Materials Corporation (5,973 employees) and 65 domestic Group companies (11,110 employees)

[Response rate] 88.5%

## Expanding and Reinforcing Compliance Education

We provide CSR education and training with a special emphasis on compliance for Mitsubishi Materials Group employees in Japan and overseas.

We have constructed a framework that enables every employee in every domestic Group company to participate in CSR training once a year. To accomplish this, we have been training instructors to provide CSR training for both our Corporate and Group companies since 2012. Employees responsible for promoting CSR activities at our individual facilities and Group companies serve as instructors for the training.

We invite outside experts to give lectures on CSR and compliance to members of management in the Group. Since 2018, Company management has been providing training to members of management at Group companies to help them understanding the responsibilities, duties and roles that a executives must fulfill in relation to governance and compliance, and to foster an awareness and acquire the means to achieve this.

We are reviewing the contents of overseas CSR education and training while taking into account the circumstances at hand in each region, and in fiscal 2019 we introduced online “WEBINAR” training courses, streamlining training over a wide range of regions. Special preliminary and global human resources training courses are organized to provide employees assigned overseas with training in CSR-related issues, including conflict minerals, human rights in emerging countries (such as child and forced labor), regulations concerning competition in the respective countries and overseas anticorruption measures.

We make proactive use of visiting instructors and e-learning in our training programs organized to enhance compliance awareness among employees both in Japan and overseas.

## In-House Reporting System

We established an Internal Contact Office in December 2002 as a consultation service to handle reports and inquiries from employees of Mitsubishi Materials Corporation and its Group companies, before establishing an External Reporting System in April 2006, the operation of which is entrusted to an independent law firm. We also established a new Audit Committee Contact Office in June 2018 to contribute to work performed by Audit Committee members in detecting incidents, such as the recent spate of quality issues, and initiating corrective measures at an early stage. Contact information for these reporting system is printed on cards for employees of the Mitsubishi Materials Group to keep on their person and made available on our Group newsletter and through our CSR education and training activities. Steps are also being taken toward introducing an Overseas In-House Reporting System to aid in promoting a sound governance and compliance framework by contributing to the early detection of embezzlement, law violations and other illicit activities, or activities thought of as such, at overseas Group companies.

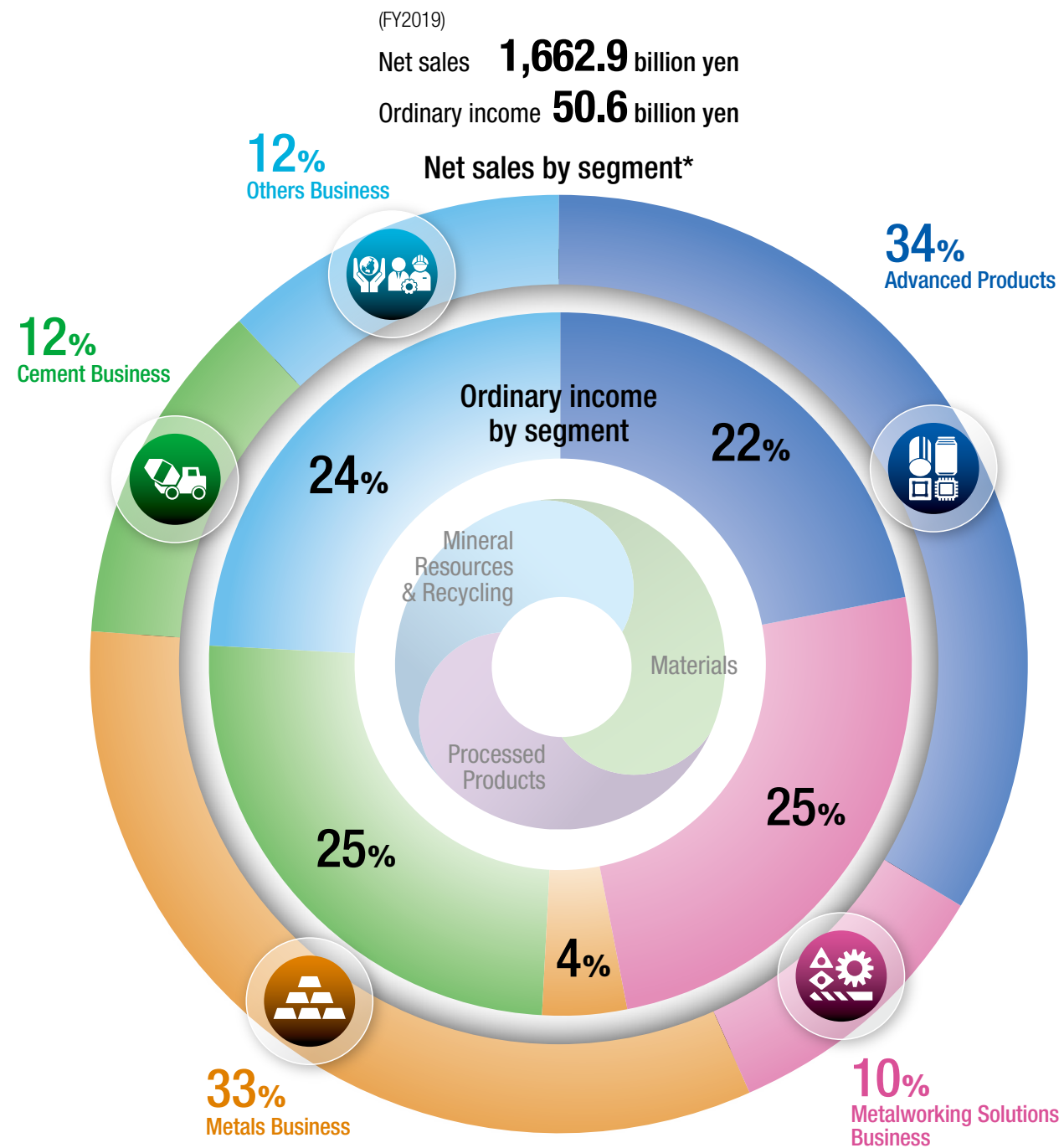
### Numbers of reports and inquiries received through the In-house reporting system (FY)

2013	2014	2015	2016	2017	2018	2019
19	22	24	33	38	41	61



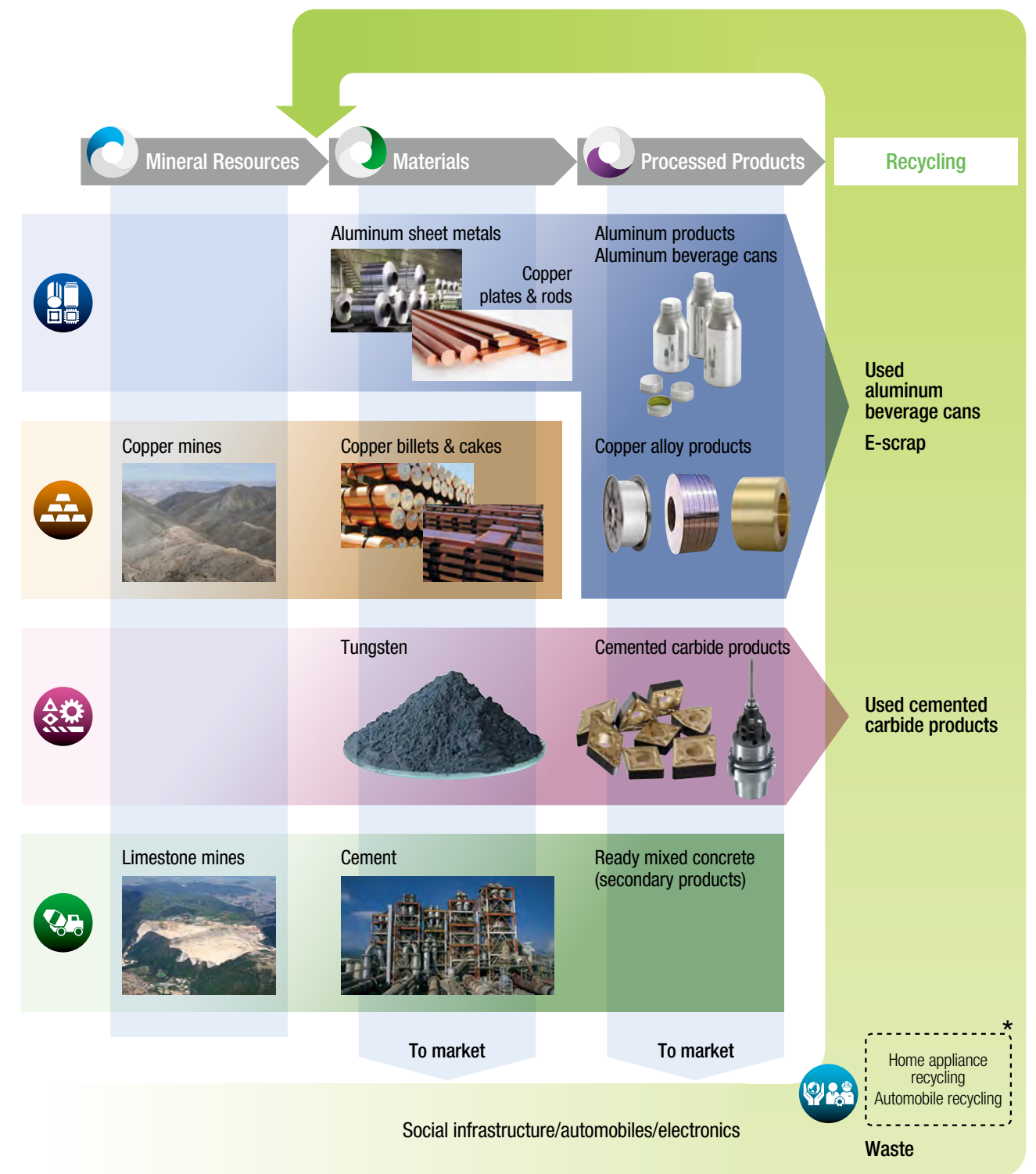
# MMC Group Businesses

[Net sales / Ordinary income by segment]



\*Net sales is for outside customers

[Recycling-Oriented Business Model of Mitsubishi Materials Group]



\*Environment & Energy Business



## Enhancing coordination both inside and outside the Company to develop and provide products delivering new value in a speedy timeframe



**Delivering high-performance products, working with our customers for tackling issues together as a value creation partner, and pursuing sustainable development**

**Yasunobu Suzuki, Senior Managing Executive Officer**  
President, Advanced Products Company

The Advanced Products Company is a new organization formed in October 2018 that is responsible for the product manufacturing business arm across the Mitsubishi Materials Group. This company was formed by integrating three business lines with a high amount of crossover in terms of market and production engineering—the Copper & Copper Alloy Products, Electronic Materials & Components and Aluminum business lines. Our company targets on the business areas as a key driver, such as transport equipment, semiconductor manufacturing equipment and electronics which globally shows growth. In addition, we follow robotics, industrial machinery, medical devices fields, and infrastructure across emerging countries, which are rapidly developing. Within such business field, we will enhance the value of our products by further refining the Group's core competency in materials and production technologies as well as making innovative addition to our product lineup.

Our company employs a key account strategy. In this strategy, we define top-level international customers as “key accounts”, and focus on providing such key accounts with products which meet their high requirement in a timely manner whenever and wherever they need. Through such activities, we gain the trust of key accounts, and work with them on tackling issues as a value creation partner in terms of products or, further to say, whole business. We aim for further business growth by accumulating such activities.

The EBITDA\* growth rate is a point of focus as a management index. We will aim for growth on our operating cash flow through investment toward essential field in a timely manner to realize sustainable development of our business. With this, we will pursue higher growth rate of business more than that of market.

\*In simple terms, EBITDA values are essentially the sum of “operating profit + depreciation,” and this is used as a guide representing the operating cash flow.

### Business Overview

The Advanced Products Company agilely responds to major trends in society by delivering high value-added products such as copper and copper alloy products, electronic materials and components and aluminum products, which meet the expectations of our customer's needs for tomorrow.

Key business fields are transport equipment including automobiles, semiconductor manufacturing equipment and electronics. We will materialize market growth and create a brighter future with our customers by providing our products and services backed by our technical knowledge and capabilities on non-ferrous metals, light metals and ceramics, etc. which we have developed over the years.

#### S Strengths

- [Copper & copper alloy products]**
  - Copper alloy products based on the company's unique manufacturing technologies
  - World's most advanced capabilities on R&D and manufacturing technologies, including those of Luvata
- [Electronic Materials & Components]**
  - In advanced materials and chemical products business, customer-oriented business model supported by a high-quality, high-value-added product lineup
  - In the electronic devices business, optimal production network system, primarily in South-East Asia region
  - In polycrystalline silicon business, stable supply system centered on production facilities in Japan and in the U.S.
- [Aluminum Business]**
  - Offering a competency on R&D aiming for customer needs with integrated casting, plating and foiling processes
  - An integrated recycling system for aluminum beverage can

#### W Weaknesses

- [Copper & copper alloy products]**
  - Insufficient passing down of expert workers' skills and expertise
  - Aging facilities
  - Lagging behind in penetrating into overseas markets
- [Electronic Materials & Components]**
  - Small scale of individual businesses
  - Imbalanced sales areas
  - Concentration on East Asia, and lagging behind in business development in other areas like European, North American, Indian and so on.
- [Aluminum Business]**
  - Aging facilities
  - Global supply networks for aluminum plates not in place
  - Selling only aluminum beverage container product

#### O Opportunities

- [Copper & copper alloy products]**
  - Increasing demand for on-vehicle parts with proliferation of EVs
  - Sustainable growth of global automobile and semiconductor markets
- [Electronic Materials & Components]**
  - Market growth of the next-generation vehicle
  - Successful market growth of the semiconductor and electronics
  - Meeting requirement for both energy savings and a prosperous living environment
  - Acceleration for highly integrated and energy-efficient semiconductors
  - Complication on semiconductor fabrication processes
- [Aluminum Business]**
  - Increased demand resulting from a reduction in the supply of heat exchanger materials in association with an increased focus on automobile panel materials within the same industry
  - Increased demand for aluminum for vehicle in line with acceleration for adoption of EVs and lighter weight
  - Market expansion of the aluminum bottle

#### T Threats

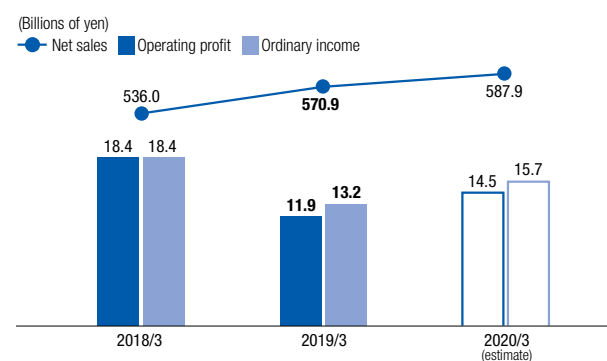
- [Copper & copper alloy products]**
  - Aggressive investment by Japanese and overseas competitors
- [Electronic Materials & Components]**
  - Competition stemming from innovation by emerging countries
  - Decline in sales prices due to intensified competition
  - Cost increase in raw materials, labor, energy and so on
- [Aluminum Business]**
  - Stagnant growth of the roll and processing products in the domestic market
  - Intensifying competition with the rise of Chinese manufacturers
  - Entry of other players into the aluminum bottle market
  - Rise in materials and energy prices

### Fiscal 2019 in Review

After the half year since its establishment, we fortified organizational base to achieve the vision forth at its founding. To react flexibly against agile market trends, mechanisms to sense the change and to understand the latent needs of our customer is required. Centering the Company Strategy Dept., which is responsible for marketing functions, the Company promotes coordination with Group companies which have close contact with customers, and research & development departments of Mitsubishi Materials, as well as collaborations with other business unit in terms of technical development. Development in the heat management fields are frenzied with increasing demand for automobile electrification.

In the field of automobiles market where technical innovation continues at a rapid pace, each manufacturer seeks for optimal materials to apply; we proposed various solutions that met the latest requirements. In fiscal 2019, we launched mass production of the “MSP8” copper alloy, which is compatible with high voltage and large current used for vehicle terminals and busbars.

#### Changes in Business Performance



\* The figures for March 2020 (estimate) were published on May 13, 2019.

### Outlook for Fiscal 2020 in Light of the External Environment

Anticipating future market growth in key business fields, we will work on the creation of new products and businesses while flexibly enhancing the performance of our products and promptly expanding production capacity as needed.

In the Copper & Copper Alloy Products Business, we will focus our efforts on expanding sales of oxygen-free copper and high-performance copper alloy (e.g. copper strips for in-vehicle terminal materials, plating, busbars, etc.) with taking advantage of molding and extruding technologies. We will also accelerate efforts to establish the complementary supply of materials and expand sales in untapped markets, etc. with the Luvata Group (acquired in May 2017), which boasts a global scale production and sales framework for the same types of products. In the Electronic Materials & Components Business, we will enhance adding value on, and expanding the sales of, thermistor sensors (for in-vehicle and home appliances), insulating heat-radiating parts (for EVs, etc.) and precision silicon products (for semiconductors). In the Aluminum Business, we will focus on expanding the supply of sheet metal for heat exchangers and foil products for lithium-ion batteries, as well as developing the next generation of products.

### Activities for Medium- to Long-term Growth

First and foremost, securing our core strengths is vital for achieving medium to long-term growth of the Company. We will double our efforts in R&D including collaborations with external partners, to sustain and extend technical capabilities in regards to materials. Further, considering that business systems including utilization of such may also serve as a key source of strength, we will collaborate to share the best practices with our business locations and Group companies both in Japan and abroad, and with other our business companies.

Since production capacity can be volatile depending on the nature of orders in the product manufacturing business, we will pursue a “winning pattern” backed by the efficient receipt of orders, manufacturing and price settings.

We will also boost the speed of our decision-making. Further, we will establish new rules and systems for delegating more authority to each Business Division including Group companies under such Division's control.

#### Key Strategies

As a global-first supplier, we will contribute to materialize a prosperous and sustainable society by providing high-performance products that is essential for customers with our core competencies (e.g. technology/business)

#### Business Policy

- Creating new products and businesses by employing our core competencies (technology/business) to the forefront in line with what our customers want
- Pursuing patterns for winning by thinking from a marketing standpoint and by incorporating the market oriented attitudes

#### Medium- to Long-term Goals

- Meet the needs of customers and of society
  - Horizontal roll out of market and customer information, and manufacturing technologies
  - Promotion of creating of new products and businesses
- Acceleration of the decision-making process (pursuing an autonomous management)
  - Expanding the decision-making authority at Business Divisions and major subsidiaries
- Enhancing group governance structure—Improving corporate value over the long-term
  - Extending interactive communication with Group companies
  - Agile information sharing
  - Human resources development





## Advanced Products

### Copper & Copper Alloy Products Business Overview

#### Providing Products That Meet Customer Needs, with a Focus on High-Value-Added Fields

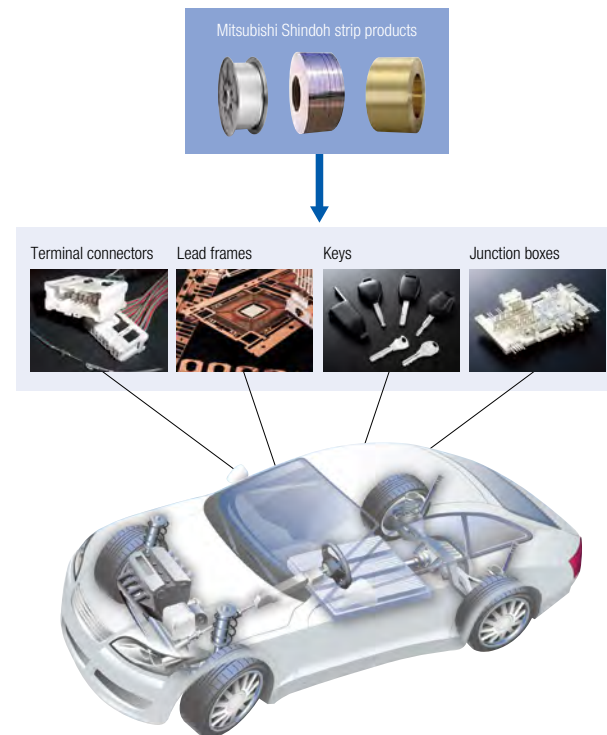
In the automobile field where is the major market of copper & copper alloy products, the demand for copper & copper alloy products are expected to keep increasing in fiscal 2020 and beyond. The rapid growth of the next-generation vehicle market is particularly likely to drive soaring demand for copper.

Amidst these circumstances, the Group successfully developed the MSP5 and MSP8—new alloys which meet demand in the automobile industry for high-performance, compact and low cost in-vehicle electronic devices. Both alloys went into market in fiscal 2019; MSP5 specializing in small-sized, light-weight applications, while MSP8 offering outstanding capabilities in high voltage/large current applications. In addition to these new alloys, we will expand production capacity to meet the demand for in-vehicle terminal materials.

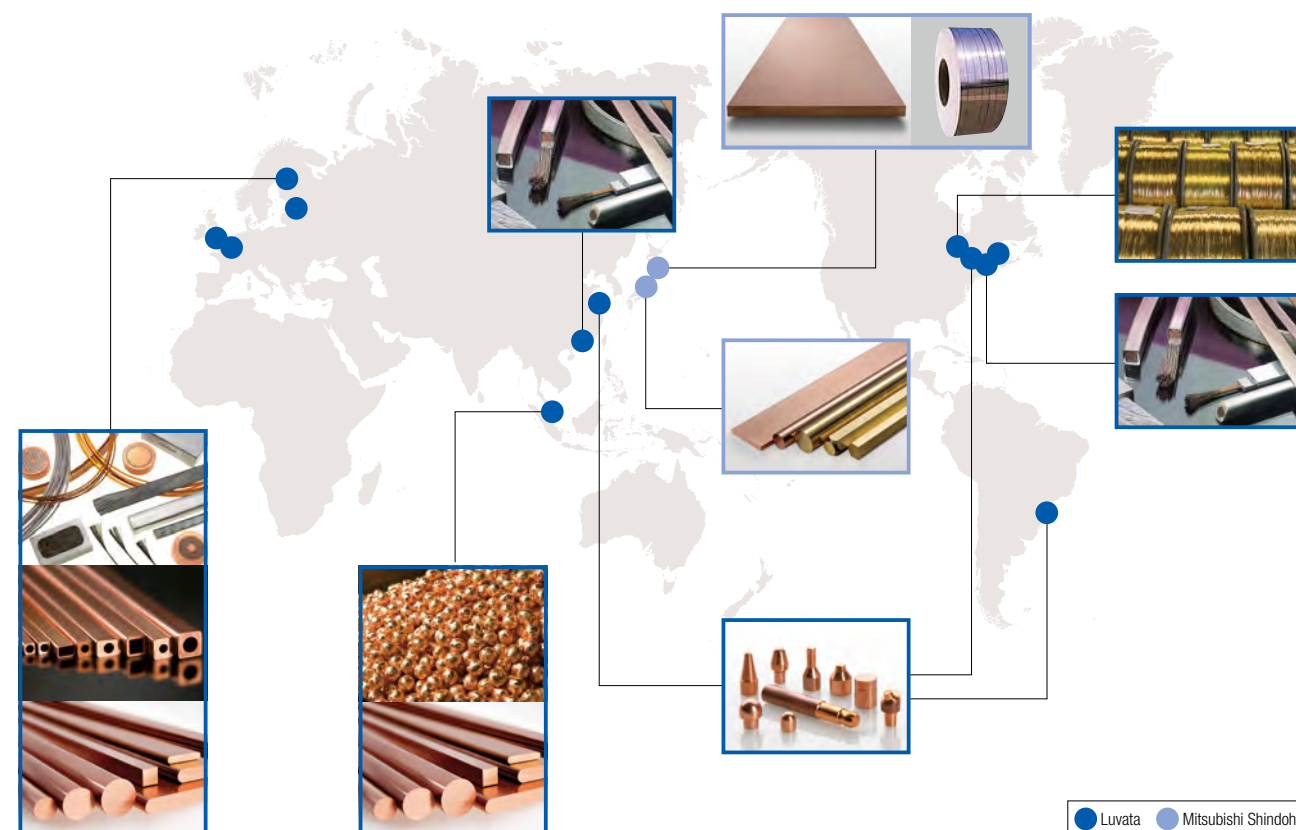
Further, we acquired the Luvata Group in May 2017 to leverage its business presence in 12 locations in seven countries, largely focused on the U.S. and Europe, towards our goal of “establishing a global production and sales structure.” We will accelerate our copper & copper alloy products business expansion in global scale and realize future growth through the collaboration with Luvata group by pursuing various synergies like regional, product and technological aspect.

While this is ongoing, we will work to update the production structure in sealing parts and boost sales in such area particularly for semiconductor manufacturing equipment and air pressure sealant.

Looking to the future, we will continue to contribute to the society by developing high-performance products matched to our customers’ diversifying needs and by establishing supply systems.



#### ■ Sales and share expansion through mutual use of the sales and manufacturing bases of the MMC Group and Luvata



### Electronic Materials & Components Business Overview

#### Delivering products and solutions in the next-generation vehicle, semiconductor and electronics fields

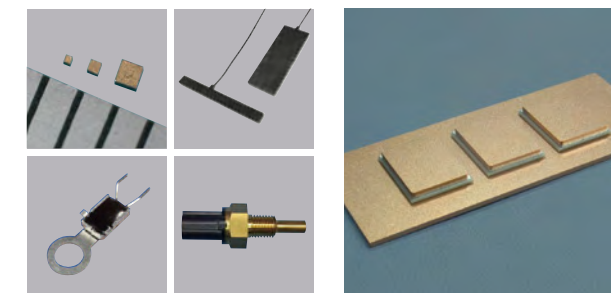
Employing our expertise in nonferrous metals, ceramics and other materials, the Electronic Materials & Components Business delivers solutions and high-performance products manufactured and developed in Japan as well as abroad to our customers.

In the next-generation vehicle field, we are actively promoting sales of insulating heat-radiating parts for which we have proven track record with in-vehicle inverters, electronic devices such as thermistor sensors and surge absorbers, and solar heat-ray shielding paint that inhibits heat buildup inside vehicles from the sun, to customers in Japan and abroad.

In the semiconductors field, we provide processed silicon products used in semiconductor manufacturing equipment, low alpha solder materials which we boast the world’s leading market share, and polycrystalline silicon which serves as the raw material for silicon wafer.

In the electronics field, we have been rolling out unique, high-performance products, namely sputtering targets used in displays and functional materials used for image sensors in smartphones, in addition to promoting sales of electronic devices contributing to the spread of energy-saving home appliances.

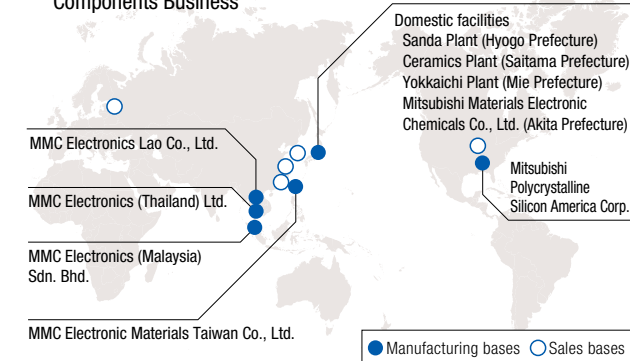
With our motto “For Customers, Together with Customers”, the Electronic Materials & Components Business carves out growing markets with advanced materials and solutions, and strive to be ever-evolving.



Electronic devices

Insulating heat-radiating parts for power modules

#### ■ Worldwide expansion of the Electronic Materials & Components Business



### Aluminum Business Overview

#### Creating new added-value in tune with social needs through initiatives that leverage our technical strength

Our Aluminum Business is comprised of the Mitsubishi Aluminum Group, which runs for our rolled and processing business, and the Universal Can Group, which runs the manufacturing and sale of our aluminum beverage can business.

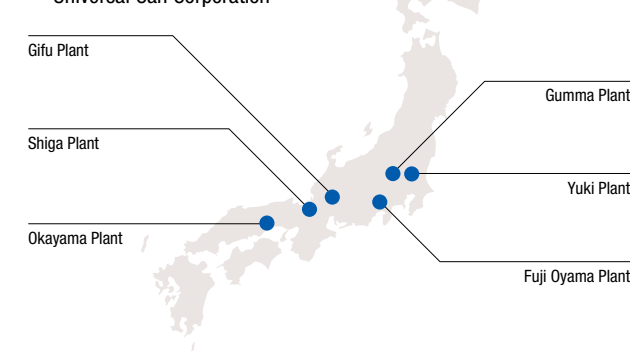
Our rolled and processing products business are anticipated to grow further, since great expectations is placed on aluminum as a material that contribute to energy-saving through weight reductions in vehicles, and that can serve as a substitute for copper and other such high-priced materials. Mitsubishi Aluminum Co., Ltd. focuses its growth strategy on sheet metals for heat exchangers in vehicles and in the exterior materials used in lithium-ion batteries, with investing its Fuji plant for improving the productivity and profitability.

As to the aluminum beverage can business, demand for such is expected to shrink due to declining birth rate and aging population in Japan. In spite of such business environment, the Universal Can Corporation has contributed to the building of a recycling-oriented society through the utilization of used aluminum beverage cans as recycling materials, while leading the way in expanding the market ahead of its competitors, leveraging such advanced technical capabilities by introducing an aluminum bottle with outstanding resealing properties. While competition with plastic bottles has also intensified in recent times, we will strive by adding new value such as reducing the weight of aluminum bottles or developing new shapes and sizes of bottles.

#### ■ Mitsubishi Aluminum: Focus on Sheet Metals for Heat Exchangers



#### ■ Manufacturing sites of Universal Can Corporation





# We aim to become the global leader in the cemented carbide products market by leveraging our superior product value and proposal capabilities through selection and concentration



Providing exciting new advanced materials and tools solutions to allow for highly streamlined manufacturing

**Shinichi Nakamura, Managing Executive Officer**  
President, Metalworking Solutions Company

As a supplier of cemented carbide products and sintering parts, our main market is the automotive industry. Our mission is to provide services which contribute to help customers to achieve further growth through providing the tools to our customers specifically needs. To achieve this, we will look to promoting innovations in market-orientated manufacturing to better incorporate the needs of the market into our products in order to better respond to the needs of an increasingly diversifying and globalizing market.

In cemented carbide products business, we invest management resources into the automobile, aerospace, medical and mold industries to enhance our technical capabilities and tap into new markets in order to promptly adapt to changes in the market.

Aerospace market is experiencing the expansion of demand for aircraft accompanying with the relentless adoption of cutting-edge materials which requires special processing techniques. We are aiming to establish a firm foothold

in the market not only of automobile but also of aerospace, by providing customer-oriented solution proposals through technical center hubs both in Japan and abroad.

We are currently promoting the collection and recycling of used cemented carbide products, and are working on collection schemes overseas as well, in an aim to achieve a stable supply of the raw materials of cemented carbide—tungsten and cobalt.

We are firmly committed to establish a robust business platform resistant to external changes through enhancing employees skills and tackling innovative new ideas, while making steady efforts toward reducing costs. We hope to excite our customers by having each and every employee go about their work with a sense of vibrancy. With this at the forefront of our minds, we will look to promote human resources development and manufacturing through inter-personal communication in the hopes of serving as true partner that has earned the trust of our customers.

## Business Overview

The Metalworking Solutions Company develops business both domestically and overseas with such cemented carbide products as cutting, rock drilling and plastic-forming tools as well as sintering parts for automotive components. Our mainstay cemented carbide products comprising tungsten carbide and cobalt composites occupy the top shares of their markets in Japan. We support the world's manufacturing industries by providing the tools for machining steel and other metal products. To achieve recycling of tungsten, moreover, the main raw material for cemented carbide, we engage actively in collecting used cemented carbide tools.

### S Strengths

- Total Group support, from raw material powder of cemented carbide and finished product manufacturing to recycling of post-use products
- Materials technologies cultivated over many years as a comprehensive materials manufacturer
- Sales network with global reach

### W Weaknesses

- Deficient manufacturing capabilities and site structure overseas
- Short delivery date structure for special products manufactured at overseas sites
- Need for acquisition and training of human resources to propose overseas solutions

### O Opportunities

- Increased demand due to expanded automobile manufacturing in emerging countries
- Growth in demand due to an increase in the number of aircraft manufactured and the difficulty of cutting processing parts materials
- Growth in new demand accompanying business expansions in medical applications industry

### T Threats

- Market entry by upcoming new manufacturers
- Risk of tungsten and cobalt supply shortages
- Decrease in machining process due to improved performances of 3D printers
- Decrease in the number of automobile parts materials with the trend toward EVs
- Switch to use of non-ferrous metal materials

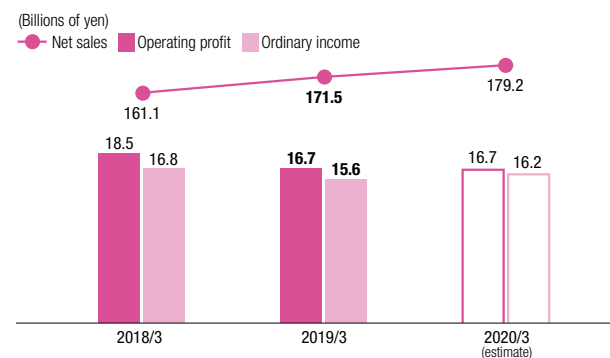
## Fiscal 2019 in Review

The cemented carbide products sector as a whole achieved an 8% increase in sales over fiscal 2018. The Company had a particularly notable increase in sales of tools for aircraft of 25% over fiscal 2018. Reason of this sharp growth, in addition to the technological capabilities we have nurtured, participation in new projects and smoother prototyping processes that prioritize speed, we have developed new customers.

We relocated and expanded our U.S. technical center to North Carolina as a means of enhancing our solution proposition capabilities. Mitsubishi Hitachi Tool Engineering, Ltd. opened its Technical Center at its Narita Plant, so that in addition to its existing Yasu Plant it has a two-base east-west solution proposal system.

In the area of upstream raw materials production, Japan New Metals Co., Ltd. strengthened sales activities of raw materials for lithium-ion batteries and memory chips to expand new demand, while seeking to recycle difficult-to-recycling scrap.

### Changes in Business Performance



\* The figures for March 2020 (estimate) were published on May 13, 2019.

## Outlook for Fiscal 2020 in Light of the External Environment

The cemented carbide products market will see slightly weakening demand as indices for machine orders etc. decline from fiscal 2019. Meanwhile, we will look to furthering our efforts to expand sales of tools for automobiles in regions with strong demand for the products we are proficient in. Because demand for tools for aircraft is expected to remain strong, we will subdivide this market and conduct efficient and effective sales activities aiming to achieve further growth that outpaces the market.

As a surge in demand for cutting tools for medical applications is expected as a result of the increase and aging of the global population, we will pursue aggressive sales activities in the U.S., where demand is particularly notable.

And Mitsubishi Hitachi Tool Engineering Ltd. will undertake to make molds in-house and apply this knowledge to product development in order to search deeply for uses for molds, which are said to be in firm demand.

## Activities for Medium- to Long-term Growth

The cemented carbide products market is expected to grow annually by 3-4% through to 2025. By area, aircraft is predicted to see increased demand over the long-term due to increasing need for long-distance travel accompanying the increase of the middle class and the increase of adoption of the difficult-to-cut material. Aiming for 10% of all our sales of cemented carbide products to be sales for aircraft by 2025, we will increase these sales to form a pillar alongside our automobile business. This will prepare us to respond to concerns about slowing growth of demand for tools resulting from the future shift to EV.

To achieve mid to long-term growth, it is necessary to provide new value towards the sustainable development of society and our customers. Therefore, we will strengthen our technological capability to highly efficiently develop new products, digitalize production and sales, and build recycling system in order to achieve such social value and economic value hand in hand.

### Key Strategies

Achieve growth through innovation

- ◆ Enhance the power of solution by industry oriented teams
- ◆ Create key technologies through the Company's original development and open innovation
- ◆ Get closer to the customers by utilizing IoT and Big Data and enhance the level of manufacturing capability

Create value by building a recycling-oriented society

- ◆ Promote tungsten recycling

Increase the company's market presence through investment for growth

- ◆ Promote local production for local consumption by reinforcing factories and using local vendors
- ◆ Expand sales and technical center networks
- ◆ Create synergies with Mitsubishi Hitachi Tool Engineering

Increase efficiency through continuous improvement

- ◆ Reinforce the Key Account strategy
- ◆ Decrease cost
- ◆ Improve asset efficiency at factories

### 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

### Medium- to Long-term Goals

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





## Metalworking Solutions Business

### Fielding Industry-oriented Teams to Reinforce Our Solution Proposal Capabilities

The basic strategy of the Metalworking Solutions Company is to acquire customer trust as a genuine partner by transitioning from the conventional “sell what we have made” product-oriented approach as a supplier to a “make what is highly needed” market-oriented perspective like that of our customers.

We are applying this basic strategy by developing market strategies focused on investing corporate resources in the automotive, aerospace, medical and metal mold and die markets based on our “thorough selection and concentration” approach.

We will raise the Group’s market presence worldwide, moreover, by prioritizing Mitsubishi Materials’ superior-quality, high-performance DIAEDGE brand cemented carbide products for use in the automotive, aerospace and medical industries and of Mitsubishi Hitachi Tool Engineering’s MOLDINO brand “leading-edge” cutting tools for use in mold and die manufacture.

#### Automotive

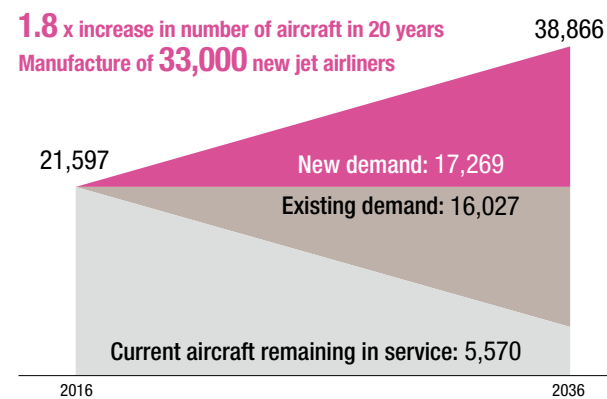
For the cemented carbide tool market for automobiles—the largest of these four core markets—the engineering team newly formed in fiscal 2019 is on hand providing multi-faced customer support. We are also working to strengthen our capacity to provide total support solutions by enhancing relationships with machine tool and tool holder manufacturers, and by shortening design and manufacturing lead times.

#### Aerospace

In a step toward growing our aerospace line of business to form the next pillar alongside our automotive business, we launched the Aerospace Dept., a highly specialized unit, which has been comprehensively involved in everything from marketing through to prototyping and developing solution proposals. This expert organization strives to develop deeper relationships with our customers—companies that are leaders of the international aerospace industry—by providing technical proposals based on an accurate understanding of customer needs, prompt trial product development, and broadening our knowledge through participation in projects led by external research bodies.

We have succeeded, enabling us to achieve sales that exceed the market growth rate of the aircraft manufacturing market in 2018, and we aim to continue to establish a business model that permits customers to participate in new proposals from the concept stage.

#### Commercial airliner demand forecast



Source: Japan Aircraft Development Corporation

#### Medical

We continue to actively expand marketing efforts led by teams specializing in medical products to help establish a platform for our medical business in the U.S. where there is the highest demand. We will also actively review potential measures for accelerating growth through M&As and alliances, etc. in the U.S.

#### Mold and Die

We are striving to attain the leading market share in the worldwide mold and die market through the market penetration of the “MOLDINO” brand of distinctive products with “leading-edge” technology by Mitsubishi Hitachi Tool Engineering, and actively capturing new customers through the effective use of the product development technologies and manufacturing technologies on hand at the Company and Mitsubishi Hitachi Tool Engineering.

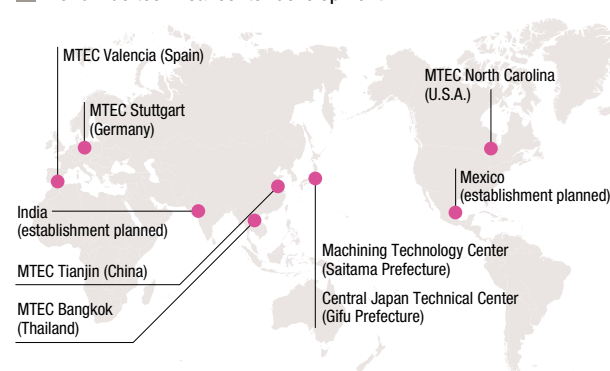
#### Overseas

At our overseas manufacturing sites, we aim to expand these sites and promote local production for local consumption by enhancing the capabilities of our existing manufacturing sites and expanding the range of products manufactured while aggressively pursuing new local partners and M&As. We are also enhancing the functions of our technical centers to further strengthen our ability to provide customer solutions and establishing new sales bases in growing new markets.

#### Goals for 2020

We aim to open new technical centers in Germany, Mexico and India in fiscal 2020. These new technical centers will be leveraged to further strengthen our solution provision capabilities.

#### Worldwide technical center development



MTEC North Carolina (U.S.A.)

### Expanding Tungsten Recycling

Procurement of tungsten raw material is essential to providing a steady supply of cemented carbide products.

Some 60% of the world’s tungsten reserves are thought to be concentrated in China, which currently supplies 80% of the tungsten used in manufacturing, but dependence on a single region for procurement of a key raw material creates potential risk.

The Metalworking Solutions Company has been actively seeking to decrease this potential risk and to secure stable procurement by acquiring tungsten from multiple sources, with tungsten recycling as one of its primary initiatives. We will continue the following efforts:

- (1) Increase the tungsten recycling ratio.
- (2) Diversify tungsten procurement sources to include regions other than China as well.

We reduced our dependence on China for tungsten from about 70% in 2004 to 40% as of 2017.

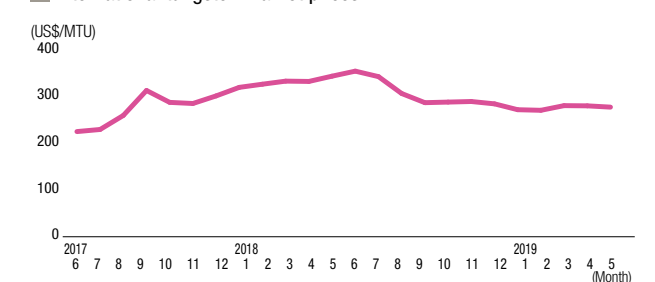
With recognition of recycling of used cemented carbide products growing among users, the volume of cemented carbide scrap collected has been steadily increasing. We will raise the recycling ratio further, however, by broadening the range of our targets for recycling. We will, therefore continue our efforts to develop scrap collection infrastructure for tungsten recycling and to promote recycling awareness among users.

With concern to cobalt powder, another key raw material used in cemented carbide products, we will strive to achieve stable procurement by raising the recycling ratio and increasing the number of suppliers.

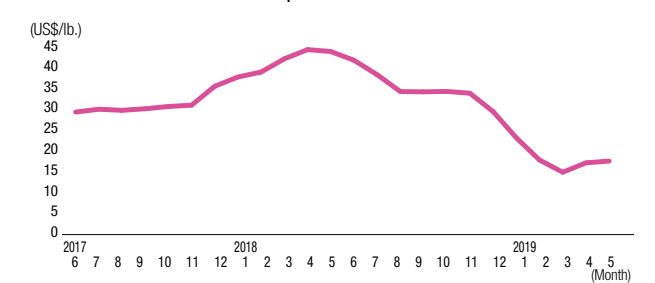
#### Goals for 2020

- To expand our recycling operations toward achieving a recycled material ratio of 30% for all tungsten procurement
- To reduce our dependency on China to 40% or less, and increase procurement from other regions
- These initiatives will be implemented to diversify our materials sourcing by combining procurement of raw materials with recycling, thus dispersing potential risks and preparing for unforeseen contingencies. We will consider the balance between stable supply and procurement costs in optimizing our raw materials procurement portfolio. We will enhance the positive relationships developed over many years of trading with Chinese suppliers, moreover, and maintain a certain ratio of stable procurement from China.

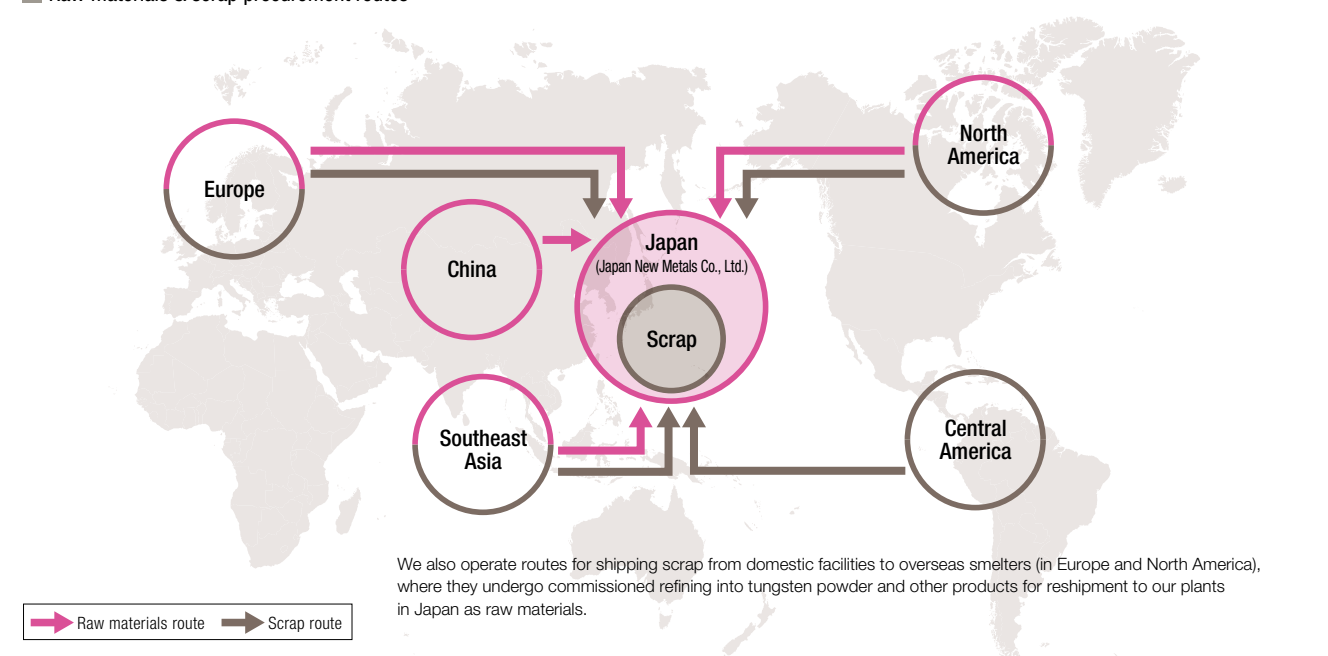
#### International tungsten market prices



#### International cobalt market prices



#### Raw materials & scrap procurement routes



# Providing stable supply of copper and other nonferrous metals to downstream industries in order to meet increasing global demand



**Developing technologies to secure and optimize the use of mineral resources in order to achieve stable supply of high-quality materials**

**Tetsuro Sakai, Managing Executive Officer**  
President, Metals Company

Our missions are to supply high-quality materials to the market and to contribute to the recycling-oriented society through recycling. While focusing on copper and gold, we also recover other various kinds of metals contained in copper concentrates and industrial wastes at our smelting and refining process for efficient use. Our greatest advantage is the capacity to pursue optimization through wide coverage of business such as procurement of raw materials, smelting and refining, manufacturing, sales, and recycling.

In order to meet increasing global demand, we strive to expand our ore processing and production capacities at the existing copper mines, steadily make progress in the development of new copper projects, and scope out potential projects capable of producing clean copper concentrates. We are also engaged in potential participation in projects which have high impurity contents in anticipation of the tight supply-demand balance for copper concentrates. To achieve these goals, we have embarked on full-fledged development of

the human resources, in particular, mining engineers specializing in mineral processing.

Over the past several years we have expanded the recycling business, and our E-Scrap processing capacity has reached 160,000 tons per year, which is one of the largest in the world. In terms of precious metals business, we produce gold not only from copper concentrates but also from E-Scraps. Our gold products are sold in various forms such as ingots, fabricated products, and gold accumulation plan, "My Gold Partner" (limited to residents in Japan), thanks to which our brand "Mitsubishi's Gold" has gradually gained recognition.

In order to enhance our medium- and long-term competitiveness, we are constantly assessing the opportunities for restructuring of our smelting and refining business. With a broad vision and our accumulated technical knowledge and skills, we aim to improve efficiency and reduce CO<sub>2</sub> emissions by expanding our capacity and/or adopt more efficient production methods.

## Business Overview

The mining, smelting and refining of metals have played a vital role in the development of human civilization. Nonferrous metals continue to be indispensable for industries and the demand is expected to grow even further in the modern society. Under this circumstance, one of our missions is to stably supply high-quality products to the society. Our flagship products such as copper cathode, gold and silver bullion and by-products such as sulfuric acid and copper slag are produced from copper concentrates procured from overseas mines and E-Scrap by utilizing the "Mitsubishi Process", known for its superiority in efficiency and environment-friendliness.

### S Strengths

- [Mining & mine development]**
  - Long-term good relationship with major resources companies
  - Long years of operational experience in limestone mining
- [Smelting & refining]**
  - Stable foundation comprising three smelters and refineries in Japan and overseas
  - Processing technologies for E-Scrap and industrial wastes, making use of the Mitsubishi Process featuring high efficiency and an exceptionally low environmental impact
  - One of the largest producers of gold in Japan

### O Opportunities

- [Mining & mine development]**
  - Potential for developing technologies for removing impurities
- [Smelting & refining]**
  - Worldwide expansion of E-Scrap supply market with growing environmental awareness
  - Global trend toward long-term increase in copper consumption
  - A spike in demand in the precious metal retail market before the consumption tax rate hike

### W Weaknesses

- [Mining & mine development]**
  - Shortage of engineers for mine projects (especially in the field of metallurgy)
- [Smelting & refining]**
  - Inferior economy of scale for copper production compared to smelters and refineries elsewhere in the world
  - Low awareness in the precious metals retail market

### T Threats

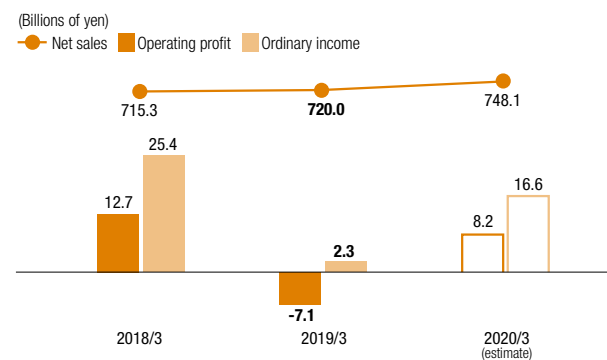
- [Mining & mine development]**
  - Location of undeveloped deposits at higher altitudes or deeper underground, lower ore quality, increasing impurities
  - Activities against development due to national controls on natural resources or environmental concerns, stricter regulations
- [Smelting & refining]**
  - Shrinking of our raw material procurement portfolio due to the oligopolization of the market
  - Intensifying competition following the growth of Chinese smelting and refining manufacturers
  - Presence of powerful competitor in the precious metal retail market

## FY 2019 in Review

The Copper Mountain Mine (Canada), one of the operating mines of our mining business, achieved the highest record ever of ore processing productivity through improvements in the crushing and grinding stage facilities. The installation of the Geo-Met program enabled the operation to better investigate the relationship between ore properties and copper recovery, helping improve the accuracy of production plans. The feasibility study has been in progress since April 2017 at the Zafranal Project (Peru). A broad range of economic evaluations, including geological information, mine planning, water resource, and ore processing have been conducted.

In the E-Scrap business, a new pillar of revenue for the smelting and refining business, we expanded pre-treatment and sampling facilities at Naoshima Smelter & Refinery and Onahama Smelting and Refining Co., Ltd. in FY 2018. They have been operating smoothly and the volume of E-Scrap collected and processed has increased. MM Metal Recycling B.V. (the Netherlands) was established as a collection site to focus on the European market, where the market continues to expand in light of increasing demand for a sustainable economic model. Since the commencement of operation in February 2018, its operating lines have been gradually expanded and have been operating smoothly.

### Changes in Business Performance



\* The figures for March 2020 (estimate) were published on May 13, 2019.

## Outlook for FY 2020 in Light of the External Environment

The level of impurities in copper concentrates continues to rise globally and with the expanding production capacity of Chinese smelting and refining plants, smelters are exposed to tougher competition for stable procurement of clean copper concentrates. The Zafranal Project is expected to produce copper concentrates with low impurities. Upon review of the economic feasibility results, we plan to focus on acquiring environmental permits to proceed with mine construction.

While social demands for establishment of the recycling-oriented society continue to rise, the supply-demand balance in the E-Scrap market is inclined to ease thanks to regulations on the import of scraps in China. Under such circumstances, we aim to firm our position in the E-Scrap market through our global network of MM Metal Recycling B.V. Furthermore, we strive to produce and supply high-quality products in a stable and efficient manner through continuous improvements to flexibly process a broad range of raw materials at our smelting and refining process.

Key Strategies		Business Policy	Medium- to Long-term Goals
Achieve growth through innovation	<ul style="list-style-type: none"> <li>◆ [Smelting and refining] Recover new valuable metals and improve the recovery rate</li> </ul>	Contribute to a recycling-oriented society through nonferrous metals from the development to recycling of mineral resources	<ul style="list-style-type: none"> <li>◆ Investments for new projects of copper mines to ensure the stable supply of copper concentrates for smelting and refining process, and the earnings of our mining business</li> <li>◆ Build stable recycling business and improve its profitability</li> <li>◆ Contribute to downstream industries through the stable supply of high-quality materials</li> </ul>
Create value by building a recycling-oriented society	<ul style="list-style-type: none"> <li>◆ [Smelting and refining] Improve the efficiency of E-Scrap processing and strengthen foundation for future expansion</li> <li>◆ [Smelting and refining] Effective use of heat produced from industrial waste processing</li> </ul>		
Increase the company's market presence through investment for growth	<ul style="list-style-type: none"> <li>◆ [Mining &amp; mine development] Develop new mining projects</li> <li>◆ [Smelting and refining] Tap into individual investor demand for gold</li> </ul>		
Increase efficiency through continuous improvement	<ul style="list-style-type: none"> <li>◆ [Mining &amp; mine development] Improve the existing operation through increasing productivity and reducing cost</li> <li>◆ [Smelting and refining] Ensure a high level of product quality, stable supply and increase productivity, and CO<sub>2</sub> reduction</li> </ul>		





## Mining &amp; Mine Development business

## Steady Procurement of Copper Concentrates (Investment in Overseas Copper Mines)

Copper is a finite mineral resource that is becoming harder to find. Undeveloped copper deposits are increasingly found in more unstable jurisdictions, more remote regions, and deeper underground. The competition to claim such mineral resources is intensifying and projects that have favorable mining conditions are becoming rare. A recent trend by countries holding mineral resources is introducing policies protecting the domestic supply of mineral resources and increasing environmental regulation. More mining operations are under increasing social pressure to reduce the environmental impact and share more of the benefit from mining activities. The expansion of smelting and refining capacity in China continues without a pause and not enough new mines are being built, therefore the demand for copper concentrate is expected to exceed the supply in the future. Newly developed mines tend to be at higher elevation, deeper underground, have a low copper grade, and on top of that, tend to have a greater volume of impurities. Securing clean copper concentrates is an even greater challenge than it ever was before. We are striving to achieve a stable supply of clean copper concentrates by seeking to participate in mining projects with low operating costs and long mine lives.

For one such project, the Copper Mountain Mine (Canada), we have worked with our partner on the project, the Copper Mountain Mining Corporation, to carry out stable operation of the mine through a series of facility maintenance and improvement measures. All low impurity copper concentrate produced from this mine is supplied to us, and is a great contributor to the stable operation of our smelting and refining process.

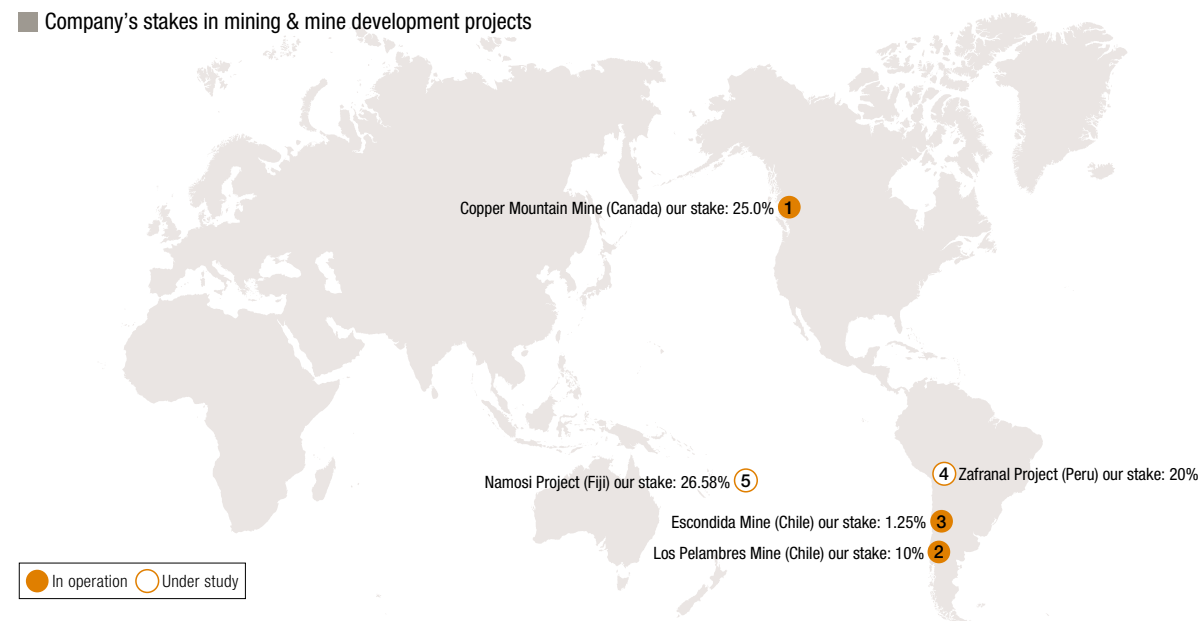
Another project, the Escondida mine (Chile), has seen multiple

expansions since operations began in December 1990, and now greatly contributes to the securing of raw materials as the world's largest mine in terms of copper production. Beyond just the scale of production, this mine is one of the world's lowest cost producers and is highly profitable in terms of dividends. As the open pit mine gets deeper, the copper grade of the ore is decreasing and the hardness of the ore is increasing, we are working to implement measures to extend our ore processing capabilities to ensure a certain level of copper concentrate production.

The Los Pelambres mine (Chile) is a massive scale mine that also greatly contributes to the securing of raw materials. While this mine also faces issues with a decreasing copper grade and increasing ore hardness, we are working on an extension project to expand production facilities and construct a seawater desalination plant which, when completed, should boost the copper volume produced by 60,000 tons per year.

In the Zafrañal Project (Peru), we have a partnership with Teck Resources Ltd., which is a major producer of nonferrous metal. The copper concentrate produced from this mine would be low in impurities, and is expected to reduce the burden placed on our smelting and refining process. The feasibility study which has been in progress since April 2017 is expected to be completed in 2019. Following the completion of the feasibility study we plan to shift our priorities to acquiring the necessary environmental and construction permits. While largely dependent on the progress, we currently plan to begin construction in 2021, with mining operations commencing around the operations from the end of 2023.

## Company's stakes in mining &amp; mine development projects



① Copper Mountain Mine (Canada)



② Los Pelambres Mine (Chile)



③ Escondida Mine (Chile)



④ Zafrañal Project (Peru)



⑤ Namosi Project (Fiji)

## Smelting &amp; Refining business

## Adding metal species to recover and enhancing recovery of valuable metals

Valuable metals such as copper, gold, silver, platinum and palladium are contained in electronic components and circuit boards used in home appliances and PCs. Through recycling these materials we can recover valuable metals efficiently. It is categorized into the concept of so-called "urban mines," and gathering public attention as a resource strategy propping up a resource-circulating society. We are working to help forge a sustainable society by incorporating the processing and reconverting of minerals found in electronic components and circuit boards (E-Scrap) containing large quantities of these valuable metals into our smelting and refining business. While only a limited number of companies in the world recycle E-Scrap in the proper way, the E-scrap generation is beyond its recycling capacity in some countries. This is the reason why this field gives us an opportunity to fully demonstrate the unique strengths of our smelting and refining technologies.

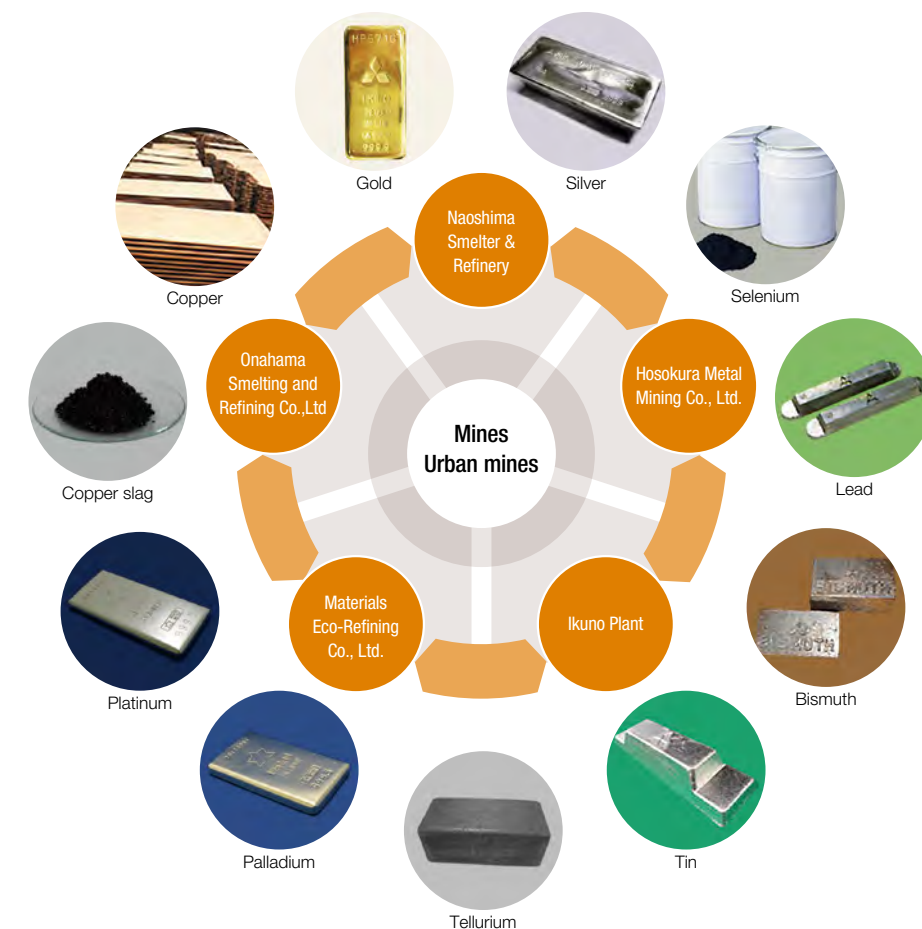
We recover a broad range of valuable metals that it specializes in, with copper smelting and refining facilities at the Naoshima Smelter & Refinery and Onahama Smelting and Refining Co., Ltd, lead smelting and refining facilities at the Hosokura Metal Mining Co., Ltd., tin smelting and refining facilities at the Ikuno Plant, precious metal smelting and refining facilities at the Naoshima Smelter & Refinery, and PGM (platinum, palladium and other platinum group metals) at Onahama plant operated by our subsidiary Materials Eco-Refining Co., Ltd. These production sites and smelting and refining technologies allow for a whole host of recycling processes not only for E-Scrap, but also for industrial wastes such as automotive shredder residue and incinerator fly ash, and valuables such as recycled batteries, while even recovering the thermal energy generated. Compared to conventional operation wherein copper concentrates are fed primarily, the smelting and refining business has to manage an increasing input of a broad range of valuable metals, and complicating materials balance of such metals. To this end, we

are optimizing whole processes covering all production sites to achieve better efficiency in recovering.

For example, by tying fields in which each production site specializes in together in an organic manner, such as by efficiently processing and recovering by-products containing lead generated at copper smelting and refining sites at lead smelting and refining sites instead of copper smelting and refining sites, and efficiently processing and recovering by-products containing tin generated at lead smelting and refining sites at tin smelting and refining sites instead of lead smelting and refining sites, we are aiming to establish a robust business framework that is not readily influenced by changes in the external environment.

Further, in addition to our core products of copper, gold, silver, platinum and palladium, we have also established systems for efficiently recovering nickel, bismuth, selenium, tellurium, rhodium, ruthenium and other such materials, and we are also working toward recovering new rare metals that will serve as functional materials in the future. Efforts toward the efficient recovery in existing businesses or new recovery in emerging businesses of such valuable metals has had a carry-on effect of increasing productivity for our main products.

Additionally, the Mitsubishi Process, a proprietary copper smelting and refining process that serves as the basis for these initiatives, has shown that it is a step ahead in terms of the economic and environmental impact. Further, we are contributing towards the goal of producing zero emissions through efforts that straddle company boundaries, such as through the reuse of copper slag, a by-product of copper smelting and refining, as the cement materials used by the Cement Company. These measures could only be achieved by the Mitsubishi Materials Group, which allows for integral cooperation between multiple smelting and refining plants and multiple Group companies. Looking ahead, we will continue to refine our technical capabilities and review emerging opportunities to apply such.





## Seeking to enhance our domestic plants' international competitiveness and to activate business in local areas overseas as an industry leader



**Contributing to the formation of a recycling-oriented society by supporting people's lives through the stable supply of the basic materials used to maintain the infrastructure of society while taking in a broad range of waste materials and by-products**

**Kazuhiro Kishi**, Managing Executive Officer  
President, Cement Company

The Cement Company has two aspects comprised of "arterial industry," which provides a stable supply of the basic materials required by society, and "venous industry," which involves waste disposal processing for reuse. We contribute to the building of a recycling-oriented society by detoxifying waste materials brought in through the "veins," and add value to these processed materials as products while avoiding secondary waste, feeding them back into the "arteries."

We have also worked with the Central Research Institute on various joint research aimed at reducing our equipment failure rate, innovating and increasing our processing efficiency, and saving more energy. These initiatives have not only boosted our cost competitiveness, they have also led to a reduction in CO<sub>2</sub> emissions. We feel that the primary social role of the Cement Business is the efficient conversion of waste materials, which continue to increase the richer our lifestyles become, into products, reusing

such to build the foundations for safe and secure living environments.

Overseas, we operate a cement manufacturing base in Southern California, where we have become a leading company in the ready-mixed concrete business. We continue to maintain a considerable market share and excellent business performance backed by our company's high reliability and growing demand, and promote market expansion into Northern California.

We are currently looking for candidate locations for applying the business model we have deployed in the United States in other countries

We will continue to promote further innovations in our "safe and reliable Mitsubishi cement," with our highest priority remaining on quality.

### Business Overview

Cement is an essential material for construction of social infrastructure, from office and residential buildings to dams, bridges, roads and breakwaters. The Cement Company has established a broad business structure encompassing manufacture and sales of various cement products, soil-stabilizing cement, mineral products (aggregate, limestone), concrete repair materials and ready-mixed concrete. In addition to our four plants in Japan, we have established operations in Southern California to conduct businesses based on a vertical integration model from cement production to ready-mixed concrete and aggregate manufacture.

#### S Strengths

- [Domestic business]**
- High cost competitiveness of Kyushu Plant (Kanda)
  - International sales capabilities, stable export destinations
  - Waste disposal processes
- [Overseas (U.S.) business]**
- Vertical value chain
  - High competitiveness and customer satisfaction with Robertson's Ready Mix, Ltd.

#### W Weaknesses

- [Domestic business]**
- Lack of reserve export capability remaining at Kyushu Plant (Kanda)
  - High electric power costs
  - Weak cement sales capability in the Tokyo Metropolitan Area
- [Overseas (U.S.) business]**
- Insufficient cement supply capacity

#### O Opportunities

- [Domestic business]**
- Demand for large-scale projects in the Tokyo Metropolitan Area
  - Expanding demand in emerging countries
- [Overseas (U.S.) business]**
- Long-term growth in demand
  - High entry barriers against new competitors

#### T Threats

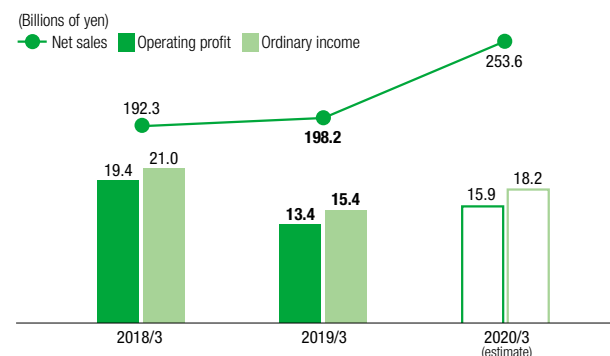
- [Domestic business]**
- Contracting demand for cement in Japan
  - Rising electric power prices
  - Tightened environmental regulations, CO<sub>2</sub> emissions regulations
- [Overseas (U.S.) business]**
- Soaring coal ash procurement costs
  - Tightened environmental regulations
  - Rising electric power prices

### Fiscal 2019 in Review

Following the expansion of the waste plastics processing capabilities at the Kyushu Plant, which was completed in fiscal 2018 to boost the cost competitiveness of the plant, following which full-fledged operations began in fiscal 2019, the volume of waste plastics processed at the plant jumped 36% in fiscal 2019 compared to fiscal 2017.

In our overseas business, we proceeded with plans to install ready-mixed concrete plants in regions where demand can be expected to increase in the future in order to incorporate the robust demand for cement seen in Southern California, where business operations are ran by Robertson's Ready Mix, Ltd. (RRM), a major subsidiary of the MCC Development Corporation.

#### Changes in Business Performance



\* The figures for March 2020 (estimate) were published on May 13, 2019.

On April 1 2019, the coal-related business, which belonged under the "Other Business" category, has been transferred under the "Cement Business."

### Outlook for Fiscal 2020 in Light of the External Environment

Domestic demand for fiscal 2020 is expected to be 42.5 million tons (almost the same level as the previous year). We are aiming for a 40% increase in the amount of waste plastic processed at the Kyushu Plant compared to fiscal 2017 levels. In addition, we build an optimal production and distribution system based on the full production system at the Kyushu Plant, while looking to further reducing thermal energy costs through the introduction of energy-saving facilities, and seeing domestic demand and export trends.

Demand for cement in Southern California is expected to be increasing, and we are pursuing efforts to expand ready-mixed concrete plants and aggregate quarries to help expand our sales network. With the tightening of environmental restrictions in the state of California, we are looking to implement process improvements and promoting the use of thermal energy alternatives to boost our cost competitiveness, while promoting the necessary measures to ensure exhaustive combustion control and curtail exhaust gas emissions.

### Activities for Medium- to Long-term Growth

In light of the possibility of industry reorganization associated with the reduced demand for cement in Japan, we are determined to position ourselves in the forefront by boosting our strengths and eliminating weaknesses. Looking ahead, we will enhance our global competitiveness by reducing manufacturing costs through streamlining and energy-saving efforts, and by maintaining high operation rates at domestic plants, while also improving and expanding facilities used for exports at Kyushu Plant. Further, we will work to enhance our technological capabilities and expand the business to provide the high added value that respond to customer's requests, with our Concrete Technology Center core to these efforts.

Overseas, we are seeking to maximize profits throughout the value chain in Southern California, and laying the groundwork for importing cement from other countries. Intent on extending the know-how acquired through our vertical integration model in Southern California horizontally to other overseas markets, we have also been reviewing other candidate locations for our business.

#### Key Strategies

Achieve growth through innovation	<ul style="list-style-type: none"> <li>◆ R&amp;D and Innovation               <ul style="list-style-type: none"> <li>Develop technology to reuse waste for cement manufacturing</li> <li>Enhance concrete technology</li> <li>Reduce CO<sub>2</sub></li> </ul> </li> </ul>
Create value by building a recycling-oriented society	<ul style="list-style-type: none"> <li>◆ Expand the environmental business               <ul style="list-style-type: none"> <li>Develop new business in growth segment</li> <li>Increase the alternative thermal energy rate</li> </ul> </li> </ul>
Increase the company's market presence through investment for growth	<ul style="list-style-type: none"> <li>◆ Fortifying the domestic foundation for competitiveness               <ul style="list-style-type: none"> <li>Kyushu Plant: Increase global competitiveness</li> <li>Downstream businesses: Fortifying the sales foundation in Tokyo Metropolitan Area, etc.</li> </ul> </li> <li>◆ Expand the U.S. business               <ul style="list-style-type: none"> <li>Expand the ready-mixed concrete business / Establish and reinforce MCC terminals</li> </ul> </li> <li>◆ Develop new overseas business bases</li> </ul>
Increase efficiency through continuous improvement	<ul style="list-style-type: none"> <li>◆ Improve domestic and the U.S. cement manufacturing technology               <ul style="list-style-type: none"> <li>Establish a stable operation system / Reduce costs</li> <li>Thoroughly conserve energy / Increase workplace capability</li> </ul> </li> </ul>

#### Business Policy

<ul style="list-style-type: none"> <li>◆ Become superior in the domestic market that is contracting as it matures</li> <li>◆ Grow overseas businesses with the support of stable cash income from domestic businesses</li> </ul>	<ul style="list-style-type: none"> <li>◆ Become a leading company in terms of efficiency in the cement industry</li> <li>◆ Become a local-area champion in overseas</li> </ul>
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## Japan

### Reinforcing the Kyushu Plant's International Competitiveness

In preparation for the anticipated reduction in domestic demand for cement from fiscal 2021 forward, we aim to maximize profits by maintaining full production at the Kyushu Plant, which surpasses our other plants in cost competitiveness. This will require increasing exports as domestic demand contracts. Taking the risk of fluctuations in international market conditions into account, we will seek to reduce manufacturing costs as well as to upgrade the berths and other bulk handling facilities at the Kyushu Plant to enhance its international competitiveness.

Initiatives taken toward extending the life of refractory materials inside kilns and ensuring the long-term stable operation of facilities implemented as part of cross-sectional improvement activities (CFP: Cross-Functional Projects), which began in fiscal 2018 as a joint effort between the Company, the Corporate Production Engineering Dept. and the Central Research Institute, contributed to reducing the amount of facility and equipment failures in fiscal 2019. Looking ahead, we will continue with these efforts in the hopes of achieving a year-round kiln operation setup and expanding our waste disposal processing capabilities, and thus reducing manufacturing costs.

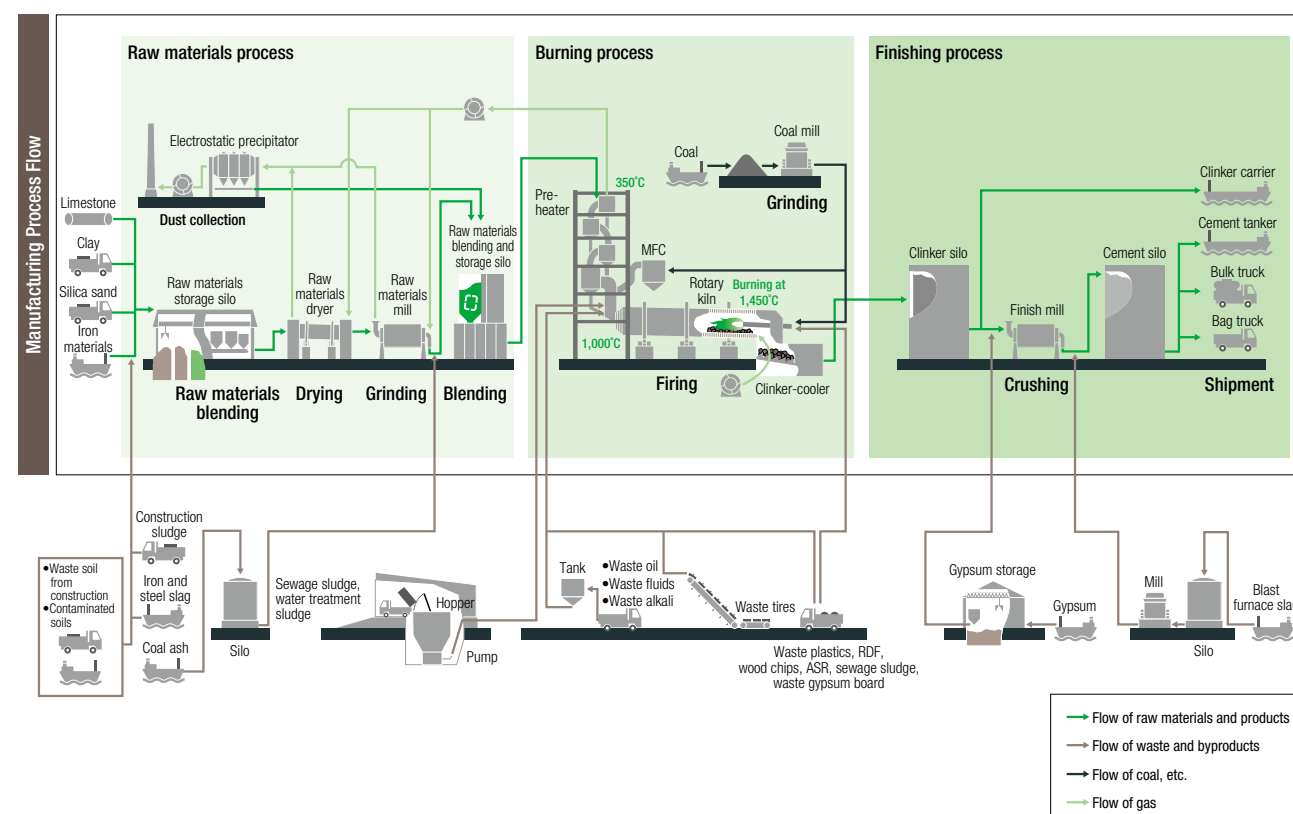
In fiscal 2020 we are scheduled to complete an all-automatic analysis system as a quality control enhancement measure. This will allow us to broaden the scope of analyses while increasing the analysis frequency, ensuring an even higher level of product quality and peace of mind for our customers. In addition to this, we are reviewing measures to establish a low-temperature clinker firing setup, and introducing facilities for adding hardeners for such, as well as implementing plans to enhance cost competitiveness through the introduction of high-efficiency equipment (burners and coolers). Further, we are also reviewing measures to reinforce our berthing capabilities as a means of improving and enhancing our distribution and bulk handling facilities.



Amount of waste and byproducts:  
**Approx. 4.19 million tons/year**

Volume of raw materials recycled per ton of cement:  
**445 kg/ton**

#### ■ Cement production processes and waste acceptance



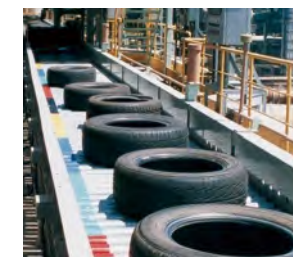
## Japan

### Environmental Business Expansion

Committed to contributing to realization of a low-carbon society while stabilizing the Cement Business profitability, we are pursuing initiatives to increase the ratio of alternative thermal energy.

Our priority measures for raising this ratio are aimed at, first, increasing our disposal processing capacity for difficult-to-treat waste, such as high-chlorine waste plastics and shredder dust generated from junked automobiles and discarded domestic electrical appliances, and, second, development and expanded acceptance of waste tires, biomass and low-cost alternative sources of thermal energy (wood chips, waste oil, etc.). As part of this initiative, we collect wood chips derived from driftwood generated by torrential rains in northern Kyushu and contribute to recovery and restoration of disaster areas.

In fiscal 2018, construction conducted to improve the capabilities of our waste plastics processing facilities was completed at our main Kyushu Plant (Kanda). During fiscal 2019, we increased our alternative thermal energy rate by 36% compared to the fiscal 2017 benchmark, with a further 40% to be added in fiscal 2020 by fully realizing the effects of our capacity improvement work and by expanding our intake of low-cost alternative thermal energy resources.



Waste tires



Wood chips



Waste plastics

## Overseas

### Expanding Vertical Integration in the Overseas Cement Business

Growth in demand for cement and ready-mixed concrete is expected to continue in Southern California, where Robertson's Ready Mix, Ltd. has established a strong sales base. Further enhancement and extension of our ready-mixed concrete business will position us to benefit substantially from this growth in regional demand.

In fiscal 2018 we acquired site adjacent to the aggregate quarries currently being mined in Southern California and commenced procedures to obtain licenses for new aggregate resource development. Looking ahead, improvements to the aggregate self-sufficiency ratio are expected to help enhance the cost competitiveness of the ready-mixed concrete business, while securing a stable supply of aggregate resources in anticipation of continuing business operations over the long-term. With operations currently suspended at the cement import terminal, we have now completed installation on fixtures that fall in line with environmental regulations with a view to recommencing imports.

A new ready-mixed concrete plant in the Northwestern Los Angeles is currently under construction as part of efforts to expand our ready-mixed concrete business, with operation due to begin in fiscal 2020. In future, we will continue adding new sales channels and expanding our sales area by establishing new ready-mixed concrete plants and acquiring new aggregate resources, with the aim of enhancing our business value by strengthening our market presence.

Intent on entering into new overseas markets, we continue to explore investment opportunities that can contribute to improving the value of the cement and ready-mixed concrete business, focusing on such factors as business and value chain configurations that conform to the characteristics of the target area's market and the macro environment.



Cushenbury Plant, Mitsubishi Cement Corp.



Ready-mixed concrete plant, Robertson's Ready Mix, Ltd.





## Other Business (Environment & Energy Business / Affiliated Business)

# Pursuing further expansion of operations in the fields of recycling and energy to contribute to creation of a recycling-oriented society

### Business Overview

The Environment & Energy Business is involved in environmental and recycling activities, renewable energy and nuclear power, working to contribute to the development of a sustainable, recycling-oriented society with a minimal environmental footprint.

Our Affiliated Business includes engineering and trading companies supporting the business activities of the Group, and is involved in a broad range of activities including salt production.

#### S Strengths

##### [Environment and recycling]

- Unique recycling technologies utilizing both smelting and cement processing

##### [Renewable energy]

- Long-term record in geothermal power generation business, proactive approach to new geothermal power, formidable comprehensive Group power (excavation technologies, engineering, operations management, others)

#### W Weaknesses

##### [Environment and recycling]

- Late entry into automobile recycling compared with competitors

##### [Renewable energy]

- Shortage of human resources, lead time from survey to start of commercial operations

#### O Opportunities

##### [Environment and recycling]

- Social demand for realization of a recycling-oriented society

##### [Renewable energy]

- Policy support through Japan's Feed-in Tariff Scheme
- Society's growing need for renewable energy

#### T Threats

##### [Environment and recycling]

- Intensifying competition due to growing numbers of emerging participants

##### [Renewable energy]

- Large number of geothermal energy sites developed by other companies, difficulties in consultation with local communities
- Policy changes by national governments, strengthening of environmental protection regulations

### Fiscal 2019 in Review

In the field of home appliance recycling, we successfully established an integrated processing system from mixed resins through polypropylene raw material pellet manufacturing. And we are proceeding with R&D on AI-assisted robot automatic sorting technology and new recycling technologies for solar panels and lithium-ion batteries.

We commenced sales operations in April 2018 for fly ash treatment, and established a new food waste biogasification company. We are proceeding the procedures to commercialize the conversion of food waste into energy.

In our renewable energy business, we began the trial operation of the Wasabizawa Geothermal Power Plant while maintaining the stable operation of existing power plants. Additionally, construction preparations for the Appi Geothermal Plant are now complete.

### Outlook for Fiscal 2020 in Light of the External Environment

In our environmental recycling business, we aim to implement our robot automatic sorting technology using a proprietary-developed AI, and improve our recycling technologies.

In terms of recycling lithium-ion batteries, we started demonstration tests of technologies for the efficient recovery of nonferrous metal materials to establish technologies for commercial applications further into the future.

We aim to further improve upon our fly ash treatment technology to increase orders. With regard to the conversion of food waste into energy, we aim to start plant construction in July 2019 to commence operations in fiscal 2021.

We will look to expanding the geothermal energy line of our renewable energy business to better meet increased social demand. Further, we will continue to seek out new geothermal development opportunities, while starting commercial operations at the Wasabizawa Geothermal Power Plant, and ensuring that the construction of the Appi Geothermal Plant proceeds according to plan.

### Activities for Medium- to Long-term Growth

In the environmental recycling business, we are working to promote our AI-assisted robot automation technologies and adding value to the recycled materials recovered. We are currently proceeding with the development and commercialization of technology that would enable us to recycle waste materials that are now incinerated, and that difficult-to-treat. Through these efforts, we aim to build of a recycling-oriented society by recycling waste materials generated from home and offices as materials and energy with other applications.

In our renewable energy business, we will promote the stable operation of the Wasabizawa Geothermal Power Plant and ensure that construction on the new Komatagawa Power Plant proceeds according to plan, while maintaining the stable operation of existing geothermal, hydroelectric and solar power plants, maintaining a close eye on the level of aging degradation seen at each. Additionally, we will continue our status as the leading company for geothermal energy development in Japan, expanding the scope of our business, while continuing studies and R&D into new geothermal energy resources.

### Environment and Recycling Business

#### Advanced Recycling Business Creation

The environmental recycling business introduces unique recycling operations as it aspires to stay a step ahead of social needs, delivering significant innovations in recycling.

In terms of home appliance and automobile recycling, we are working to expand the advanced recycling operations, adding value through the development of dismantling and sorting technology utilizing AI and robot technologies.

We are also striving to develop recycling technologies that will allow us to safely and effectively extract resources from the difficult-to-treat items, which are to be discarded in large quantities in the future, such as solar panels and lithium-ion batteries. We want to serve as social leaders in working to create advanced recycling operations based on such technology.

Further, we are proceeding with recycling incinerated fly ash and food waste in coordination with cement plants to achieve high value-added recycling in the form of establishing resource circulation independent of final disposal, and in the creation of renewable energy.



Home appliance recycling Automatic picking robots



Food waste biogasification company New Energy Fujimino Corporation CG image of the plant

### Renewable Energy Business

#### Expansion of New Geothermal Power Generation

Geothermal power generation, a renewable energy, is a method of power generation expected to provide a clean, stable power supply as a base load power source.

The Company operates the Ohnuma Geothermal Plant and the Sumikawa Geothermal Steam-supply Plant located in Kazuno City, Akita. In addition to this, commercial operations of the Wasabizawa Geothermal Power Plant located in Yuzawa City, Akita—the result of a joint study and construction effort with Electric Power Development Co., Ltd. and the Mitsubishi Gas Chemical Company, Inc.—began on May 20, 2019. Further, construction on the Appi Geothermal Plant located in Hachimantai City, Iwate—the result of another joint study venture with the Mitsubishi Gas Chemical Company, Inc. and Electric Power Development Co., Ltd.—is started in August 2019.

Looking ahead, we will look to leverage our extensive experience in the geothermal power generation business, which dates back over 50 years, to carry out further studies for potential new geothermal energy development sites in an effort to contribute to the further expansion of the geothermal energy field in Japan.

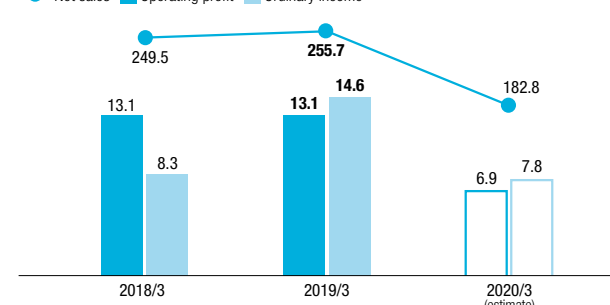


Appi Geothermal Plant Conceptual image at completion

### Changes in Business Performance

(Billions of yen)

Net sales Operating profit Ordinary income



\* The figures for March 2020 (estimate) were published on May 13, 2019.

As of April 1, 2019 the coal business, which belonged under the "Other Business" category, has been transferred under the "Cement Business."

### Key Strategies

#### [Environment and recycling]

- ◆ Expansion of operations to include newly recycled items such as solar panels and lithium-ion batteries

#### [Renewable energy]

- ◆ Expansion of new geothermal power generation business

### Business Policy

- ◆ To contribute to creation of a recycling-oriented society with a low environmental burden by promoting recycling and energy businesses that benefit fully from the special strengths of our corporate Group.

### Medium- to Long-term Goals

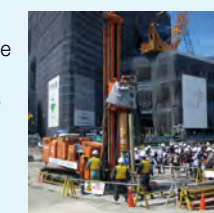
- [Environment and recycling]
  - ◆ Launch and expansion of recycling business trusted by stakeholders
- [Renewable energy]
  - ◆ Become Japan's largest comprehensive geothermal power generator

### Affiliated Business

We operate a varied range of affiliated businesses.

These include engineering and trading companies and range from manufacturing of salt; to the makers of pure gold cards, precious metal clay and the high-quality MJC jewelry brand. We also make use of former mining sites as regional tourist mines.

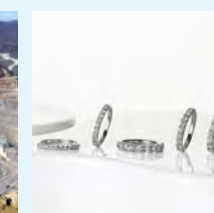
The Mitsubishi Materials Techno Corp. is involved in the business development of heat pump systems using "geothermal heat"—a renewable energy—across Japan. In terms of our overseas business, we are extending our efforts toward environment-related technology exchanges, accepting internships of students from Sofia University in Bulgaria since 2016, in addition to providing waste water management technologies to the Ellatzite Mine in the same country, among other initiatives.



Construction of a practical geothermal heat pump system (Tokyo Skytree)



Ellatzite Mine, where our mine drainage management technologies are in operation (Bulgaria)



MJC brand jewelry



# Human Resources Strategies

We direct concerted efforts to the training and allocation of human resources who provide the basis for the Company's competitiveness. While fostering management executives who will assume responsibility for the next generation, moreover, we seek to provide an environment in which employees can grow and attain fulfillment with the aim of becoming a company in which everyone feels safe, secure and highly motivated.

## Basic Approach to Human Resources

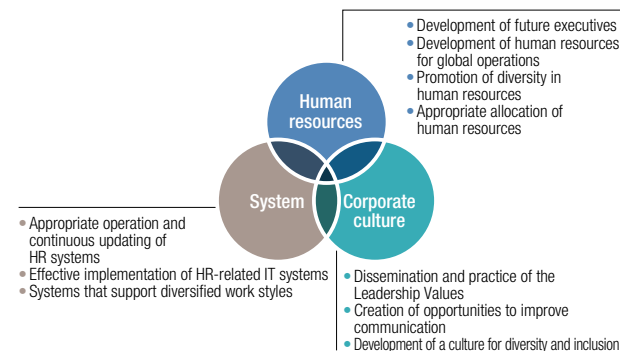
The Mitsubishi Materials Group views its employees as creators of new value and sources of corporate competitiveness. We consequently seek to be a company that accepts and respects diversity, where every employee finds work personally meaningful while working together to achieve optimal organizational performance.

Our medium- to long-term HR strategy states that "we 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 allocation of human resources." We consider it essential for corporations to continuously develop personnel who excel as leaders in order to maintain competitiveness and sustain growth.

### Medium- to Long-term HR Strategy

#### Group HR Strategy

We improve the development and retention of personnel with high-level strategic skills and practical abilities, and reinforce the Group's management capabilities through appropriate allocation of human resources.

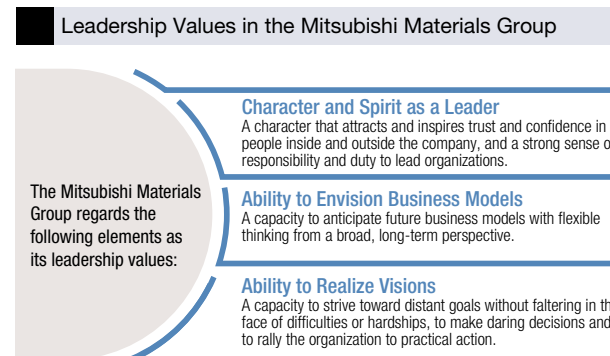


## Guidelines for Developing Leadership Values

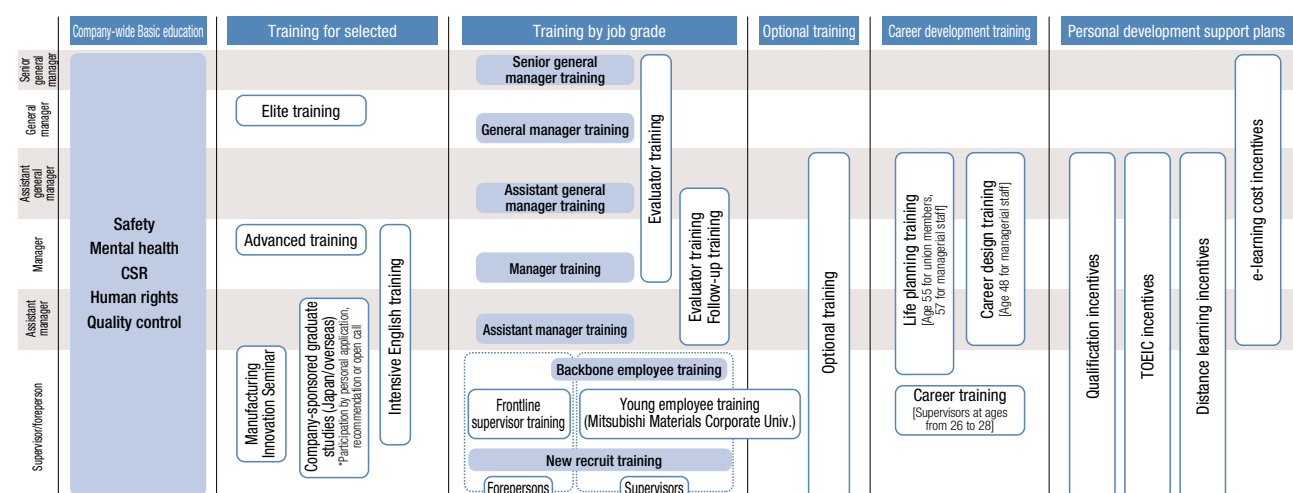
In February 2016, in order to clarify the competences and skills common to leaders in our Group's various businesses, we drew up "Leadership Values in the Mitsubishi Materials Group" ("Leadership Values" hereinafter) which is also to be used as a set of guidelines for our leadership development.

Among the three Leadership Values listed, "Personality and Spirit of Leader" has especially deep roots in our tradition of commitment and responsibility for the safety and livelihood of our employees. Our Group traces its roots back to the era of coal and metal mining, where workplace sometimes put ones' life in danger. This value is therefore a constant among requisite leadership qualities that have been passed down unbroken through generations in the Group, and was selected as one of core values through spirited discussions among management.

Our Leadership Values are reflected in performance assessment of managerial employees in Mitsubishi Materials. The Company's manager training programs have been redesigned in accordance with our Leadership Values, which afford Group employees opportunities for leadership development appropriate to the various stages of their careers.



### Group-wide Education System



## Advanced Leadership Development Programs

In fiscal 2006, the Group established "Advanced Leadership Development Programs," which seek to develop qualified candidates for our Group's senior management positions. General managers considered as potential candidates for the Company's executives or presidents of major Group companies are identified as "Superiority Talents," while managers considered as potential candidates for general managers, plant managers or presidents of Group companies are identified as "Advancing Talents." Their professional capabilities are developed accordingly through both training and experience (job assignment).

This development program was enhanced in fiscal 2018. Its content was expanded based on the Leadership Values, and mechanisms were introduced to ensure that its personnel development methods were implemented more systematically and continuously.

An annual HR meeting held by each business division brings the executive officer responsible for HR and the general manager of Human Resources Dept. together with the executive officer responsible for each division to assure coordinated implementation of the development program, such as confirming individual career development and assignment plans for each of superiority and advancing talents.

The training program for the Superiority Talents has been reconfigured, by doubling its period, to employ members of the Company's current management executives as instructors to train participants directly as a means of engendering a managerial mindset. In fiscal 2019, ten participants made presentations on the future and visions of the Group to the management executives on the final day, which inspired lively discussion between them.

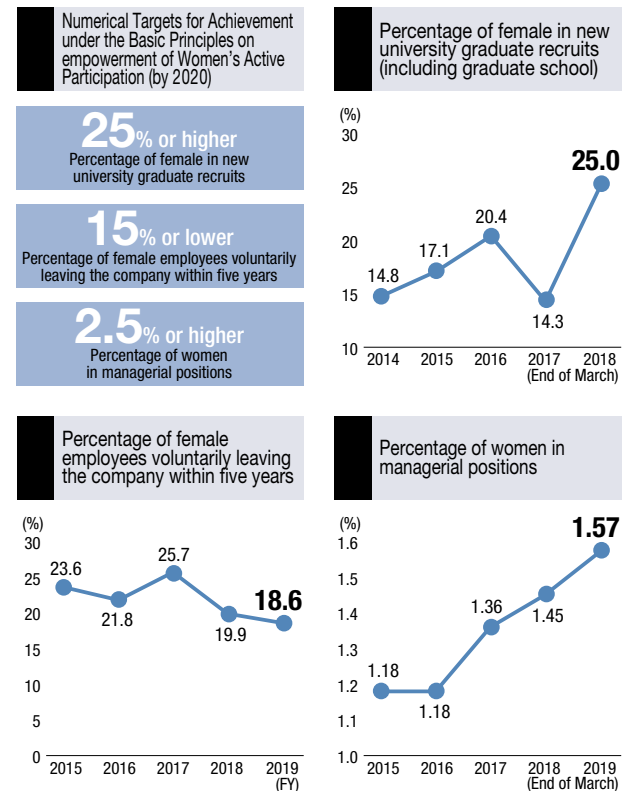
For the Advancing Talents, we provide a special training program in which they develop business strategies for the individual businesses, and make systematic assignment based on individualized career development plans.

## Initiatives to Encourage Diversity Empowerment of Women

Based on the Group's medium- to long-term HR strategy we are promoting efforts to diversity in human resources.

We particularly emphasize the empowerment of Women's Active Participation. In the course of efforts to achieve the priority goals of Basic Principles of Women's Active Participation formulated in 2015, we are currently pursuing ongoing initiatives, mainly at the priority plants, to address both intangible factors (such as awareness-raising, communication enhancement) and tangible factors (such as facilities and systems).

In fiscal 2019, in addition to diversity training for all employees, we have conducted tours and exchanges of views at the priority plants and career training for women in managerial positions.



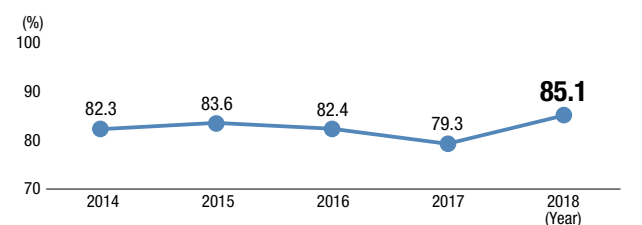
## Adjusting Work Styles to Life Plans

We seek to realize workplaces in which individual employees can work in a manner suited to their life plans, while also aiming to create a workplace that can challenge career advancement. For this, we are organizing and optimizing systems as well as conducting educational and training programs that support various ways of working. We are also taking steps to reduce out-of-hours and to encourage employees to take paid holidays in accordance with conditions at our individual sites. We have introduced an elective welfare system that is designed to correspond to employees' diversifying needs, moreover, including such items as travel and life support options. This system is used by many employees including family members.

Fully aware of the capacity of disabled persons to learn, grow and contribute to society through work, our business divisions throughout the Group are proactively seeking to hire them.

\* As of April 1, 2019, disabled persons employment rate: 2.32%

### Percentage of paid holidays taken (union members)



# Human Resources Strategies

## Ensuring Employee Safety

### Basic Approach

The MMC Group Code of Conduct states in Article 2: “We are committed to providing a safe and healthy environment for all our stakeholders.” This commitment reflects our realization that we must preserve our employees’ safety and health to enable them to provide their families with secure and happy lives, and to contribute to our effective operation and continued development as a company.

And since 2018, we have declared that among the goals represented by SCQDE enacted as the guideline to decision-making concerning conduct of our work (priority order), “S” which represents “Safety and Health” is the first priority.

Related article ► P.46 Compliance

### MMC Group Basic Policy on Safety and Health Management

- 1) We will carry out safety and health activities based on full participation from all employees, underpinned by leadership and initiative from the President and other managing personnel.
- 2) We will ensure that all employees comply with the Industrial Safety and Health Act and other applicable legislation, manuals and operating procedures, and establish a workplace culture whereby everyone follows the rules and ensures that others do too.
- 3) We will make every effort to create pleasant workplaces that are healthy for both body and mind, for all employees, through activities aimed at creating open workplaces and promoting health.
- 4) We will take preventive measures in accordance with Ministry of Health, Labour and Welfare guidelines on the prevention of work-related traffic accidents and improve road etiquette amongst all employees, in order to eliminate traffic accidents based on our commitment to promoting road safety activities as an example to society as a whole.

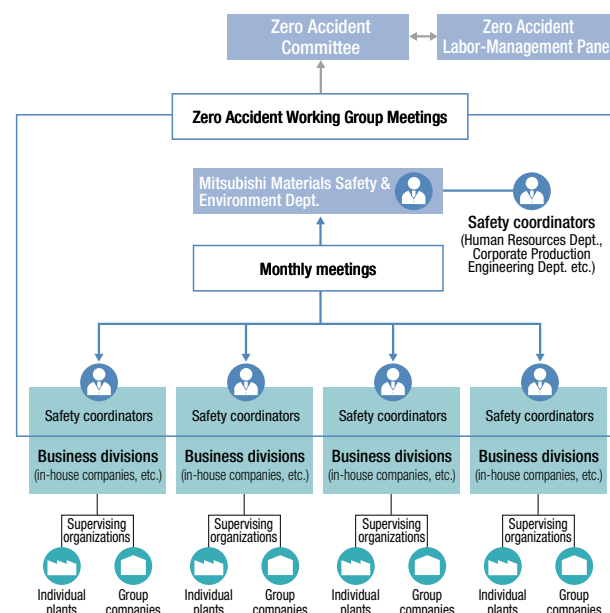
## Promotion of Safety and Health Activities

In 2014, an explosion at the Yokkaichi Plant took the lives of five employees of MMC and partner companies. We instituted the Zero Occupational Accident Project that same year, based on a strong commitment to root out future incidents of this kind and to eliminating serious occupational accidents. The Project’s Zero Accident Committee, which is headed by an executive appointed by Chief Executive Officer, analyzes current conditions and formulates basic policies and specific measures for review and discussion by the Corporate Strategy Committee. If approved, they are implemented, with progress reports made regularly to the Executive Officers’ Meeting. The Mitsubishi Materials Safety & Environment Dept. cooperates with safety coordinators appointed by the various in-house companies in sharing information concerning progress and issues with respect to current safety and health measures. The safety coordinators also participate in Zero Occupational Accident Working Group Meetings, where they share information and discuss new measures. The Zero Accident Labor-Management Panel comprising members from both the labor union and management implements joint labor-management initiative to create a framework for pursuing zero occupational accidents.

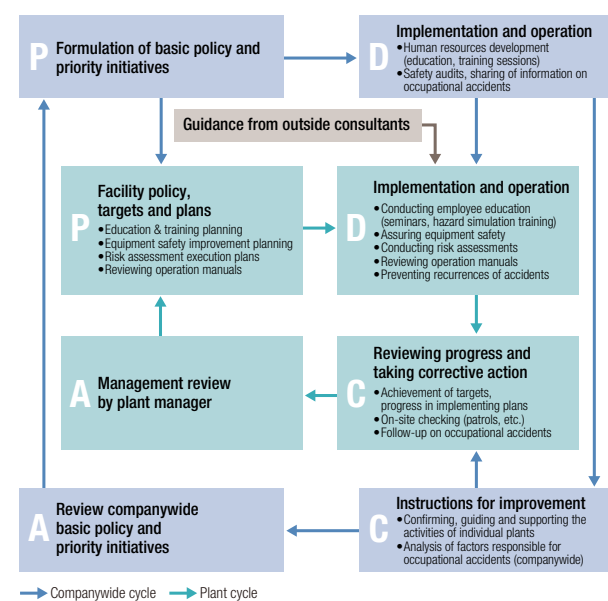
The Zero Accident Committee identifies challenges that the Group should focus on as priority issues brought to light by the occurrence of occupational accidents and through consultations with the Zero Accident Labor-Management Panel, we enact safety and health management priority items and strive to improve worksite conditions through the PDCA cycle tailored to individual plants.

In 2018, we set the following priorities to eliminate occupational accidents: 1) a campaign to eliminate multiple accidents and 2) use of risk assessments to realize strict controls on equipment safety and 3) Safety basic action and to guide activities toward eradication of occupational accidents. We are reinforcing these initiatives further in 2019.

### MMC Group Zero Accident System



### Group Occupational Safety and Health Management System



## Safety Record

In 2018, 176 employees of Group companies were involved in occupational accidents, 48 of which resulted in lost-time injuries. Although the number of occupational accidents has decreased over the past decade, it has remained steady for the past six years. The lost-time injury frequency rate (fatalities and lost-time injuries per million work hours), a rate applied to assess the state of occupational accidents, was 0.26\*1, which is lower than the average rate for manufacturing industries in Japan (1.20\*2). With 2019 as the year when the campaign to eliminate multiple accidents is reexamined, at the same time as the campaign undertaken during the previous two years is verified, additional accident prevention measures will be added to promote efforts pursuing zero serious accidents.

\*1 Excluding subcontractors

\*2 Source: “Overview of Survey on Industrial Accidents in 2018,” Ministry of Health, Labour and Welfare of Japan

### MMC Group Safety Record 2018

Number of employees injured		
MMC (non-consolidated)	Lost-time (or more serious)	3
	No lost-time	20
MMC (subcontractors)	Lost-time (or more serious)	10
	No lost-time	13
Group companies (including subcontractors)	Lost-time (or more serious)	35
	No lost-time	95
Totals	Lost-time (or more serious)	48
	No lost-time	128

## Hazard Sensitivity Education

Realizing that experiencing danger firsthand contributes to improving hazard sensitivity, we opened the Occupational Safety and Health Education Center called Midori-kan on the grounds of our Saitama Office (Saitama, Saitama Prefecture) in March 2017. The center is equipped with 50 types of hazard simulation equipment, designed to reproduce actual worksite conditions and potential hazards in everyday operations, for use by expert instructors in conducting hazard sensitivity training. The center also offers regular specialized training courses on occupational safety and health in classrooms designed specifically for this purpose. Since its establishment until March 2019, the Center provided hazard sensitivity training for more than 2,600 Group employees, approximately 500 of whom have also complete specialized training courses.

In April 2018 we introduced the first virtual reality hazard simulation system that permits the simulation of hazardous situations that are difficult to experience in real life. In 2019, the introduction of the second and third systems is planned. This is intended to further increase sensitivity to hazards.

## Mental Healthcare

About half the new absences due to mental health issues involved young employees who had joined MMC within the past five years. We have been addressing this situation since fiscal 2017 by conducting interviews by clinical psychologists with all third year employees. We employ stress-check results, training in self-care and management training programs, moreover, to encourage development of a sense of awareness concerning mental health among employees in an effort to prevent them from experiencing mental health issues.

And a support program that will smooth the return to work of people who have been absent as a result of mental health issues will be introduced in all plants in order to prevent the recurrence of such issues.



## R&D Strategy

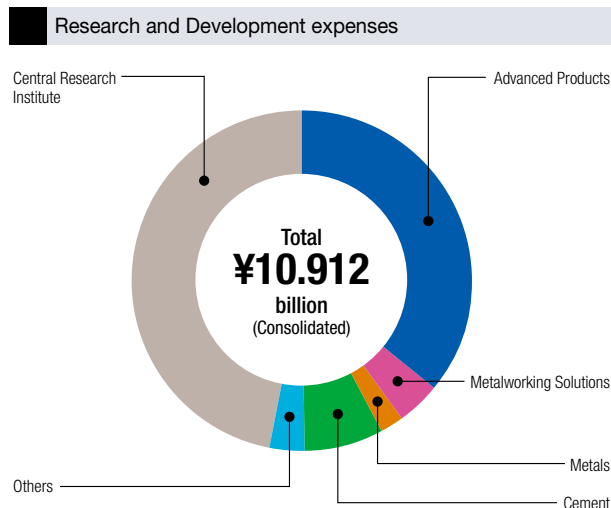
In accordance with this basic policy, we will continue to refine our core technologies and to create competitive new businesses and products that anticipate changes in the world as part of our efforts to establish our identity as a leading global company.

## R&D Strategy and Promotion System

The Central Research Institute concentrates on creating new areas of business through Group-wide basic research and promulgation of ideas that can lead to breakthroughs.

We make full use of the analysis, evaluation and CAE\* and other basic technologies which have been accumulated over many years and which are the strength of the Central Research Institute, and core technologies centering on thin films and interfaces, metalworking and reaction processes, to develop new products and new technologies that anticipate change of global needs, thereby promoting the creation of new business.

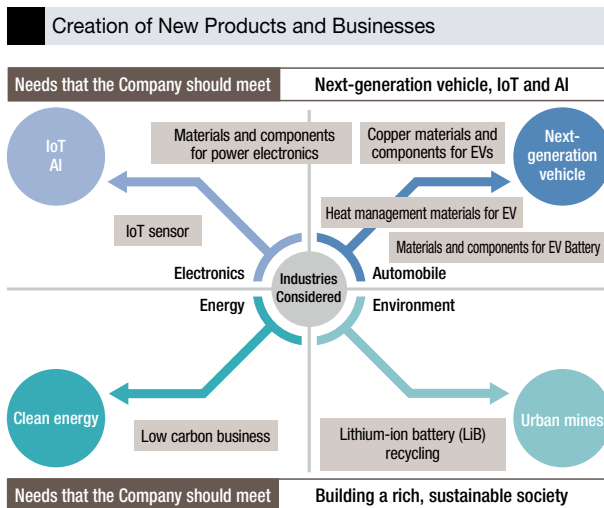
\* CAE (computer-aided engineering) refers to the use of analysis software to develop materials and processes based on computer simulations.



## Creation of New Products and Businesses

In consideration of this external environment and social landscape—and committed to attaining sustainable growth by leveraging our Group's strengths—we have defined the following priority fields for the creation of new products and businesses, which is a Group-wide policy objective of our Medium-term Management Strategy: next-generation vehicles, IoT- and AI-related businesses, clean energy and recycling (urban mines). We intend to contribute to realization of a fulfilling sustainable society by offering products and solutions in these four fields.

Through investment provided by the established fund, we will promptly approach materials technologies related to next-generation batteries and metalworking and low-carbon related process technologies, nurture the Group's medium to long term technologies, and create innovation and new value through collaboration.



## Intellectual Property Strategies

At the same time as we respond to risks to our intellectual properties through confirmation and advice on internal intellectual property related agreements such as non-disclosure agreements and joint development agreements in order to deal with open innovation, we conduct graduated training for employees ranging from newly hired graduates to management personnel, on-site training to obtain intellectual property skills certification, provide and open knowledge and expertise, support tools obtained by these activities and in-house lecture classes with group companies in order to deepen understanding of new intellectual property in the age of Society 5.0\*, and in these ways contribute to reducing intellectual property risks throughout the group and to maximizing our business value.

In FY2019, we efficiently reviewed various legal agreements concerning technologies with foreign countries which are increasing along with the progress of open innovation at the same time as we began to operate a checking system using AI for legal agreements concerning technologies.

\* Society 5.0: Initiatives contributing to realization of a "super-smart society," the fifth stage following the hunter-gatherer society, agrarian society, industrial society and information society.

## TOPICS

## Development of anti-corrosion plating technologies for connector terminals used in aluminum wire harnesses

The use of aluminum in automobile wire harnesses in order to reduce the weight of the automobile and thereby reduce CO<sub>2</sub> is the focus of attention. Aluminum wires are used for electric wires, and copper alloy is used for terminals. Previously, however, the occurrence of corrosion between an electric wire and the terminal was an issue.

Mitsubishi Materials Co., Ltd. and Mitsubishi Shindoh Co., Ltd. utilized their technologies to develop a new technology involving the addition of zinc to tin plating used for surface treatment of copper alloy terminals, in order to greatly suppress the progress of corrosion. The new technology is expected to be superior to the conventional technology in respect of manufacturing cost, and can also be applied to various copper alloys.



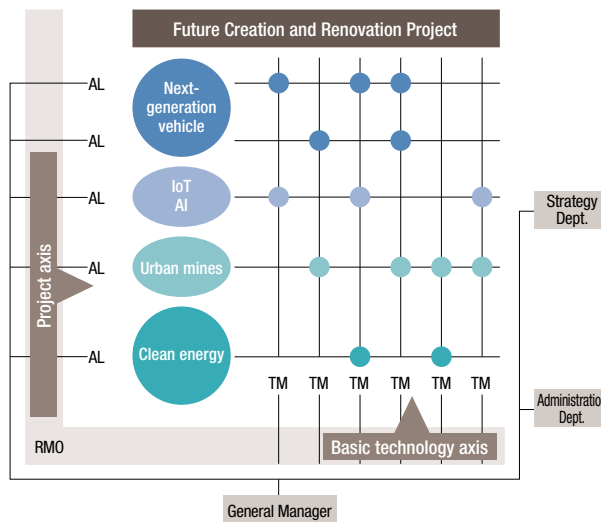
Anti-corrosion plated connector terminals  
connected to aluminum wires

## Reorganization of the Central Research Institute

In order to efficiently and speedily conduct R&D to create the coming era, in April 2019, we reformed the organization of the Central Research Institute as follows to replace the vertical organization consisting of 10 research departments with a flexible system that will flexibly and nimbly bring together intelligence spanning multiple specialized fields, thereby reconstructing the Central Research Institute so it “will create the coming era.”

1. Research departments were eliminated, positions such as departmental manager terminated, the vertical organization and walls between departments removed and researchers are all attached to the general manager of the Institute. This will improve personnel fluidity and meld and create technological information.
2. Researchers are posted to form a matrix with projects and basic technologies as its axes. An Advancement Leader (AL) is posted for each theme of the project axis and a Technical Manager (TM) is assigned for each field of the basic technology axis to conduct R&D from multiple perspectives such as the time axis, and degree of technological maturity. The system will constantly be optimized by appropriately and flexibly reorganizing themes and researcher configuration of the project axis.
3. A new "Future Creation and Renovation Project " is established and research themes that will create the future of the group without being constrained by the frameworks of past and current business or technologies are conceptualized.
4. To constantly optimize overall R&D activities, a Research Management Officer (RMO) who will set policies, support research activities, clarify situations, and redistribute human resources is appointed.

## Post-reorganization structure of the Central Research Institute (Overview)



RMO = Research Management Officer  
AL = Advancement Leader  
TM = Technical Manager  
● ● ● ● Researcher assignments (Example)

# Manufacturing Innovation

We increase business competitiveness by problem solving through cross-divisional projects and promotion of manufacturing innovations.

## What Is Manufacturing Innovation?

We achieve perpetual manufacturing innovation by a culture of constant dissatisfaction with the status quo on our production sites, identifying fundamental problems and quick solutions by capitalizing on human and technological assets inside and outside our Group. This approach advances manufacturing capabilities that differentiate us from the competition.

We believe, moreover, that workers who introduce manufacturing innovations on their own initiative and achieve results gain confidence and pride as manufacturing professionals, contributing to our efforts to create a sounder, and rewarding working environment.

## Efforts to Promote Manufacturing Innovation

Most of the obvious problems on the manufacturing site, including product defects, equipment failures and late deliveries, can be handled by applying existing autonomous “KAIZEN” activities. Other problems that manifest themselves, however, such as chronic defects or underlying problems in a manufacturing process that has so far proved profitable, may resist on-site resolution. It is essential to identify and resolve these problems quickly through unified action by the manufacturing site and its support organizations.

Even the quality issues announced in November 2017 might have been preventable had the problems been visualized and resolved in light of the proper conditions. Examples of appropriate problem identification and problem-solving activities include making substantial investments to assure sufficient processing capabilities and radical rethinking of the estimation process to improve the accuracy of order reception procedures. To assure that these activities are conducted consistently from a medium- and long-term perspective, we are reinforcing them appropriately as part of our governance for greater growth.

The Production Technology Management Dept. is currently constructing a system to identify and to solve problems and to support solutions and manufacturing innovations.

## <System for Identifying Problems>

### ■ Part 1: KAIZEN Promoter System

Launched in fiscal 2017, the KAIZEN Promoter System (“Promoter System” hereinafter) selects people with knowledge of technologies and technological problems from various business divisions and assigns them leadership roles in solving problems associated with the business or manufacturing sites.

Promoters adopt an overall perspective to identify problems that would be too time-consuming for the manufacturing site to undertake on its own or problems that require innovation. They then draw on their own experience and technological expertise to work with the Technology Div. and other business divisions to propose solutions to teams at the manufacturing sites, advocating problem-solving as a cross-functional project (CFP).

Our structure as a Group engaged in a wide range of businesses provides us with a diverse fund of human and technological assets. Information exchange through promoters enables business divisions to access other divisions’ experts, technologies and know-how. In process manufacturing businesses such as the cement business or copper smelting and refining, for example, we have seen a growing number of successful solutions making use of facilities and management technologies related to plant operations. Promoters also adopt technologies improvements and innovations from product manufacturing businesses—such as metalworking solutions or electronic materials and components—for use in processing businesses.

This way they contribute directly to plant profitability, for example, by proposing and organizing meetings to identify problems or by participating in CFP planning and promotion.

### ■ Part 2: Plant Managers’ Workshops

These workshops bring together plant managers from each plant to identify actual or potential problems and discuss methods to solve them by routine use of CFP.

## ■ Part 3: Common Manufacturing Management Framework

The Framework will provide a means of applying formulae for visualizing a factory’s actual manufacturing capacity, target-setting methods, problem identification capabilities and approaches to problem solution according to plant type. Based on input from our plant managers’ workshops and case studies on other companies, it will provide the Group as a whole with methods, procedures and philosophy for maintaining manufacturing Innovation over the long term.

## <System for Solving Problems>

### ■ Part 1: Cross-functional Projects (CFPs)

We consolidated the Technology Div. supporting organizations in April 2017 and created a system to support deployment of CFPs in response to actual and potential problems across the value chain.

When an individual division or facility encounters a problem too difficult to solve on its own, the Production Technology Management Dept. organizes a CFP, a team of stakeholders operating across divisions to implement a one-stop solution, the requesting department playing a central role. The CFP brings together appropriate experts from such varied fields as R&D, facilities technology, data analysis technology, systems technology, and procurement and logistics. It draws on their technological expertise, experience and knowledge for such purposes as acquiring understanding of the on-site situation, identifying causes through data analysis, conducting physical and chemical analyses of intermediate products, identifying causes based on mechanisms, making proposals based on knowledge of the facility organization and management, constructing systems and offering procurement proposals.

### ■ Part 2: Manufacturing Innovation Seminar

Introduced in fiscal 2017 as a new type of problem-solving system, the Manufacturing Innovation Seminar is a hands-on education program through which young employees learn the fundamentals of problem solving while contributing to the profitability of their plant.

Young employees selected for participation in the Seminar take on challenges arising at their respective workplaces for about one year with support from instructors referred to as “coaches,” with the aim of developing a higher understanding of manufacturing as future leaders. A total of 60 engineers (including participants of spring course at fiscal 2020) have taken part in the Seminar with laudable results since its launch. In the course of the program’s unique, creatively

designed workshops, the participants learn the quantitative process improvement methodology (DMAIC methodology) used in the Six Sigma methodology and apply it to solve actual problems existing in their workplaces. The Seminar is also characterized by the involvement of experts from entities throughout the Group to conduct effective CFP-style problem solving, leveraging the Group’s wide and varied range of business operations.

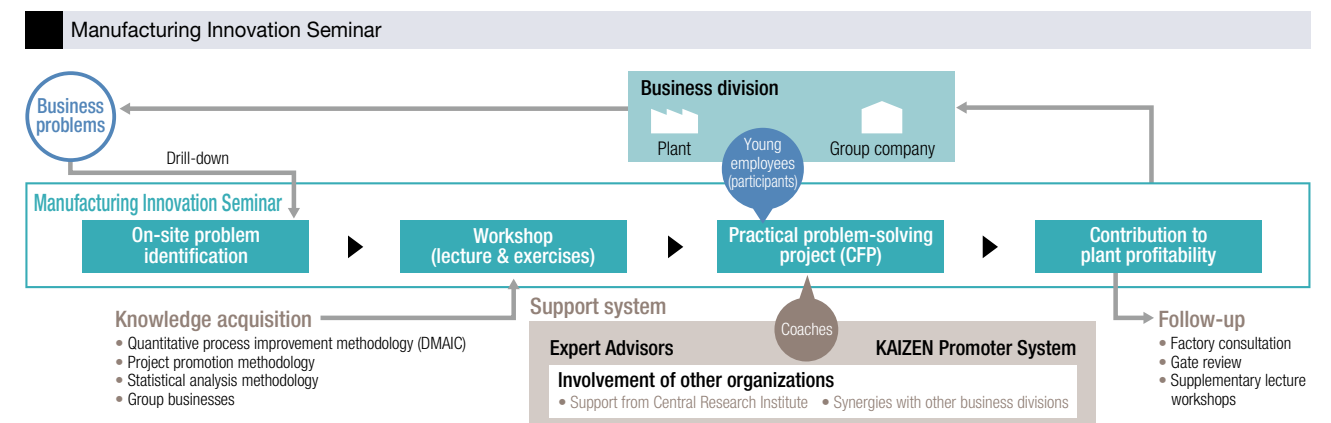
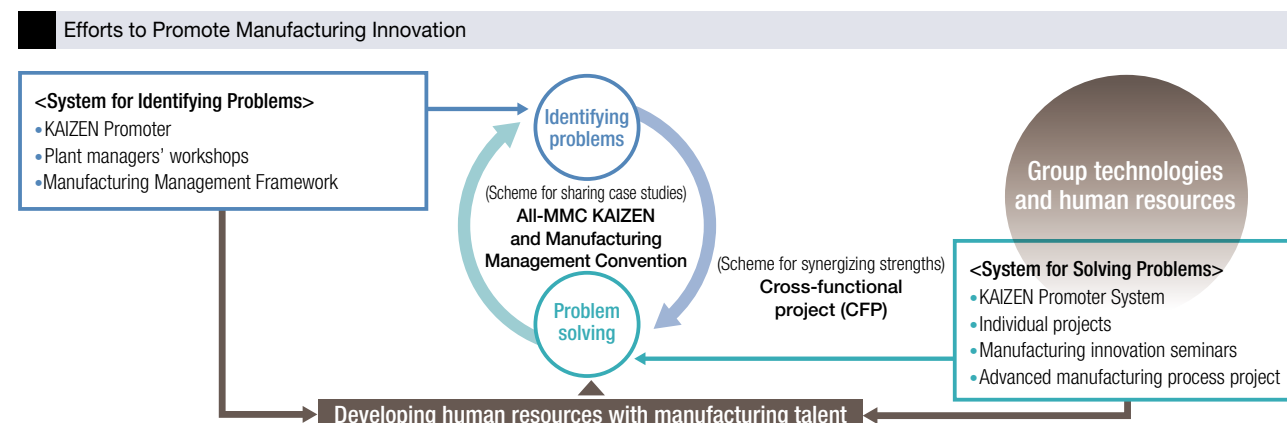
Beginning in fiscal 2019, our Seminar graduates who serve as coaches have been promoting on-site improvement activities to promote the further penetration of the activities by applying it to Headquarters and at the plants’ administrative back offices.

### ■ Part 3: Advanced manufacturing process projects

Following the automation of inspection equipment, we will promote expansion work of process control capacity based on data and accelerate the establishment of a system which links improvement activities to all visualized and collected data from production sites through the improvement of the IT infrastructure. Beginning in FY2020, model plants selected for each product type business and the Technology Div. will work together to concretely promote this project.

## <System for Sharing Manufacturing Innovation>

We hold All-MMC KAIZEN and Manufacturing Management Conventions where we share outstanding examples of improvements and innovations. People including top executives involved in manufacturing in all our Group businesses gather to honor the finest achievements. Topics are hot issues and themes important for manufacturing innovations. Goal is to raise the entire group’s manufacturing capability by sharing technical information, superior management methods and technologies across all divisions.





# Stakeholder Relations

We proactively create opportunities for engaging in diversified communication and deepening mutual understanding to ensure incorporation of feedback from our stakeholders into management.

## New Business Creation in Cooperation with Customers

Seeking enhanced responsiveness to the major social changes such as increased popularity of EVs, the rapid dissemination of new types of energy and so on, the Mitsubishi Materials Group is shifting to market-driven product development based on customer-oriented marketing. The focus of this approach is dialogue with customers in recognition of the vital importance of identifying and acquiring an accurate grasp of their current real and emerging needs. This means grasping opportunities for discussions with key customers in various business areas, pursuing negotiations with selected customers at trade shows and private exhibitions, and conducting technical meeting with specified customers. Through such means, we gather invaluable feedback from customers and utilize it to match our strengths with customers' needs while also creating new development concepts. We structure these activities strategically by sharing marketing information among our business divisions and Group companies, promoting technical exchange and coordinating collaborative development.

Since our technologies and products are often integrated into customers' (end) products as value-added materials and components, it can be difficult to recognize their features when viewing them independently. To give customers a clearer image of characteristics and value of our products and encourage their use in the customers' product designs, we are experimenting with marketing activities which employ full-size models of end products incorporating our products.



Full-size model of a lithium-ion battery module

## Dialogue with Shareholders

Our Ordinary General Meeting of Shareholders offers an invaluable opportunity for direct communication between our management members and shareholders. We therefore send out convocation notices at the earliest possible date, while also providing details on our Website, to give shareholders sufficient time to consider the matters to be presented and resolved at the meeting. We continue to expand the range of our information disclosure, by posting new content to our annual business report, including details of our policies concerning remuneration and the status of corporate governance.

Besides permitting shareholders to exercise their voting rights in writing or online, we have introduced an electronic voting platform to facilitate voting by both domestic and international institutional investors.

We use slides with accompanying narrations at the General Meeting of Shareholders to help ensure participants'

clear comprehension of the presented contents. We also publish shareholders' voting results for every resolution on the Website, after the meeting.

In February 2019, we held a small meeting between outside directors and major domestic institutional investors who own our shares. They conducted a free discussion on a wide range of topics, mainly our corporate governance, successfully deepening the participants' understanding of our initiatives.

## Dialogue with Investors

We organize financial briefings for institutional investors and securities analysts to coincide with our quarterly earnings announcements.

In addition to providing a breakdown of our earnings and explanations regarding matters such as management policy, we also invite questions and comments from participants so as to reflect their views in our IR activities via channels such as feedback to management.

We also organize facility tours on an ongoing basis and arrange interviews with institutional investors and securities analysts in Japan and overseas.

As exercises in active communication, such interviews enable us to clarify strategies and other aspects of our business and engage in constructive exchanges of opinions.

We have been participating in information meetings for individual investors since fiscal 2010. Going forward, we are committed to maintaining an active IR schedule and ensuring adequate disclosure for the benefit of all investors.



Presentation at investor conference (Naoki Ono, Chief Executive Officer)

## IR Activities in Fiscal 2019

Description	Number of fiscal 2019
Interviews with institutional investors	196
Overseas IR roadshow (Europe and USA)	16
Facility tours for institutional investors	2
Financial briefings and investor conference for institutional investors	6

## Maintaining Harmony with Local Communities

The MMC Code of Conduct states the following in Article 4: "We will contribute to the development of each region and build a harmonious relationship of mutual prosperity with local communities." We consider it essential that we act sincerely and honestly to achieve business growth in harmony with society. All our employees will join forces in fulfilling our social responsibilities, increasing our corporate value and earning society's trust in our corporate group.

## Participation in and dialogue with the Community and Society

We engage in wide-ranging activities in various countries and regions, while respecting local values, with the aim of interacting with and establishing relationships of trust with local communities as a basis for mutual prosperity. We seek to become a familiar member of the community by deepening mutual understanding and trust through such activities as participating in local festivals and clean-up events, contributing to disaster relief efforts, and conducting other volunteer activities that meet regional needs.

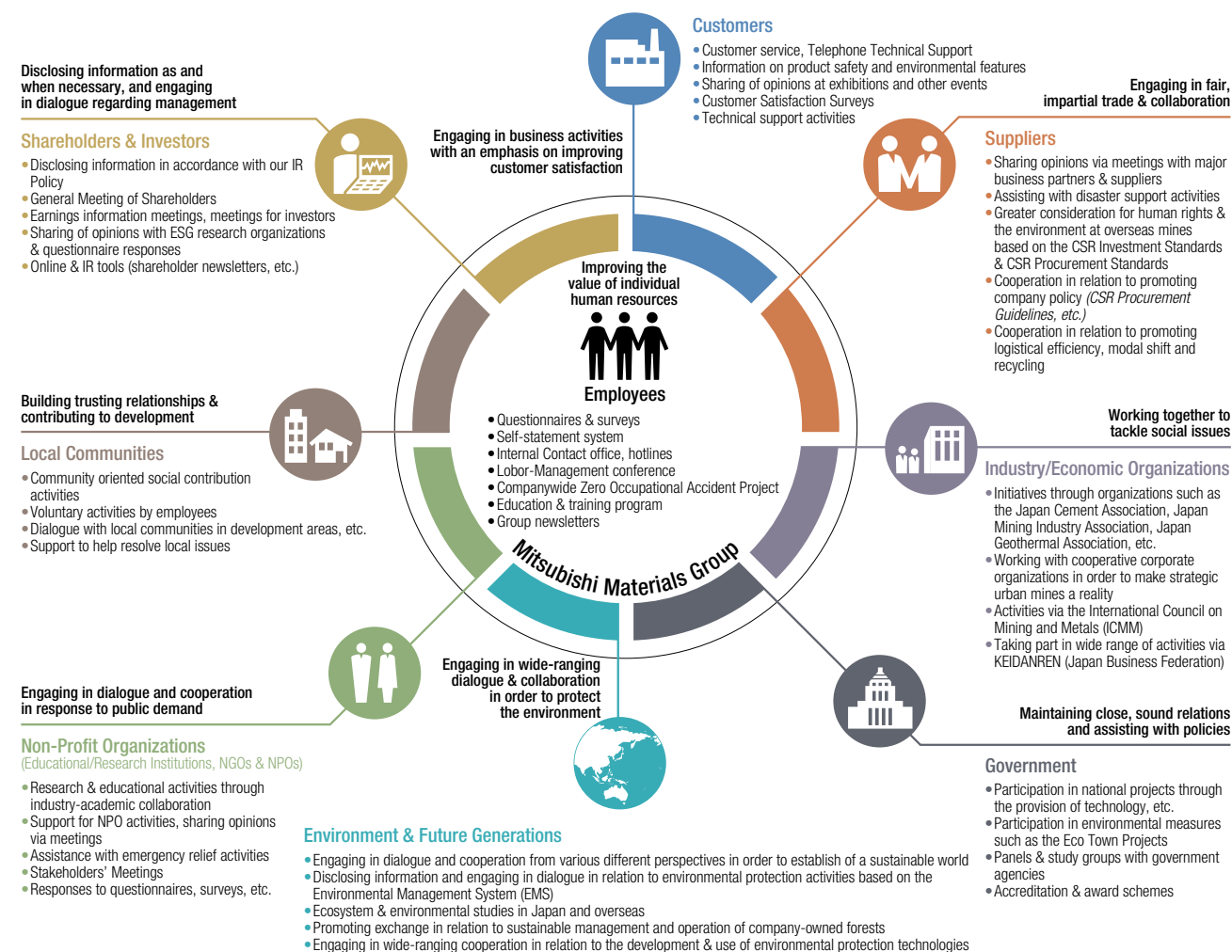
We engage in active programs of dialogue with our local communities to ensure that they recognize our operations and understand them properly.

## Approaches to Society

We conduct a variety of activities through our memberships in economic and industry organizations aimed at achieving the sustainability of society.

Among these, we are a member of the International Council on Mining & Metals (ICMM), which brings together the world's leading mining and smelting & refining companies. As an organization representing a major industry that procures raw materials globally and exerts enormous environmental and social impacts, the ICMM has established 10 ICMM principles for sustainable development with the intention of making a positive contribution to 17 goals of the SDGs. Member companies are in an efforts to improve the performance of our industry as a whole by sharing best practices while observing these principles in the conduct of our business.

## Basic Approach to Building Relationships with our Stakeholders & Key Means of Communication



# Responsible raw materials procurement

We are continuing our efforts to achieve safe, sound procurement in cooperation with many suppliers throughout our supply chain based on our CSR Procurement Guidelines

### Basic Principles

As a comprehensive materials manufacturer, the Company works in partnership with suppliers throughout the value chain to raise added value and promote global procurement that assures stable product supplies and enhances our product competitiveness.

Stable raw materials procurement is essential for maintaining smooth operations. We consequently wish to not only prepare for disasters but to fulfill our corporate responsibilities related to procurement which ensures fairness and impartiality, complying with laws and regulations, safety and health, conserving the environment, and respecting human rights with the understanding and cooperation of our clients and based on MMC's CSR Procurement Guidelines.

### Ensuring Procurement Stability

We make every effort in our global procurement activities to ensure stable raw materials procurement and conduct appropriate risk management. We respond promptly and effectively when procurement is hindered by circumstances such as large-scale disasters, geopolitical risks or changes in the market environment, or when prices undergo periods of significant fluctuation. We are committed to procurement stability while mitigating the various risks involved in the procurement process.

Strategies to assure this include the following: concluding long-term agreements with key raw materials suppliers, promoting recycling, establishing multiple diversified supply sources, considering the use of alternative materials, reinforcing our supplier relationships, and conducting joint purchasing with other companies. These and other efforts enable us to maintain sustainable procurement by minimizing the impact of unforeseen circumstances on our production activities.

As one example of our raw materials recycling activities, we collect used cemented carbide tools from our customers and reclaim the tungsten, cobalt, tantalum and other materials they contain in cooperation with our suppliers to be recycled into raw materials.

Our efforts to diversify and enlarge our supplier base, meanwhile, center on working closely with our production, quality assurance, sales and other relevant divisions to expand our procurement network on a global scale.

In addition to our daily procurement activities, we evaluate the performance of our current suppliers on a regular basis and strive to respond to changes in our supply chain and procurement processes without delay.

### ■ Cement Product Raw Material Procurement Initiatives

Limestone is the principal raw material used in cement production. Our cement business procures the limestone for use in its cement plants from three Group-owned limestone mines in Japan and two overseas mines (in the United States and Vietnam). It seeks to build relationships of trust with the local communities in which it conducts limestone mining and transportation by implementing various exchange and cooperation activities, while also endeavoring to minimize noise and preserve the habitats of rare species.

### ■ Aluminum Product Raw Materials Procurement Initiatives

Our aluminum business not only manufactures aluminum plates which are used to make aluminum cans, it has built the CAN to CAN recycling system that recycles used aluminum cans into recycled raw material. Additionally, Mitsubishi Aluminum which is one of our Group companies procures raw materials such as new aluminum metal. All of our business partners are highly motivated to prevent corruption, comply with the laws and regulations and respect human rights, and endeavor to conduct fair and impartial transactions based on mutual trust.

And we also proactively promote initiatives such as to preserve the global environment to fulfill our corporate social responsibility through mutual cooperation with our major business partners both in Japan and overseas.

### Implementing CSR Procurement Standards

Among actions aimed at prioritizing CSR throughout the supply chain, we inform suppliers of our CSR Procurement Guidelines for the Procurement & Logistics Division and ensure that the Guidelines are reflected in the contents of all basic agreements.

The Guidelines consist of a Basic Procurement Policy, which sets out the division's responsibilities, and the CSR Procurement Standards with which suppliers are required to comply.

With the aim of ensuring the effectiveness of our CSR procurement operations, in April 2016, we revised our methods of selecting new suppliers and evaluating the performance of current suppliers by introducing new criteria for selecting suppliers for continuing or newly originated transactions, namely socially responsible procurement considerations such as respect for human rights, compliance with laws and regulations, safety and health, and conservation of the environment to such previously considered general factors as quality, price and delivery date.

Before implementing these assessments and evaluations, we ask suppliers to evaluate themselves based on our Supplier Self-Check Sheet, and follow up with consultations concerning possible improvements, as necessary.

CSR Procurement Guidelines for the Procurement & Logistics Division: An Overview	
Basic Procurement Policy	CSR Procurement Standards
1. Open door/fair trade	1. Respect for human rights
2. Compliance with legislation and corporate ethics	2. Compliance with legislation and corporate ethics
3. Safety and Health, environmental preservation and measures to combat global warming	3. Safety and Health
4. Respect for human rights	4. Environmental preservation
5. Information security	5. Information security
	6. Ensuring product quality and safety

### Copper Product Raw Material Procurement Initiatives

Our procurement of copper concentrate, a raw material of copper product, centers on overseas mines in which we have investments. Although MMC is a non-operator that does not participate directly in mine management, we wish to fulfill our responsibilities concerning sustainable development as a company engaged in global procurement activities by participating in the International Council on Mining & Metals (ICMM).

We assign personnel to mines in which our interests exceed a certain level, where they engage in dialog with indigenous people and members of the local community through such means as advisory committees.

The Metals Company invests in and procures concentrate by evaluating mining companies based on the Metals Company's CSR Investment Standards and CSR Procurement Standards at the same time as it carries out regular questionnaire surveys to clarify the situation at each company, and when it deems it necessary to do so, requests improvements. It also conducts its business processes by treating conservation of the environment, and respect for human rights as matters with a vital role in its the management of its global supply chains.

### From “Conflict Mineral Issues” to “Responsible Mineral Procurement Management”

The Dodd-Frank Wall Street Reform and Consumer Protection Act requires all companies listed in the United States to disclose any “conflict minerals,” which include gold, tin, tantalum and tungsten, contained in their products. They must also provide details concerning their investigations of the countries selected as reasonable sources of these minerals and the results of the investigations as part of efforts to prevent minerals mined in the Democratic Republic of Congo (DRC) or neighboring countries from being used to fund armed groups that commit human rights violations or engage in other acts of violence. But in recent years, led by the EU, studies have been carried out from the perspective of “responsible mineral sourcing” that extends beyond the range of “conflict minerals”. As a result, cobalt and silver are also currently subject to verification.

The Metals Company has strengthened initiatives beginning with silver in addition to its existing gold and tin initiatives and has published a policy related to this issue on its Website.

### The Metals Company Responsible Mineral Sourcing Policy

<http://www.mmc.co.jp/corporate/en/csr/social/procurement/eiti.html>

### ■ Initiatives with respect to gold and tin

The Metals Company has pledged its support for a campaign to ensure a transparent flow of funds related to mineral resources, as promoted by the Extractive Industries Transparency Initiative (EITI)\*<sup>1</sup> since June 2011.

In August 2013, we obtained certification of our use of conflict-free minerals in our gold products from the London Bullion Market Association (LBMA)\*<sup>2</sup> and have had this certification renewed every year since. Since February 2014, moreover, we have also received annual certification of our use of conflict-free tin from RMAP (former CFS program) of Responsible Minerals Initiative (RMI)\*<sup>3</sup>, former CFSI).

### ■ Initiatives with respect to silver

The Metals Company's conflict mineral management policy and related regulations have, until now, stipulated management of “conflict minerals”. Silver, which must be managed based on the LBMA Responsible Silver Guidance that has applied since 2018, is not generally viewed as a conflict mineral. As a result, the LBMA now uses the term “Responsible sourcing”.

As it would not be appropriate to manage silver as a “conflict mineral”, the regulations for “conflict minerals” management was revised into regulations for “responsible mineral sourcing” management.

### ■ Initiatives with respect to tungsten

Japan New Metals Co., Ltd., a Group company whose operations include tungsten smelting and refining, began efforts at an early stage to acquire independent certification of its use of conflict-free minerals for supply to smelters and refineries in China. We formulated a Conflict Mineral Management Policy in April 2014 and acquired RMAP certification for tungsten in December of that year.

<sup>\*1</sup> Extractive Industries Transparency Initiative (EITI):  
The EITI is a global framework established to improve the transparency of financial flows from extractive industries engaging in the development of oil, gas and mineral resources to the governments of resource-producing countries. Its aim is to prevent corruption and conflicts, and thus to promote responsible resources development that can facilitate growth and help to reduce poverty. <http://eiti.org/>  
<sup>\*2</sup> London Bullion Market Association (LBMA):  
The LBMA implements and oversees compliance with quality requirements for gold and silver bullion circulated in the market.  
<sup>\*3</sup> Responsible Minerals Initiative (RMI)  
Responsible Minerals Assurance Process (RMAP) certificate (former “Conflict-free Smelter Program”)



# Environmental Management

We are committed, based on our Environmental Policy, to protecting the environment and to pursuing effective use and recycling of resources.

We seek to prevent pollution in the vicinity of our business operations, moreover, and to develop a variety of activity as part of efforts to create a low-carbon society.

## Environmental Policy

The MMC Group has been striving, based on its Environmental Policy, to protecting environment and to pursuing effective use and recycling of resources.

We seek not only to prevent pollution in the vicinity of our business operations, but also to promote various kind of activities to create low carbon society.

### Environmental Policy

Based on our Corporate Philosophy “For People, Society and the Earth,” we recognize the importance of environmental protection on a global scale and strive to contribute to the creation of a sustainable society through our business activities.

As a comprehensive materials manufacturer, with operations ranging from cement, metals and metalworking through to electronic materials and components, we supply many of the basic materials and products that are essential to our industrialized society. Indeed, our materials and products are widely used in many aspects of daily life.

Whereas operations within the materials industry inevitably have a high environmental impact at the manufacturing stages, they also present opportunities to effectively harness and recycle resources through initiatives at the waste processing and recycling stages.

We take the environment into consideration in everything that we do and are committed to environmental management, capitalizing on the nature of our operations to strike a balance between business and the environment. With that basic philosophy in mind, we are determined to do our bit to help create a recycling-oriented society that has a low impact on the environment, through strict legal compliance and operations such as supplying and recycling essential everyday materials and products.

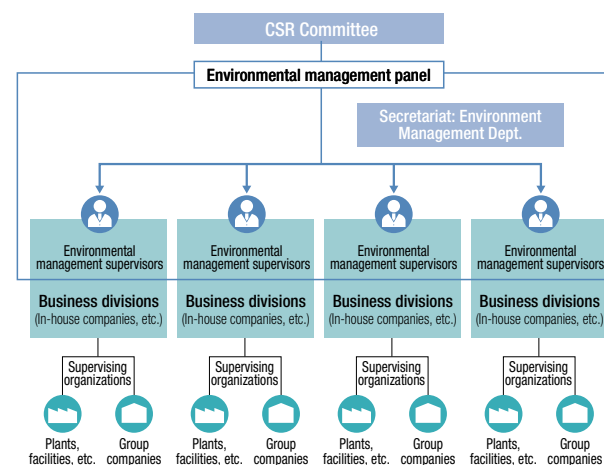
1. Promote environmental management
2. Reduce environmental impact
3. Contribute to creation of a recycling-oriented society
4. Preserve biodiversity
5. Help to create a low-carbon society
6. Coexist with local communities

## Environmental Management System

MMC Group companies have introduced ISO 14001 environmental management or other Environmental Management System (EMS) programs Group-wide as a basis for conducting environmental preservation activities tailored to such specific factors as the nature of our various business activities and regional characteristics. When it comes to shared issues, the members of the Environmental Management Panel, a specialized subcommittee supporting our CSR Committee, discusses and implements the most appropriate measures.

As a licensed operator in the waste-treatment business, we consider waste management as a top priority, proactively collecting waste products in Japan and recycling them as raw materials and alternative sources of thermal energy for smelting and cement manufacturing. We strive to ensure good environmental management across the board, from the Head Office to individual facilities. Our efforts include providing education and support for compliance with environmental legislation with respect to air and water quality and other concerns, ensuring appropriate use of tools such as waste management manuals and self-check sheets and maintaining a consultation desk at the Head Office.

### Environmental Management System



## Environmental Protection

### Full Compliance and Environmental Accident Prevention

Ensuring that environmental management is carried out appropriately requires full awareness among managers and staff of the importance of protecting the environment and a proper understanding of legislative requirements. The Group consequently shares information on legislative revisions, conducts capital investments and operations management in compliance with applicable laws and regulations and takes steps to prevent omissions in obtaining licenses and certifications. We provide ongoing staff education in pollution prevention and proper waste management, moreover, as well as training for ISO 14001 internal environmental auditors.

### 1. Information-sharing Regarding Compliance with Environmental Legislation

We keep employees up to date on changes in legislation by providing information via intranet or email. In the event of major revisions, or revisions requiring measures such as equipment upgrades, we organize explanatory meetings to provide information on the requisite measures and ensure that all our facilities are prepared to take appropriate action.

### 2. Compliance with Legislation on Pollution Prevention

We strictly observe relevant laws and regulations in operations management at our business sites, with consideration for local residents and the environment as our highest priority.

In order to avoid failing to submit authorizations required by legislation that applies to plant and equipment investment including the installation of new and replacement of equipment by the Group, regarding investment in equipment of or higher than a certain value, not only do plants decide the need for notifications required by law, Corporate linked departments also confirm awareness of legislation and state of response. And because it is important for plants to more concretely confirm that operation and management are done in compliance with legislation, a check system which confirms that there are no failures to comply with legislation has been built and is operated.

### 3. Environmental Management Training

Management-level staff at our various facilities receive education designed to improve their understanding of pollution prevention management systems, and other basic management requirements from an environmental management perspective. Seminars are organized for environmental management supervisors at individual facilities to clarify legislation such as the Air Pollution Control Act and the Water Pollution Control Act. We have so far conducted seminars mainly at the Head Office and other main offices, but we will also begin holding them at manufacturing sites to reinforce employee awareness of environmental legislation, while also visiting environment-related facilities in order to reach more employees and contribute significantly to the seminar participants' knowledge of the issues and appropriate responses.

### 4. Waste Management Training

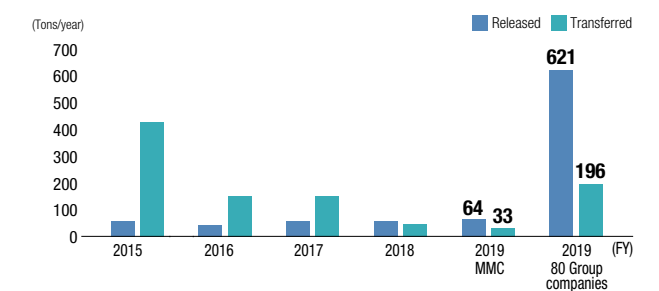
MMC group companies have developed various recycling businesses as a licensed waste treatment business. Fully aware that any violation of the waste control laws and related legislations could cause serious problems for the local residents or lead to revocation of our waste treatment business license, we position proper waste management as a vital factor for our business continuity and provide education and promote awareness among our employees accordingly.

### Actions to Reduce Environmental Impact of Manufacturing Processes

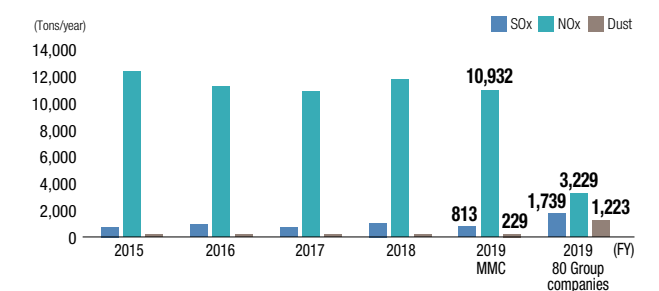
As a materials manufacturer, the Mitsubishi Materials Group conducts a wide range of businesses and uses an extensive variety of natural and recycled resources as raw materials. Our various manufacturing facilities conduct environmental risk reduction activities according to the properties of the chemical elements concerned and implement measures to minimize emissions.

Burning fuels in the cement manufacturing, copper smelting and refining and other industries releases pollutants such as dust, sulfur oxides (SOx) and nitrogen oxides (NOx) into the atmosphere. The facilities concerned ensure proper maintenance and stable operation of their electric dust collection equipment and other emissions treatment facilities to minimize emissions. When discharging wastewater into public waters and elsewhere, moreover, we take every appropriate measure to prevent water pollution, such as by installing high-capacity effluent treatment systems and imposing management targets that are even stricter than the official wastewater standards. We endeavor throughout the Group to minimize the volume of waste generated and to recycle resources from waste. These efforts include continuous monitoring at the Group level of the environmental data required to grasp the environmental burden.

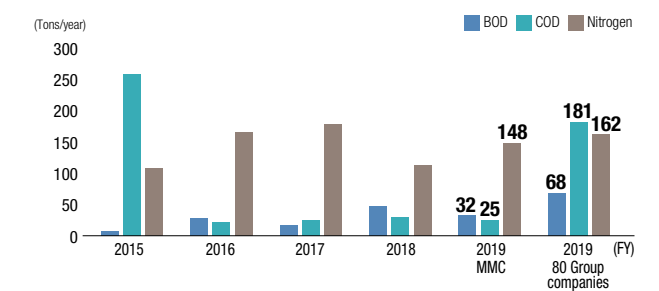
### Chemicals Released or Transferred



### Emissions into the Air



### Emissions into Bodies of Water



# Environmental Management

## Initiatives for Climate Change

### Policy and Framework

Global warming caused by the emission of man-made Green House Gas has reached a stage at which it is undeniable. The increase in frequency and rising scale of disastrous extreme weather events (superstorms, floods, droughts, etc.) has engendered a growing sense of concern with respect to global economic risk.

We have set clear targets based on our environmental policy for each of our plants for the purpose of achieving a steady reduction of CO<sub>2</sub> emissions while actively developing and supplying products and services that will contribute to realization of a low-carbon society.

Our cement business not only produce CO<sub>2</sub> through their use of energy sources, but they also produce CO<sub>2</sub> emissions through the thermal decomposition of limestone, the main raw material in cement production. Any tightening of regulations on greenhouse gas emissions (including emissions trading schemes) could therefore pose a considerable financial risk to the Group. At the same time, however, demand for technologies and products that contribute to saving energy and reducing CO<sub>2</sub> emissions is expected to grow, creating more future business opportunities as a result. We are also proactively developing damage prevention measures with respect to heavy rainfall and storm surges associated with extreme weather.

In future, countries will undertake efforts to sharply lower GHG to achieve long-term goals set by the Paris Agreement. Mitsubishi Materials formed the Sustainable Development Dept. in the Corporate Strategy Dept. in April 2019 to plan and implement company-wide strategic management linked to strategic efforts regarding risk and opportunities related to global warming. The Sustainable Development Dept. will plan policies for response to the challenge of climate change and the Global Environment and Energy Committee consisting of members of the Executive Officers' Meeting including the Chief Executive Officer (Chairman is the responsible Director and Managing Executive Officer) will lead the efforts from a comprehensive and medium- and long-term perspective.

### Comprehensive Initiatives for Global Warming Prevention

The Group's efforts to realize a sustainable society include establishing global warming prevention targets to be met by 2020 and acting on our total commitment to achieving higher energy efficiency through such means as actively pursuing energy saving at our facilities. We are monitoring progress toward achieving our targets at 13 facilities (with five plants counted as one in the cement business). Our performance in fiscal 2019 registered 100% or higher achievement of our targets at 3 facilities but not achieved at the remaining sites.

In addition to pursuing CO<sub>2</sub> reduction initiatives, we are working to achieve clearly defined targets, such as effective use of recycled resources, aimed at contributing to a recycling-oriented society. (See the CSR Data Book for details.)

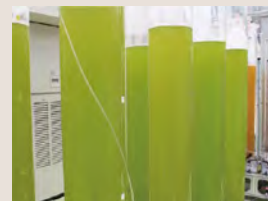
## TOPICS

### Towards Commercialization of Bioplastic Materials Derived from CO<sub>2</sub> -sequestering Algae

This R&D has been adopted by the Ministry of the Environment as a "Development and Demonstration Project for Reduction of CO<sub>2</sub> Emission" performed by University of Tsukuba as a representative organization. We aim to realize to put "highly functional algae-derived plastic" into practice.

If it is possible for bioplastics using CO<sub>2</sub> to be established as a practical material by combining an algae culturing process that efficiently absorbs CO<sub>2</sub> from a cement manufacturing process with a highly functional bioplastic manufacturing process, it will be possible to produce a substitute for petroleum based synthetic plastics and contribute to a low-carbon, recycling society.

Since FY2018, we have, in collaboration with University of Tsukuba, Sobio Technologies Inc. and NEC Corporation, conducted joint development for practical application of this technology.



Algae culture (photosynthesis) using sunlight and CO<sub>2</sub> released from a cement factory



Prototype algae bioplastic

(Courtesy of University of Tsukuba)

### Carbon Dioxide Capture and Storage

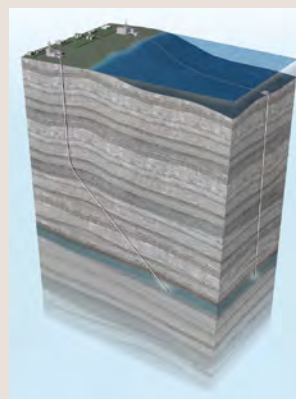
Another focus of our Group is on CO<sub>2</sub> capture and storage (CCS) technologies employed to isolate and recover CO<sub>2</sub> from production activities and store it underground, rather than releasing it into the atmosphere. This is an area in which we can leverage assets nurtured since our founding in the form of superior technological and human resources for assessing underground structures.

As investors in Japan CCS Co., Ltd., an enterprise founded in May of 2008 under the auspices of the Ministry of Economy, Trade and Industry, we are participating in large-scale CCS demonstration testing in Tomakomai, Hokkaido and investigations of potential CO<sub>2</sub> storage sites in various regions in Japan.

We are also contributing to assessment and study of CO<sub>2</sub> storage for a Ministry of the Environment field test of environmentally friendly CCS initiated since fiscal 2017.



CO<sub>2</sub> capture plant



Outline of CCS

(Courtesy of Japan CCS Co., Ltd.)

## Abandoned mine

### Managing of abandoned mine

We are a company with its origins in the mining industry. The Mitsubishi Materials Group owns a wide range of mines around Japan, including limestone, coal and non-ferrous metal mines, such as copper, lead and zinc mines. Operations at all of our non-ferrous metal mines have now been suspended or discontinued. The following controls and management programs are currently in place at 21 abandoned mines in 14 locations.

- Management of tailings dam (sites used to store waste-rocks from mining of ore minerals, slag and recipitation sediment generated by from mine drainage treatment).
- Maintenance of old mine workings (mining levels, drifts and drainage tunnels); implementation of safety measures at disused adit mouths and subsidence sites.
- Treatment of acid mine drainage containing heavy metals from the above sites.

We continue to preserve and maintain sections of mining levels in some abandoned mines as cultural heritage sites or tourist facilities to exhibit their former conditions and preserve historical mining technologies for future generations.



Pit waste water treatment plant at the Minami-furutobe Mine Completed in FY2019

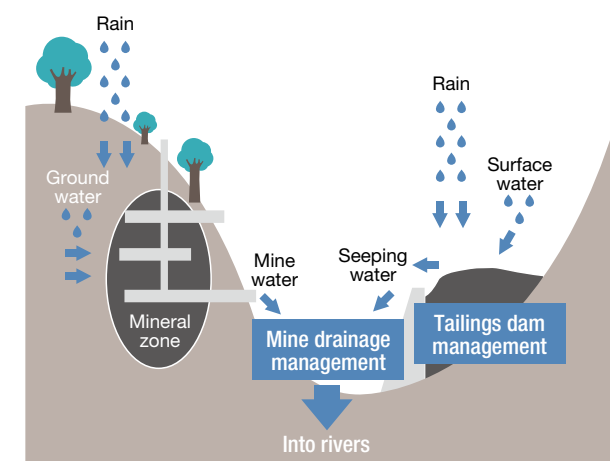
### Facility Upgrading and Environmental Countermeasures for Abandoned Mines

Since 2015, our Group has been implementing responses to deteriorating natural disasters and other risks by conducting protective construction to guard against contamination and other threats, reinforcing tailing dams to prevent uncontrolled release of slag and sediment in the event of major earthquakes, reducing



Reinforcement work by soil stabilization at the Yatani Mine Tailings Dam

### Overview of Wastewater Treatment in Abandoned Mines



wastewater at the source and upgrading aging facilities and by fiscal 2019, we had completed appropriating an environmental countermeasure reserve for work expenses.



Contamination containment work by slope seeding called Chip-creteat the Komagi Mine

### Human Resource Cultivation

Technicians with non-ferrous metal technology are retiring and aging, resulting in a steady decline in personnel. In order to continue to sustainably manage of abandoned mines, we are aggressively training young workers with little mining experience, and setting up a variety of educational programs for managers and workers of abandoned mines and working to pass on and teach technology with the guidance of experienced technicians.

### Joint industry-academic activities

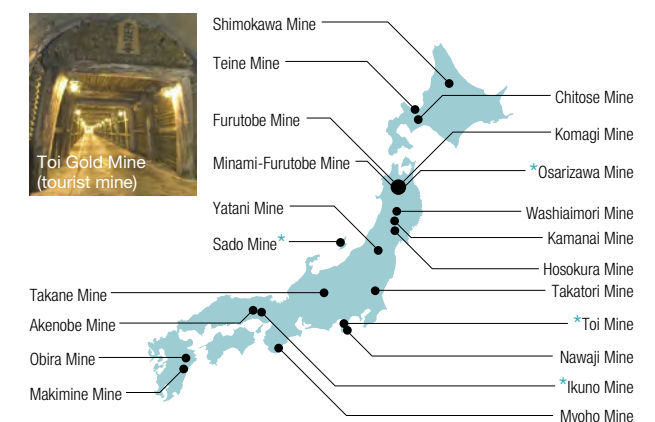
Beginning in fiscal 2018, we have been introducing an endowed course named "Laboratory of Resources Environment and Remediation" at Hokkaido University, to give lectures to students and conduct research activities of various kinds related to the conservation of mine environments.

Also, as development and study of new environmental conservation technologies conducted with the cooperation and guidance of experts from other universities etc., we are developing unpowered mine waste water treatment technologies by taking advantage of the natural purification action of microorganisms, developing abandoned mine site reforestation technologies, and studying methods of evaluating the impact of mine waste water on the surrounding environment.



Endowed course at Hokkaido University

### Abandoned Mitsubishi Materials (Non-ferrous) Mines



\*Sites operated as tourist mines  
(Osarizawa Mine, Sado Gold Mine, Toi Gold Mine, Ikuno Silver Mine)



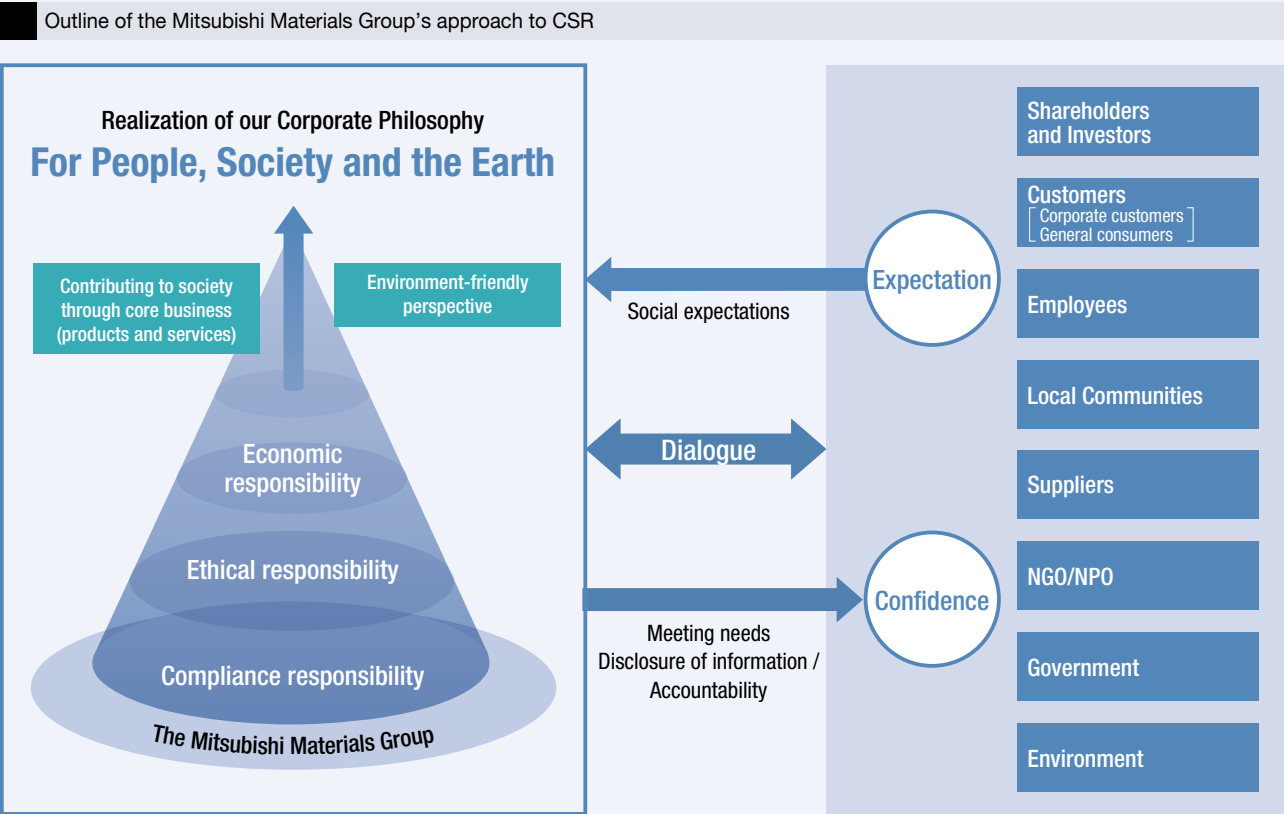
Basic Approach to CSR and Material Issues

Promoting a form of CSR focused on incorporating social expectations into management practices  
Identifying seven CSR material issues and using them to develop initiatives with clearer points of focus

Incorporating Social Expectations into Management Practices

In order to put the group’s corporate philosophy into practice, we define corporate social responsibility (CSR) as faithfully carrying out the role required and expected of us as a company, disclosing and sharing details of our activities, both inside and outside the company, and deepening mutual understanding through dialog.

To put it another way, promoting CSR means incorporating society’s needs into our management activities. Our CSR activities reflects the principles set out by the International Council on Mining & Metals (ICMM), of which we are a member, and the modern-day requirements of the international community.



**CSR Definition**

The Mitsubishi Materials Group is an ensemble of companies operating under the composite profile of a comprehensive basic materials maker. As a group, we provide resources, basic materials and energy indispensable to modern lifestyles, and in these efforts, we adhere to a corporate philosophy that emphasizes efforts that contribute to people, society and the Earth.

CSR for the Group thus hinges on making this philosophy a reality, through the sincere fulfillment of the obligations and expected role that society places on a corporate citizen, disclosure of the approaches taken—with proper explanation—and the constant pursuit of two-way communication with stakeholders to promote greater mutual understanding.

These actions will underpin a position of trust in society.

**CSR Direction**

**1. Respecting relationships with people: Reinforcing ties to stakeholders**  
Through mutual communications, plants and companies under the Group umbrella will go to great lengths to maintain favorable perceptions of the Group—as held by shareholders, customers, suppliers, employees and other stakeholders—deepen their understanding of stakeholder points of view, and work hard to ensure a high level of stakeholder satisfaction.

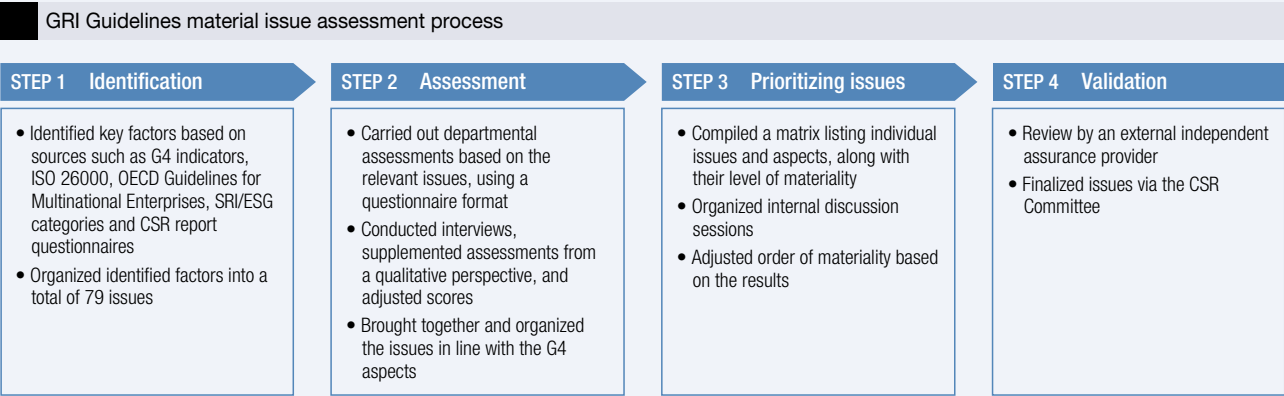
**2. Respecting promises made to society: Ensuring thorough compliance and risk management practices**  
We will systematically reinforce levels of compliance and risk management to ensure legal compliance—a vital prerequisite for expanding corporate activities—and to prevent business-related problems from arising.

**3. Respecting the Earth: Reducing environmental impact**  
In our activities, which serve to reduce environmental impact, we will direct efforts toward such measures as saving energy and resources, cutting waste and limiting the use of hazardous substances.

Identifying CSR Material Issues

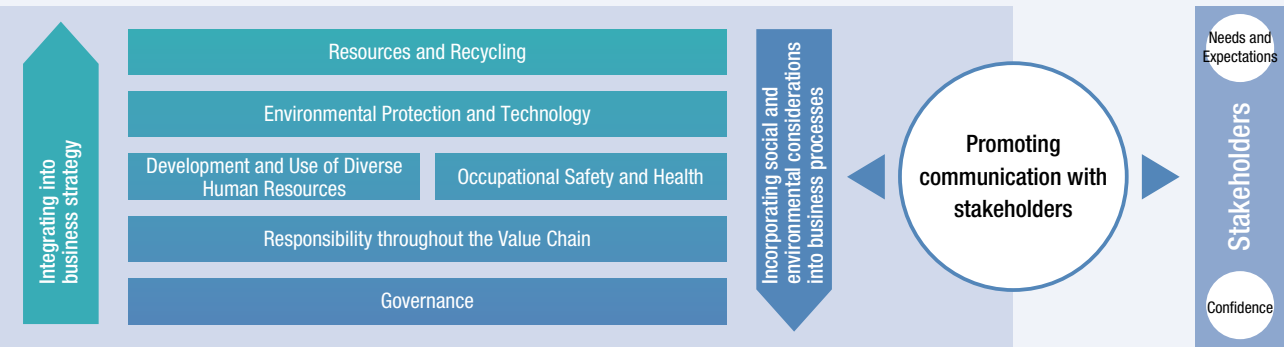
We identify high-priority issues for management while recognizing that the sustainability of society as a whole will always have a significant impact on our corporate activities in the future.

In identifying CSR material issues, we extract and assess the priority of social demands from a broad range of information sources, including ESG questionnaire surveys, while conforming to international guidelines for sustainability reporting. The CSR material issues identified are reflected in turn in our business activities, with the details of these initiatives and their results disclosed in the CSR DATA BOOK.



Mitsubishi Materials’ Seven CSR Material Issues

CSR Material Issues	Material issue themes
Resources and Recycling	<ul style="list-style-type: none"><li>Maintaining stable supplies of materials and products</li><li>Pursuing a recycling-oriented business model</li></ul>
Environmental Protection and Technology	<ul style="list-style-type: none"><li>Preventing global warming</li><li>Preserving biodiversity</li><li>Preventing environmental pollution</li><li>Developing environmental technologies and products</li></ul>
Development and Use of Diverse Human Resources	<ul style="list-style-type: none"><li>Human resource development</li><li>Diversity (Empowerment of women)</li></ul>
Occupational Safety and Health	<ul style="list-style-type: none"><li>Preventing occupational accidents</li><li>Creating mentally and physically pleasant workplaces</li></ul>
Responsibility throughout the Value Chain	<ul style="list-style-type: none"><li>Respect for human rights in procurement</li><li>Product liability</li></ul>
Stakeholder Communication	<ul style="list-style-type: none"><li>Building and strengthening relationships with stakeholders</li><li>Improving customer satisfaction</li><li>Engaging in dialogue and coexisting with local communities</li></ul>
Governance	<ul style="list-style-type: none"><li>Reinforcing compliance</li></ul>



\*Please see the CSR DATA BOOK for further details. <https://www.mmc.co.jp/corporate/en/csr/report/>

Ten-Year Summary

Mitsubishi Materials Corporation and Consolidated Subsidiaries Years ended March 31

	Unit : Millions of yen										Unit : Thousands of U.S. dollars
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2019*5
<b>For the Year</b>											
Net sales	1,119,448	1,333,992	1,440,847	1,287,251	1,414,796	1,517,265	1,417,895	1,304,068	1,599,533	1,662,990	\$ 14,983,247
Cost of sales	982,082	1,141,094	1,249,744	1,094,588	1,220,333	1,313,259	1,204,322	1,104,402	1,379,877	1,469,911	13,243,643
Operating profit	12,680	57,290	52,293	52,500	66,281	71,871	70,420	59,761	72,819	36,861	323,115
Ordinary income (loss)	(9,541)	56,425	42,495	74,414	76,902	81,093	72,422	63,925	79,621	50,679	456,616
Net income (loss) attributable to owners of parent	(66,555)	14,274	9,565	36,948	52,551	56,147	61,316	28,352	34,595	1,298	11,702
Capital expenditures	66,679	43,213	52,141	52,957	65,944	57,636	78,103	75,685	76,231	103,418	931,780
Depreciation and amortization	69,840	66,365	62,514	60,370	60,498	56,746	60,842	60,796	61,420	64,519	581,307
R&D expenses	10,897	11,243	11,743	11,401	10,986	10,530	11,225	11,344	11,614	10,912	98,322
<b>At Year-End</b>											
Total assets*4	1,826,420	1,837,405	1,751,870	1,811,767	1,778,505	1,898,157	1,793,375	1,896,939	2,011,067	1,938,270	17,463,467
Total long-term liabilities*4	662,430	572,321	565,542	549,198	514,279	490,825	452,038	480,079	465,570	486,921	4,387,076
Total net assets	399,095	402,868	409,074	466,231	525,707	629,514	645,017	710,195	768,495	723,337	6,517,137
Number of shares of common stock (thousands)	1,314,895	1,314,895	1,314,895	1,314,895	1,314,895	1,314,895	1,314,895	131,489	131,489	131,489	
Number of employees (consolidated)	21,641	21,762	22,015	22,181	23,112	23,413	24,636	24,859	26,959	28,426	
											Unit : Thousands of U.S. dollars
<b>Per Share Amounts*1</b>											
Basic net income	¥ (52.34)	¥ 10.88	¥ 7.29	¥ 28.19	¥ 40.10	¥ 42.85	¥ 46.80	¥ 216.44	¥ 264.15	¥ 9.92	\$ 0.09
Diluted net income	—	—	—	—	—	—	—	—	—	—	—
Net assets	259.93	262.38	267.62	309.17	348.54	420.36	423.83	4,743.27	5,211.20	4,838.31	43.59
Cash dividends applicable to the year	—	2.00	2.00	4.00	6.00	8.00	10.00	60.00	80.00	80.00	0.72
<b>Financial Ratios (%)</b>											
Operating margin	1.1%	4.3%	3.6%	4.1%	4.7%	4.7%	5.0%	4.6%	4.6%	2.2%	
Return on asset (ROA)*2*4	(0.5%)	3.1%	2.4%	4.2%	4.3%	4.4%	3.9%	3.5%	4.1%	2.6%	
Return on equity (ROE)*3	(18.9%)	4.2%	2.8%	9.8%	12.2%	11.1%	11.1%	4.8%	5.3%	0.2%	
Shareholders' equity ratio*4	18.7%	18.7%	20.0%	22.4%	25.7%	29.0%	31.0%	32.8%	33.9%	32.7%	

Notes: 1. The Company consolidated its shares at a rate of one share for every 10 shares of its common stock, with October 1, 2016 as the effective date. Accordingly, "Per Share Amounts" is calculated on the assumption that the consolidation of its shares was conducted at the beginning of FY2017.  
2. Return on assets (ROA)  
ROA = Ordinary income / [(Total asset at the beginning of terms + total asset at the end of terms) / 2] x 100  
3. Return on equity (ROE)  
ROE = Net income attributable to owners of parent / {[(Total net assets at the beginning of terms - non-controlling interests at the beginning of terms - other deductions at the beginning of terms) + (Total net assets at the end of terms - non-controlling interests at the end of terms - other deductions at the end of terms)] / 2} x 100

4. Total assets, Total long-term liabilities, Return on asset (ROA), Shareholders' equity ratio  
The Company has been applying "Partial Amendments to Accounting Standard for Tax Effect Accounting" (ASBJ Statement No. 28 on February 16, 2018) from the beginning of FY2019. Individual figures related to FY2018 have had the accounting standards applied retroactively.  
5. The translations of the Japanese yen amounts into U.S. dollars are included solely for the convenience of readers outside Japan, using the prevailing exchange rate at March 31, 2019, which was ¥110.99 to U.S.\$1.

Medium-Term Management Plan  
“We can do 600”  
2006-2007

Medium-Term Management Plan  
“Break-through 1000  
-Aiming to become a Company  
with ¥100 billion Ordinary Income”  
2008-2010

Medium-Term Management Plan  
“Materials Premium 2013  
Aiming for New Creation”  
2012-2014

Medium-Term Management Plan  
“Materials Premium 2016  
-Challenge to become the world's  
leading business group-”  
2015-2017

Medium-Term Management Strategy  
“Transformation for Growth”  
2018-2020

**Key Strategies**

1 Improve stability

2 Growth area initiatives

3 Strengthening cost-competitiveness

4 Reforming corporate culture

**Achievement Contents**

- Ordinary income: ¥60.0 billion
- ROA (Ordinary income / Total assets): Over 4%
- Interest-bearing debt ¥700.0 billion

**Key Strategies**

1 Expansion and reinforcement of four core businesses as the basis of integrated management

2 Initiatives for our growth strategies for “Advancement and Change”

3 Emphasize the intellectual capital underlying our growth

4 Enhancing financial position

**Achievement Contents**

- FY2008 Ordinary income: Over ¥100.0 billion
- FY2008 ROA (Ordinary income / Total assets): Over 5%

**Key Strategies**

1 Develop overseas markets, especially emerging markets

2 Realize “Materials Premium”

**Achievement Content**

- Net D/E ratio: Under 1.5 times

**Key Strategies**

1 Fortifying the foundation for growth

2 Strengthening global competitiveness

3 Pursuing a recycling-based business model

**Achievement Content**

- Net D/E ratio: Under 1.0 times

**Key Strategies**

1 Achieve growth through innovation

2 Create value by building a recycling-oriented society

3 Increase the company's market presence through investment for growth

4 Increase efficiency through continuous improvement

86 MITSUBISHI MATERIALS CORPORATION INTEGRATED REPORT 2019

MITSUBISHI MATERIALS CORPORATION INTEGRATED REPORT 2019 87



## Consolidated Balance Sheets

Mitsubishi Materials Corporation and Consolidated Subsidiaries  
March 31, 2019 and 2018

Unit : Millions of yen

ASSETS	2018	2019
<b>Current assets:</b>		
Cash and time deposits	93,389	<b>108,648</b>
Notes and accounts receivable:		
Trade	249,380	<b>237,654</b>
Unconsolidated subsidiaries and affiliates	19,600	<b>19,730</b>
Other	7,764	<b>12,077</b>
Inventories	366,092	<b>335,571</b>
Leased gold bullion	88,862	<b>99,154</b>
Other current assets	122,506	<b>99,711</b>
Allowance for doubtful accounts	(2,518)	<b>(2,900)</b>
Total current assets	945,077	<b>909,647</b>
<b>Property, plant and equipment:</b>		
Land	251,926	<b>252,606</b>
Buildings and structures	459,134	<b>473,358</b>
Machinery and equipment	1,226,374	<b>1,274,543</b>
Construction in progress	23,105	<b>34,211</b>
Less accumulated depreciation	(1,314,981)	<b>(1,347,305)</b>
Net property, plant and equipment	645,559	<b>687,415</b>
<b>Investments and long-term receivables:</b>		
Investments in securities	248,722	<b>183,455</b>
Net asset for retirement benefits	449	<b>1,050</b>
Unconsolidated subsidiaries and affiliates	72,396	<b>58,484</b>
Long-term receivables	59	<b>52</b>
Other	14,138	<b>22,502</b>
Allowance for doubtful accounts	(4,297)	<b>(4,088)</b>
Total investments and long-term receivables	331,469	<b>261,457</b>
<b>Other assets:</b>		
Deferred tax assets	22,965	<b>19,610</b>
Goodwill	44,636	<b>40,816</b>
Other	21,358	<b>19,323</b>
Total other assets	88,960	<b>79,750</b>
<b>Total assets</b>	2,011,067	<b>1,938,270</b>

Unit : Millions of yen

LIABILITIES	2018	2019
<b>Current liabilities:</b>		
Short-term bank loans	154,413	<b>137,689</b>
Current portion of long-term debt	76,728	<b>42,410</b>
Commercial papers	—	<b>5,000</b>
Notes and accounts payable:		
Trade	153,415	<b>141,109</b>
Unconsolidated subsidiaries and affiliates	4,129	<b>4,852</b>
Other	24,753	<b>24,138</b>
Income taxes payable	9,151	<b>7,869</b>
Accrued expenses	55,218	<b>53,225</b>
Provision for bonuses	13,228	<b>12,872</b>
Deposited gold bullion	246,227	<b>253,918</b>
Reserve for loss on disposal of inventories	783	<b>624</b>
Reserve for product compensation	—	<b>1,435</b>
Other current liabilities	38,949	<b>42,864</b>
Total current liabilities	777,001	<b>728,011</b>
<b>Long-term liabilities</b>		
Long-term debt	290,292	<b>309,667</b>
Accrual for officers' lump-sum severance benefits	1,384	<b>1,623</b>
Reserve for loss on unconsolidated subsidiaries and affiliates	986	<b>805</b>
Reserve for product compensation	—	<b>1,040</b>
Reserve for environmental measures	37,833	<b>40,427</b>
Net defined benefit liability	51,647	<b>50,003</b>
Deferred tax liabilities	36,102	<b>25,616</b>
Deferred tax liabilities for land revaluation	24,162	<b>24,097</b>
Other	23,162	<b>33,639</b>
Total long-term liabilities	465,570	<b>486,921</b>
<b>NET ASSETS</b>		
Shareholders' equity		
Common stock		
Authorized 340,000,000 shares		
Issued 131,489,535 shares	119,457	<b>119,457</b>
Capital surplus	92,422	<b>92,393</b>
Retained earnings	361,430	<b>352,932</b>
Treasury stock, at cost	(2,089)	<b>(2,123)</b>
Total shareholders' equity	571,222	<b>562,659</b>
Accumulated other comprehensive income		
Valuation difference on available-for-sale securities	95,487	<b>51,220</b>
Deferred gains or losses on hedges	1,068	<b>124</b>
Revaluation reserve for land	33,071	<b>33,023</b>
Foreign currency translation adjustments	(10,312)	<b>(5,828)</b>
Accumulated adjustments for retirement benefits	(8,066)	<b>(7,617)</b>
Total accumulated other comprehensive income	111,249	<b>70,922</b>
Non-controlling interests	86,023	<b>89,754</b>
Total net assets	768,495	<b>723,337</b>
<b>Total liabilities and net assets</b>	2,011,067	<b>1,938,270</b>

## Consolidated Statements of Income

Mitsubishi Materials Corporation and Consolidated Subsidiaries  
Years ended March 31, 2019 and 2018

Unit : Millions of yen

	2018	2019
<b>Net sales</b>	1,599,533	<b>1,662,990</b>
Cost of sales	1,379,877	<b>1,469,911</b>
Gross profit	219,655	<b>193,078</b>
Selling, general and administrative expenses	146,835	<b>156,217</b>
Operating profit	72,819	<b>36,861</b>
<b>Other income (expenses):</b>		
Interest and dividend income	20,260	<b>20,831</b>
Interest expenses	(5,058)	<b>(4,855)</b>
Income from leased property	4,866	<b>5,123</b>
Expense for leased property	(2,867)	<b>(3,043)</b>
Expense for the maintenance and management of abandoned mines	(4,098)	<b>(3,382)</b>
Loss on valuation of investment securities	(400)	<b>(3,376)</b>
Gain on net sales of investments in securities	5,667	<b>1,596</b>
Gain on sales of property, plant and equipment	6,760	<b>5,021</b>
Loss on disposal and sales of property, plant and equipment	(4,958)	<b>(2,684)</b>
Loss on impairment of fixed assets	(11,035)	<b>(8,440)</b>
Reserve for environmental measures	(9,092)	<b>(6,630)</b>
Foreign exchange losses, net	(1,805)	<b>(959)</b>
Loss on non-conforming products	(3,202)	<b>—</b>
Reserve for product compensasion	—	<b>(2,529)</b>
Equity in losses (earnings) of affiliates	(1,336)	<b>3,594</b>
Other, net	1,259	<b>(779)</b>
Total other income (expenses)	(5,042)	<b>(516)</b>
Income before income taxes	67,777	<b>36,345</b>
Income Taxes	23,639	<b>28,738</b>
Net income	44,137	<b>7,606</b>
Net income attributable to:		
Non-controlling interests	9,542	<b>6,307</b>
Owners of parent	34,595	<b>1,298</b>

## Consolidated Statements of Cash Flows

Mitsubishi Materials Corporation and Consolidated Subsidiaries  
Years ended March 31, 2019 and 2018

Unit : Millions of yen

	2018	2019
<b>Cash flows from operating activities</b>	50,715	<b>140,168</b>
<b>Cash flows from investing activities</b>	(83,957)	<b>(86,238)</b>
<b>Cash flows from financing activities</b>	(11,034)	<b>(47,613)</b>
Effect of exchange rate fluctuation on cash and cash equivalents	(2,927)	<b>1,375</b>
<b>Net decrease (increase) in cash and cash equivalents</b>	(47,204)	<b>7,691</b>
Cash and cash equivalents at beginning of year	132,616	<b>87,355</b>
Effect of changes in consolidated subsidiaries	714	<b>4,624</b>
<b>Increase (decrease) in cash and cash equivalents resulting from change of accounting period of consolidated subsidiaries</b>	1,228	<b>—</b>
<b>Cash and cash equivalents at end of year</b>	87,355	<b>99,672</b>

## Consolidated Statements of Changes in Net Assets

Mitsubishi Materials Corporation and Consolidated Subsidiaries  
Years ended March 31, 2019 and 2018

Unit : Millions of yen

	Years ended March 31, 2019 and 2018				
	Shareholders' equity				
	Common stock	Capital surplus	Retained earnings	Treasury stock, at cost	Total shareholders' equity
Balance at March 31, 2018	119,457	92,422	361,430	(2,089)	571,222
Dividends			(11,786)		(11,786)
Net income attributable to owners of parent			1,298		1,298
Increase due to reversal of revaluation reserve for land			48		48
Increase resulting from increase in the number of consolidated subsidiaries			1,940		1,940
Increase due to decrease in affiliates			0		0
Acquisition of treasury stock				(36)	(36)
Sales of treasury stock		(0)		1	1
Change in treasury shares of parent arising from transactions with non-controlling shareholders		(28)			(28)
Net change other than shareholders' equity					
Balance at March 31, 2019	119,457	92,393	352,932	(2,123)	562,659

	Accumulated other comprehensive income						Non-controlling interests	Total net assets
	Valuation difference on available-for-sale securities	Deferred gains or losses on hedges	Revaluation reserve for land	Foreign currency translation adjustments	Accumulated adjustments for retirement benefits	Total accumulated other comprehensive income		
Balance at March 31, 2018	95,487	1,068	33,071	(10,312)	(8,066)	111,249	86,023	768,495
Dividends								(11,786)
Net income attributable to owners of parent								1,298
Increase due to reversal of revaluation reserve for land								48
Increase resulting from increase in the number of consolidated subsidiaries								1,940
Increase due to decrease in affiliates								0
Acquisition of treasury stock								(36)
Sales of treasury stock								1
Change in treasury shares of parent arising from transactions with non-controlling shareholders								(28)
Net change other than shareholders' equity	(44,267)	(944)	(48)	4,484	448	(40,326)	3,730	(36,595)
Balance at March 31, 2019	51,220	124	33,023	(5,828)	(7,617)	70,922	89,754	723,337



Profile

(As of March 31, 2019) \*June 21, 2019

**Company Name :** Mitsubishi Materials Corporation  
Marunouchi Nijubashi Building 22F  
3-2-3, Marunouchi, Chiyoda-ku, Tokyo 100-8117 Japan

**Date Established :** April 1, 1950

**Representative\* :** Naoki Ono, Chief Executive Officer

**Stock Listing :** Tokyo Stock Exchange, Inc.

**Paid-in Capital :** ¥119,457 million

**Total Assets :** ¥1,938,270 million

**Number of Employees :** 4,807 (consolidated : 28,426)

**Number of affiliates :** 152

**Equity method affiliated companies :** 16

**Membership :**

KEIDANREN (Japan Business Federation), KEIZAI DOYUKAI (Japan Association of Corporate Executives),  
Japan Cement Association, Japan Mining Industry Association, ICMM (International Council on Mining & Metals), etc.

Domestic Network

■ Main Mitsubishi Materials premises ● Main Group companies

Kanto Region

- Head Office (Tokyo)
- Ceramics Plant (Saitama Prefecture) 

Advanced Products
- Yokoze Plant (Saitama Prefecture) 

Cement
- Energy Project & Technology Center (Saitama Prefecture) 

Environment & Energy
- Saitama Property Management Office (Saitama Prefecture) 

Corporate
- Production Engineering Center (Saitama Prefecture) 

Corporate
- Tsukuba Plant (Ibaraki Prefecture) 

Metalworking Solutions
- Central Research Institute (Ibaraki Prefecture) 

Corporate
- Mitsubishi Shindoh Co., Ltd. (Tokyo) 

Advanced Products
- Mitsubishi Cable Industries, Ltd. (Tokyo) 

Advanced Products
- Mitsubishi Aluminum Co., Ltd. (Tokyo) 

Advanced Products
- Universal Can Corporation (Tokyo) 

Advanced Products
- Mitsubishi Hitachi Tool Engineering, Ltd. (Tokyo) 

Metalworking Solutions
- Onahama Smelting and Refining Co., Ltd. (Tokyo) 

Metals
- Ryoko Lime Industry Co., Ltd. (Tokyo) 

Cement
- Mitsubishi Materials Trading Corporation (Tokyo) 

Affiliated
- Mitsubishi Materials Techno Corporation (Tokyo) 

Affiliated
- Materials' Finance Co., Ltd. (Tokyo) 

Corporate

Hokkaido

- Sapporo Branch (Hokkaido)

Tohoku Region

- Aomori Plant (Aomori Prefecture) 

Cement
- Akita Refinery (Akita Prefecture) 

Metals
- Iwate Plant (Iwate Prefecture) 

Cement
- Tohoku Branch (Miyagi Prefecture)
- Mitsubishi Materials Electronic Chemicals Co., Ltd. (Akita Prefecture) 

Advanced Products
- Hosokura Metal Mining Co., Ltd. (Miyagi Prefecture) 

Metals

Chubu/Hokuriku Region

- Nagoya Branch (Aichi Prefecture)
- Gifu Plant (Gifu Prefecture) 

Metalworking Solutions
- Yokkaichi Plant (Mie Prefecture) 

Advanced Products
- Diamet Corporation (Niigata Prefecture) 

Metalworking Solutions

Kinki/Chugoku Region

- Osaka Regional Head Office (Osaka Prefecture)
- Sakai Plant (Osaka Prefecture) 

Advanced Products
- Sanda Plant (Hyogo Prefecture) 

Advanced Products
- Akashi Plant (Hyogo Prefecture) 

Metalworking Solutions
- Ikuno Plant (Hyogo Prefecture) 

Metals
- Tachibana Metal Mfg Co., Ltd. (Osaka Prefecture) 

Advanced Products
- Japan New Metals Co., Ltd. (Osaka Prefecture) 

Metalworking Solutions

Shikoku Region

- Naoshima Smelter & Refinery (Kagawa Prefecture) 

Metals

Kyushu Region

- Kyushu Branch (Fukuoka Prefecture)
- Higashitani Mine (Fukuoka Prefecture) 

Cement
- Kyushu Plant (Fukuoka Prefecture) 

Cement

Investor Information

(As of March 31, 2019)

Articles Concerning Stock

**Total number of authorized shares :** 340,000,000

**Total number of issued shares :** 131,489,535

**Number of shareholders :** 95,347

Major Shareholders (Top 10 shareholders)

Name of Shareholders	Number of Shares Held (Thousand)	Percentage of Shareholding (%)*
Japan Trustee Services Bank, Ltd. (Trust account)	8,912	6.8
The Master Trust Bank of Japan, Ltd. (Trust account)	8,328	6.4
NORTHERN TRUST CO.(AVFC) RE SILCHESTER INTERNATIONAL INVESTORS INTERNATIONAL VALUE EQUITY TRUST	5,230	4.0
Meiji Yasuda Life Insurance Company	3,101	2.4
NORTHERN TRUST CO.(AVFC) RE U.S.TAX EXEMPTED PENSION FUNDS	2,857	2.2
Japan Trustee Services Bank, Ltd. (Trust account 5)	2,562	2.0
MUFG Bank, Ltd.	2,095	1.6
JP MORGAN CHASE BANK 385151	1,937	1.5
NORTHERN TRUST CO.(AVFC) SUB A/C NON TREATY	1,921	1.5
Mitsubishi Heavy Industries, Ltd.	1,900	1.5

Note: Percentages of shareholding were calculated after deducting treasury shares (536,170 shares)

