
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 challenges 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.

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Chief Executive Officer
Naoki Ono
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Adoption of the stocks that make up stock indexes for ESG investment (As of July 2019)

MSCI
- MSCI Japan ESG Select Leaders Index
- MSCI Japan ESG: Japan ESG Investing Women Index

Based in Luxembourg and Milan, ECP provides investment and sustainability advisory services. ECP maintains indexes for individual industries, regions, and themes that are comprised of global companies whose ESG activities satisfy certain standards. Mitsubishi Materials Corporation has been selected for the index.
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 major 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
- **SQDIE**: The order of priority in our business decisions, and a guideline that supplements our Code of Conduct

**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.

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**Related article**
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.
**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**

<table>
<thead>
<tr>
<th>Medium-term Management Strategy / Key Strategies</th>
<th>Group-wide Policy</th>
<th>Medium- to Long-term Goals (the Company in the future)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Achieve growth through innovation</td>
<td>Optimization of business portfolio</td>
<td>• Leading company in domestic and overseas key markets</td>
</tr>
<tr>
<td>Create value by building a recycling-oriented society</td>
<td>Comprehensive efforts to increase business competitiveness</td>
<td>• Achieving high profitability and efficiency</td>
</tr>
<tr>
<td>Increase the company’s market presence through investment for growth</td>
<td>Increase efficiency through continuous improvement</td>
<td>• Achieving growth that exceeds the market growth rate</td>
</tr>
<tr>
<td>Creation of new products and businesses</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**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.
**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 injustices, 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**
  - **Energy Efficiency**
    - Energy Efficiency at Major Production Plants in Each of Our Businesses
    - Temporary Surge in Momentum, but Rather to Extend Their Pursuit of Energy Efficiency
  - Female Employees to Maximize Their Potential
  - Efforts to Increase the Availability of Renewable Energy and Improve Energy Efficiency
  - Expanding Opportunities for Female Employees to Maximize their Potential

- **Contributing to a Recycling- oriented Society from a Global Perspective**
  - 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.

- **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, in turn, are a special priority in developing environmental products and technologies over the medium term.

- **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.
Performance Highlights

Financial Performance (Consolidated)

<table>
<thead>
<tr>
<th>Net sales (Unit : Billions of yen)</th>
<th>Operating profit (Unit : Billions of yen)</th>
<th>Ordinary income (Unit : Billions of yen)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2015: 1,793.3</td>
<td>2015: 1.947</td>
<td>2015: 72.4</td>
</tr>
<tr>
<td>2016: 1,386.8</td>
<td>2016: 1.804</td>
<td>2016: 63.9</td>
</tr>
<tr>
<td>2017: 1,258.7</td>
<td>2017: 1.760</td>
<td>2017: 69.6</td>
</tr>
<tr>
<td>2018: 1,599.5</td>
<td>2018: 1.870</td>
<td>2018: 70.6</td>
</tr>
<tr>
<td>2019: 1,662.9</td>
<td>2019: 1.910</td>
<td>2019: 73.8</td>
</tr>
<tr>
<td>2020: 1,700.0</td>
<td>2020: 1.950</td>
<td>2020: 70.6</td>
</tr>
</tbody>
</table>

- The company consolidated the income and other income of its shares at 1.910 yen / shares at 1.902 yen on March 31, 2018.

- Operating profit = Net sales - Operating costs - Income tax expense

- Ordinary income = Operating profit - Non-operating expenses - Income tax expense

- Net income attributable to owners of parent = Ordinary income - Net interest-bearing debt

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

<table>
<thead>
<tr>
<th>Percentage of recycled raw materials used (Unit : %)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014: 2.60</td>
</tr>
<tr>
<td>2015: 3.30</td>
</tr>
<tr>
<td>2016: 4.30</td>
</tr>
<tr>
<td>2017: 5.30</td>
</tr>
<tr>
<td>2018: 6.00</td>
</tr>
<tr>
<td>2019: 6.90</td>
</tr>
<tr>
<td>2020: 7.60</td>
</tr>
</tbody>
</table>

- The company consolidated the income and other income of its shares at 1.910 yen / shares at 1.902 yen on March 31, 2018.

- Operating profit = Net sales - Operating costs - Income tax expense

- Ordinary income = Operating profit - Non-operating expenses - Income tax expense

- Net income attributable to owners of parent = Ordinary income - Net interest-bearing debt

Sales by areas / Numbers of affiliates / Numbers of employees

<table>
<thead>
<tr>
<th>Region</th>
<th>Number of affiliates</th>
<th>Number of employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Europe</td>
<td>10</td>
<td>1,187</td>
</tr>
<tr>
<td>East Asia</td>
<td>21</td>
<td>2,210</td>
</tr>
<tr>
<td>North America</td>
<td>26</td>
<td>486</td>
</tr>
<tr>
<td>Japan</td>
<td>47</td>
<td>5,008</td>
</tr>
<tr>
<td>Oceania</td>
<td>16</td>
<td>2,101</td>
</tr>
</tbody>
</table>

- The company consolidated the income and other income of its shares at 1.910 yen / shares at 1.902 yen on March 31, 2018.

- Operating profit = Net sales - Operating costs - Income tax expense

- Ordinary income = Operating profit - Non-operating expenses - Income tax expense

- Net income attributable to owners of parent = Ordinary income - Net interest-bearing debt

*The company has been applying “Partial Amendments to Accounting Standard for Tax Effort Accounting” (VGB Statement No. 38) from February 16, 2018 (the beginning of FY2018). Individual figures related to FY2018 have had the accounting standards applied retroactively.

**2020 (estimate) figures are announced on May 13, 2019.
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.
Let’s look at some of the flagship automobile products that the Advanced Products Company came up with.
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 first 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 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 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 of this approach across the entire Group, including overseas sites, starting from top members of management.
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 building a sustainable world where the Group plays a central role in the ever-evolving recycling-oriented society today through 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 technologies and 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 technology development 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 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 CO2 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.
Progress of the Medium-term Management Strategy


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 materials and products relevant to this recovery in demand.

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

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 flushing 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 “ROSCI” approach to further disseminate and establish this mode of thinking.
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

Based on an awareness of a lack of communication, both in terms of quality and quantity, as 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

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 pursing 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

Based on an awareness of a lack of communication, both in terms of quality and quantity, as 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.

In addition to our ongoing efforts to automate inspections, 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.

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 IG 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.
Akira Takeuchi  Chairman

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

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

Hiroshi Watanabe  Outside Director

Hikaru Sugi  Outside Director

Hiroshi Sato  Outside Director

Goverance

Directors and Executive Officers As of June 21, 2019

Akira Takeuchi  Chairman

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

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

Hiroshi Watanabe  Outside Director

Hikaru Sugi  Outside Director

Hiroshi Sato  Outside Director

In its continuous efforts to expand its business globally, Mitsubishi Materials Corporation is determined to further develop its business in the Americas and to contribute to the Group’s business in the Americas. The Company has been expanding its business operations in the Americas to meet the needs of its customers and to continue to strengthen its social corporate activities. In these efforts, the Company believes that Mr. Shibata is suitable for the position of Director.

Hiroshi Kubota  Director

Soichi Fukui  Director

Mariko Tokuno  Outside Director

Naoto Kasai  Outside Director

Tatsuo Wakabayashi  Outside Director

Director:

Mitsubishi Materials Corporation
Osamu Iida  
Executive Vice President; President, Metals Company  
Apr. 2016  Joined the Company  
Oct. 2011  Managing Executive Officer; President, Metals Company  
Jun. 2006  Executive Vice President; President, Metals Company  
Apr. 2006  Executive President and Executive Officer; General Manager, Metals Company  
(To present)

Shinichi Nakamura  
President, Melaminizing Solutions Company  
Apr. 1980  Joined the Company  
Apr. 1990  General Manager, Metalworking Solution Dept.  
Apr. 1987  Managing Officer; Vice President, Melaminizing Solutions Company  
(To present)

Susumu Sasaki  
Managing Executive Officer; General Manager, Human Resources & General Affairs Div.  
Apr. 1983  Joined the Company  
Jan. 2013  Senior Manager; Corporate Strategy Dept.  
Apr. 2016  Operating Officer; General Manager, Human Resources & General Affairs Div.  
Apr. 2013  Operating Officer; General Manager, Human Resources Dept.  
Jan. 2007  Managing Executive Officer; General Manager, Human Resources Dept.  
Jan. 2010  Managing Executive Officer; General Manager, Human Resources & General Affairs Div.  
(To present)

Yasunobu Suzuki  
Senior Managing Executive Officer; President, Advantec Products Company  
Apr. 2015  Joined the Company  
Jun. 2011  Group Executive Officer; President, Metals Company  
Jul. 2010  Corporate Manager; President, Metals Company  
Apr. 2009  Senior Manager; President, Metals Company  
Apr. 2006  Group Executive Officer; Senior Manager, Corporate Strategy Dept.  
Jan. 2016  Director, Senior Managing Executive Officer; General Manager, Human Resources & General Affairs Div.  
Apr. 2014  Group Executive Officer; General Manager, Corporate Strategy Dept.  
Jan. 2012  Group Executive Officer; General Manager, Metals Company  
Aug. 2009  Group Executive Officer; President, Metals Company  
(To present)

Tetsuo Sakai  
Managing Executive Officer; President, Metals Company  
Apr. 2018  Joined the Company  
Nov. 2010  Managing Executive Officer; Corporate Strategy Dept.  
Apr. 2014  Corporate Vice President; General Manager, Corporate Strategy Dept.  
Apr. 2010  Operating Officer; Vice President, Metals Company  
Apr. 2006  Senior Manager; General Manager, Metals Company  
Jan. 2004  Managing Executive Officer; President, General Manager, Metals Company  
(To present)

Kazuhito Kishi  
Senior Managing Executive Officer; President, Covestro Company  
Apr. 2014  Joined Madiplast Manufacturing Co., Ltd.  
Jun. 2011  Group Executive Officer; President, Metals Company  
Jan. 2010  Managing Executive Officer; President, Metals Company  
Apr. 2009  Managing Executive Officer; General Manager, Metals Company  
Jan. 2007  Managing Executive Officer; General Manager, Metals Company  
(To present)

Shogo Yamaguchi  
Executive Manager, Environment & Energy Business Unit  
Apr. 2018  Joined the Company  
Jan. 2014  Managing Executive Officer; Corporate Strategy Dept.  
Apr. 2011  Operating Officer; General Manager, Environment & Energy Business Unit  
Apr. 2008  Senior Manager; President, Environment & Energy Business Unit  
Apr. 2005  Managing Executive Officer; Manager, Environment & Energy Business Unit  
(To present)

Yoshikazu Yasui  
Managing Executive Officer; General Manager, Human Resources & General Affairs Div.  
Apr. 1997  Joined the Company  
Jan. 2007  Managing Executive Officer; President, Melaminizing Solutions Company  
(To present)

Governance  
Directors and Executive Officers  
As of June 21, 2019

Mr. Osamu Iida’s primary experience stems from his involvement in departments dealing with the on-going production and business of the Metals Company. From 2006 to 2011, he was General Manager of the Metals Company, and from 2011 to 2013, he was the President of the Metals 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.

Mr. Kazuhiro Kishi has extensive knowledge and experience related to the Company’s business and operations. The Company believes that Mr. Kishi is suitable for the position of Executive Officer.

Mr. Shogo Yamaguchi’s primary experience stems from his involvement in departments dealing with the Group’s recycling business. From 2005 to 2018, he was Deputy General Manager, Environment & Energy Business Unit, and has extensive knowledge, experience, and ties with companies related to the Group’s recycling business. The Company believes that Mr. Yamaguchi is suitable for the position of Executive Officer.

Mr. Tetsuo Sakai’s primary experience stems from his involvement in departments dealing with the Group’s metals business. From 2008 to 2013, he was Senior Manager, General Manager, Metals Company, and from 2013 to 2016, he was Managing Executive Officer, General Manager, Metals Company. 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.

Mr. Susumu Sasaki has extensive knowledge and experience related to the Company’s business and operations. The Company believes that Mr. Sasaki is suitable for the position of Executive Officer.

Mr. Shogo Yamaguchi has extensive knowledge and experience related to the Company’s business and operations. The Company believes that Mr. Yamaguchi is suitable for the position of Executive Officer.

Mr. Shinichi Nakamura has extensive knowledge and experience related to the Company’s business and operations. The Company believes that Mr. Nakamura is suitable for the position of Executive Officer.

Mr. Kazuhiro Kishi has extensive knowledge and experience related to the Company’s business and operations. The Company believes that Mr. Kishi is suitable for the position of Executive Officer.

Mr. Kazuhiro Kishi has extensive knowledge and experience related to the Company’s business and operations. The Company believes that Mr. Kishi is suitable for the position of Executive Officer.
Governance

Three-way Talk with Our Outside Directors

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.

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.

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

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.

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 all business sites approached these issues in such a serious manner that left even me incredulous.

Meanwhile, in addition to implementing emergency measures to those 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 emergency measures. These 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.

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 the 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.

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.

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.

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Sugi

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

Watanabe

I feel that to improve governance functions, we 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, has led 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, it is important 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 roles is 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 likely discussion.

Further, I see the establishment of the Nomination Committee and the Remuneration Committee as extremely important 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 this 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 fresh 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 at ease to freely present their opinion on matters, I hope this newly reformed approach to Board of Directors leads to more constructive, broader-reaching debate.

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 medical and dental care, as well as 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 2016 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 benefitting 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 company-wide platform as a whole will, in turn, enhance the Company as a whole. I see this as the catalyst for such growth.

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 resources. In my opinion, the Company should take on 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. Furthermore, the all-new technology developed for other business activities is being applied to geothermal power generation. In other words, the Company’s 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, I do agree as well that two sides to every coin do come with its own strengths and weaknesses. The Company as it stands today is the result of an extensive history, and although it may not be as cohesive a whole, a new outlook could open up as a stronger company that better combines the best aspects of each.
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.
Policy regarding the determination of remuneration

As of June 2019 we made it a basic policy to appropriately link the remuneration for Directors and Executive 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 (¥6 million 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 Executive 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 to link 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 this 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, this 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 and Executive Officers remuneration with a view to applying such findings from the fiscal year starting April 1, 2020.

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, Carnet 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 candidates of exceptional insight and character as candidates for 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, 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.

<table>
<thead>
<tr>
<th>Position</th>
<th>Total Amount of Remuneration (Millions of yen)</th>
<th>Remuneration by Type (Millions of yen)</th>
<th>Number of Executives (persons)</th>
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<tbody>
<tr>
<td>Directors (of which Outside Directors)</td>
<td>¥413 million (¥318 million)</td>
<td>¥94 million (¥94 million)</td>
<td>12 (4)</td>
</tr>
</tbody>
</table>

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 Directors shall not exceed ¥170 million per annum.

Note 3: It was resolved at the 89th Ordinary General Meeting of Shareholders held on June 21, 2019 that the amount of the bonuses for Directors other than Outside Directors should not exceed ¥175 million per annum.

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 ¥149 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.
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 the effectiveness of such an analysis and evaluation at meetings of the Board of Directors. The methodology applied to evaluate the effectiveness of the Board of Directors in fiscal 2019, and a summary of the results of such an evaluation 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 reviewed. 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.
   • Matters considered particularly important for improving corporate value
   • Matters pertaining to committee use, cross-shareholdings, and management strategies, etc.

(2) 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 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 adopted 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 efficacy 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 confirming 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 confirming 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.
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.

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-clearing 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.

### Toward the Enhancement of Group Governance

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.
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.

1. Communication
- Harmful effects of the vertically-segmented organizations
- Insufficient control over subsidiaries
- Insufficient sharing and communication of information regarding governance-related matters

2. Compliance Framework and Awareness
- Compliance awareness is insufficient at each level; necessary knowledge has not been acquired
- Awareness of our responsibilities as an organization and business is shallow
- Insufficient capacity to discover misconducts, take initiatives to resolve issues, and make timely reports

3. Resource Allocation
- Insufficient process capabilities that are adequate for received orders or insufficient inspection and quality assurance framework
- Unsuitable resource allocation due to priority on earnings, postponement of necessary capital investment, etc.

4. Internal Audit Strengthening
- Initiated internal audits; request to strengthen governance

5. Studies with a Business Optimization Focus
- Start segmentation of the Group companies from the perspective of governance

Governance Deliberative Council
- Established the Governance Deliberative Council comprised of Executive Officers, Directors and the heads of related Corporate Divisions, and reviews the policy initiatives and annual plans for the following fiscal year for business divisions (including Company business sites and subsidiaries) involved in governance-related matters (CSR, occupational safety and health, disaster and plant safety, environment management, quality management, internal audit, etc.), and also reviews reports on the status of response measures, etc., and plans for matters up for reconsideration, etc. Through this, we are working to improve the effectiveness of initiatives strengthening governance-related functions across the Group.

Introduction of new risk management system
- We have conducted reviews into a new system with the intention to improve the effectiveness of risk management by placing a greater focus on implementing a comprehensive response to critical risks, and steps have been taken to roll out this new system Group-wide both in Japan and abroad.

With this new system, respondents to critical risks that have been individually identified are determined, with the roles and responsibilities related to such clearly defined. A system is also in place to have the parent company provide appropriate support for business locations lacking in human and physical resources needed to implement the measures necessary.

Further, we have also introduced an effective PDCA system that relies on IT tools to “visualize” risks, making it possible for anyone to monitor the status of critical risks as necessary.

Implementation measures to improve communication
- We have taken multiple steps to improve communication across each level of the organization, including dialog-based workshops with members of management, and small group activities implemented onsite, etc.

Investigation regarding compliance awareness
- In June and December 2018, we conducted an investigation regarding compliance awareness targeting employees from the parent company to the Group companies, and 7 employees from the Group companies to the Company.)

We identified issues with communications within Group companies, and held individual hearings concerning the issues raised. The results of these efforts have been incorporated into the plan for the conduct of governance for fiscal 2020, translating these efforts into concrete measures.

Implementation of governance audits and quality audits
- We conducted governance audits and quality audits of business sites and Group companies. We plan to continue this in the future.
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, as well as taking strict and effective measures 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.

Main causes of the shipment of non-conforming products

- Inadequate framework for exerting influence on product development and order receiving processes at order receiving stage
- Attitude excessively prioritizing “order receiving” and “delivery date”
- Order received and mass production that the specifications exceed manufacturing capability

Preventive measures for quality issues

<table>
<thead>
<tr>
<th>Implementation of a Front Loading System (FLS) for Order Receiving</th>
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<tbody>
<tr>
<td>- Apply the improvement for the order receiving system to the Group</td>
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<tr>
<td>- Improve the order receiving system focus on 6 affected locations*1 (utilize quality guidance meetings led by outside consultants)</td>
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<table>
<thead>
<tr>
<th>Enhancement of the Framework and Authority of the Quality Control Department</th>
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<tbody>
<tr>
<td>- Reorganize at each company and define rules</td>
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<tr>
<td>- Confirmation of status</td>
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<tr>
<th>Expansion of Quality Training</th>
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<tbody>
<tr>
<td>- Definition and dissemination of the basic quality rules</td>
</tr>
<tr>
<td>- Provide quality leader training (17 times, 260 employees)</td>
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<tr>
<td>- Holding meetings for person in charge of quality assurance</td>
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<tr>
<th>Promoting Automated Inspection Equipment</th>
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<tr>
<td>- Formulate a three-year plan at each company</td>
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<tr>
<td>- Promote automation</td>
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<tr>
<th>Enhancement of Quality Audits</th>
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<tr>
<td>- Commence audits once every 2 years (76 locations)</td>
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<tr>
<td>- Increase the number of auditors</td>
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<tr>
<th>Utilization of Outside Consultants</th>
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<tr>
<td>- Hold quality guidance meetings (30 times) focus on preventive measures at the 6 affected locations</td>
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Summary of FY2019

- Provide support for building the framework to ensure the Front Loading System (FLS)** is applied at each site to aid in making judgments on which product orders to accept
- Verify the content of initiatives in relation to the independence and scope of responsibility of quality assurance systems using quality audits, quality guidance meetings and committee meetings, etc. targeting each site
- Commence audits once every 2 years (76 locations) |
- Holding meetings for person in charge of quality assurance utilizing case studies (3 times)

Details of initiatives

- Accelerate improvement of the order receiving system in locations other than the 6 affected locations (utilize quality guidance meetings led by outside consultants)
- Confirm the effectiveness and provide support for reorganization and rule definition in the quality audits
- Confirm the independence of the quality control division in small locations
- Dissemination of the basic quality rules again and to continue the training
- Provide support for quality improvement at overseas locations (Asia, Europe and the U.S.) including the methods of utilizing automation data
- Holding meetings for person in charge of quality assurance utilizing case studies (5 times)

- Periodically check and promote the automation plan
- Sharing information of the automation of inspection equipment

- Quality audits in 80 locations (40 locations each in Japan and overseas)
- In the second year of the 2 year cycle, increase the number of quality auditors to accelerate quality audits

- Quality audits in 80 locations (40 locations each in Japan and overseas)
- In the second year of the 2 year cycle, increase the number of quality auditors to accelerate quality audits

Initiatives in FY2020

- Quality audits in 80 locations (40 locations each in Japan and overseas)
Goverance
Risk Management

We are working to improve our sensitivity to risk and our risk control capabilities to ensure the stable operation of business. Further, as part of efforts to enhance the Group governance system, we are reviewing conventional risk management mechanisms to build a new risk management system that achieves better effectiveness and more reliable results, which is applied in efforts to reduce risk at Group business sites both in Japan and abroad.

Risk Management Activities
Basic Perspective
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:

- Basic Risk Management Policies and Objectives
  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

Implementation structure
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.

New risk management system
Points of improvement
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.

- Main areas of improvement in the new risk management system
  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 dialogue and discussion on critical risks between the parent company and subsidiaries, and provides an appropriate support for business sites

Activating of parent-subsidiary discussion and support regarding risk countermeasures
Critical risks are classified into four categories according to the attributes of each, with risks 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 any individual business site alone.

- Roles and responsibilities according to level for each critical risk

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<tr>
<th>CR (Corporate)</th>
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<th>Entity CR (Other R)</th>
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<tbody>
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<tr>
<td>Support</td>
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Enhancements to risk portfolio management and monitoring
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.

Visualization of risk information
Risk map (distribution of risks)

Crisis Management Activities
Basic Perspective
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.

Implementation of a crisis management system
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-affected areas.

Basic Perspective
Emergency
Employees
Support

Activation of parent-subsidiary discussion and support regarding risk countermeasures

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Crisis management system
Risk map (distribution of risks)
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

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.

#### 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 conduct unique activities.

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

We see our efforts toward building an organization with good and healthy communication where employees have 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 cooperative activities, in addition to viewing all issues that arise as our own problems, we engage in opinion exchanges to raise compliance awareness and improve workplace communication.

#### Compliance

- **SCQDE**: Shows the order of priority of our business decisions.
  - **S**: Safety & Health
  - **C**: Compliance & Environment
  - **Q**: Quality
  - **D**: Delivery
  - **E**: Earnings

**SCQDE** shows the order of priority of our business decisions.

*SCQDE* is pronounced “S. C. Q. D. E.”

#### Order of priority in business decisions

1. **Safety & Health**
   
2. **Compliance & Environment**
   
3. **Quality**
   
4. **Delivery**
   
5. **Earnings**

- **(1) Safety & Health**: Through implementation of SQC to grasp priority over earnings in reflecting the quality issue.
- **(2) Compliance & Environment**: Fulfilling all of SQC brings in customers’ trust.
- **(3) Quality**: While compliance awareness is on the rise, further work is needed in establishing specific rules and procedures, and realizing the employees’ awareness of each.
- **(4) Delivery**: After all employees feel that they are always working with compliance in mind.
- **(5) Earnings**: Almost all employees feel that they understand compliance-related matters, realize employees felt a degree of uncertainty and hesitation in this aspect.

**SCQDE** shows the order of priority of our business decisions.

*SCQDE* is pronounced “S. C. Q. D. E.”

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

- **Points started with the 1st investigation**
  - While compliance awareness is on the rise, further work is needed in establishing specific rules and procedures, and realizing the employees’ awareness of each.

- **Points further started with the 2nd investigation**
  - Almost all respondents think that SQCDE principles are being followed.
  - Almost all employees feel that they understand compliance-related matters, realize employees felt a degree of uncertainty and hesitation in this aspect.

**SCQDE** shows the order of priority of our business decisions.

*SCQDE* is pronounced “S. C. Q. D. E.”

#### 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 providing 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 executives must fulfill in relation to governance and compliance, and to foster an awareness and acquire the means to achieve it.

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 2016 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. Bases are also being taken toward introducing an 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

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<tr>
<td>Reports received</td>
<td>19</td>
<td>22</td>
<td>24</td>
<td>33</td>
<td>36</td>
<td>41</td>
<td>61</td>
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## Advanced Products

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

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 believe 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.

### 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

### Fiscal 2019 in Review

After the half year since its establishment, we fortified organizational basis 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 boosted 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.

### 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 boosts 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 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.

<table>
<thead>
<tr>
<th>Changes in Business Performance</th>
<th>(Million yen)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net sales</td>
<td>574.9</td>
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<tr>
<td>Ordinary income</td>
<td>14.6</td>
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</tbody>
</table>

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

### 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 attitude

### Key Strategies

- Meet the needs of customers and of society
- Horizontal roll out of market and customer information, and manufacturing technologies
- Promotion of creating 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
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 is 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.

Amid these circumstances, the Group successfully developed the MS8P and MS9P—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; MS8P specializing in small-sized, light-weight applications, while MS9P offering outstanding capabilities in high voltage/current 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 resistant.

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.

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 thermostor 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 drive to be ever-evolving.

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 sales 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. focusses 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.
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.

As a supplier of cemented carbide products and sinking 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-oriented 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 automotive, 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 holding 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 nobility. With that at the forefront of our minds, we will look to promote human resource development and manufacturing through inter-personal communication in the hopes of serving as true partner that has earned the trust of our customers.

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 smarter 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 Nanta 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.

Prospects for Fiscal 2020

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 region where strong demand for the products 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.

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 sinking 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 provider 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

• Limited manufacturing capabilities and site structure overseas
• Short supply chain 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 markets demanding business expansions in medical applications industry

T Threats

• Market entry by up-and-coming new technology
• Risk of losing Market share
• Risk of raw materials and supply strategy changes
• Decrease in machining process due to improved performance of 35 years
• Decrease in the number of automobile parts with the trend toward EV
• Switch to use of non-renewable materials

Shinichi Nakamura, Managing Executive Officer
President, Metalworking Solutions Company

Changes in Business Performance

(Billion JPY)

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<th></th>
<th>2019/3</th>
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<tr>
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<tr>
<td>Ordinary income</td>
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<tr>
<td>Net income</td>
<td>9.1</td>
<td>9.7</td>
<td>14.2</td>
</tr>
</tbody>
</table>

* The figures for March 2020 (estimate) were published on May 13, 2019.
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-faceted 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 and manufacturing lead times.

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&Ms. 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

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
- 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.

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.

Raw materials & scrap procurement routes

We also operate routes for shipping scrap from domestic facilities to overseas smelters (in Europe and North America), where they undergo commissioned melting into tungsten powder and other products for re-melting to our plants in Japan as raw materials.

Worldwide technical center development

Expanding Tungsten Recycling

Goals for 2020

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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

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 industry 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 processed from overseas mines and E-Scrap by utilizing the “Mitsubishi Process”, known for its superiority in efficiency and environment friendliness.

Our missions are to supply high-quality materials to the market and to contribute to the recycling oriented society through recycling. We are 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 in 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. 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 CO2 emissions by expanding our capacity and/or adopt more efficient production methods.

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 Naschima 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.

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 flexibility by broad range of raw materials at our smelting and refining process.

Activities for Medium- to Long-term Growth

In the mining business, we aim to actively participate in new development projects with low levels of impurities through to the latter half of the 2020s in order to assure the stable supply of clean copper concentrates to our smelting and refining processes. The collaboration of mining business and smelting and refining business could lead to further development of new technologies to reduce impurities and produce clean copper concentrate at the mining stage. We aim to seek for potential opportunities to invest in projects with higher impurities in the future.

In the smelting and refining business, we aim to improve its profitability by fully utilizing the processing capacity of E-Scrap, which has reached 160,000 tons per year. While the material balance becomes more complex due to the diversification of raw materials, we plan to enhance coordination between all our production sites, recover new valuable metals and improve the recovery rate for optimization. For our precious metals business, we plan to enhance our retail business and review our advertising strategy. The goal is to increase individual investors’ awareness and tap into investment demand for gold as such the accumulation plan of gold (“My Gold Partner,” which is limited to residents in Japan).

Business Policy

Medium- to Long-term Goals

- 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
- Build stable recycling business and improve its profitability
- Contribute to downstream industries through the stable supply of high-quality materials

- Create value by building a recycling-oriented society through innovation
- Contribution to increase individual investors’ awareness and tap into investment demand for gold as such the accumulation plan of gold (“My Gold Partner,” which is limited to residents in Japan)

- Increase efficiency through continuous improvement
- Increase efficiency through continuous improvement
- Implementation of new projects through investment for growth
- Implementation of new projects through investment for growth

- Build stable recycling business and improve its profitability
- Contribute to downstream industries through the stable supply of high-quality materials

- Achieve growth through innovation
- Achieve growth through innovation

- Increase efficiency through continuous improvement
- Increase efficiency through continuous improvement

- Implementation of new projects through investment for growth
- Implementation of new projects through investment for growth

- Contribute to increase individual investors’ awareness and tap into investment demand for gold as such the accumulation plan of gold (“My Gold Partner,” which is limited to residents in Japan)

Key Strategies

- [Smelting and refining] Recover new valuable metals and improve the recovery rate
- [Smelting and refining] Improve the efficiency of E-Scrap processing and strengthen foundation for future expansion
- [Smelting and refining] Effective use of heat produced from industrial waste processing
- [Mining & mine development] Develop new mining projects
- [Smelting and refining] Tap into individual investor demand for gold
- [Mining & mine development] Improve the existing operation through increasing productivity and reducing cost
- [Smelting and refining] Ensure a high level of product quality, stable supply and increase productivity, and CO2 reduction

Changes in Business Performance

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<th>Years</th>
<th>Billion of yen</th>
<th>Operating profit</th>
<th>Ordinary income</th>
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<td>2019/3</td>
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Note: The figures for March 2020 (estimates) were published on May 13, 2019.
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 was ever 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. The feasibility study which has been completed, should boost the copper volume produced by 60,000 tons per year.

In the Zafranal 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.

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.

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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 catalyzed into the concept of so-called “urban mines,” 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 recovering of metals 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 Nakashima Smelter & Refinery and Nakashima Smelting and Refining Co., Ltd., lead smelting and refining facilities at the Kurozuka Metal Mining Co., Ltd., tin smelting and refining facilities at the Ikuno Plant, precious metal smelting and refining facilities at the Purplehall 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 inchoerater 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 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, molybdenum, 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.
Cement Business

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

Kazuhiko Kishi, Managing Executive Officer
President, Cement Company

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

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 CO₂ 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, making 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.

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Fiscal 2019 in Review

Following the expansion of the waste plastic 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 cement business operations are run by Robertson’s Ready Mix, Ltd. (RRM), a major subsidiary of the MCC Development Corporation.

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 improvement projects 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 requisites, 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.
Japan

Cement Business

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 so as to meet 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 berthing 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 (OPP: 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 idling 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.

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.

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 resources 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 operation 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.
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.

Renewable Energy Business

As of April 1, 2019 the coal business, which belonged under the “Other Business” category, has been moved to the “Renewable Energy Business” category.

Environment and Recycling Business

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 material patenting and marketing. 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 fly ash bioagglomeration 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 propriety-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 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 Komakawa Geothermal 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.

Expanded R&D in AI and Robotics for Recycling
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.

Affiliated Business
We operate a varied range of affiliated businesses.

Environment and Recycling Business

Advanced Recycling Business Creation
The environmental recycling business introduces unique recycling operations as it aspires to play a step ahead of social needs, driving significant innovations in recycling.

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

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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 basic fossil power source.

The Company operates the Ohnuma Geothermal Plant and the Sumitaka Geothermal Steam Supply Plant located in Kazuino 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 between the Mitsubishi Gas Chemical Company, Inc. and Electric Power Development Co., Ltd.—is underway 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.
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 sustained growth.

Group Human Resources Strategy

- Development of human resources
- Improvement of HR system
- Effective implementation of HR-related IT systems
- System to support diversified working styles

Leadership Values in the Mitsubishi Materials Group

The Mitsubishi Materials Group regards the following elements as its leadership values:

- Character and Spirit as a Leader: A director must believe in and possess leadership qualities that have been passed down unbroken for generations. 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 discussions between them.
- Ability to Envision Business Models: A capacity to anticipate future business models with flexibility and innovation.
- Ability to Be a Leader: A capacity to anticipate future business models with flexibility and innovation.
- Ability to Realize Vision: A capacity to realize shared goals without faltering in the face of difficulties or turbulence, to make daring decisions and to realize the organization’s true action.

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 its 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.

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 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 effective welfare system that is designed to correspond to employees’ diversifying needs, moreover, including such items as travel and the 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 employed were 23.3%.
Human Resources Strategies

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 instances 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.

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 the zero accident rate for lost-time injuries, which represents “Safety and Health” is the first priority.

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.

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 Satama Office (Satama, Satama Prefecture) in March 2017. The center is equipped with 50 types of hazard simulation equipment, designed to reproduce actual workplace 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.

Foundations for Growth

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 SCADE as enacted as the guideline to decision-making concerning conduct of our work (priority order), “S” which represents “Safety and Health” is the first priority.

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 accidents and accidents, and improve the quality of home life of 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.

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.

MMC Group Zero Accident System

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Research and Development

We gather a wide range of talented human resources and technologies from our various companies and affiliates at the Central Research Institute to conduct R&D. We leverage their capabilities to create new products and businesses according to a development strategy encompassing short-, medium- and long-term perspectives.

R&D Strategy

The Mitsubishi Materials Group’s basic policy on R&D is to develop unique new products, technologies and businesses in response to customer needs by deploying its advanced technological capabilities integrated with other cutting edge technologies from both domestic and overseas institutions.

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

Our R&D strategy is implemented in the short term, medium term, and long term. The R&D promotion system is a two-pronged system consisting of our Central Research Institute that focuses on medium- and long-term needs, and the R&D departments in our business divisions which respond to immediate needs. The headquarter’s R&D department supervises the overall strategy.

The Central Research Institute concentrates on creating long-term technologies, and create innovation and new value for recycling.

In order to achieve the above goals, we conduct R&D in the short term, medium term, and long term. The R&D promotion system is a two-pronged system consisting of our Central Research Institute that focuses on medium- and long-term needs, and the R&D departments in our business divisions which respond to immediate needs. The headquarter’s R&D department supervises the overall strategy. Our R&D strategy is implemented widely in the short term, medium term, and long term. The R&D promotion system is a two-pronged system consisting of our Central Research Institute that focuses on medium- and long-term needs, and the R&D departments in our business divisions which respond to immediate needs. The headquarter’s R&D department supervises the overall strategy.

Creation of New Products and Businesses

The rates of change in the social landscape and technological trends are increasing rapidly. Japan’s domestic economy is contracting again after the backdrop of a declining birthrate and aging population, while the global economy continues to expand, with emerging countries’ economies playing the central role. AI and IoT are bringing a hyper-advanced information society quickly to the fore, and growing environmental awareness promises to accelerate the shift from conventional to electric vehicles and an expanded need for recycling.

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.

In order to accelerate the achievement of “creation of new products and new business”, in March 2019, we established MMC Innovation Investment Business Limited Liability Partnership as a corporate venture fund to invest in venture companies with materials technologies. 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 Strategy

Our Group fully respects third-party intellectual property rights, while at the same time ensuring adequate management and enhancement of our own rights. We are engaged in constructing a winning portfolio of patents and patents in accordance with our business strategies and the R&D strategies that support them. This portfolio will cover the range from basic patents for our fundamental processes and products to patents for the resulting machines and processes. We will continue our efforts to establish portfolios of intellectual property in Japan, Western countries, other Asian countries and the rest of the world that protect our business models in every business in which we engage, including trademarks and the various legal agreements concerning technologies.

At the same time we see as respond to risks to our intellectual properties through continuous innovation 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,

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 and researchers are key 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 which will create the future of the group without being constrained by the frameworks of past and current business or technologies and conceptualized.

4. To constantly optimize overall R&D activities, a Research Management Officer (RMO) will set policies, support research activities, clarify situations, and redistribute human resources is appointed.

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 CO2 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 Shindyu 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.
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 exist 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 manufacturing site and its support organizations.

The Production Technology Management Dept. is promoting KAIZEN as the system for solving problems. 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 made using 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 OGP planning and promotion.

Manufacturing Innovation Seminar

Part 2: Manufacturing Innovation Seminar

Part 3: Common Manufacturing Management Framework

Part 3: Advanced manufacturing process projects

Efforts to Promote Manufacturing Innovation

Part 3: Manufacturing Innovation Seminar

Manufacturing Innovation Seminar

<System for Identifying Problems>

Part 1: KAIZEN Promoter System

Launched in fiscal 2017, the KAIZEN Promoter System ("Promoter System") identifies 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).

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<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

Introduction of 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 (QMMIC 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 OGP-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

Efforts to Promote Manufacturing Innovation

The production 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 create a specific promote this project.

<System for Sharing Manufacturing Innovation>

We hold All-MMCM 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 into customers’ (end) products as value-added materials and components. 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.

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.

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 marketing activities which empower full-size models of end products incorporating our products.

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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 material 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 new 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.

Aluminum Product Raw Materials Procurement Initiatives
Our aluminum business not only manufactures aluminum products which are used to make aluminum cans, but 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 complacency, 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.

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 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 (Dodd-Frank) requires listed companies 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 its 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

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)1 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)2 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 Mineral Initiative (RMI),3 former CFS).

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 in an early stage to acquire independent certification of its use of conflict-free minerals for supply to smelters and refiners in China. We formulated a Conflict Mineral Management Policy in April 2014 and acquired Responsible Minerals Initiative (RMI) certification for tungsten in December of that year.

1 Extractive Industries Transparency Initiative (EITI)
The EITI is a global framework to promote the transparency of fiscal flows from extractive industries engaging in the development of oil, gas and mineral resources to the governments of producing countries, thus to prevent corruption and conflicts, and to promote responsible development that can take place in an inclusive and participatory, and to promote responsible development that can take place in an inclusive and participatory way.

2 London Bullion Market Association (LBMA)
The LBMA implements and enforces policies with gold and silver bullion circulating in the market.

3 Responsible Minerals Initiative (RMI)
Responsible Minerals Assurance Process (RMAP) certificate former “Conflict-free Smelter Program”

Foundations for Growth

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.
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, and moreover, 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 protect environment and to pursue 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 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 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 including provide education and support for compliance with environmental legislation with respect to air and water quality and other concerns, ensuring that our internal systems such as waste management manuals and self-check sheets and maintaining a consultation desk at the Head Office.

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 emissions 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.

Chemicals Released or Transferred

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<th>2015</th>
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<th>2019</th>
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Emissions into the Air

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<th>2015</th>
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Environmental Management

Initiatives for Climate Change
Policy and Frameworks

Global warming caused by the emission of man-made greenhouse gases 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 CO2 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 CO2 through their use of energy sources, but they also produce CO2 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 CO2 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 responding 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- to 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 reached 100% or higher achievement of our targets at 3 facilities but not achieved at the remaining sites.

In addition to pursuing CO2 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.)

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 reclamation sediment generated by from mine drainage treatment).
• Maintenance of 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.

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

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.

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

To put it another way, promoting CSR means incorporating society’s needs into our management activities. Our CSR activities reflect 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.

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.

Outline of the Mitsubishi Materials Group’s approach to CSR

1. **Realization of our Corporate Philosophy**
   - **For People, Society and the Earth**
   - Contributing to society through core business (products and services)
   - Environment-friendly perspective

2. **Compliance responsibility**
   - Meeting needs
   - Disclosure of information / Accountability

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, and in these efforts, we adhere to a corporate philosophy that emphasizes efforts that contribute to people, society and the Earth.

To ensure legal compliance—a vital prerequisite for expanding corporate activities—and risk management practices, we will systematically reinforce levels of compliance and risk management practices.

**1. Respecting relationships with people: Reinsuring 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.

**Mitsubishi Materials’ Seven CSR Material Issues**

<table>
<thead>
<tr>
<th>CSR Material Issues</th>
<th>Material Issue Themes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Resources and Recycling</td>
<td>• Maintaining stable supplies of materials and products • Pursuing a recycling-oriented business model</td>
</tr>
<tr>
<td>Environmental Protection and Technology</td>
<td>• Preventing global warming • Preserving biodiversity • Preventing environmental pollution • Developing environmental technologies and products</td>
</tr>
<tr>
<td>Development and Use of Diverse Human Resources</td>
<td>• Human resource development • Diversity (Empowerment of women)</td>
</tr>
<tr>
<td>Occupational Safety and Health</td>
<td>• Preventing occupational accidents • Creating mentally and physically pleasant workplaces</td>
</tr>
<tr>
<td>Responsibility throughout the Value Chain</td>
<td>• Respect for human rights in procurement • Product liability</td>
</tr>
<tr>
<td>Stakeholder Communication</td>
<td>• Building and strengthening relationships with stakeholders • Improving customer satisfaction • Engaging in dialogue and coexisting with local communities</td>
</tr>
<tr>
<td>Governance</td>
<td>• Reinforcing compliance</td>
</tr>
</tbody>
</table>

### Ten-Year Summary

**Mitsubishi Materials Corporation and Consolidated Subsidiaries**  
**Years ended March 31**

#### Financial Ratios (%)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Basic net income</td>
<td>¥ 1,141,796</td>
<td>¥ 1,151,265</td>
<td>¥ 1,141,265</td>
<td>¥ 1,137,895</td>
<td>¥ 1,104,068</td>
<td>¥ 1,199,533</td>
<td>¥ 1,662,990</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diluted net income</td>
<td>¥ 1,141,796</td>
<td>¥ 1,151,265</td>
<td>¥ 1,141,265</td>
<td>¥ 1,137,895</td>
<td>¥ 1,104,068</td>
<td>¥ 1,199,533</td>
<td>¥ 1,662,990</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Net assets</td>
<td>¥ 66,281</td>
<td>¥ 71,871</td>
<td>¥ 70,420</td>
<td>¥ 59,761</td>
<td>¥ 72,819</td>
<td>¥ 36,861</td>
<td>¥ 323,115</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash dividends applicable to the year</td>
<td>¥ 209.93</td>
<td>¥ 262.38</td>
<td>¥ 267.62</td>
<td>¥ 309.17</td>
<td>¥ 348.54</td>
<td>¥ 420.36</td>
<td>¥ 423.83</td>
<td>¥ 4,743.27</td>
<td>¥ 5,211.20</td>
<td>¥ 4,838.31</td>
</tr>
<tr>
<td>Shareholders' equity ratio**</td>
<td>21.64%</td>
<td>21.76%</td>
<td>22.01%</td>
<td>22.18%</td>
<td>23.11%</td>
<td>23.41%</td>
<td>24.63%</td>
<td>24.85%</td>
<td>26.95%</td>
<td>28.42%</td>
</tr>
</tbody>
</table>

#### 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. **Emphasis of the intellectual capital underlying our growth**
4. **Enhancing financial position**

#### Key Strategies

1. **Develop overseas markets, especially emerging markets**
2. **Realize "Materials Premium"**

#### Key Strategies

1. **Forfifying the foundation for growth**
2. **Strengthening global competitiveness**
3. **Pursuing a recycling-based business model**

#### 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**

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.
2. Return on equity (ROE) = Net income attributable to owners of parent / Total assets*4
3. Return on assets (ROA) = Net income attributable to owners of parent / Total assets*4
4. ROE = Net income attributable to owners of parent / Total assets*4
5. Return on equity (ROE) = Net income attributable to owners of parent / Total assets*4
6. Shareholders' equity ratio = Shareholders' equity / Total assets*4

#### Medium-Term Management Plan

**Break-through 1000**  
Aiming to become a Company with ¥100 Billion Ordinary Income

**Materials Premium 2013**  
Aiming for New Creation

**Materials Premium 2016**  
Challenging to become the world's leading business group

**Transformation for Growth**  
2006-2007

**Transformation for Growth**  
2012-2014

**Transformation for Growth**  
2015-2017

**Transformation for Growth**  
2018-2020

#### Medium-Term Management Strategy

**We can do 600**  
2006-2007

**Materials Premium 2013**  
2012-2014

**Materials Premium 2016**  
2015-2017

**Transformation for Growth**  
2018-2020
## Consolidated Balance Sheets

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

### Financial Sections

#### Unit: Millions of yen

#### ASSETS 2018

<table>
<thead>
<tr>
<th>Item</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current assets:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cash and time deposits</td>
<td>93,389</td>
<td>108,648</td>
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<tr>
<td>Notes and accounts receivable:</td>
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<td></td>
</tr>
<tr>
<td>Trade</td>
<td>249,380</td>
<td>237,654</td>
</tr>
<tr>
<td>Unconsolidated subsidiaries and affiliates</td>
<td>19,600</td>
<td>19,730</td>
</tr>
<tr>
<td>Other</td>
<td>7,764</td>
<td>12,077</td>
</tr>
<tr>
<td>Inventories</td>
<td>366,092</td>
<td>335,571</td>
</tr>
<tr>
<td>Leased gold bullion</td>
<td>88,862</td>
<td>99,154</td>
</tr>
<tr>
<td>Other current assets</td>
<td>122,506</td>
<td>99,711</td>
</tr>
<tr>
<td>Allowance for doubtful accounts</td>
<td>(2,518)</td>
<td>(2,900)</td>
</tr>
<tr>
<td><strong>Total current assets:</strong></td>
<td>945,077</td>
<td>909,647</td>
</tr>
<tr>
<td><strong>Property, plant and equipment:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land</td>
<td>251,926</td>
<td>252,606</td>
</tr>
<tr>
<td>Buildings and structures</td>
<td>459,134</td>
<td>473,358</td>
</tr>
<tr>
<td>Machinery and equipment</td>
<td>122,506</td>
<td>119,457</td>
</tr>
<tr>
<td>Construction in progress</td>
<td>23,105</td>
<td>34,211</td>
</tr>
<tr>
<td>Less accumulated depreciation</td>
<td>(1,314,981)</td>
<td>(1,347,305)</td>
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<tr>
<td><strong>Net property, plant and equipment:</strong></td>
<td>645,559</td>
<td>687,415</td>
</tr>
<tr>
<td><strong>Investments and long-term receivables:</strong></td>
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<td></td>
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<tr>
<td>Investments in securities</td>
<td>248,722</td>
<td>183,455</td>
</tr>
<tr>
<td>Net asset for retirement benefits</td>
<td>449</td>
<td>1,050</td>
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<tr>
<td>Unconsolidated subsidiaries and affiliates</td>
<td>72,396</td>
<td>58,484</td>
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<tr>
<td>Long-term receivables</td>
<td>59</td>
<td>52</td>
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<tr>
<td>Other</td>
<td>14,138</td>
<td>22,502</td>
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<tr>
<td>Allowance for doubtful accounts</td>
<td>(4,297)</td>
<td>(4,088)</td>
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<tr>
<td><strong>Total investments and long-term receivables:</strong></td>
<td>331,469</td>
<td>261,457</td>
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<tr>
<td><strong>Other assets:</strong></td>
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<td></td>
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<tr>
<td>Deferred tax assets</td>
<td>22,965</td>
<td>19,610</td>
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<tr>
<td>Goodwill</td>
<td>44,636</td>
<td>40,816</td>
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<tr>
<td>Other</td>
<td>21,358</td>
<td>19,323</td>
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<tr>
<td><strong>Total other assets:</strong></td>
<td>88,960</td>
<td>79,750</td>
</tr>
<tr>
<td><strong>Total assets:</strong></td>
<td>2,011,067</td>
<td>1,938,270</td>
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</tbody>
</table>

#### LIABILITIES 2018

<table>
<thead>
<tr>
<th>Item</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Current liabilities:</strong></td>
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<td></td>
</tr>
<tr>
<td>Short-term bank loans</td>
<td>154,413</td>
<td>137,689</td>
</tr>
<tr>
<td>Current portion of long-term debt</td>
<td>76,729</td>
<td>42,410</td>
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<tr>
<td>Commercial papers</td>
<td>5,000</td>
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</tr>
<tr>
<td>Notes and accounts payable:</td>
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<td></td>
</tr>
<tr>
<td>Trade</td>
<td>153,415</td>
<td>141,109</td>
</tr>
<tr>
<td>Unconsolidated subsidiaries and affiliates</td>
<td>4,129</td>
<td>4,862</td>
</tr>
<tr>
<td>Other</td>
<td>24,753</td>
<td>24,138</td>
</tr>
<tr>
<td>Income taxes payable</td>
<td>9,151</td>
<td>7,869</td>
</tr>
<tr>
<td>Accrued expenses</td>
<td>55,218</td>
<td>53,225</td>
</tr>
<tr>
<td>Provision for bonuses</td>
<td>13,228</td>
<td>12,872</td>
</tr>
<tr>
<td>Deposited gold bullion</td>
<td>245,227</td>
<td>253,918</td>
</tr>
<tr>
<td>Reserve for loss on disposal of inventories</td>
<td>783</td>
<td>624</td>
</tr>
<tr>
<td>Reserve for product compensation</td>
<td>1,435</td>
<td></td>
</tr>
<tr>
<td>Other current liabilities</td>
<td>38,949</td>
<td>42,864</td>
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<tr>
<td><strong>Total current liabilities:</strong></td>
<td>777,001</td>
<td>728,011</td>
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<tr>
<td><strong>Long-term liabilities:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long-term debt</td>
<td>290,292</td>
<td>309,667</td>
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<tr>
<td>Accrual for officers’ lump-sum severance benefits</td>
<td>1,384</td>
<td>1,633</td>
</tr>
<tr>
<td>Reserve for loss on unconsolidated subsidiaries and affiliates</td>
<td>986</td>
<td>805</td>
</tr>
<tr>
<td>Reserve for product compensation</td>
<td>1,040</td>
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<tr>
<td>Reserve for environmental measures</td>
<td>37,833</td>
<td>40,427</td>
</tr>
<tr>
<td>Net defined benefit liability</td>
<td>51,647</td>
<td>50,003</td>
</tr>
<tr>
<td>Deferred tax liabilities</td>
<td>36,102</td>
<td>25,616</td>
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<tr>
<td>Deferred tax liabilities for land revaluation</td>
<td>24,162</td>
<td>24,097</td>
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<tr>
<td>Other</td>
<td>23,162</td>
<td>33,639</td>
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<tr>
<td><strong>Total long-term liabilities:</strong></td>
<td>465,570</td>
<td>486,921</td>
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#### NET ASSETS

<table>
<thead>
<tr>
<th>Item</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Shareholders’ equity:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Common stock</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Authorized 340,000,000 shares</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Issued 131,489,535 shares</td>
<td>119,457</td>
<td>119,457</td>
</tr>
<tr>
<td>Capital surplus</td>
<td>92,422</td>
<td>92,393</td>
</tr>
<tr>
<td>Retained earnings</td>
<td>361,430</td>
<td>352,932</td>
</tr>
<tr>
<td>Treasury stock, at cost</td>
<td>(2,089)</td>
<td>(2,123)</td>
</tr>
<tr>
<td><strong>Total shareholders’ equity:</strong></td>
<td>571,222</td>
<td>562,659</td>
</tr>
<tr>
<td><strong>Accumulated other comprehensive income:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valuation difference on available-for-sale securities</td>
<td>95,487</td>
<td>51,220</td>
</tr>
<tr>
<td>Deferred gains or losses on hedges</td>
<td>1,068</td>
<td>124</td>
</tr>
<tr>
<td>Revaluation reserve for land</td>
<td>33,071</td>
<td>33,023</td>
</tr>
<tr>
<td>Foreign currency translation adjustments</td>
<td>(10,312)</td>
<td>(9,628)</td>
</tr>
<tr>
<td>Accumulated adjustments for retirement benefits</td>
<td>(8,066)</td>
<td>(7,617)</td>
</tr>
<tr>
<td><strong>Total accumulated other comprehensive income:</strong></td>
<td>111,249</td>
<td>70,952</td>
</tr>
<tr>
<td><strong>Non-controlling interests:</strong></td>
<td>86,023</td>
<td>89,754</td>
</tr>
<tr>
<td><strong>Total net assets:</strong></td>
<td>768,495</td>
<td>723,337</td>
</tr>
<tr>
<td><strong>Total liabilities and net assets:</strong></td>
<td>2,011,067</td>
<td>1,938,270</td>
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**Consolidated Statements of Income**

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

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Net sales</td>
<td>1,599,533</td>
<td>1,662,990</td>
</tr>
<tr>
<td>Cost of sales</td>
<td>1,379,877</td>
<td>1,469,911</td>
</tr>
<tr>
<td>Gross profit</td>
<td>219,655</td>
<td>193,078</td>
</tr>
<tr>
<td>Selling, general and administrative expenses</td>
<td>146,835</td>
<td>156,217</td>
</tr>
<tr>
<td>Operating profit</td>
<td>72,819</td>
<td>36,861</td>
</tr>
<tr>
<td>Other income (expenses):</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest and dividend income</td>
<td>20,260</td>
<td>20,831</td>
</tr>
<tr>
<td>Interest expenses</td>
<td>(5,058)</td>
<td>(4,955)</td>
</tr>
<tr>
<td>Income from leased property</td>
<td>4,866</td>
<td>5,123</td>
</tr>
<tr>
<td>Expense for leased property</td>
<td>(2,867)</td>
<td>(3,043)</td>
</tr>
<tr>
<td>Expense for the maintenance and management of abandoned mines</td>
<td>(4,398)</td>
<td>(3,382)</td>
</tr>
<tr>
<td>Loss on valuation of investment securities</td>
<td>(403)</td>
<td>(3,376)</td>
</tr>
<tr>
<td>Gain on net sales of investments in securities</td>
<td>5,667</td>
<td>1,596</td>
</tr>
<tr>
<td>Gain on sales of property, plant and equipment</td>
<td>6,760</td>
<td>5,021</td>
</tr>
<tr>
<td>Loss on disposal and sales of property, plant and equipment</td>
<td>(4,908)</td>
<td>(2,684)</td>
</tr>
<tr>
<td>Loss on impairment of fixed assets</td>
<td>(10,035)</td>
<td>(8,440)</td>
</tr>
<tr>
<td>Reserve for environmental measures</td>
<td>(8,092)</td>
<td>(6,630)</td>
</tr>
<tr>
<td>Foreign exchange losses, net</td>
<td>(1,805)</td>
<td>(959)</td>
</tr>
<tr>
<td>Loss on non-conforming products</td>
<td>(3,202)</td>
<td>—</td>
</tr>
<tr>
<td>Reserve for product compensation</td>
<td>—</td>
<td>(2,529)</td>
</tr>
<tr>
<td>Equity in losses (earnings) of affiliates</td>
<td>(1,336)</td>
<td>3,594</td>
</tr>
<tr>
<td>Other, net</td>
<td>1,259</td>
<td>(779)</td>
</tr>
<tr>
<td>Total other income (expenses)</td>
<td>(5,042)</td>
<td>(516)</td>
</tr>
<tr>
<td>Income before income taxes</td>
<td>67,777</td>
<td>36,345</td>
</tr>
<tr>
<td>Income Taxes</td>
<td>23,635</td>
<td>28,738</td>
</tr>
<tr>
<td>Net income</td>
<td>44,137</td>
<td>7,606</td>
</tr>
</tbody>
</table>

Net income attributable to:
- Non-controlling interests | 9,542 | 6,307 |
- Owners of parent | 34,595 | 1,298 |

**Consolidated Statements of Cash Flows**

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

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cash flows from operating activities</td>
<td>52,715</td>
<td>140,168</td>
</tr>
<tr>
<td>Cash flows from investing activities</td>
<td>86,235</td>
<td>(7,891)</td>
</tr>
<tr>
<td>Cash flows from financing activities</td>
<td>(11,834)</td>
<td>(17,313)</td>
</tr>
<tr>
<td>Effect of exchange rate fluctuation on cash and cash equivalents</td>
<td>(2,627)</td>
<td>1,375</td>
</tr>
<tr>
<td>Net decrease (increase) in cash and cash equivalents</td>
<td>(41,204)</td>
<td>7,691</td>
</tr>
<tr>
<td>Cash and cash equivalents at beginning of year</td>
<td>136,816</td>
<td>87,355</td>
</tr>
<tr>
<td>Effect of changes in consolidated subsidiaries</td>
<td>714</td>
<td>4,624</td>
</tr>
<tr>
<td>Increase (decrease) in cash and cash equivalents resulting from change of accounting period of consolidated subsidiaries</td>
<td>1,228</td>
<td>—</td>
</tr>
<tr>
<td>Cash and cash equivalents at end of year</td>
<td>87,355</td>
<td>95,672</td>
</tr>
</tbody>
</table>

**Consolidated Statements of Changes in Net Assets**

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

<table>
<thead>
<tr>
<th></th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td>Balance at March 31, 2019</td>
<td>119,457</td>
<td>99,672</td>
</tr>
<tr>
<td>Balance at March 31, 2018</td>
<td>118,350</td>
<td>111,249</td>
</tr>
<tr>
<td>Net decrease (increase) in cash and cash equivalents</td>
<td>86,235</td>
<td>(5,819)</td>
</tr>
<tr>
<td>Change in treasury shares of parent arising from transactions with non-controlling shareholders</td>
<td>(26)</td>
<td>(28)</td>
</tr>
<tr>
<td>Net change other than shareholders’ equity</td>
<td>4,624</td>
<td>3,594</td>
</tr>
<tr>
<td>Balance at March 31, 2019</td>
<td>119,457</td>
<td>92,393</td>
</tr>
<tr>
<td>Balance at March 31, 2018</td>
<td>118,350</td>
<td>104,757</td>
</tr>
</tbody>
</table>
Profile

Company Name: Mitsubishi Materials Corporation
Marunouchi Bldg. 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

Paid-in Capital: ¥119,457 million

Equity Method Affiliated Companies: 152

Number of Affiliates: 4,807 (Consolidated: 28,426)

Number of Employees: Total Assets:

Paid-in Capital: ¥119,457 million

Equity Method Affiliated Companies: 152

Number of Affiliates: 4,807 (Consolidated: 28,426)

Number of Employees: Total Assets:

Paid-in Capital: ¥119,457 million

Equity Method Affiliated Companies: 152

Number of Affiliates: 4,807 (Consolidated: 28,426)

Number of Employees: Total Assets:

Paid-in Capital: ¥119,457 million

Equity Method Affiliated Companies: 152

Number of Affiliates: 4,807 (Consolidated: 28,426)

Number of Employees: Total Assets:

Paid-in Capital: ¥119,457 million

Equity Method Affiliated Companies: 152

Number of Affiliates: 4,807 (Consolidated: 28,426)

Number of Employees: Total Assets: