



Mitsubishi Materials Corporation  
Chief Executive Officer  
Naoki Ono

## From the FY2023 Medium-term Management Strategy to Beyond

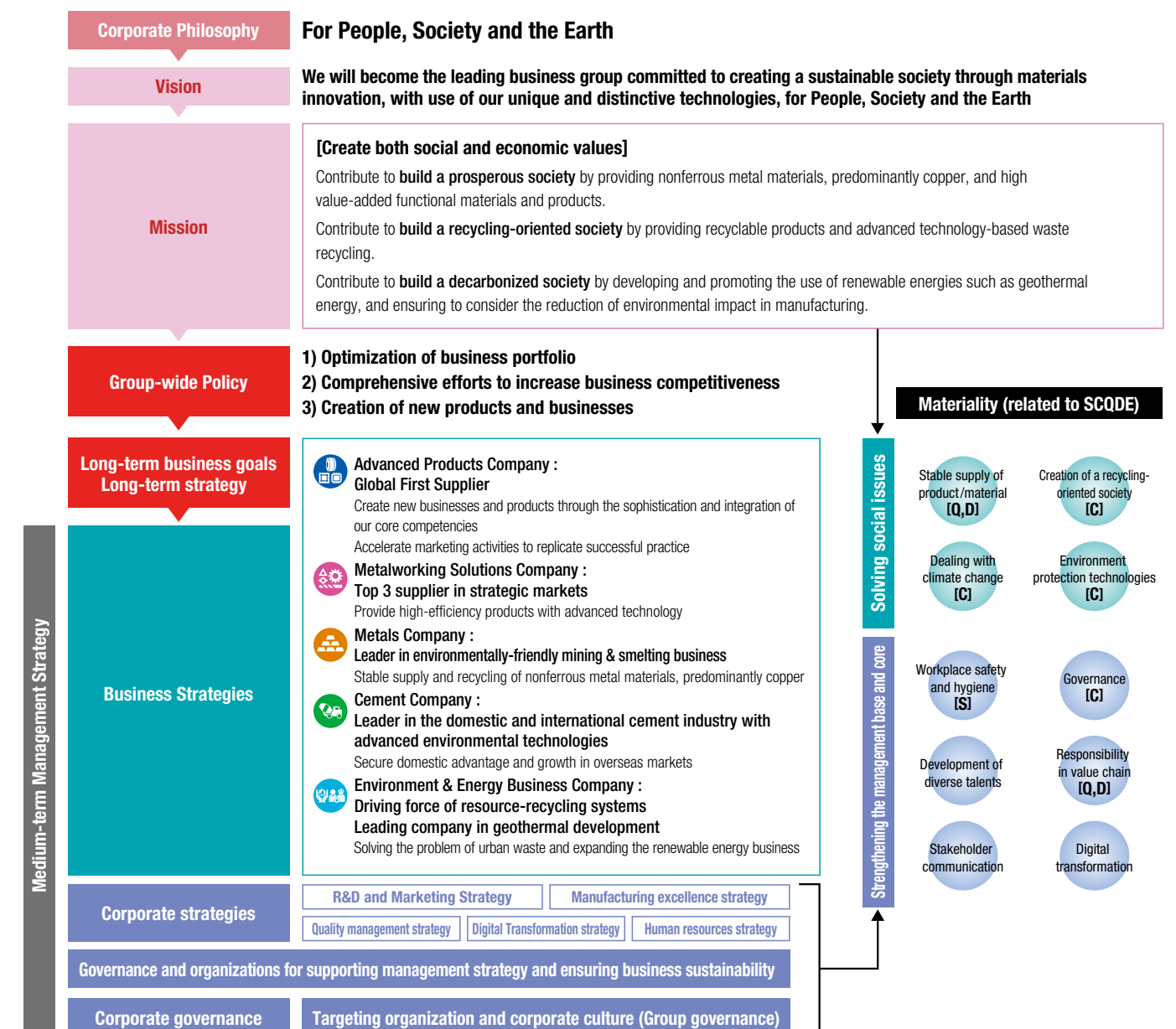
Mitsubishi Materials formulated a Medium-term Management Strategy (FY2023 Strategy) for the three years from fiscal 2021, and that was published in March 2020. Fiscal 2022 is the second year of the FY2023 Strategy.

The FY2023 Strategy stipulates that we will aim to create both social and economic values by resolving social issues through our business activities under the corporate philosophy of “For People, Society and the Earth” and that our mission for 2030 to

2050 is to contribute to building a prosperous society, recycling-oriented society, and decarbonized society.

The group-wide policy is made up of “Optimization of business portfolio,” “Comprehensive efforts to increase business competitiveness,” and “Creation of new products and businesses,” and we formulated individual business and corporate strategies in line with those.

Figure 1 Overview of FY2023 Strategy





[Top Message]

It goes without saying that fiscal 2021 was greatly impacted by the COVID-19 pandemic. While there is hope for an end as vaccinations progress and herd immunity is gained, there is no room to be complacent as we face factors such as the appearance of variants. The Group was greatly affected by a change in the business environment—a major decline in demand especially in the automobile industry—mainly in the first half of the fiscal year.

We have worked to continue operations with thorough measures to prevent the spread of infections at manufacturing worksites. At our offices, meanwhile, we have been promoting working remotely from the early stages of the pandemic. Depending on the situation, such as being under a state of emergency, we control the percentage of employees coming to offices from 10% to 50% or less at the most.

Through these efforts, we believe that we are able to contribute to our mission of building a “prosperous society” and “recycling-oriented society” by supplying materials and products that meet demand and by continuously accepting and processing various types of waste.

In terms of the financial plan, while there was recovery in demand from the third quarter, consolidated operating profit was down approximately 30% over the previous fiscal year (fiscal 2020). We thus had to revise the financial plan in the FY2023 Strategy.

On the other hand, there is no need to change our mission for 2030 to 2050 due to the current situation, and we will continue to aim to contribute to building a “prosperous society,” “recycling-oriented society,” and “decarbonized society.” In particular, the importance of contribution to building a “decarbonized society” is becoming greater due to the Japanese government declaring in October 2020 that the country will aim to be carbon neutral.

Uncertainty about the future is increasing, and we are said to be in an age of VUCA (volatility, uncertainty, complexity and ambiguity), making it difficult to predict the future. In such a situation, the key to the company’s survival will lie in the ability of the organization to formulate certain hypotheses, verify them, and change its approach as needed in a timely manner.

I, myself, am of the view now that the economy will be blocked as the movement of people and goods will be restrained while information travels around the world. And I believe that the impact of the pandemic and global attempts to reduce CO<sub>2</sub> emissions will be drivers for that.

What is important is not whether the situation will turn out as we foresee it, rather, to be prepared to deal with such a situation and at the same time have a backup plan in place.

This entails preparing a plan A and plan B and being able to switch to and apply the appropriate plan quickly according to the situation. I believe that ability of the organization to act promptly and resolutely is imperative.

With such ideas as a base, we are proceeding with the five reforms below that need to be worked on now.

[Five Reforms]

1. Reformation of the business structure (optimization of the business portfolio)
2. Reformation of manufacturing (factory vision / management framework / process enhancement)
3. Reformation of the HR system (Next Generation leadership talent development/Job-based HR system)
4. Digital Transformation (DX)
5. Corporate Transformation (CX)

The Group has started enhancing governance with the following three points as issues to improve on.

- ① Lack of communication in terms of both quantity and quality
- ② Fragile compliance framework and awareness
- ③ Insufficient resource allocation

This is done with the opportunity presented by the quality issues that occurred in fiscal 2018.

The slogan SCQDE\* was established to define the priority of business decisions, and we are putting efforts into it being thoroughly implemented and promoted.

\*SCQDE: Order of priority in business decisions at the Group

S: Safety & Health

C: Compliance & Environment

Q: Quality

D: Delivery

E: Earnings (reasonable profit)

We became a company with a Nomination Committee in fiscal 2020, and in order to strengthen corporate governance and improve the internal governance system, we have established the following six items as the “organizational culture to aim for” and started reforming the organizational culture.

[Targeting organization and corporate culture]

1. Organization with good and healthy communication where employees have unrestricted communication
2. Organization capable of autonomously solving issues
3. Organization that adequately shares the understanding of its business
4. Organization that makes prompt and resolute decisions
5. Organization that manages its business with the awareness of the differences between product-type and process-type businesses
6. Organization that aims for thorough digitalization

In light of these efforts, we formulated the aforementioned FY2023 Strategy.

We are implementing these strategies, promoting realization of the aforementioned six items of the targeting organization and corporate culture, and working on five reforms in order to evolve into a corporate group with ability of the organization to act promptly and resolutely.

Regarding reformation of the business structure (optimization of the business portfolio), we decided to indicate the current position of each business in the FY2023 Strategy on the two axes of profitability and growth potential. But what is important is not where each business is positioned, but to quickly implement the necessary and appropriate measures and actions to maintain or change that position. By indicating where each business is positioned, we need to recognize clearly the measures that each business should implement.

For our Group in the manufacturing industry, unrelenting reform in manufacturing is indispensable. Reformation of manufacturing has at its core:

- Factory vision (drill down of issues and measures per factory linked to business strategy, common language of dialog with the factory)
- Manufacturing management framework (extracting issues to improve on by factory self-diagnosis)
- Process enhancement (automation, image analysis and data visualization by applying digitalization technology)

And it is a continuation of efforts to “improve manufacturing capabilities,” “make manufacturing capabilities specialized,” and “tackle the lack of knowledge and skills due to stagnation of technology transfer.” (Second year of three-year plan)

Maintaining and improving market competitiveness even in an increasingly complex business environment while provocatively incorporating new ways of working and values as well as outside viewpoints and human recourses is a pressing issue, and I believe that it is time to move toward with new ways of working that break away from conventional mechanisms, even in the HR system.

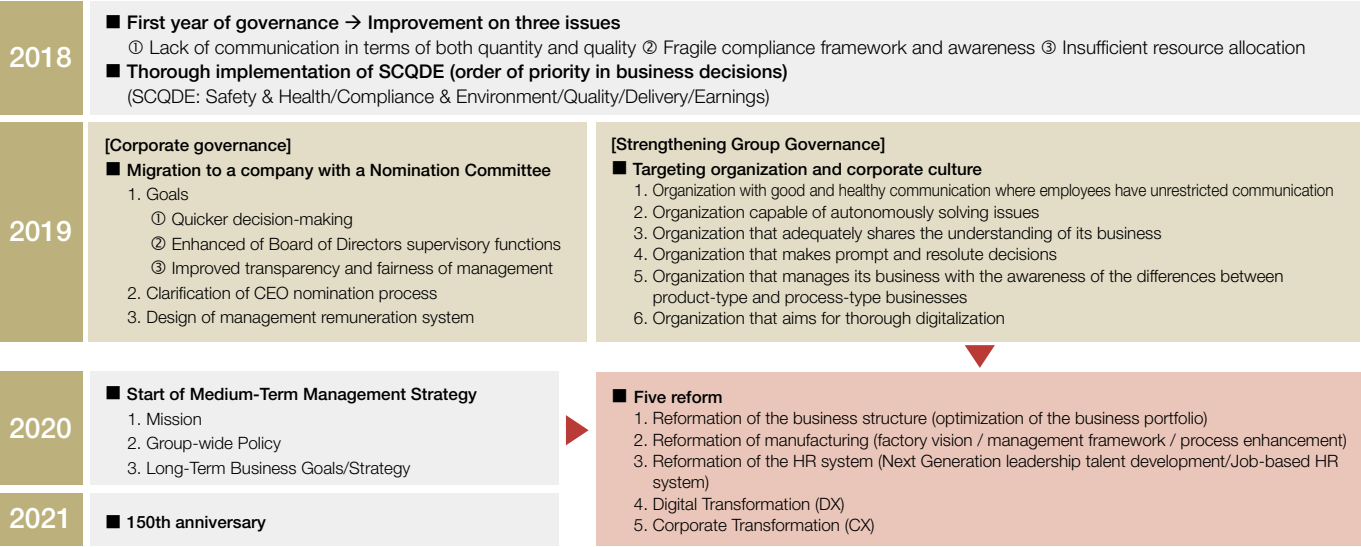
With raising of the mandatory retirement age, we modified the HR system for non-union employees reaching age 60 on or after April 2021 to be centered on duties rather than job qualification as it was up to now. In the future, we will consider expanding the concept of this duties-centered HR system to non-union employees under 60 as well. It goes without saying that large aspects of the organizational and corporate culture are fostered through the process of a human resources strategy that involves changes in awareness and behavior, and they are very important elements in proceeding with corporate transformation, which I will cover later. We need to develop human resources who are willing to develop their own careers and grow with the company, and who can think about their own careers autonomously.

Up to now we have basically deployed and developed internal talents with potential to positions that are needed and made up for any lack of experience. However, expert knowledge and speedy implementation of measures are increasingly demanded for some positions, and there are increased concerns that applying just internal human resources will result in delays. We are thus promoting the use of mid-career talent from outside the company from the perspective of incorporating diverse viewpoints.

Meanwhile, the systematic development of the kind of leadership talent who will be needed in the future is essential for the continuous improvement of our value as a company. Such comprehensive efforts are what reformation of the HR system is.

We are going forward with that unwavering determination digital transformation (DX) under a strong sense of urgency that now is our last chance to catch up and take the lead in that. In April 2020 we set up the DX Management Office and invited external talent to act as our Chief Digital Officer (CDO), and we are studying details on selecting DX themes and achieving measures in order to make the measures presented in the

Figure 2 The path of reforms (overview)



FY2023 Strategy more concrete. We selected 21 DX themes with the main points of...

- **Review the entire business process with a focus on “getting closer to customers”**
- **Create a foundation for catching up to competitors and winning on a global scale**
- **Strengthen the management foundation through enhanced safe and secure manufacturing excellence activities, enhanced business management and data utilization, and increased business efficiency.**

And we formulated an action plan for the six-year period from fiscal 2021 to 2026.

Moreover, we are also holding workshops for improving digital mindsets and digital literacy and developing DX human resource in order to strengthen the foundations of DX human resources.

DX is deeply related to other reform items, and it is the foundation that holds our Group transformation as a whole. It has a position as an important initiative at the core of our management strategies even following the current FY2023 Strategy.

Corporate transformation (CX) is a concept where we aim to combine...

- **Headquarters (head office) in charge of strategy**
- **Functional divisions that support efficiency improvement and advancement**
- **Strong business divisions capable of implementing autonomous management**

And it is reform to the optimal management structure in order to achieve that.

With the following objectives in mind, we are considering an optimal management structure that will contribute to improving the corporate value of the Group as a whole.

### Objectives of CX

1. Clarification of division of duties between head office, functional divisions, and business divisions
2. Speedy and flexible business management according to the business environment and business characteristics
3. Strengthening of governance functions by pursuing a balance in centrifugal and centripetal forces between head office, functional divisions, and business divisions
4. Fostering awareness of the role of indirect operations and their contribution to increasing corporate value, as well as cost consciousness
5. Changing mindset and organizational culture to enhance corporate value by realizing our mission through a strong awareness of one's roles and responsibility for the business
6. Fostering of human resources for management

The following table summarizes initiatives for fiscal 2022 as their relationship with group-wide policy and the six items of the organizational culture to aim for.

Figure 3 Policy on fiscal 2022 initiatives (relation with the FY2023 Strategy)

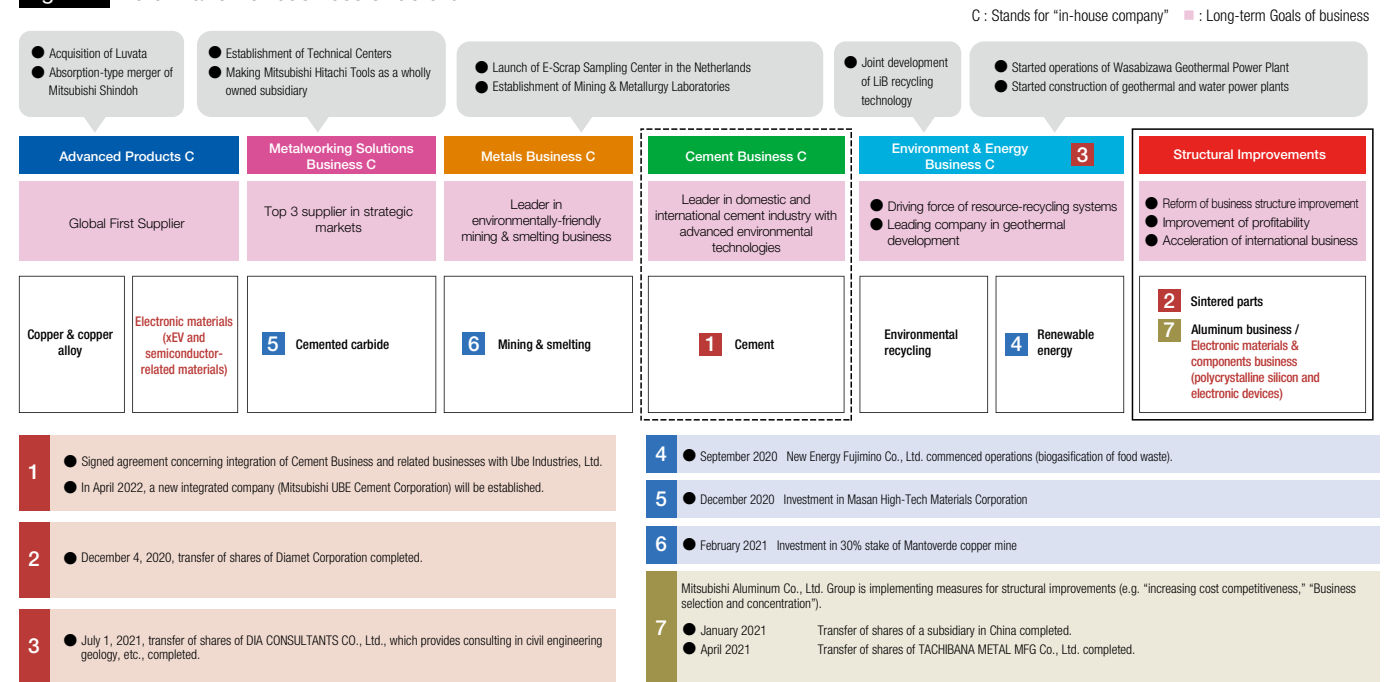
Group-wide policy	Efforts up to now	Policy on fiscal 2022 initiatives
① Optimization of business portfolio	<ul style="list-style-type: none"> <li>● Conclusion of cement business integration agreement</li> <li>● Restructuring and reorganization of profit-improving business</li> <li>● Investment in expanding tungsten business</li> <li>● Investment in Mantoverde copper mine</li> <li>● Start of Appl Geothermal Power Station and food waste biogasification</li> </ul>	<ul style="list-style-type: none"> <li>● Optimization of electronic materials &amp; components business portfolio</li> <li>● Enhancing function for searching for new business (New Business Development Dept.)</li> <li>● Promotion of DX (DX Promotion Dept, System Strategy Dept, external human resources)</li> <li>● Promotion of promoting operational efficiency (Business Process Innovation Dept.)</li> <li>● Reformation of the HR system (Next Generation leadership talent development/Job-based HR system)</li> <li>● Continuation of manufacturing capabilities improvement* (factory vision, manufacturing management framework, process enhancement)</li> </ul>
② Comprehensive efforts to increase business competitiveness		
③ Creation of new products and businesses	<ul style="list-style-type: none"> <li>● Utilization of corporate venture capital</li> <li>● MMC-NIMS Center of Excellence for Materials Informatics Research</li> </ul>	<ul style="list-style-type: none"> <li>● (Enhancing function for searching for new business)</li> <li>● (DX promotion)</li> </ul>
Targeting organization and corporate culture	Efforts up to now	Policy on fiscal 2022 initiatives
① Organization with good and healthy communication where employee has unrestricted communication	<ul style="list-style-type: none"> <li>● Improvement of communication in all levels and opportunities</li> </ul>	<ul style="list-style-type: none"> <li>● Promotion of direct access in various levels, not just top-down dependent on organizational hierarchy</li> </ul>
② Organization capable of autonomously solving issues	<ul style="list-style-type: none"> <li>● Formation and operation of governance deliberation system and improvement by enhanced auditing</li> </ul>	<ul style="list-style-type: none"> <li>● Strengthening of governance (prevention of illicit dealings and anti-trust violations)*</li> </ul>
③ Organization that adequately shares the understanding of its business	<ul style="list-style-type: none"> <li>● Optimization of business portfolio (Reduction of business domains)</li> </ul>	<ul style="list-style-type: none"> <li>● Clarification of division of duties between functional divisions and business divisions</li> </ul>
④ Organization that makes prompt and resolute decisions	<ul style="list-style-type: none"> <li>● Transfer of authority to execution with the migration to a company with a Nomination Committee</li> </ul>	<ul style="list-style-type: none"> <li>● Division and deepening of management mesh</li> </ul>
⑤ Organization that manages its business with the awareness of the differences between product-type and process-type businesses	<ul style="list-style-type: none"> <li>● Focused management in R&amp;D, manufacturing excellence, and human resources exchange.</li> </ul>	<ul style="list-style-type: none"> <li>● Transfer of authority to business divisions</li> </ul>
⑥ Organization that aims for thorough digitization	<ul style="list-style-type: none"> <li>● Detailed planning and implementation by DX Management Office</li> </ul>	<ul style="list-style-type: none"> <li>● Business management with special qualities per business division</li> </ul>
		<ul style="list-style-type: none"> <li>● Second year of MMDX</li> <li>● Enhancement of security against cyber attacks</li> </ul>

\*Company-wide critical risks in risk management

### Optimization of business portfolio

Fiscal 2021 movements in optimization of the business portfolio are as follows.

Figure 4 Reformation of business structure



In cement business, we are making preparations as follows in line with the already announced agreement on integrating our cement business with Ube Industries, Ltd.

- **Establishment of integration preparation company as of April 14, 2021**
- **Approval on June 24, 2021 by our General Meeting of Shareholders on absorption-type company split agreement between the Company and the integration preparation company**
- **Announcement on July 7, 2021 of the name and representative of the new, integrated company (Mitsubishi UBE Cement Corporation)**

In sintered parts business where structural improvements are needed, a transfer of shares was completed on December 4, 2020 and restart under new ownership was achieved. And in aluminum business, Mitsubishi Aluminum Co., Ltd. took on structural improvements centered on strengthening cost competitiveness and selection and consolidation of businesses/products, and it conducted measures such as relocating the head office and transferring several overseas subsidiaries, leading to a certain level of improvement in earnings in the fiscal year ended March 31, 2021.

In fiscal 2022 we are proceeding with optimization of the business portfolio with priority placed on the following items.

- **Restoring profitability in copper & copper alloy and cemented carbide businesses**
- **Enhancing the search for new business**

- **Optimization of business portfolio for electronic materials & components business**
- **Promotion of aluminum business restructuring and reorganization**
- **Preparation for start of new integrated company for cement business**

While copper & copper alloy and cemented carbide businesses are positioned in the portfolio as businesses in which to maintain and improve high profitability, performance was sluggish in fiscal 2021. We have thus formed a task force this fiscal year to work to restore profitability as soon as possible, and we are working on the issues in a concentrated manner.

Electronic materials business is a composite business composed of multiple businesses and products, and the entire business was initially positioned in the FY2023 Strategy to be integrated. In fiscal 2022, we will divide each business in electronic materials business and clarify the position of each from perspectives such as businesses that ownership should be taken for as well as development resources, relevance to the Company's technology, profitability, and growth potential. And we will take actions according to the position.

Specifically, our policy is to maintain growth in business for semiconductor manufacturing equipment and semiconductor-related products by strengthening investment, and we will work to improve the profit structure of polycrystalline silicon business and electronic devices business.

And for xEV components where future growth is expected, the business, development, and manufacturing divisions are deploying collaborative efforts in an aim to build a solid business model from development to mass production.



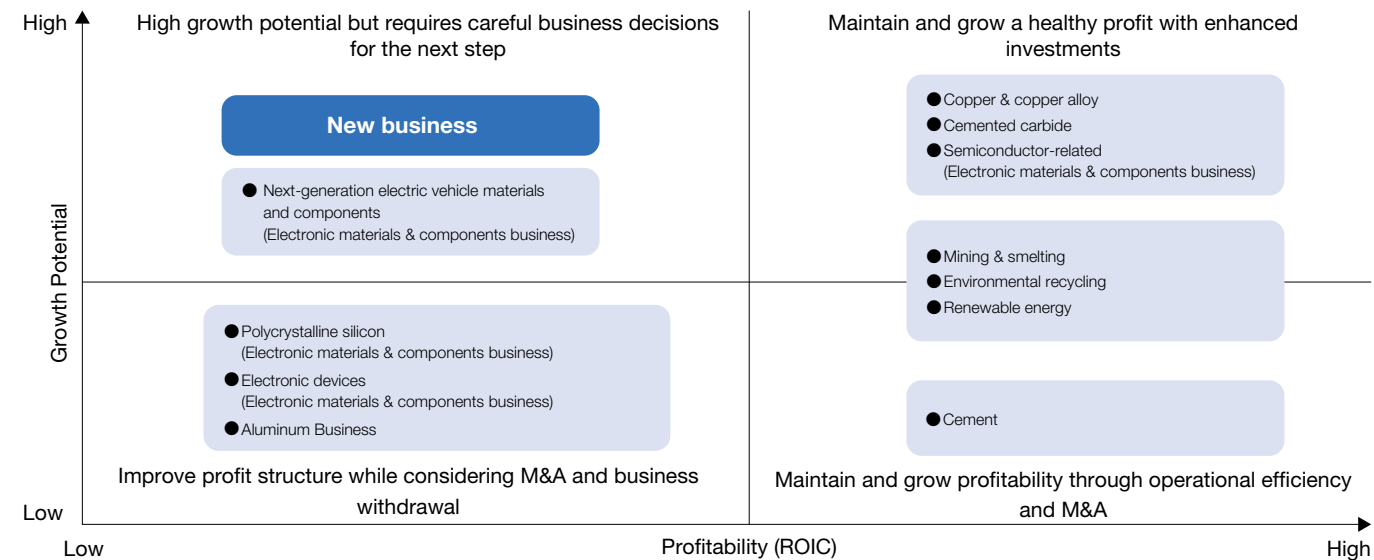
Figure 5 Status of business portfolio optimization

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

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

[Building business portfolio]

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



Comprehensive efforts to increase business competitiveness/Creation of new products and businesses

In fiscal 2021, we invested in Masan High-Tech Materials Corporation (MHT), which deploys tungsten business from its main base of operations in Vietnam. By building a long-term strategic partnership with MHT, we intend to consider launching joint business in tungsten recycling utilizing global bases under the control of MHT and collaborating in the midstream of the tungsten business, including a technical tie-up on the production of high-quality tungsten powder. We intend to accelerate the expansion and growth of our metalworking solutions business through the implementation of various measures, including consideration of collaboration with MHT.

In February of 2021, we completed acquisition of a 30% stake in Mantoverde copper mine in Chile, thereby officially participating in the project. We plan to start receiving copper concentrate from 2023. Metals business has “creation of a sustainable raw material portfolio consisting of clean copper concentrate and E-Scrap” as a long-term strategy, and this project enabling us to stably secure high-quality copper concentrate with few impurities is a major step forward.

In environment and energy business, we started a business to receive food waste and perform biogasification to generate electricity and to convert residue from that into raw material for cement. This leads to contribution to building a recycling-oriented society and decarbonized society. Although quickly responding to the changing composition of food waste generation due to the impact of COVID-19 is an issue, we intend to accumulate

knowledge on operation so that it can lead to future expansion. There have been two movements in efforts for creation of new products and new businesses:

Investment through corporate venture fund “MMC Innovation Investment Limited Partnership”

Establishment of MMC-NIMS Center of Excellence for Materials Informatics Research

The corporate venture fund was established in 2019, and it made one investment in fiscal 2020 and three in fiscal 2021. All are movements aiming for innovation through collaboration making use of the Company's strengths.

MMC-NIMS Center of Excellence for Materials Informatics Research merges the informatics-driven materials development foundations of the National Institute for Materials Science (NIMS) with various elements such as experimental data, analytical models, and empirical rules accumulated by MMC in materials development. With that, it plans to build informatics-driven materials development systems which will predict the performance and life of practical materials to be manufactured using a combination of multiple materials and processes by 2025. By promoting R&D and enhancement of production processes that incorporate innovative technologies such as IoT, AI and robotics, we intend to achieve efficient and speedy product development in our focus areas of IoT, AI, next-generation vehicles, urban mines, clean energy, and decarbonization in order to lead to realizing our mission.

Figure 6 Investment results through “MMC Innovation Investment Limited Partnership”

MMC has established the “MMC Innovation Investment Limited Partnership” in order to develop medium- to long-term technologies of the Group, create innovation through collaboration, and create new value. And MMC has invested in the venture companies with material technologies that is new business candidate as follows.

	Company name	Company's technologies/products	MMC's aim
October 2019	Elephantech Inc.	Elephantech has manufacturing technology for electronic circuit boards by additive manufacturing using inkjet printing of metal nano inks and electroless copper plating.	MMC has started development of “copper nano ink” with Elephantech as an evaluation partner. MMC will aim to develop new copper products for circuit boards and get opportunities of its supply.
May 2020	EneCoat Technologies Co., Ltd.	EneCoat Technologies is developing Perovskite Solar Cells characterized by high power generation efficiency, light weight, and flexibility compared to conventional silicon-based solar cells.	In collaborate with EneCoat Technologies, MMC will develop technologies that contribute to improving the performance of Perovskite Solar Cells and the peripheral materials etc. necessary for making them lead-free, aiming to get opportunities to supply materials when perovskite solar cells become widespread.
June 2020	CONNEXX SYSTEMS Corporation	CONNEXX SYSTEMS has development and manufacturing technologies for new storage battery, high-power in-vehicle Lithium-ion battery (LiB), and next-generation battery that combine LiB and lead-acid battery.	MMC is developing technology for reusing and recycling used in-vehicle LiB. In collaboration with CONNEXX SYSTEMS, MMC will promote the reuse business that is the reuse of collected used in-vehicle LiB for stationary storage battery.
September 2020	Nature Architects inc.	Nature Architects has unique structure design technologies such as giving strength only to the necessary parts and adding the function of absorbing vibration to hard parts.	By combining MMC's knowledge of non-ferrous metals and other material properties with Nature Architects' design technology, MMC will promote development of unique products with new added value by additive manufacturing using our materials.

Revision of the FY2023 Strategy

While there is no change to our medium to long-term mission, performance in the first year of FY2023 Strategy was much poorer than initially anticipated due to factors such as the impact of COVID-19. We expect performance to gradually recover in line with situations such as vaccines becoming more widely available and herd immunity being gained, and in fiscal 2023 we expect advanced products and metalworking solutions business to recover to pre-COVID levels. However, we have to consider impacts such as postponement of growth investments due to the expected slowdown in demand recovery, transition of cement business to an equity-method affiliate, and decline in mining dividends from the metals business. We thus expect results for fiscal 2023, the final year of the FY2023 Strategy, to be lower than initial targets. In light of this, we released a revision to the FY2023 Strategy in May 2021 centering mainly on the financial plan.

1) Financial plan: Financial targets

The achievement of fiscal 2023 targets for ROIC, EBITDA, etc. announced in March 2020 is expected to be delayed until fiscal 2024 or later. Therefore, the Company has positioned the FY2023 Strategy period as a period to solidify the foundation for efficiency and profitability, which will lead to a firm growth path in fiscal 2024 and beyond.

The Company-wide financial targets for fiscal 2023 after the revision are ROIC of 4.0% (6.0% before the revision), ROA of 2.0% (4.0%), ROE of 6.0% (7.0%), consolidated operating profit of ¥29 billion (¥58 billion), consolidated ordinary profit of ¥38 billion (¥75 billion), and net D/E ratio of 1.0 times or less (1.0 times or less).

[Top Message]

Figure 7 Revisions to FY2023 Strategy (financial indicators)

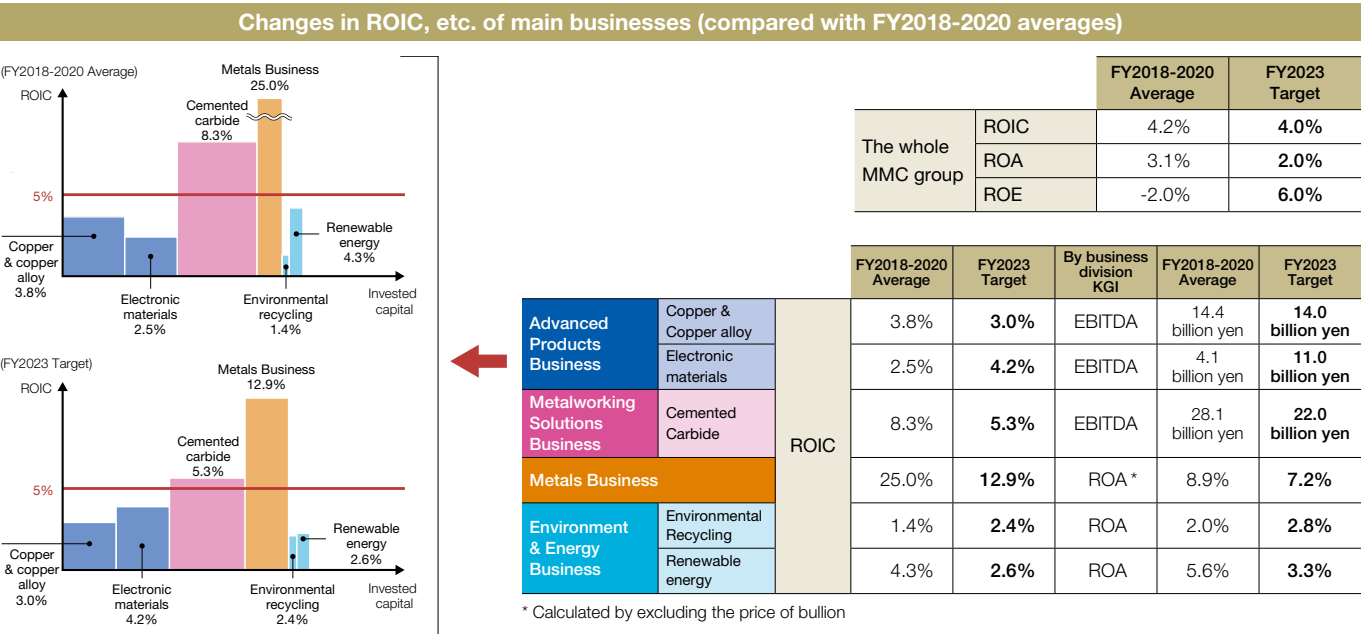
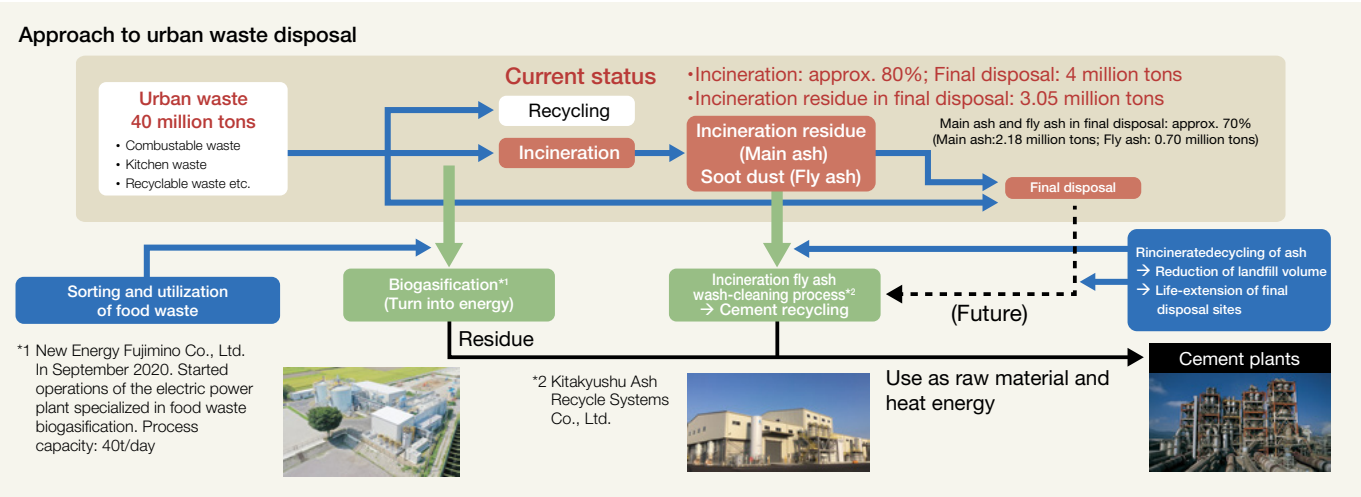
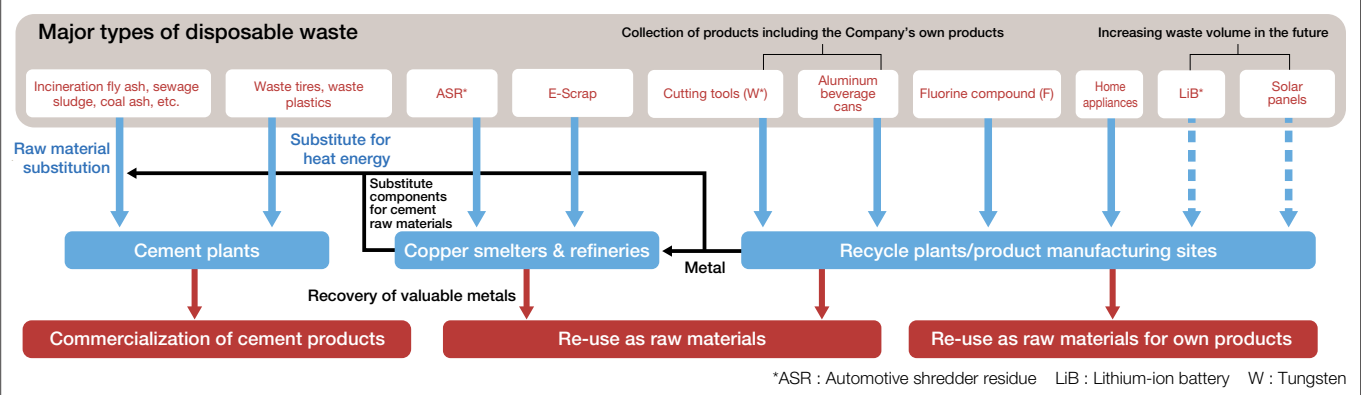




Figure 9 Overall Picture of Circular Business



3) Toward new work styles

The COVID-19 pandemic brought about significant changes to how we work in our workplaces. Under Japan’s first state of emergency declared in April 2020, we closed our head office and moved all head office functions to the Saitama office to achieve business continuity. Even after that, we have been promoting remote work by telecommuting and operating satellite offices and controlling the office attendance rate between 10% and 50% depending on the declaration of a state of emergency and the infection status. In the future, we will operate at 50% or lower attendance even in normal times and employ new work styles, such as the introduction of free addressing per group. The head office is positioned as a “communication core” to build real relationships, which tend to become diluted with remote environments.

4) Evolution of corporate governance

With the transition to being a company with a Nomination Committee in June 2019, we are proceeding with actions such as debate on the CEO appointment and dismissal process and the successor development plan, review of the executive remuneration system, and increase in the ratio of outside directors. Along with those, we are also promoting continuous improvements to the Board of Directors.

And with the latest revision of the corporate governance code

on June 11, we are considering the establishment of a committee under the Board of Directors to discuss basic policies on issues related to sustainability, efforts to enhance the reliability of audits, and the formulation of a successor plan for outside directors. We will continue to work to improve functionality of the Board of Directors as a monitoring board.

Additionally, as consideration for human rights becomes more important in business, we will launch our Human Rights Panel at the Sustainable Management Office to expand and deepen the existing efforts on human rights.

Improving communication

We have been working to make continuous improvements on the shortage of quantity and quality in communication as one of the most important themes since becoming president in June 2018. Opportunities for communication between divisions and levels have been steadily increasing. However, there are still some areas to be improved on in terms of the quality of communication, as there are many cases where what needs to be communicated ends up not being communicated because of the top-down, one-way communication from superiors to subordinates.

I believe that we need to bring about change in the communication style in order to bring out the full potential of each individual. Aiming for close two-way communication, we will implement one-on-one meetings, town hall meetings, and the like this fiscal year.

Whenever the opportunity arises, we repeatedly explain “SCQDE” established to define the priority of business decisions and work for that measure to gain further penetration. Additionally, all Executive Officers are taking the initiative in delivering “bad news first” in the form of weekly information sharing. Quality-wise improvements in communication are the foundation to such measures. Also, understanding of that is necessary for sure execution of strategies and deployment of measures, and I believe that improving communication is extremely important in order to make that more certain.

At the 150th anniversary of our founding

The Group celebrated the 150th anniversary of our founding this year. I would like to express my respect to those who came before us and who have passed on the baton over 150 years as conditions changed over time and express my gratitude to all the stakeholders who have supported us.

150 years of history is not a promise or guarantee of the future, and we must carve out a new future with our own hands.

At this 150th anniversary, I would like to present the slogan “Create, Transform: MATERIALS.”



This key visual expresses how the Group’s business activities contribute to the creation of a recycling-oriented society without end.