Business Strategy IR Meeting

Mitsubishi Materials strengthens metal resource recycling and promotes renewable energy businesses with the aim of realizing a sustainable society

【Speaker】

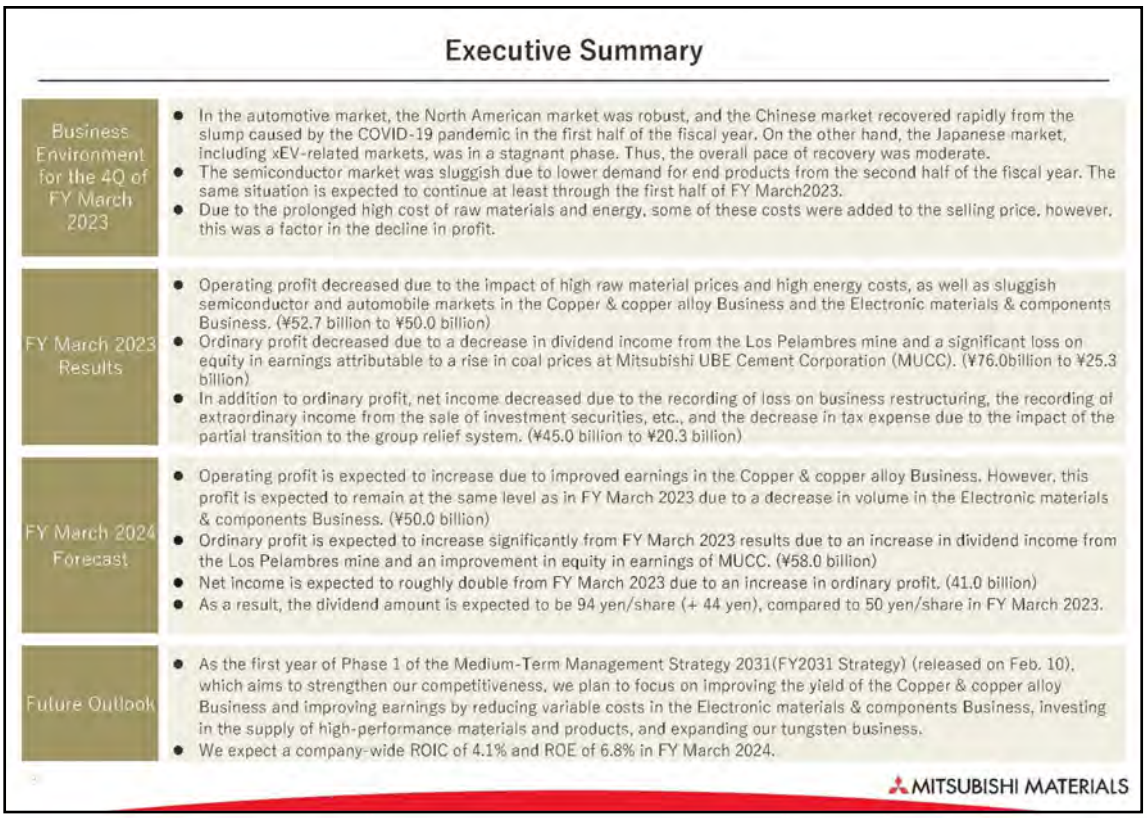
Naoki Ono, Director, Chief Executive Officer, Mitsubishi Materials Corporation
Nobuhiro Takayanagi, Director, Managing Executive Officer, Mitsubishi Materials Corporation
Katsuyoshi Isaji, Managing Executive Officer, President, Metals Company, Mitsubishi Materials Corporation
Toshinori Ishii, Managing Executive Officer, President, Advanced Products Company, Mitsubishi Materials Corporation
Kazuo Ohara, Managing Executive Officer, President, Metalworking Solutions Company, Mitsubishi Materials Corporation

This is a transcript of Mitsubishi Materials Corporation's business strategy IR meeting, which took place on May 17, 2023.

Mr. Naoki Ono (hereinafter referred to as "Ono")

Thank you all very much for coming today. First of all, I will explain the big picture, although there is some overlap with the financial results announced on May 12.

【Executive Summary】



For the fiscal year ended March 2023 (“FY2023”), operating profit was affected by high raw material costs and continuously high energy costs. In addition, due to the sluggish semiconductor and automobile markets, profit decreased ¥2.7 billion from the previous fiscal year to ¥50.0 billion.

Ordinary profit was ¥25.3 billion, which was a significant decrease from the previous year due to a decrease in dividend income from the Los Pelambres mine, a significant loss recorded for Mitsubishi UBE Cement Corporation, which started operating in April 2022, and a significant loss on equity in earnings at our company.

Profit attributable to owners of parent was affected by a loss on restructuring of the polycrystalline silicon business in addition to a decrease in ordinary profit. On the other hand, there were gains on sale of certain assets, such as the sale of investment securities, and a decrease in tax expenses, resulting in profit attributable to owners of parent was ¥20.3 billion.

Next, here is the forecast for the fiscal year ending March 2024 (“FY2024”). Operating profit is expected to benefit from improved earnings compared with the previous fiscal year in the Copper & Copper Alloy business. On the other hand, the Electronic Materials & Components business is having a hard time, expecting a drop in earnings due to a decrease in volume. Offsetting them, we expect ¥50.0 billion, the same level as the previous fiscal year.

Ordinary profit is expected to be ¥58.0 billion, a substantial increase from the previous fiscal year, due to an expected recovery of dividend income received from copper mines, which was a factor in the decline in earnings in the previous fiscal year, and an expected improvement in earnings at Mitsubishi UBE Cement. Profit attributable to owners of parent is expected to double from the previous fiscal year to ¥41.0 billion.

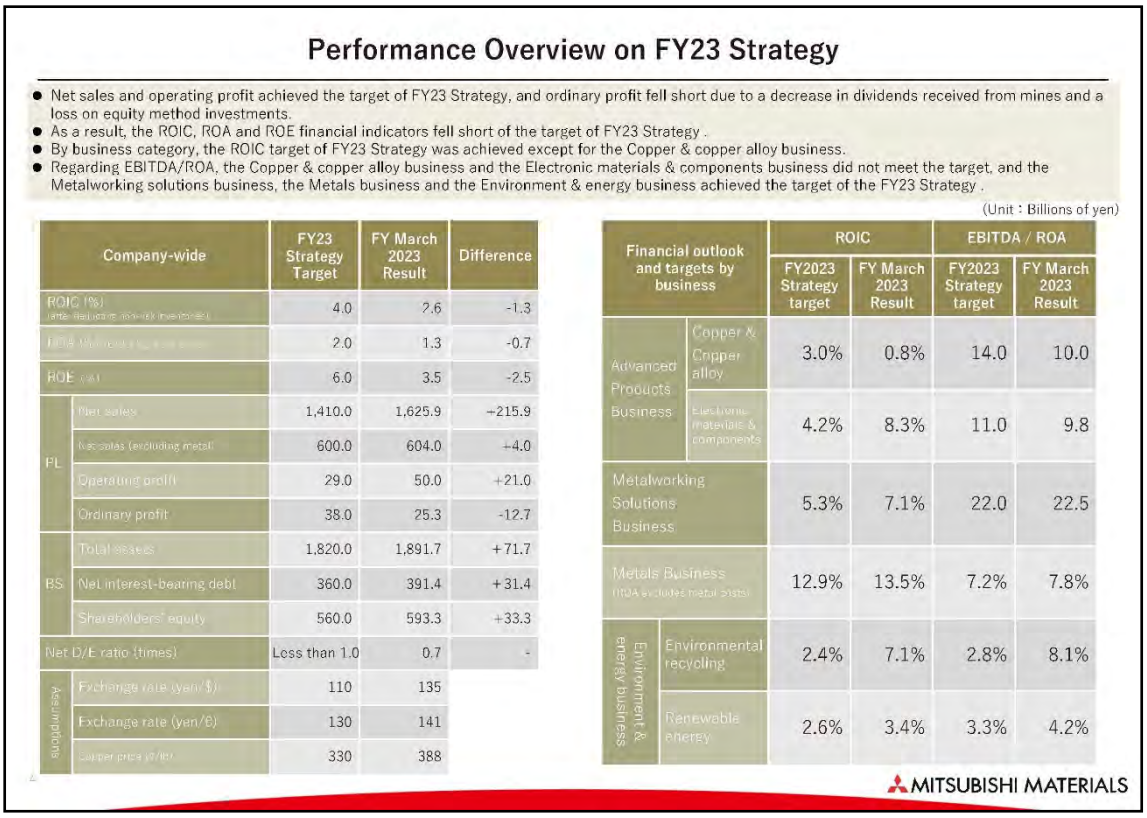
The annual dividend for the previous fiscal year was ¥50 per share. This fiscal year, the annual

dividend is expected to be ¥94 per share, and the dividend payout ratio is forecast to be 30%, due to an increase in net income.

This fiscal year is the start year of the Medium-term Management Strategy FY2031 (“FY2031 Strategy”). As we work to expand our business in Phase 1, we plan to focus on boosting earnings by improving the current yield rates of the Copper & Copper Alloy business and reducing variable costs in the Electronic Materials & Components business, while investing in the supply of high-performance materials and products and expanding our tungsten business from a long-term perspective.

As a result, we expect a company-wide ROIC of 4.1% and ROE of 6.8% in the FY2024.

【Performance Overview of the FY23 Strategy】



Performance Overview on FY23 Strategy

- Net sales and operating profit achieved the target of FY23 Strategy, and ordinary profit fell short due to a decrease in dividends received from mines and a loss on equity method investments.
- As a result, the ROIC, ROA and ROE financial indicators fell short of the target of FY23 Strategy .
- By business category, the ROIC target of FY23 Strategy was achieved except for the Copper & copper alloy business.
- Regarding EBITDA/ROA, the Copper & copper alloy business and the Electronic materials & components business did not meet the target, and the Metalworking solutions business, the Metals business and the Environment & energy business achieved the target of the FY23 Strategy .

(Unit：Billions of yen)

Company-wide		FY23 Strategy Target	FY March 2023 Result	Difference
ROIC (%) (after deducting non-op. investments)		4.0	2.6	-1.3
ROA (Ordinary profit basis)		2.0	1.3	-0.7
ROE (%)		6.0	3.5	-2.5
PL	Net sales	1,410.0	1,625.9	+215.9
	Net sales (excluding metal)	600.0	604.0	+4.0
	Operating profit	29.0	50.0	+21.0
	Ordinary profit	38.0	25.3	-12.7
BS	Total assets	1,820.0	1,891.7	+71.7
	Net interest-bearing debt	360.0	391.4	+31.4
	Shareholders' equity	560.0	593.3	+33.3
Net D/E ratio (times)		Less than 1.0	0.7	-
Assumptions	Exchange rate (yen/$)	110	135	
	Exchange rate (yen/€)	130	141	
	Copper price (¢/lb)	330	388	

Financial outlook and targets by business		ROIC		EBITDA / ROA	
		FY2023 Strategy target	FY March 2023 Result	FY2023 Strategy target	FY March 2023 Result
Advanced Products Business	Copper & Copper alloy	3.0%	0.8%	14.0	10.0
	Electronic materials & components	4.2%	8.3%	11.0	9.8
Metalworking Solutions Business		5.3%	7.1%	22.0	22.5
Metals Business (EBITDA excludes metal price)		12.9%	13.5%	7.2%	7.8%
Environment & energy business	Environmental recycling	2.4%	7.1%	2.8%	8.1%
	Renewable energy	2.6%	3.4%	3.3%	4.2%

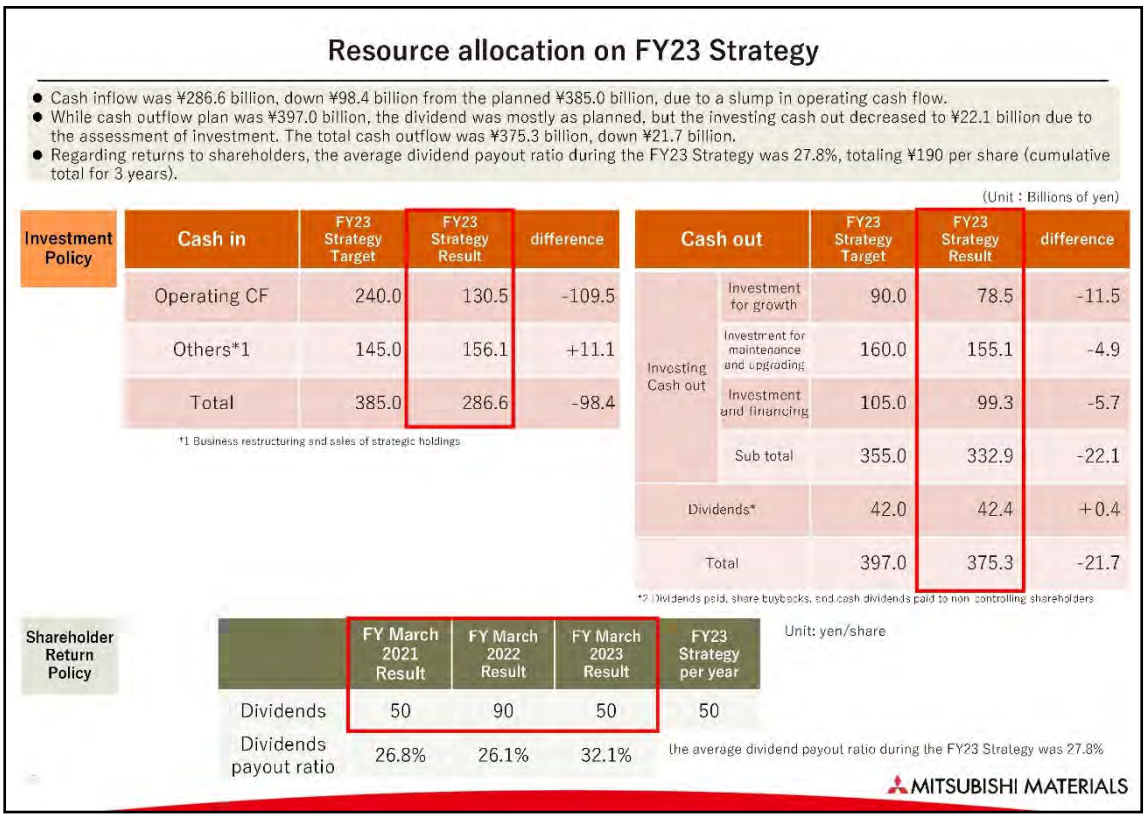
MITSUBISHI MATERIALS

We will briefly review the Medium-Term Management Strategy FY2023 (“FY23 Strategy”). The table on the left shows the company-wide operating results. The first three rows, ROIC, ROA and ROE, show that they did not reach the targets of the FY23 Strategy.

The right side shows ROIC by business and financial indicators other than ROIC for which targets had been set.

ROIC has achieved the target figure of the FY2031 Strategy, except for the Copper & Copper Alloy business. On the other hand, regarding EBITDA, ROA, and other financial indicators other than ROIC, the Copper & Copper Alloy business and the Electronic Materials & Components business did not meet the targets, while the Metalworking Solutions business, the Metals business, and the Environment & Energy business achieved the targets of the FY23 Strategy. This is a review of the operating results.

【Resource allocation on the FY23 Strategy】



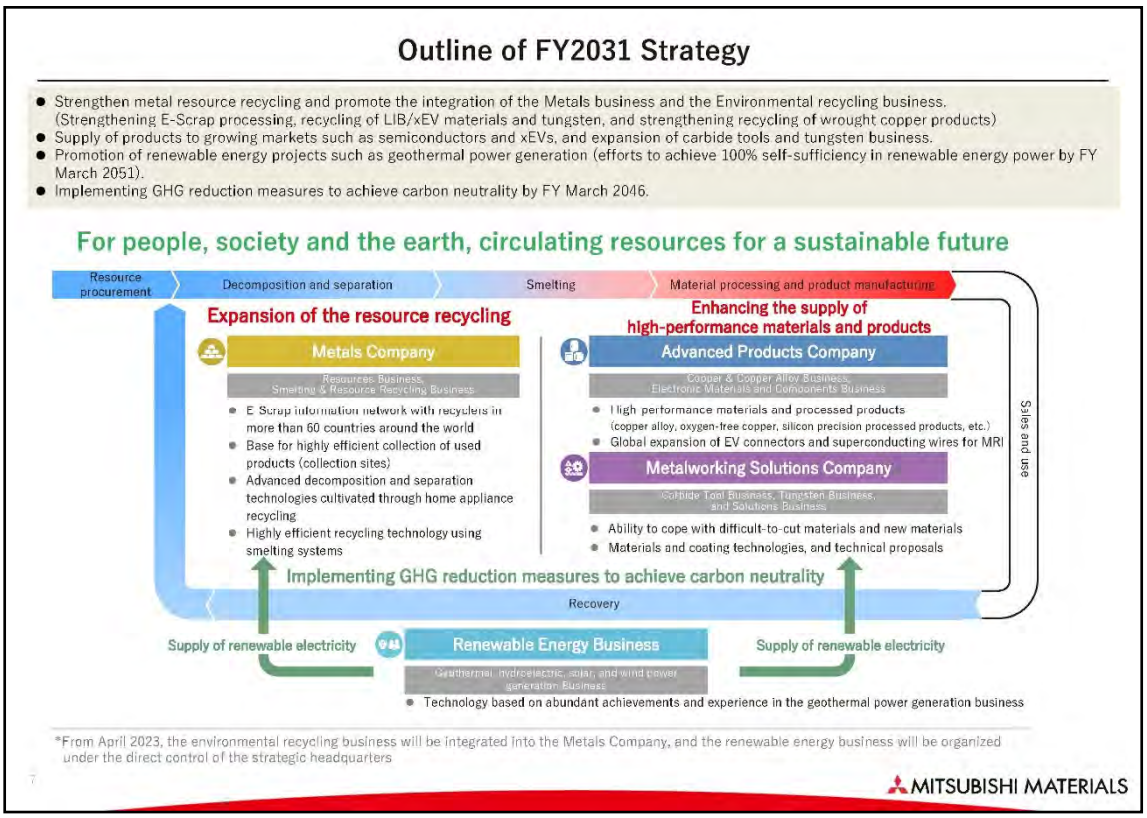
I will explain the allocation of resources. This shows how the total value of the three years from FY2021 to FY2023, the period of the FY23 Strategy, was compared with the plan. The table at the top left of the slide shows the status of cash inflow.

Operating cash flow decreased significantly partly due to sluggish business. On the other hand, the sale of assets, including the sale of shares associated with business restructuring, was generally carried out as planned.

As for the cash outflow shown on the right, while we adjusted the timing of some growth investments and other investments and loans, the overall amount has settled down to about ¥20.0 billion below the original plan.

Shareholder returns are shown at the bottom of the slide. The start was ¥80 per share, but due to the impact of the COVID-19 pandemic along the way, we decided to lower the minimum annual dividend to ¥50 per share. Partly due to changes in business performance along the way, the annual dividend amounts were ¥50, ¥90 and ¥50, and we have made shareholder returns as shown here.

【Outline of the FY2031 Strategy】



This is a general overview of the FY2031 Strategy. We have the vision, “For people, society and the earth, circulating resources for a sustainable future.” Specifically, our major themes include the expansion of resource recycling and the enhancement of the supply of high-performance materials and products.

As for strengthening metal resource recycling, it is important to expand the scope of materials such as E-Scrap, LIB and xEV. In addition, we will enhance the recycling of tungsten and wrought copper products.

On the other hand, regarding the enhancement of the supply of high-performance materials and products, we will expand the supply of products to markets such as semiconductors, which are a growth market we target, and xEV, as well as the carbide tools business and the tungsten business.

We have clarified the positioning of the Renewable Energy business. We will continue to develop geothermal power generation and other technologies with the goal of eventually supplying 100% of renewable energy power that our company needs for its business activities. This will also help achieve carbon neutrality.

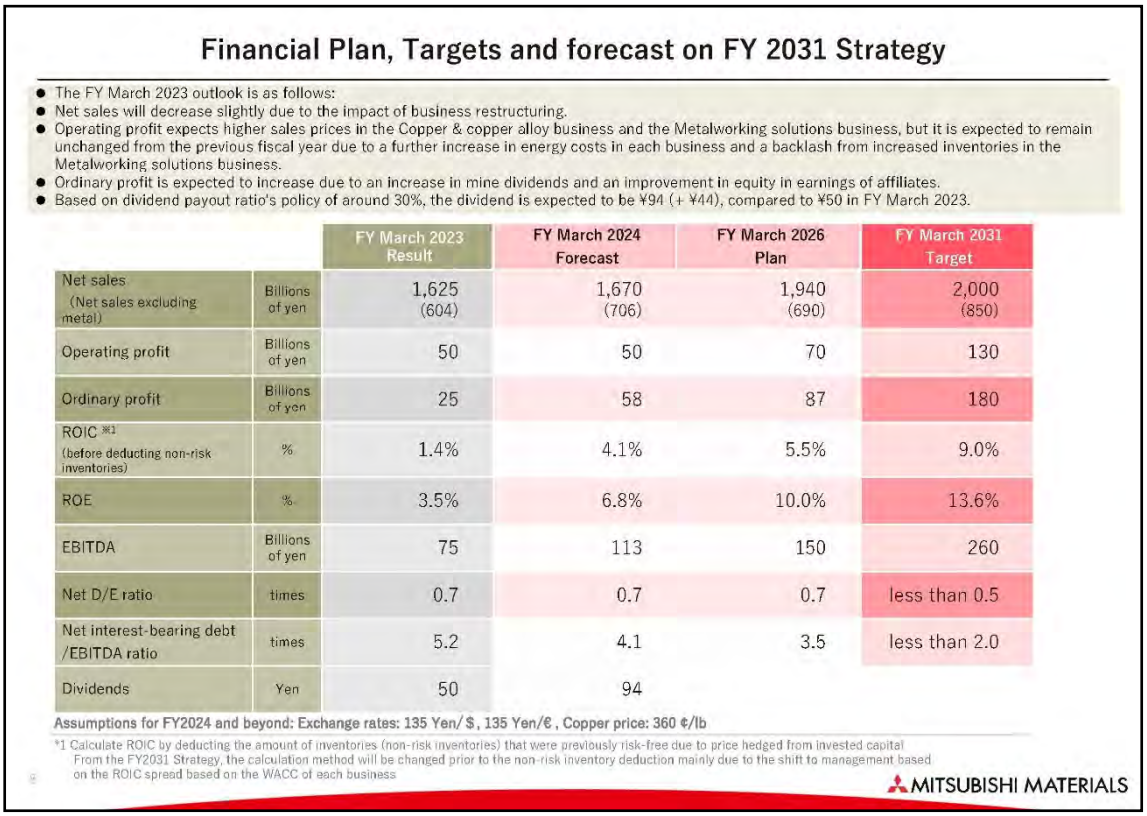
These are illustrated in the center of the slide. It is a diagram of large circulation. As shown in the part “Recovery” at the bottom, used and discarded products in markets are collected and efficiently decomposed and separated using technologies we have cultivated, and valuable metallic elements are extracted through smelting and other processes.

Then, we are considering the supply of high-performance materials and products with higher functionality and value-added, i.e., completing products and delivering them to markets again. The Metals Company will be responsible for expanding resource recycling, while the Advanced Products Company and the Metalworking Solutions Company will be responsible for enhancing the supply of

high-performance materials and products.

We gave the Renewable Energy business the role of supporting them.

【Financial Plan, Targets and Forecast on the FY2031 Strategy】



Financial Plan, Targets and forecast on FY 2031 Strategy

- The FY March 2023 outlook is as follows:
- Net sales will decrease slightly due to the impact of business restructuring.
- Operating profit expects higher sales prices in the Copper & copper alloy business and the Metalworking solutions business, but it is expected to remain unchanged from the previous fiscal year due to a further increase in energy costs in each business and a backlash from increased inventories in the Metalworking solutions business.
- Ordinary profit is expected to increase due to an increase in mine dividends and an improvement in equity in earnings of affiliates.
- Based on dividend payout ratio's policy of around 30%, the dividend is expected to be ¥94 (+ ¥44), compared to ¥50 in FY March 2023.

		FY March 2023 Result	FY March 2024 Forecast	FY March 2026 Plan	FY March 2031 Target
Net sales (Net sales excluding metal)	Billions of yen	1,625 (604)	1,670 (706)	1,940 (690)	2,000 (850)
Operating profit	Billions of yen	50	50	70	130
Ordinary profit	Billions of yen	25	58	87	180
ROIC ※1 (before deducting non-risk inventories)	%	1.4%	4.1%	5.5%	9.0%
ROE	%	3.5%	6.8%	10.0%	13.6%
EBITDA	Billions of yen	75	113	150	260
Net D/E ratio	times	0.7	0.7	0.7	less than 0.5
Net interest-bearing debt /EBITDA ratio	times	5.2	4.1	3.5	less than 2.0
Dividends	Yen	50	94		

Assumptions for FY2024 and beyond: Exchange rates: 135 Yen/$, 135 Yen/€, Copper price: 360 ¢/lb

*1 Calculate ROIC by deducting the amount of inventories (non-risk inventories) that were previously risk-free due to price hedged from invested capital
From the FY2031 Strategy, the calculation method will be changed prior to the non-risk inventory deduction mainly due to the shift to management based on the ROIC spread based on the WACC of each business

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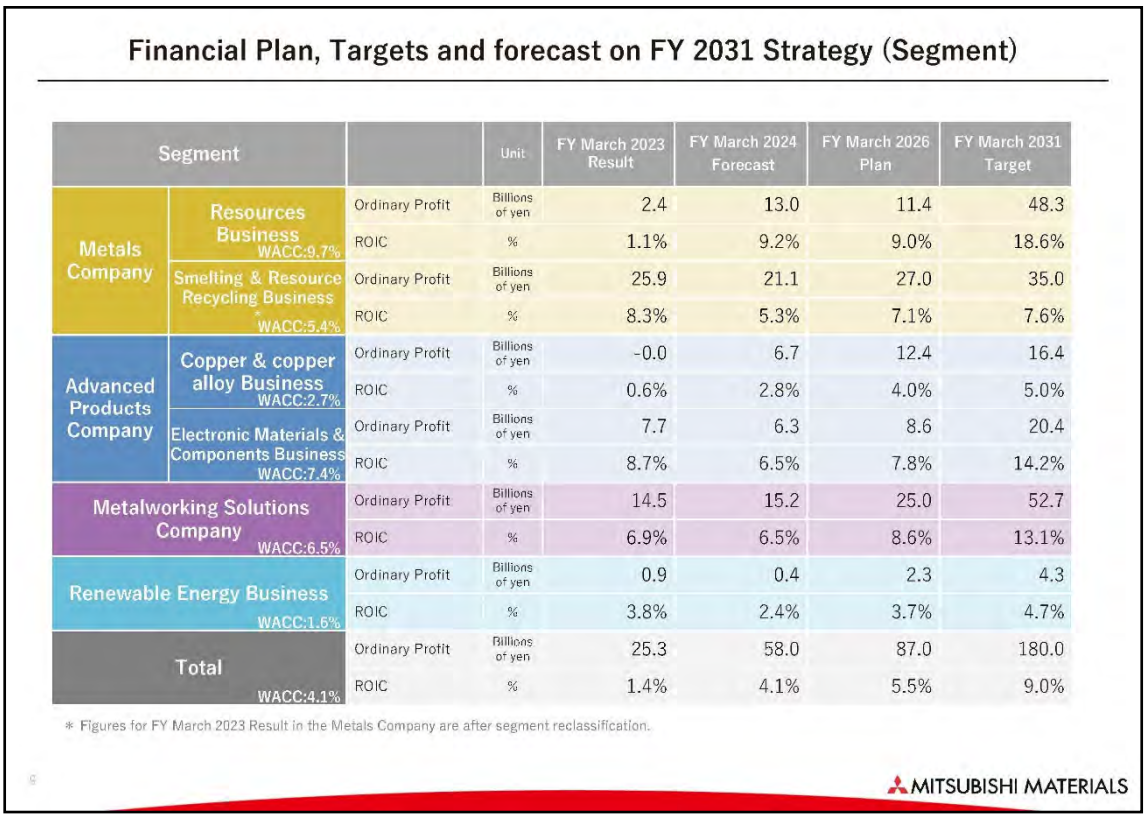
The table shows the relationship between the FY2023 results or the FY2024 forecast and the financial plan in the FY2031 Strategy. Because we have already mentioned the FY2023 results and the FY2024 forecast on other occasions, please check how these will lead to the FY2026 plan and the FY2031 targets.

【Financial Plan, Targets and Forecast on the FY2031 Strategy (Segment)】



Financial Plan, Targets and forecast on FY 2031 Strategy (Segment)

Segment			Unit	FY March 2023 Result	FY March 2024 Forecast	FY March 2026 Plan	FY March 2031 Target
Metals Company	Resources Business WACC:9.7%	Ordinary Profit	Billions of yen	2.4	13.0	11.4	48.3
		ROIC	%	1.1%	9.2%	9.0%	18.6%
	Smelting & Resource Recycling Business * WACC:5.4%	Ordinary Profit	Billions of yen	25.9	21.1	27.0	35.0
		ROIC	%	8.3%	5.3%	7.1%	7.6%
Advanced Products Company	Copper & copper alloy Business WACC:2.7%	Ordinary Profit	Billions of yen	-0.0	6.7	12.4	16.4
		ROIC	%	0.6%	2.8%	4.0%	5.0%
	Electronic Materials & Components Business WACC:7.4%	Ordinary Profit	Billions of yen	7.7	6.3	8.6	20.4
		ROIC	%	8.7%	6.5%	7.8%	14.2%
Metalworking Solutions Company WACC:6.5%		Ordinary Profit	Billions of yen	14.5	15.2	25.0	52.7
		ROIC	%	6.9%	6.5%	8.6%	13.1%
Renewable Energy Business WACC:1.5%		Ordinary Profit	Billions of yen	0.9	0.4	2.3	4.3
		ROIC	%	3.8%	2.4%	3.7%	4.7%
Total WACC:4.1%		Ordinary Profit	Billions of yen	25.3	58.0	87.0	180.0
		ROIC	%	1.4%	4.1%	5.5%	9.0%

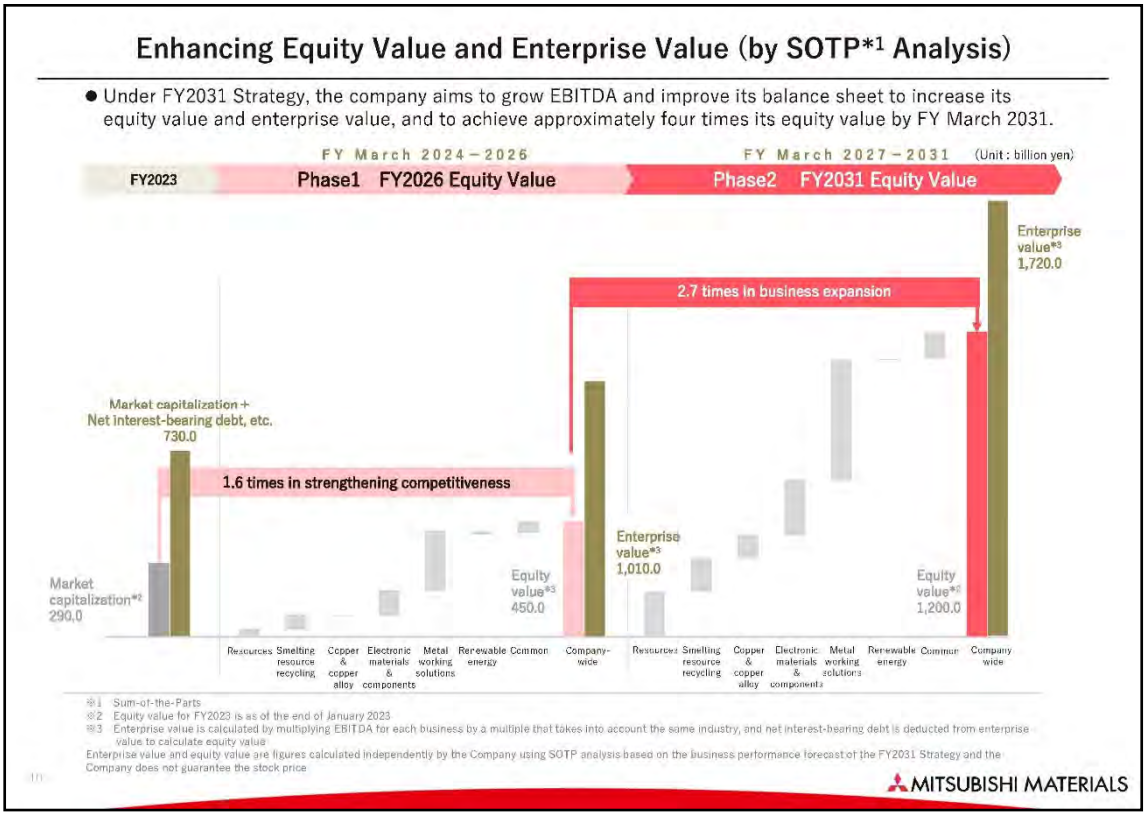
＊ Figures for FY March 2023 Result in the Metals Company are after segment reclassification.

MITSUBISHI MATERIALS

Focusing on ROIC as a financial indicator by business, this indicates the relationship between the FY2023 results and the FY2024 forecast, on the one hand, and the FY2026 plans and the FY2031 targets announced in the FY2031 Strategy, on the other hand.

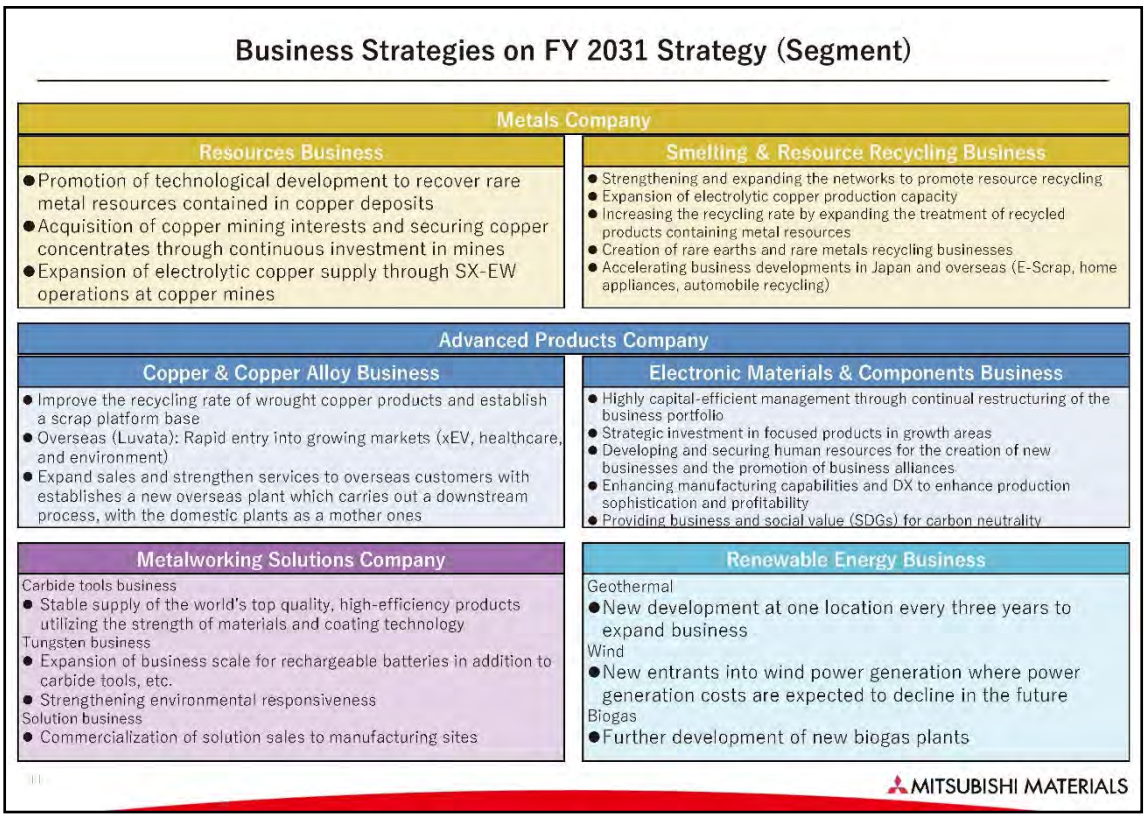
I reported that FY2023 ROIC achieved the target of the FY23 Strategy. Although the FY2024 ROIC is on a downward trend since investment generally precedes, we believe that this is necessary as a step toward FY2026.

【Enhancing Equity Value and Enterprise Value (by SOTP Analysis)】



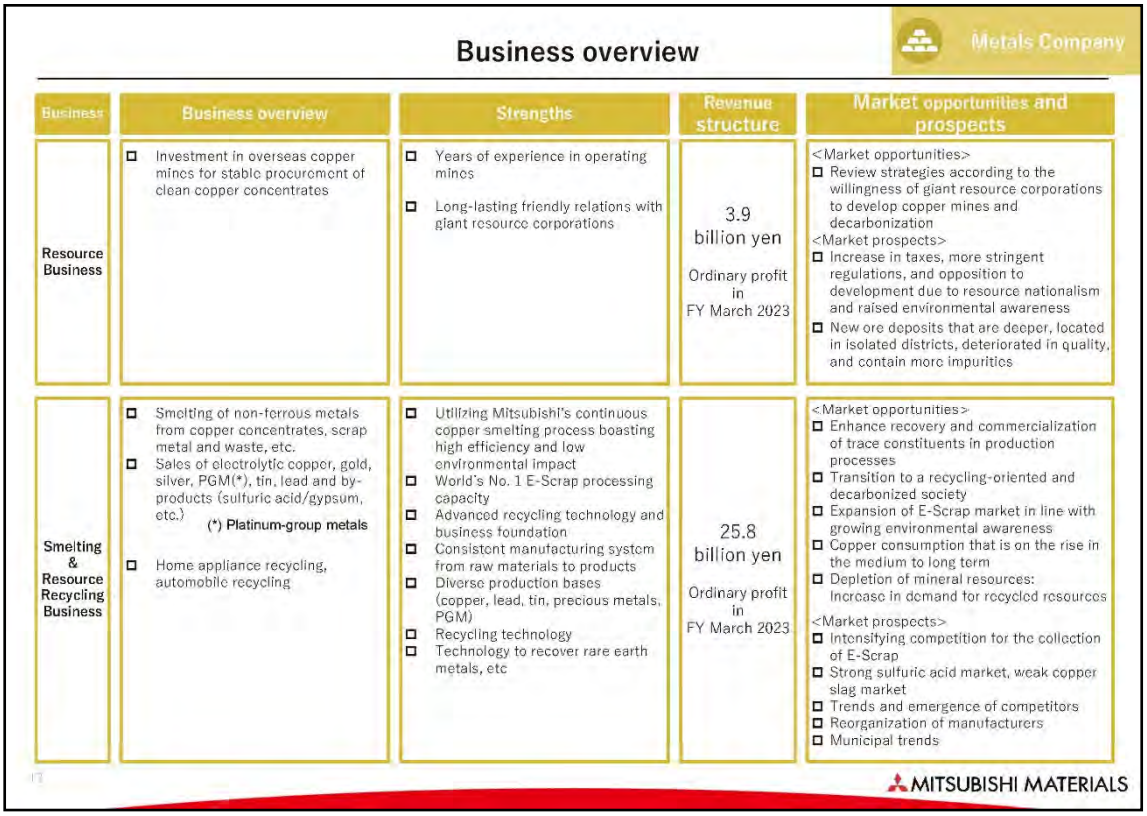
This shows the estimate of forecast equity value or enterprise value based on the EBITDA multiple indicated in the FY2031 Strategy in the format aligned with Medium-term Management Strategy FY2031.

【Business Strategies on the FY2031 Strategy (Segment)】



This is a list of strategies by business in the FY2031 Strategy.

【Business Overview】



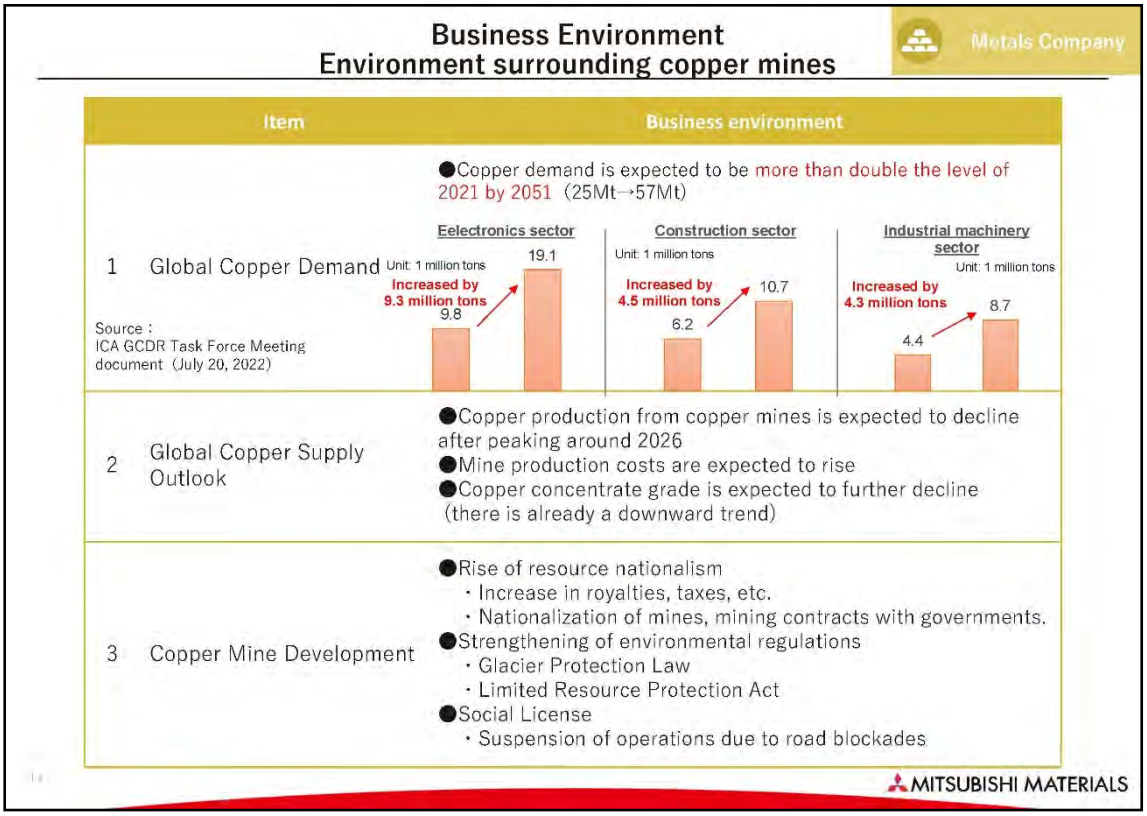
Mr. Katsuyoshi Isaji (hereinafter referred to as “Isaji”)

Next, I will explain the Metals Company. First, this is an overview of the Metals business. The Metals Company consists of three pillars: the Resources business, the Smelting business and the Resource Recycling business. Copper and other non-ferrous metals are indispensable for realizing a prosperous and decarbonized society. From the perspective of economic security, the importance of securing the stable supply of non-ferrous metal resources has also been recognized.

We hope to play a central role in Japan’s resource strategy and resource recycling system. To this end, we believe that it is essential to increase the scale, expand the scope, and enhance the quality of those three businesses, and that it is also necessary to enhance synergies through organic collaboration among those three businesses.

The main measures of the FY2031 Strategy are aimed at realizing this goal. The details will be explained later.

【Business Environment: Environment surrounding copper mines】



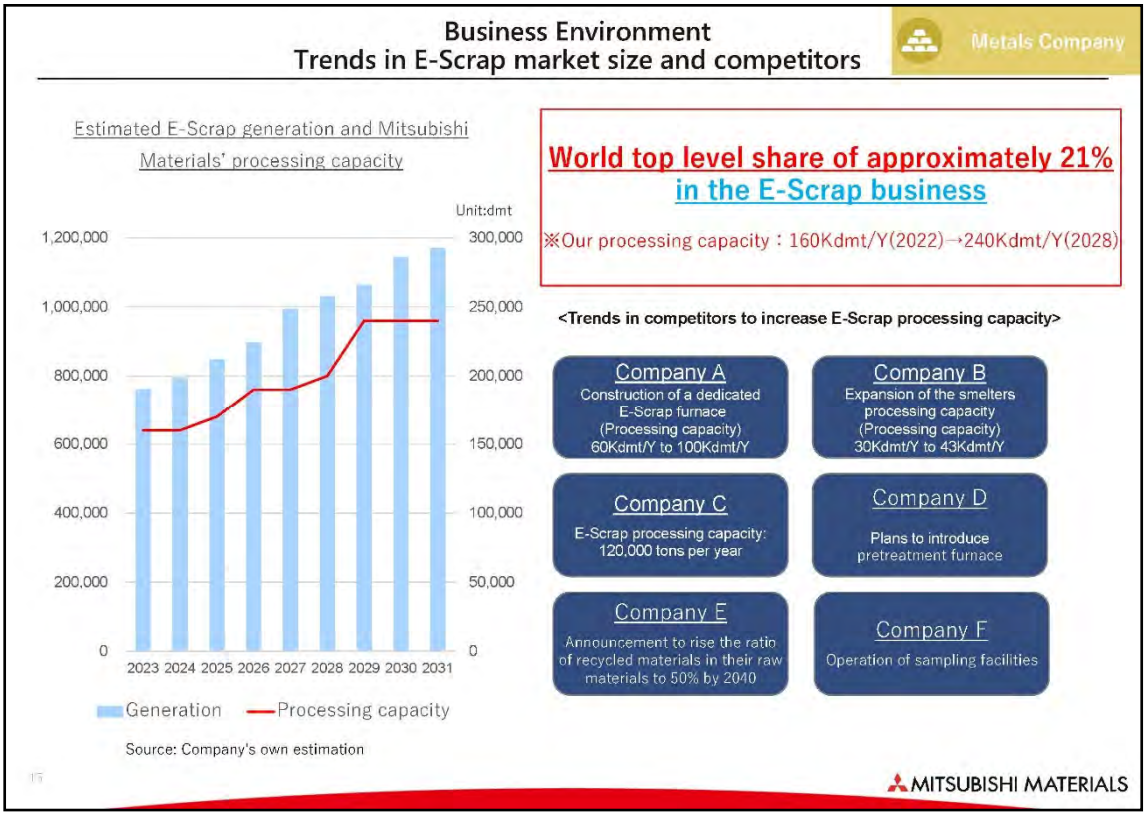
I will explain the business environment. First, I will explain the environment surrounding copper mines.

Regarding global copper demand, according to ICA forecasts, the demand in 2050 is expected to be more than double the level of 2020, with significant increases in the electronics, construction, and industrial machinery sectors.

On the supply side, copper mine production is expected to decline after peaking around 2025, while production costs will rise. On the other hand, we expect a continuous decline in the grade of copper concentrate, which is a product.

In addition, the development of new copper mines has been challenged by the rise of resource nationalism, strengthening of environmental regulations, and community backlash, making development extremely difficult. In other words, we think the supply side is the bottleneck and it will be a challenge.

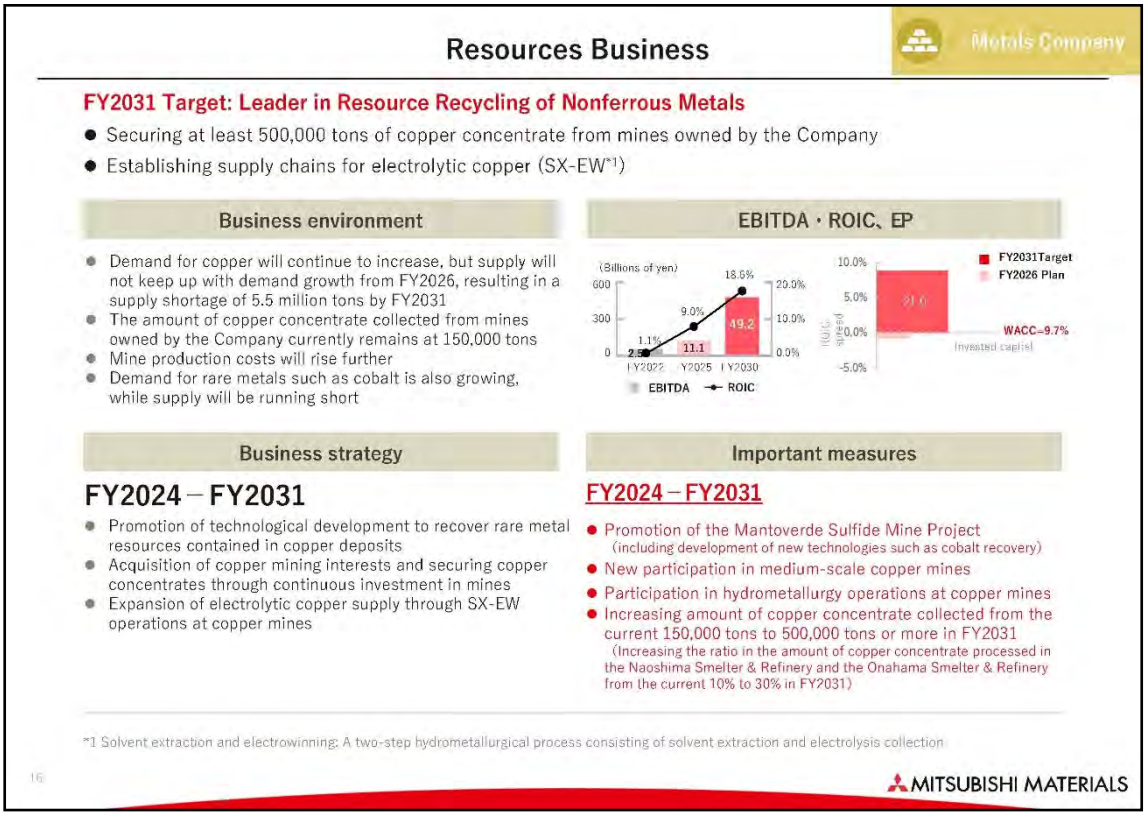
【Business Environment: Trends in E-Scrap market size and competitors】



Next, I will explain the E-Scrap market. As shown in the graph, there is growth potential in the market and the generated volume is expected to increase. Therefore, our competitors in Japan and overseas have announced plans to make major investments.

While we hope to maintain our current world-leading market share, we expect the competition on the buyer side will become severer. Therefore, we believe it is a challenge to strengthen and expand our capacity to collect and process E-Scrap.

【Resources Business】

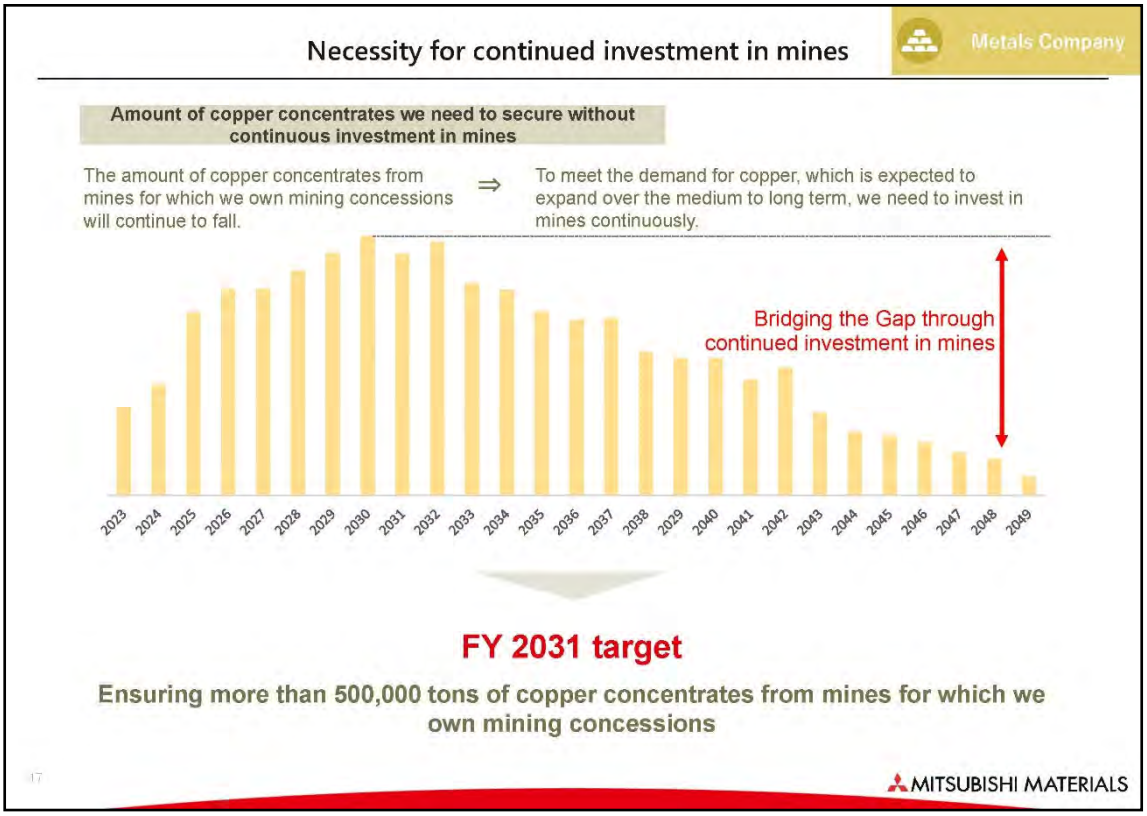


These are important measures in the Resources business. The Mantoverde Development Project is a new project that we invested in 2021. It will produce electrolytic copper from sulfide ore, and is scheduled to begin production at the end of FY2024.

This project is also expected to recover cobalt, and we are developing new technologies for this purpose. In addition, in order to secure the supply of copper, we would like to participate in new medium-scale copper mines other than the Mantoverde copper mine, or participate in hydrometallurgy operations called SX-EW at copper mines.

In order to secure copper concentrate, which is our main raw material, we would like to increase offtake from about 150,000 tons per year to more than 500,000 tons by FY2031. This amount accounts for about 30% of copper concentrate required by the Naoshima Smelter & Refinery and the Onahama Smelter & Refinery.

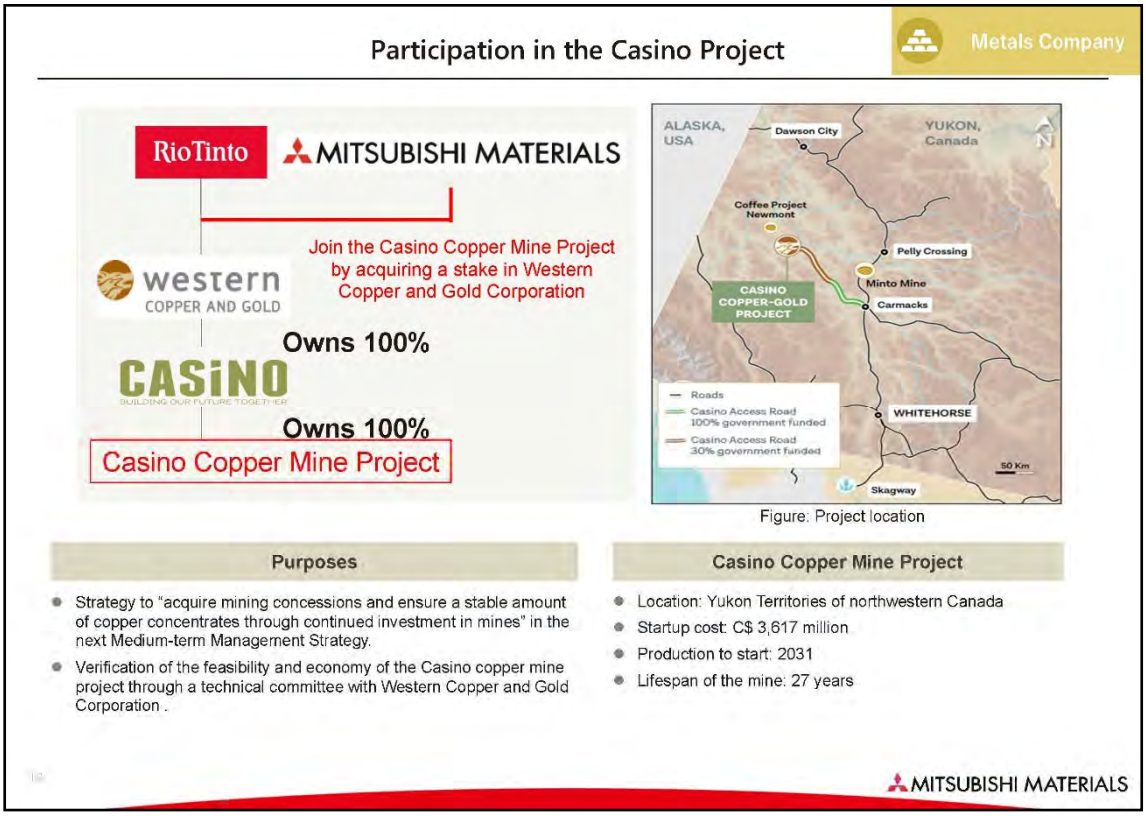
【Necessity for continued investment in mines】



Next, this graph shows the necessity of making continued investment in mines. The amount of copper concentrate we can take from the mines for which we own mining concessions will decline after peaking in 2029.

To ensure sustainable operation, we will make up for this gap and secure raw material copper, which is in short supply, by continuously investing in mines. The target for FY2031 is 500,000 tons.

【Participation in the Casino Project】



One specific initiative is the Casino Project. This is a new project in Yukon Territory, Canada, and we acquired a 5% stake in Western Copper and Gold Corporation, which holds 100% of its mining concessions. We would like to be involved in promoting the Casino Project through it.

Production is expected to begin in 2030, and the lifespan of the mine is expected to be 27 years, which is very long. Because it contains gold, we evaluate it as a highly profitable project that is likely to be our target.

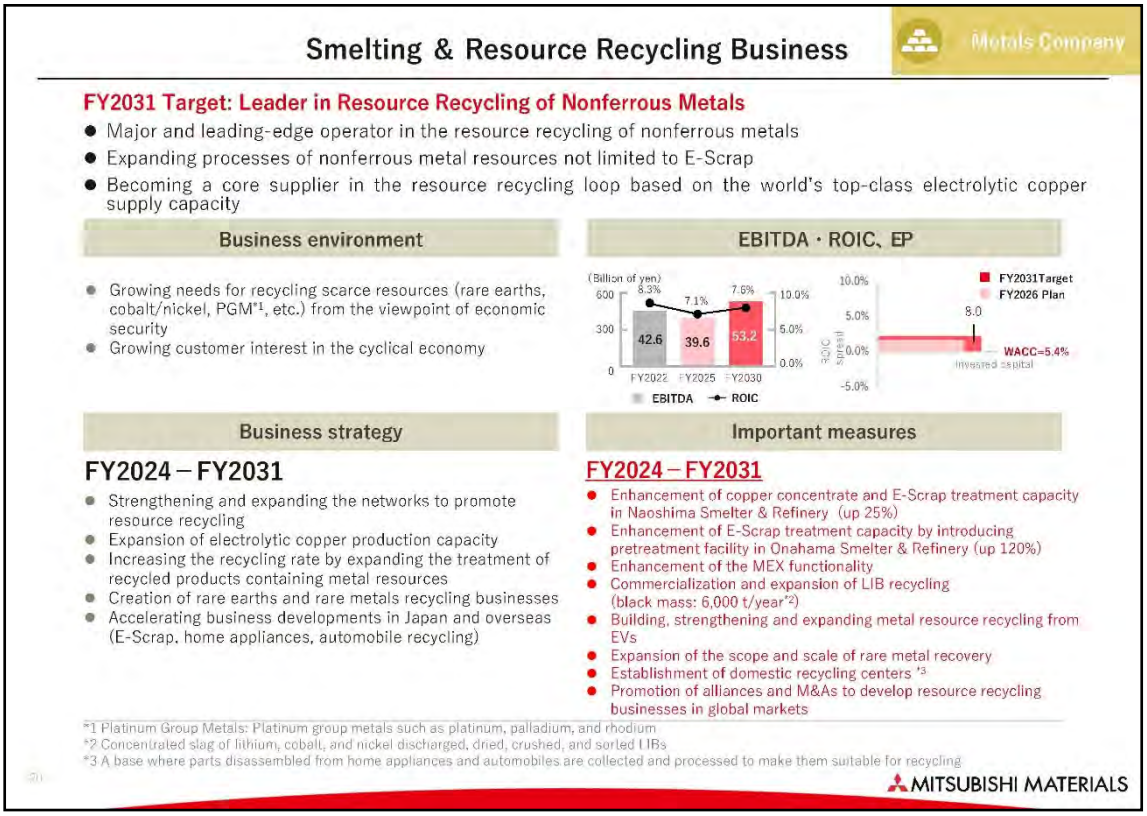
【Industrialization of the recovery of valuable metals from copper deposits】

Next, we would like to recover more valuable metals other than copper contained in copper mines, which is a slightly more forward-looking initiative.

To this end, we will promote joint research between our Mining & Metallurgy Laboratory and other domestic and overseas research institutes, invest in mines as a partner, collaborate with venture companies possessing special technologies, and eventually lead them to commercial production.

The first initiative is the Mantoverde copper mine. It has raw materials that contain cobalt. Technologies are being developed to establish a process to separate and recover cobalt and nickel tailings from them. We are currently proceeding with a pilot plant plan and would like to begin commercial production in 2027.

【Smelting & Resource Recycling Business】



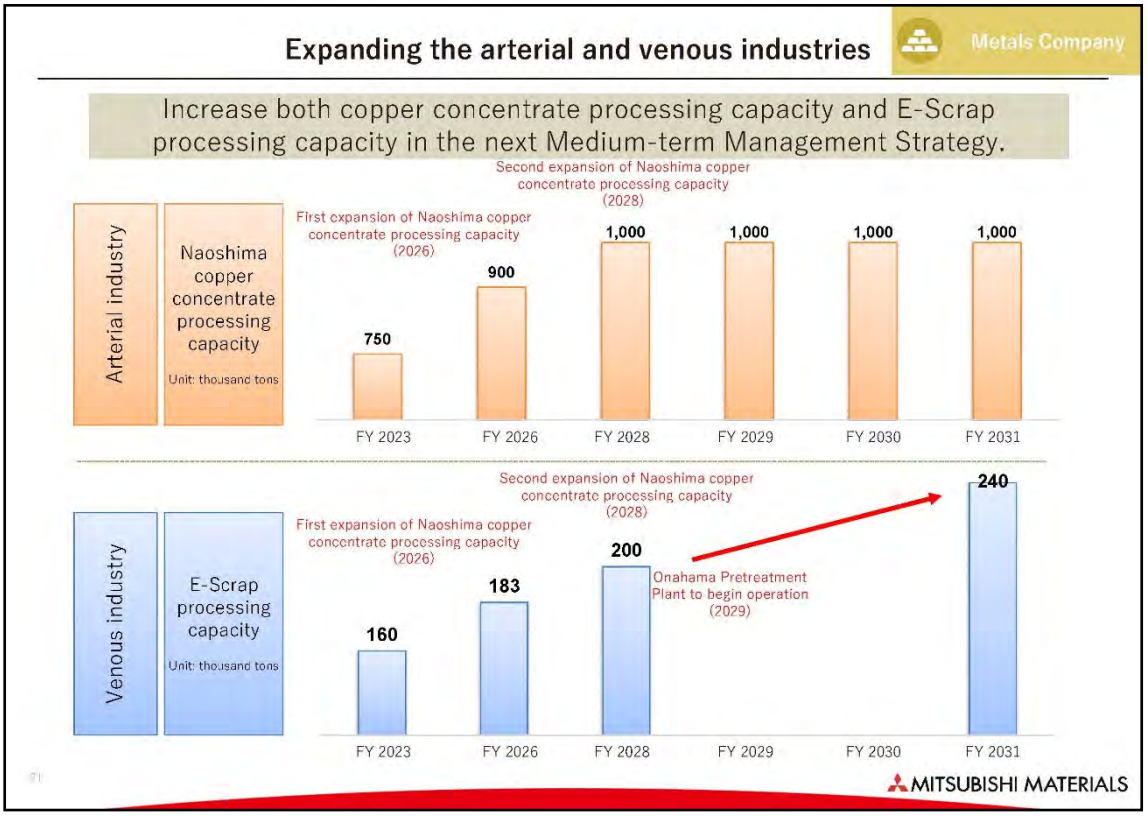
These are important measures in the Smelting & Resource Recycling business. We believe it is important to expand our copper concentrate and E-Scrap treatment capacity, and strengthen our abilities to collect them.

Regarding expanding the treatment capacity, we are thinking of enhancing the treatment capacity of copper concentrate or E-Scraps at the Naoshima Smelter & Refinery, and installing a pretreatment facility at the Onahama Smelter & Refinery to increase the treatment capacity. We would also like to commercialize and expand LIB recycling. We would also like to strengthen the recovery of rare metals.

Regarding enhancing the collection capacity, the first is MEX. We are creating a digital platform for recycling transactions, and we would like to enhance its functionality. Or, in order to strengthen the collection of metal resources from EVs in the future, we first want to build infrastructure for recycling, and one piece of this infrastructure requires the construction of recycling centers in Japan.

Furthermore, we would like to develop our Resource Recycling business not only in Japan but also in the global markets.

【Expanding the arterial and venous industries】

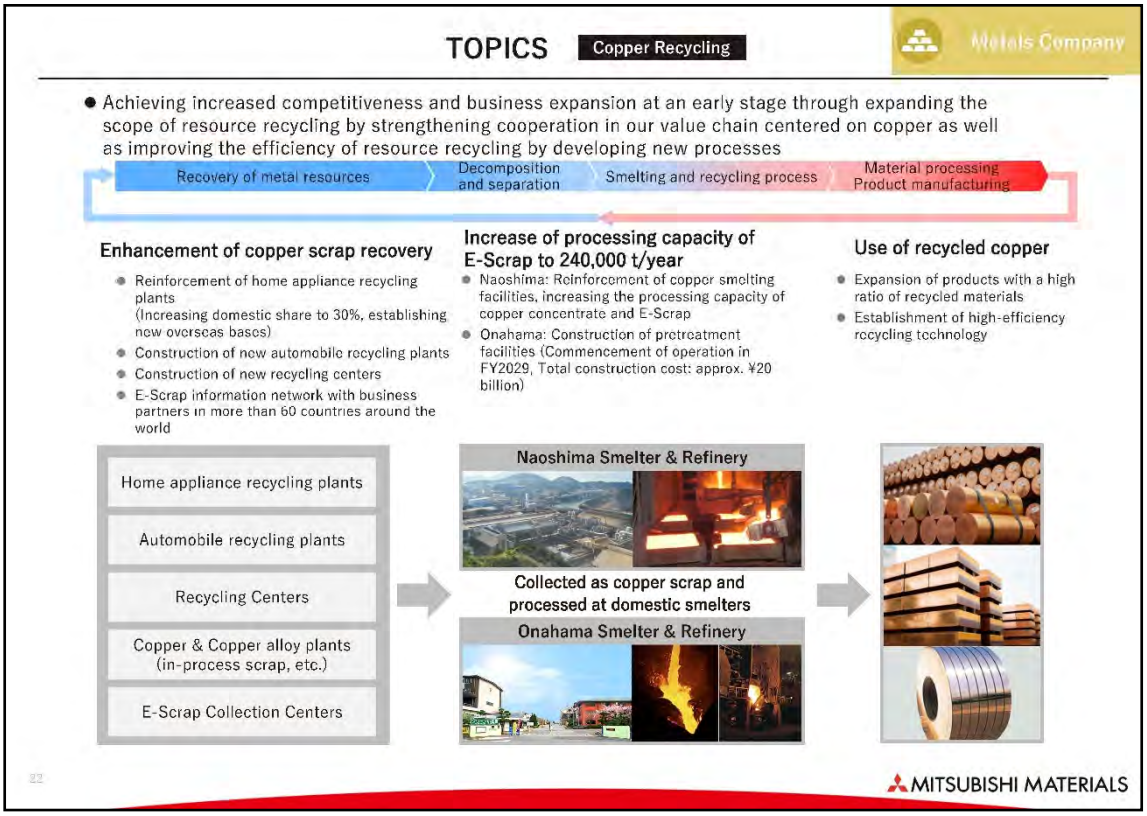


I will explain the individual items from here, and first I will explain expanding the processing capacity of the Naoshima Smelter & Refinery.

The “Arterial industry” is shown at the left end of the upper row. Here, the copper concentrate processing capacity will be expanded and the processing capacity will be increased at the Naoshima Smelter & Refinery. The current annual processing capacity of about 750,000 tons is planned to be increased to 1 million tons by FY2028.

This will also improve the processing capacity of E-Scrap, which is the “Venous industry.” In addition to expansion at the Naoshima Smelter & Refinery, the current annual processing capacity of about 160,000 tons at the Onahama Smelter & Refinery will be increased to 240,000 tons by FY2031 through the deployment and operation of pre-processing facilities.

【TOPICS: Copper Recycling】



These are the topics in copper recycling. We will achieve enhanced competitiveness and business expansion through expanding the scope of resource recycling by strengthening cooperation in our value chain centered on copper while further improving the efficiency of resource recycling by developing new processes.

On the far left of the slide is the enhancement of copper scrap recovery. We will increase our collection capacity by utilizing home appliance recycling plants and automobile recycling plants.

The center of the slide shows the increase of processing capacity at the Naoshima Smelter & Refinery and the Onahama Smelter & Refinery. Even though our products will include more recycled materials, we will continue to ensure the quality of products we sell.

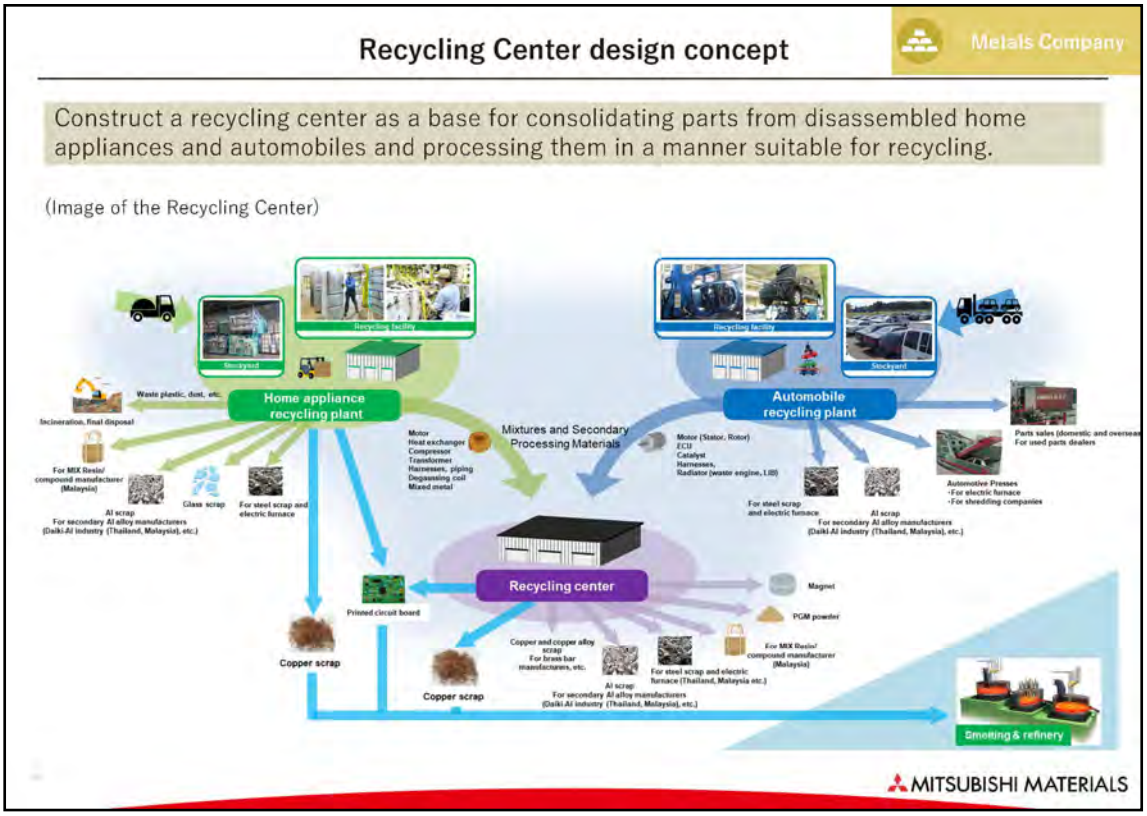
We intend to combine the globally competitive arterial and venous industries, and further develop them by strengthening collaboration in their value chain for organic operation.

【Participation in the Exurban Project】

One initiative for such expansion is the Exurban Project, announced in March 2023. Exurban is a British company currently working on a project to build a new recycling plant in Indiana, the United States.

We explored the possibility of being involved in this project, and made an investment in Exurban. This is one of our initiatives to develop our business globally, and we would like to use it as a new step toward our future business development.

【Recycling center design concept】

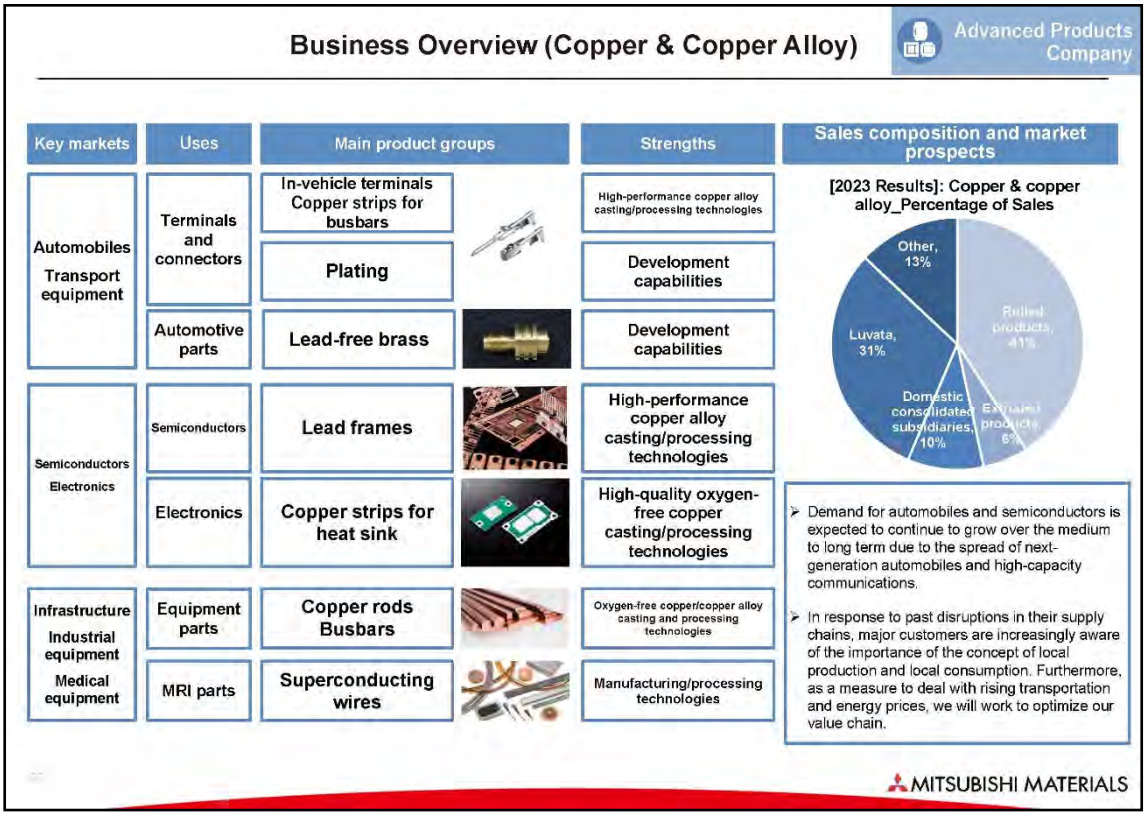


This is the design concept of the recycling center. Slightly forward-looking, the slide image relates to the home appliance recycling plant, and the automobile recycling plant that we will work on in the future.

They aim to expand the recovery of various valuable metal resources from EVs in the future. Some are difficult to process, but may contain valuable metals. We will collect them to a recycling center and process them effectively and efficiently. In so doing, we would like to take advantage of economies of scale.

Through these initiatives, we intend to strengthen our domestic collection capacity and apply it to overseas business development. This concludes my explanation.

【Business Overview (Copper & Copper Alloy)】



Mr. Toshinori Ishii (hereinafter referred to as "Ishii")

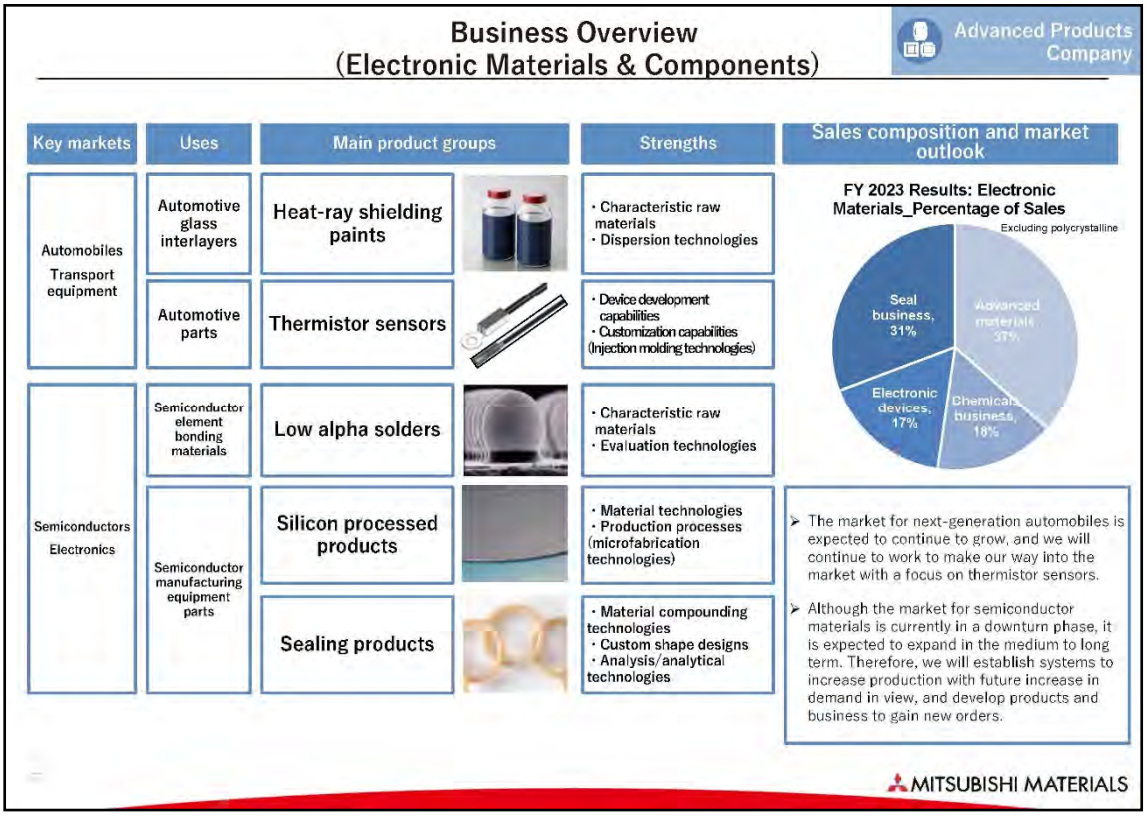
Next, I will explain the Advanced Products Company. The Advanced Products Company's business consists of the Copper & Copper Alloy business and the Electronic Materials & Components business. First, I will give an overview of the Copper & Copper Alloy business.

This lists markets, uses, product groups, etc. For automobile transport equipment, we have terminals and connectors, oxygen-free copper strips rolled for automotive parts, alloy copper strips, and those that are plated.

Others include lead-free brass, which is an extruded product. For semiconductor electronics, we have lead frames and copper strips for heat sinks. For infrastructure and other applications, we have copper rods and busbars, as well as superconducting wires manufactured by Luvata.

The strength of this business lies in its high-performance alloys, manufacturing and processing technologies for oxygen-free copper, and development capability to create them. The pie chart on the right shows the sales composition. Domestic rolled products account for 40%, Luvata 30%, and the remainder consists of extruded products, lead frames, etc. We believe that demand for copper materials will grow in the future due to the spread of next-generation automobiles and high-capacity communications.

【Business Overview (Electronic Materials & Components)】



This is about the Electronic Materials & Components business. We had the polycrystalline silicon business until the previous fiscal year, but as you know, we transferred this business to SUMCO Corporation in the previous fiscal year. Our current main product groups are as described here.

For automobiles, our products include heat-ray shielding paints used in automotive glass interlayers, and thermistor sensors for detecting the temperature of various components. For semiconductor electronics, there are low-alpha solders for semiconductor element bonding, silicon processed products, which are semiconductor manufacturing equipment parts, and sealing products. The strengths are listed here.

As for the sales component, advanced materials mainly including silicon processed products and low-alpha solders account for slightly less than 40%, heat-ray shielding paints and other chemicals businesses combined with thermistor sensors and other devices account for slightly more than 30%, and sealing products account for the remaining 30%.

The semiconductor materials market is expected to expand significantly over the medium- to long-term, despite the current slightly downward trends, and we will increase production and develop products to meet the demand.

【Key initiatives of the FY2031 Strategy】

Our goal for the FY2031 Strategy is still to become a top global supplier (called *global first* in Japan), because we did not achieve it in the previous Medium-term Management Strategy.

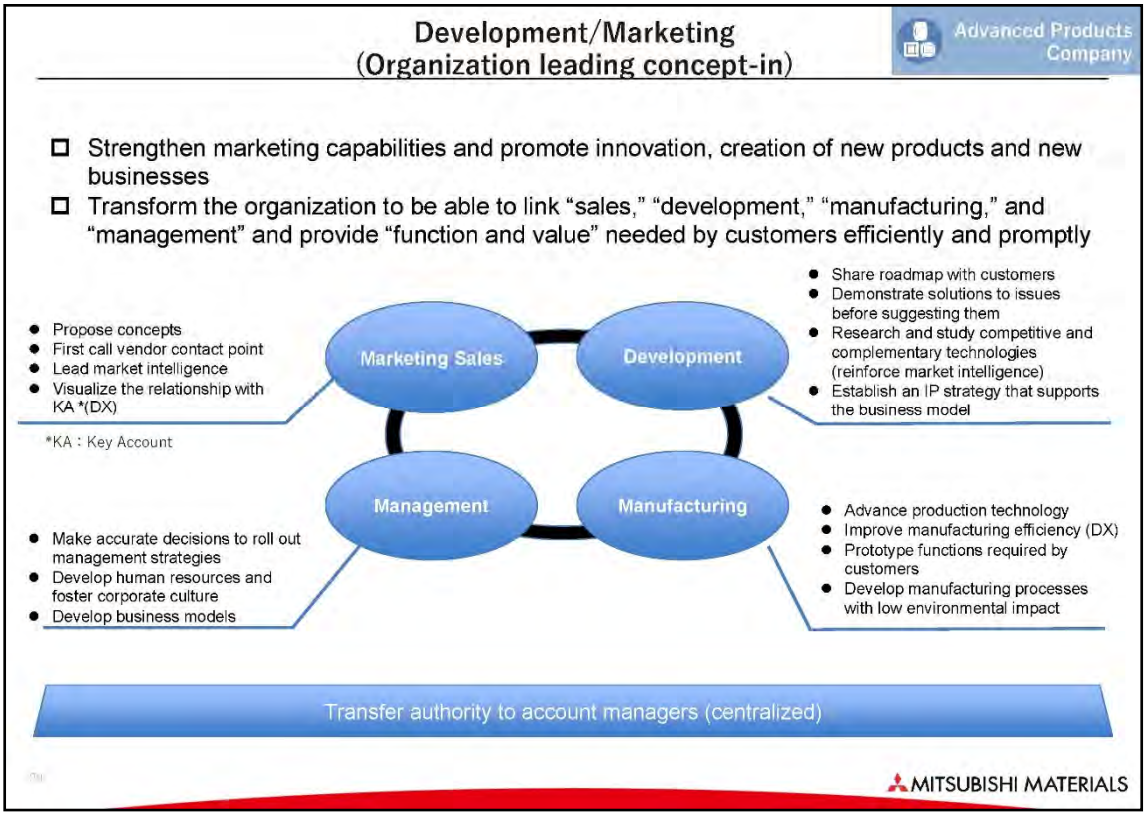
A global first supplier means when our company is the top supplier to our key accounts operating worldwide and the key accounts recognize our company as the first-call vendor.

In order to achieve this, we defined strategies as the next step of the market-in strategy (providing the goods that the market needs while staying close to the customers) we have implemented so far, and they include pursuing concept-in (encouraging adoption by showcasing to the client the performance, features, and benefits of introducing the company's products from the initial stage of product development). The aim is to seize business opportunities, enhance and combine our core competencies to create new products and businesses, enhance earnings capacity by continuously reforming manufacturing and other activities using digital technologies, and contributing to the realization of a sustainable society by establishing recycling processes and restructuring the supply chain.

In the Copper & Copper Alloy business, our key initiatives include formulating plans for expanding domestic sales and entering overseas markets in the rolled products business, streamlining extrusion processes, expanding our Luvata individual business, and reducing costs by improving productivity and streamlining organizations.

In the Electronic Materials & Components business, we aim to expand and grow business for precision silicon workpieces, columnar crystals, seals and thermistor sensors; create new businesses; improve manufacturing skills; enhance cost competitiveness; and strengthen earnings capacity by promoting DX.

【Development/Marketing (Organization leading concept-in)】

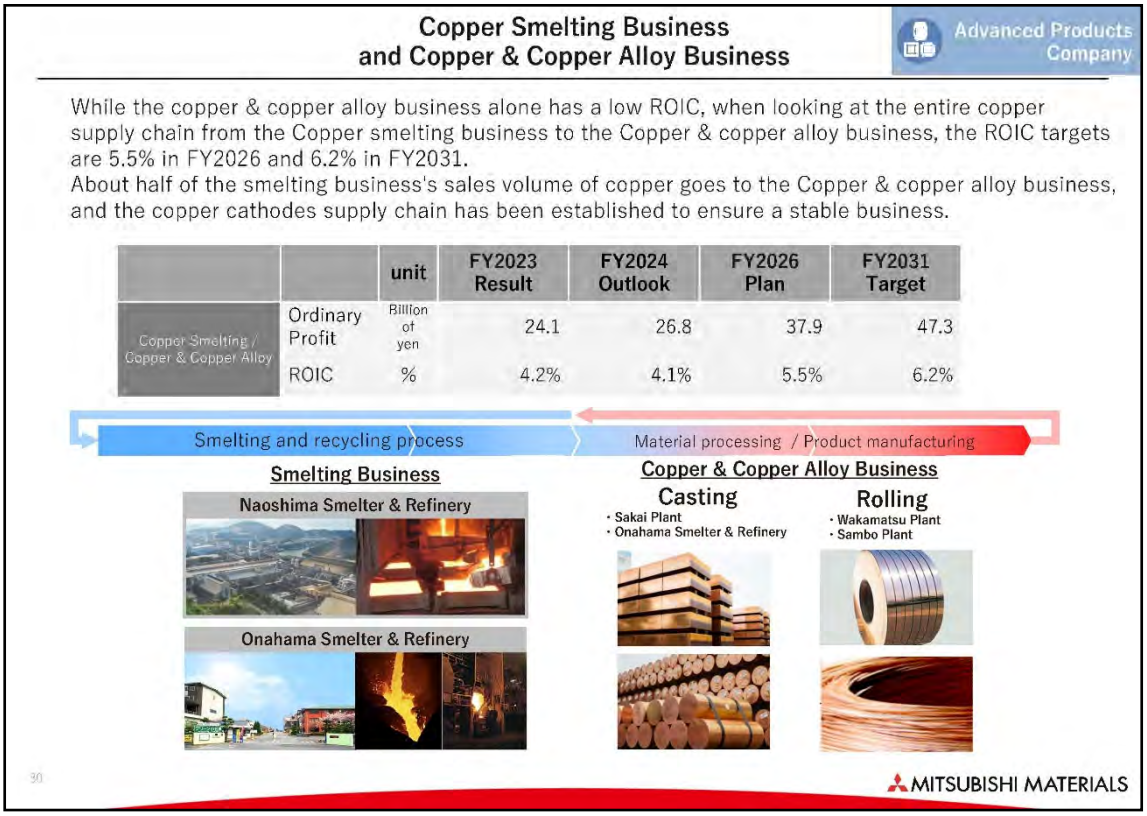


The Advanced Products Company recognizes that strengthening development and marketing capabilities is critically important to achieve the FY2031 Strategy. We will strengthen organizations responsible for each function within the Company, and transform the organization to be able to link "sales," "development," "manufacturing," and "management" and provide products efficiently and promptly.

In order to strengthen our marketing capabilities, we are thinking of a transformation in which we will allot more authority to account managers, who have decided managers for key accounts, and create a mechanism to make money mainly through marketing.

We plan to start with the areas preceding as key accounts step by step, and expand it while reviewing the system and other factors as necessary.

【Copper Smelting Business and Copper & Copper Alloy business】

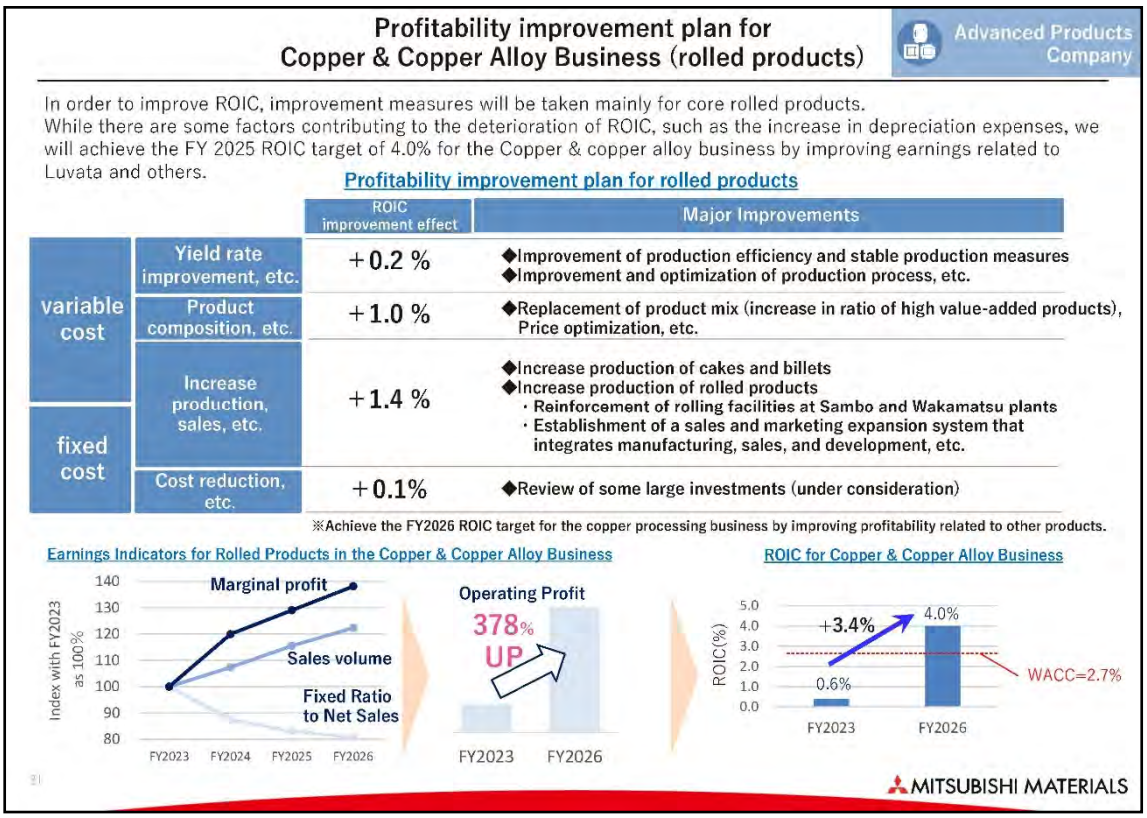


I will explain the status of the Copper & Copper Alloy business more deeply. In FY2023, ROIC for the Copper & Copper Alloy business was 0.6%, which is far lower than other areas.

However, if we look at the whole from the Copper Smelting business to the Copper & Copper Alloy business, ROIC is 4.2% for FY2023. The FY2026 target is 5.5%, and the FY2031 plan is 6.2%. Most of the copper cathode sold in the Copper Smelting business go to the Copper & Copper Alloy business, and the copper cathode supply chain has been established internally. We believe that is why we can ensure stable business.

Regarding recycling, the flow from the Copper & Copper Alloy business to the Copper Smelting business has already been established. The plan is to expand the recycling rate and contribute to reducing GHGs.

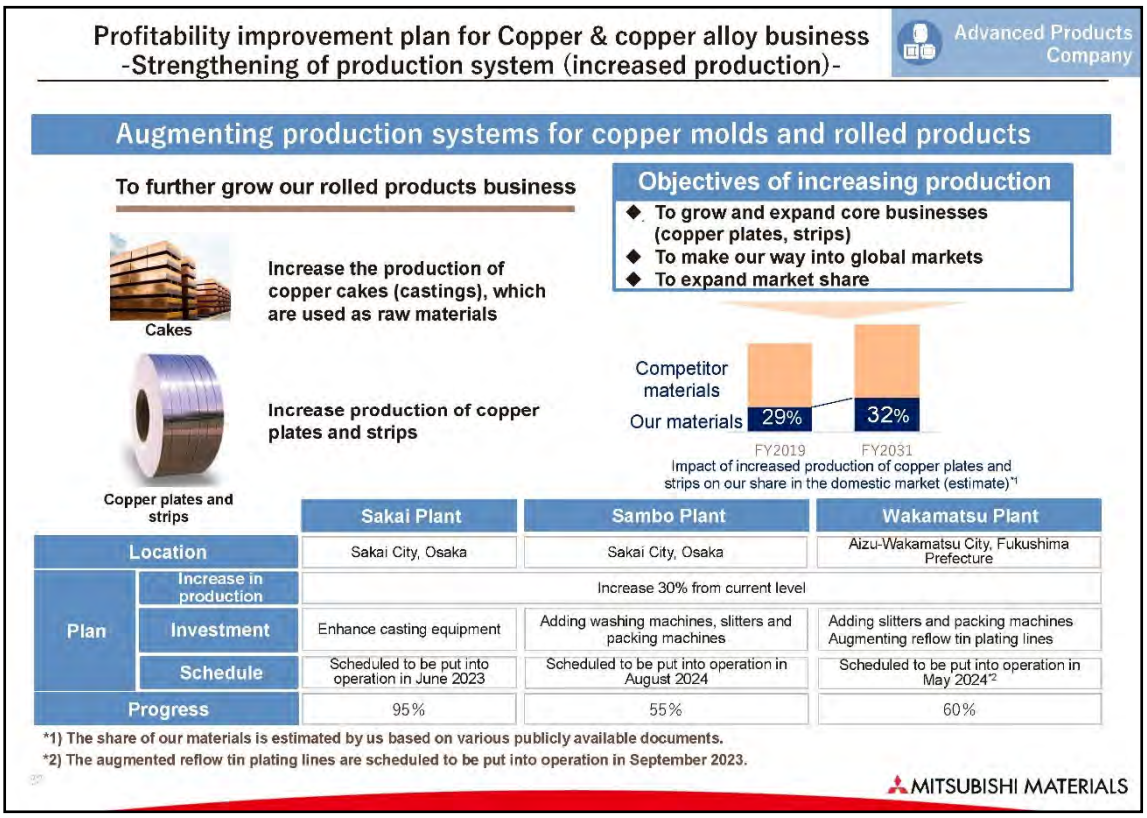
【Profitability improvement plan for Copper & Copper Alloy Business (rolled products)】



This shows improvement measures that will be taken to achieve the ROIC target for FY2025 mainly for rolled products, the core products. These are natural measures for the manufacturing industry, and we will take these measures to aim for +0.2% by improving the yield rate, etc., +1% by optimizing prices and replacing the product mix as sales measures, and +1.4% by increasing production through investments we are currently making.

While there are some factors contributing to the deterioration of ROIC, such as an increase in depreciation expenses due to investments for increasing production, we would like to achieve the FY2026 ROIC target of 4.0% for the Copper & Copper Alloy business by improving earnings related to products other than rolled products.

【Profitability improvement plan for Copper & Copper Alloy business: strengthening production system (increased production)】

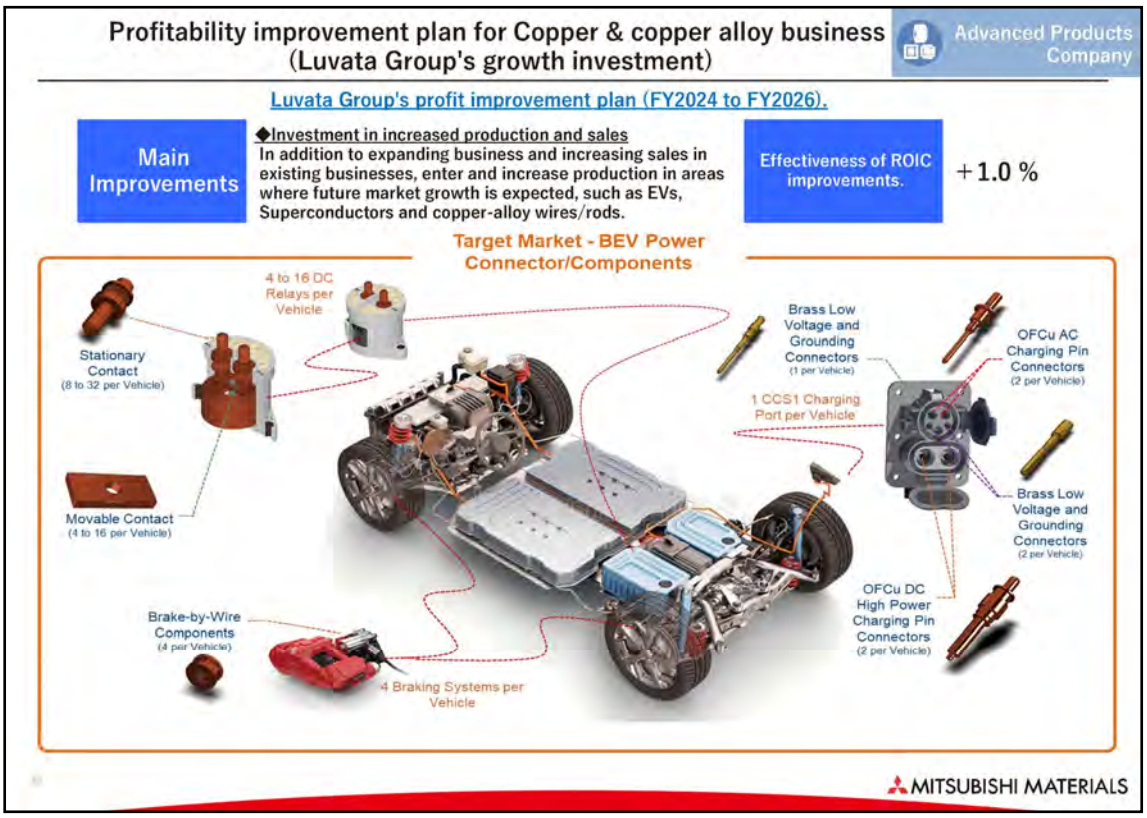


I will explain the progress of a series of production increase plans that we have been working on since the FY23 Strategy. In order to further increase the production of rolled products, we are planning to grow and expand our core businesses, make our way into global markets and expand market share.

From FY2024 to FY2026, we plan to make investments such as enhancing casting equipment, adding washing machines, slitters and packing machines, and increasing production of superconducting wires for things other than rolled products. Some of the equipment is already in operation.

The progress rates at the rolling plants were generally as planned: 95% at Sakai Plant, which is scheduled to be put into operation in June 2023, 55% at Sambo Plant, which is scheduled to begin operating in August 2024, and 60% at Wakamatsu Plant, which is scheduled to be launch in May 2024.

【Profitability improvement plan for Copper & Copper Alloy Business (Luvata Group’s growth investment)】

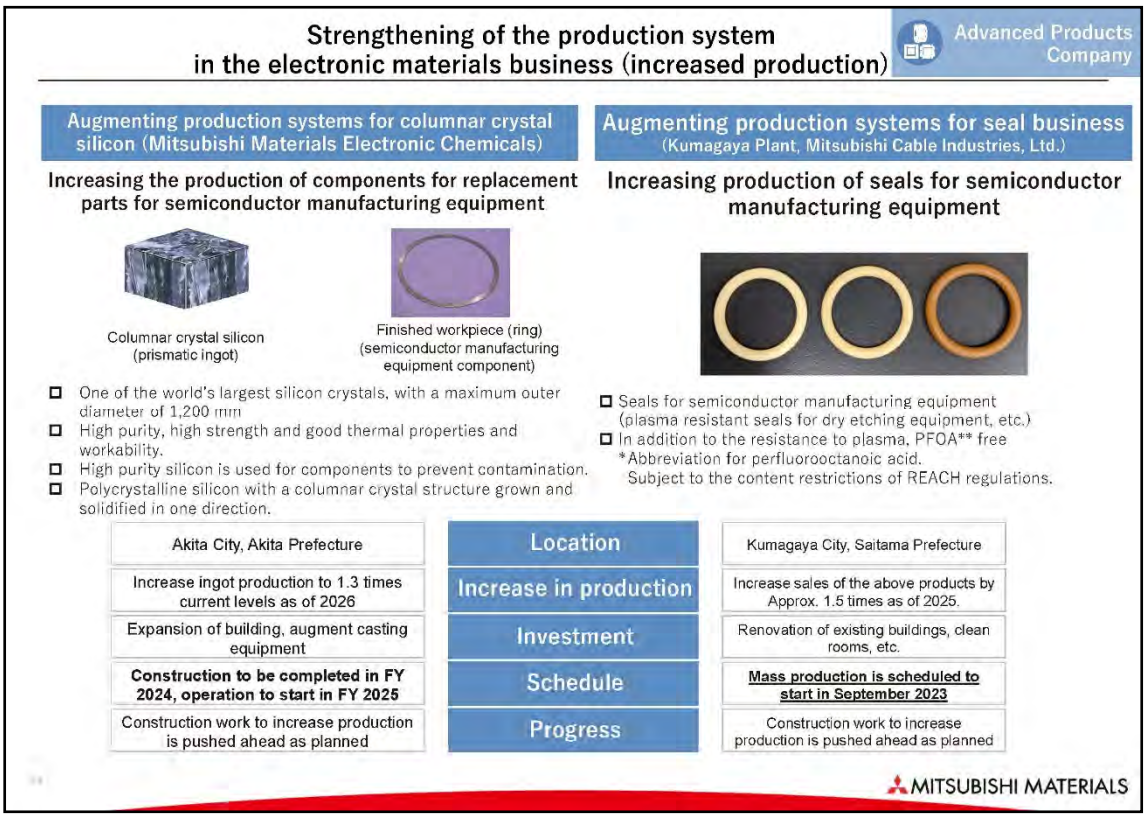


The Luvata Group will seek to enter areas that are expected to grow in the future, such as EV connectors, pin connectors for charging ports, contact connectors for battery relays, and signal connectors, in addition to increasing the production and sales of existing copper alloys and superconducting wires.

The manufacturing methods for these products use the cold-forging technology that has been cultivated in the Luvata Group’s well-established welding electrodes and other areas. We have already deployed them into multiple overseas markets, and we will expand our market presence based on the strength of our cost competitiveness and supply through our bases. Through these profitability improvement plans, we estimate that the Group as a whole will improve ROIC by 1% by FY2026.

Please note that the sum of this 1% and the improvement effect of ROIC expected in the profitability improvement plans for rolling products does not match the figures in the graph. I would like to add that the figures include the negative effects of an increase in investments, inventories and other common expenses.

【Strengthening the production system in the Electronic Materials & Components Business (increased production)】



In the Electronic Materials & Components business, we have almost completed optimizing our portfolio and have entered the phase of strengthening individual product groups. However, as the product life is short in this area, we will of course continue to consider optimizing our portfolio for individual products.

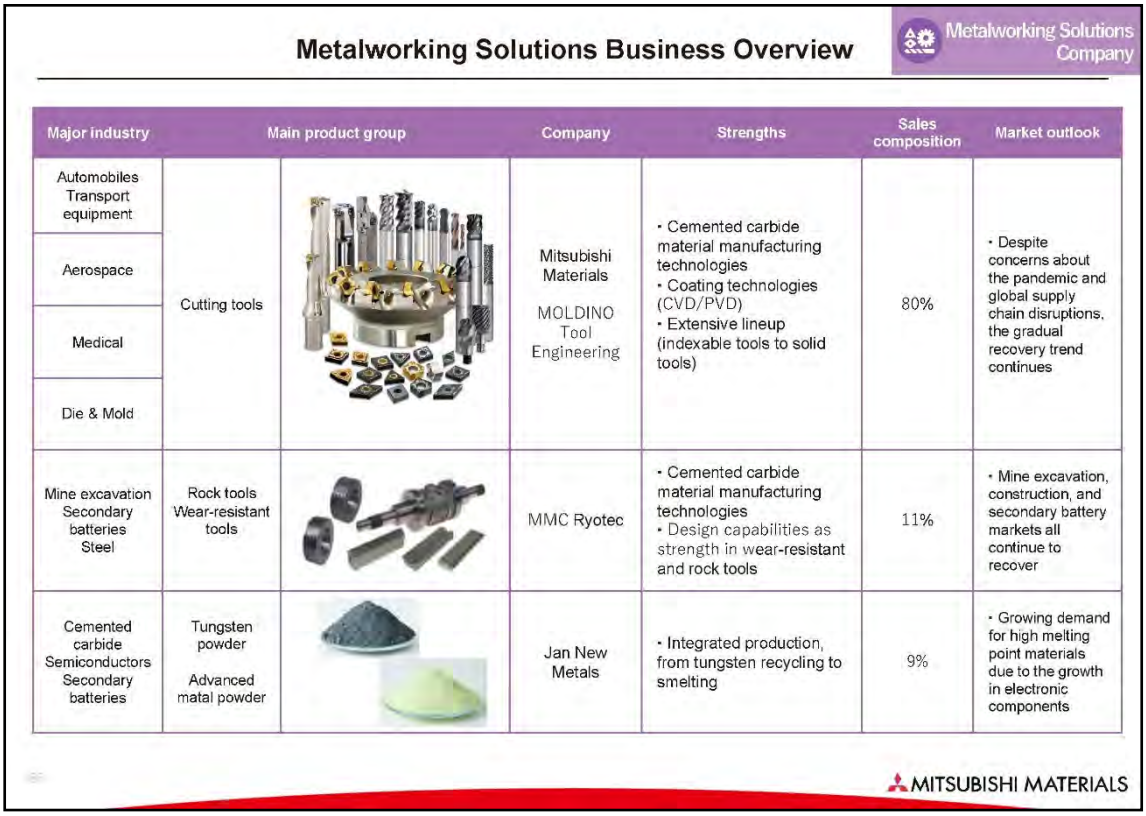
I will explain our columnar crystal silicon and seal businesses, which are related to semiconductors. Although the semiconductor-related current environment is very difficult, it will certainly improve in the medium- to long-term. We also expect demand for these products related to semiconductor manufacturing equipment to grow over the medium- to long-term.

We will make investments to ensure we meet these needs. We will gradually increase the production volume of columnar crystal silicon by 1.3 times by 2026 and sales of seals by 1.5 times by 2025. In the digital business, in addition to increasing production of these products, we plan to boost production of functional materials from 2023 to 2025.

With these strategic products as the core, and with the system to increase production of them already in place, we aim at ROIC of 7.8% by FY2026 and 14.2% by FY2031.

This concludes my explanation.

【Metalworking Solutions Business Overview】



Mr. Kazuo Ohara (hereinafter referred to as “Ohara”)

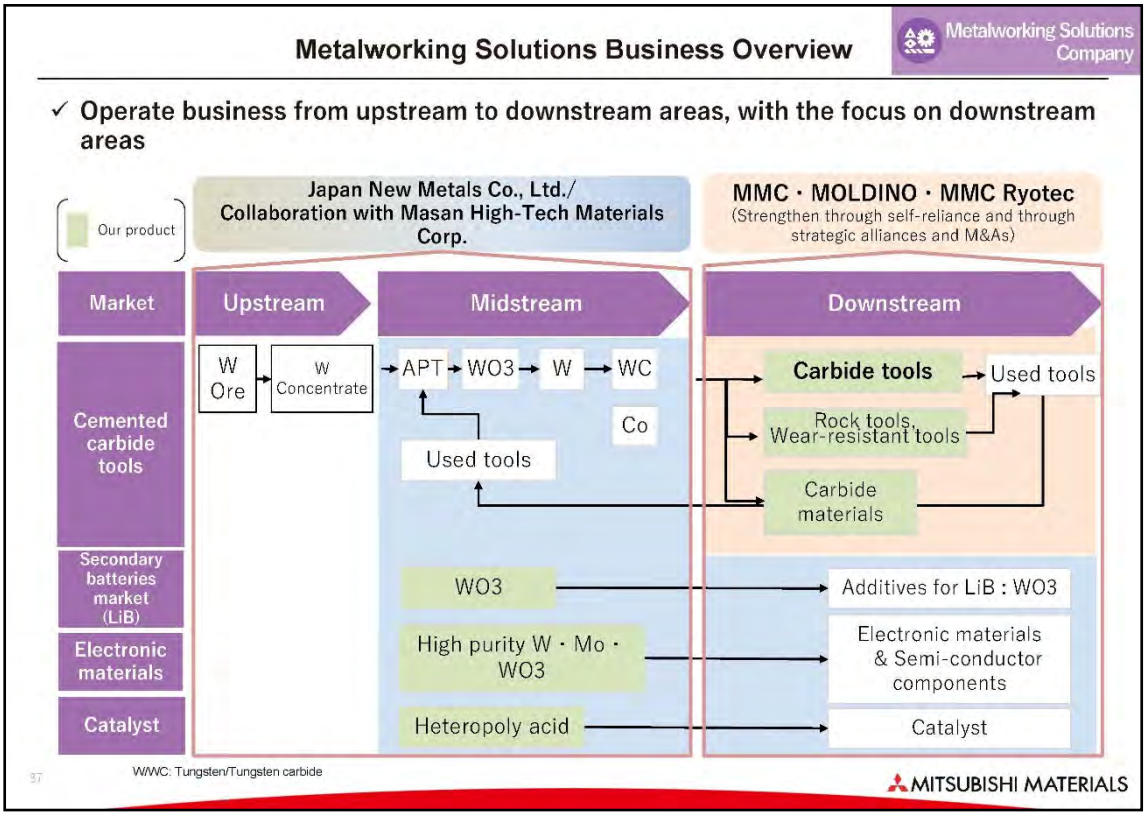
Ohara will explain the Metalworking Solutions Company.

First, this is an overview of the Metalworking Solutions business. The product groups carried by the Metalworking Solutions business include cutting tools of our company and its group company MOLDINO, rock tools and wear-resistant tools of MMC Ryotec, and tungsten powder and advanced metal powder of Japan New Metals.

We supply cutting tools mainly to the automobile transport equipment, aerospace, medical, and die & mold industries, rock tools and wear-resistant tools to mine excavation, secondary batteries manufacturing and steel-related industries, and tungsten powder and advanced metal powder to semiconductor and secondary batteries industries. The Group as a whole is supplying products to a wide variety of industries whose strength is cemented carbide material technologies.

Cutting tools account for approximately 80% of total sales.

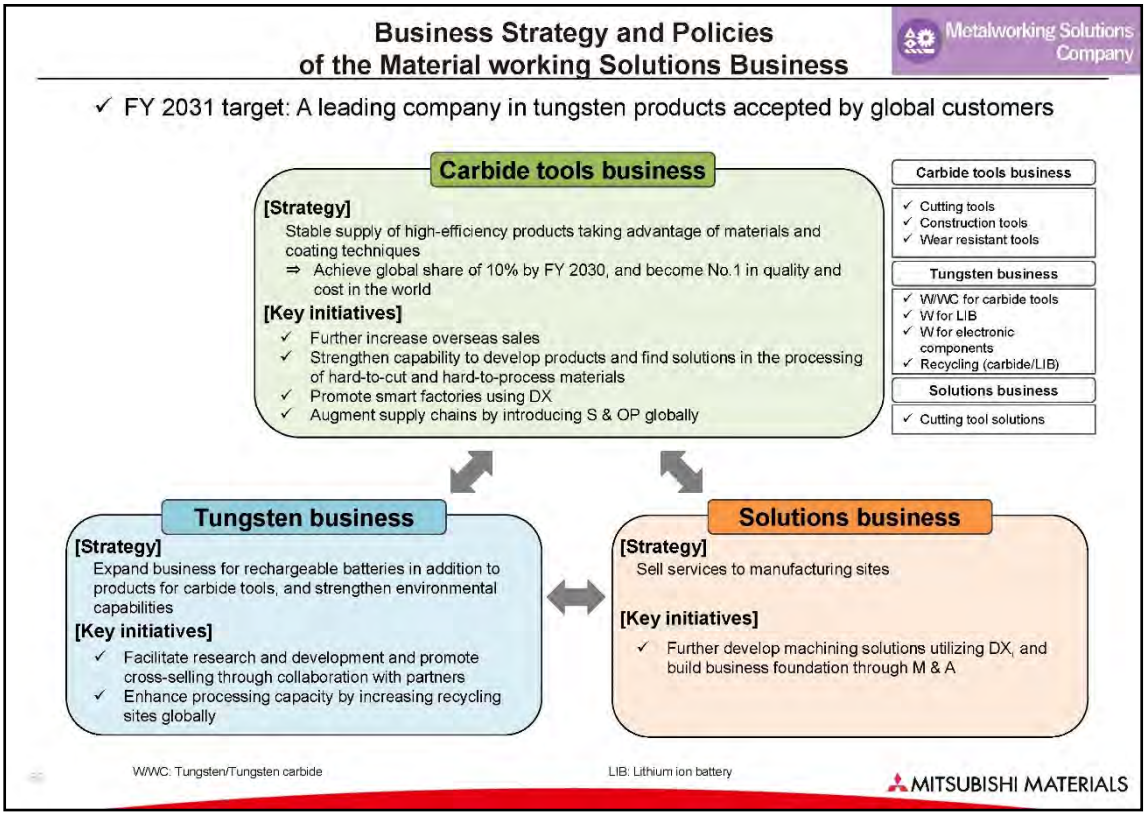
【Metalworking Solutions Business Overview】



I will explain the business areas of the Metalworking Solutions business. The Group operates business from upstream to downstream areas. The areas from upstream to midstream are covered by a collaboration between Japan New Metals and Masan High-Tech Materials, a Vietnamese company in which we invested in 2020, while the downstream area is covered by Mitsubishi Materials, MOLDINO and MMC Ryotec.

In addition to used products such as cemented carbide cutting tools, rock tools, wear-resistant tools, and carbide materials, we plan to invest our management resources in tungsten powder and advanced metal powder, which are in the midstream area, to increase sales.

【Business Strategy and Policies of the Material Working Solutions Business】



In the FY2031 Strategy, we plan to newly launch the tungsten business and the solutions business, in addition to the carbide tools business, to operate them as the three pillars of our operations. The areas, products and services covered by each business are shown in the white box on the right of the slide.

Our strategy in the carbide tools business is to stably supply high-efficiency products taking advantage of our strengths in materials and coating technologies. We aim to achieve a global share of 10% by FY2031, and become No. 1 in quality and cost in the world.

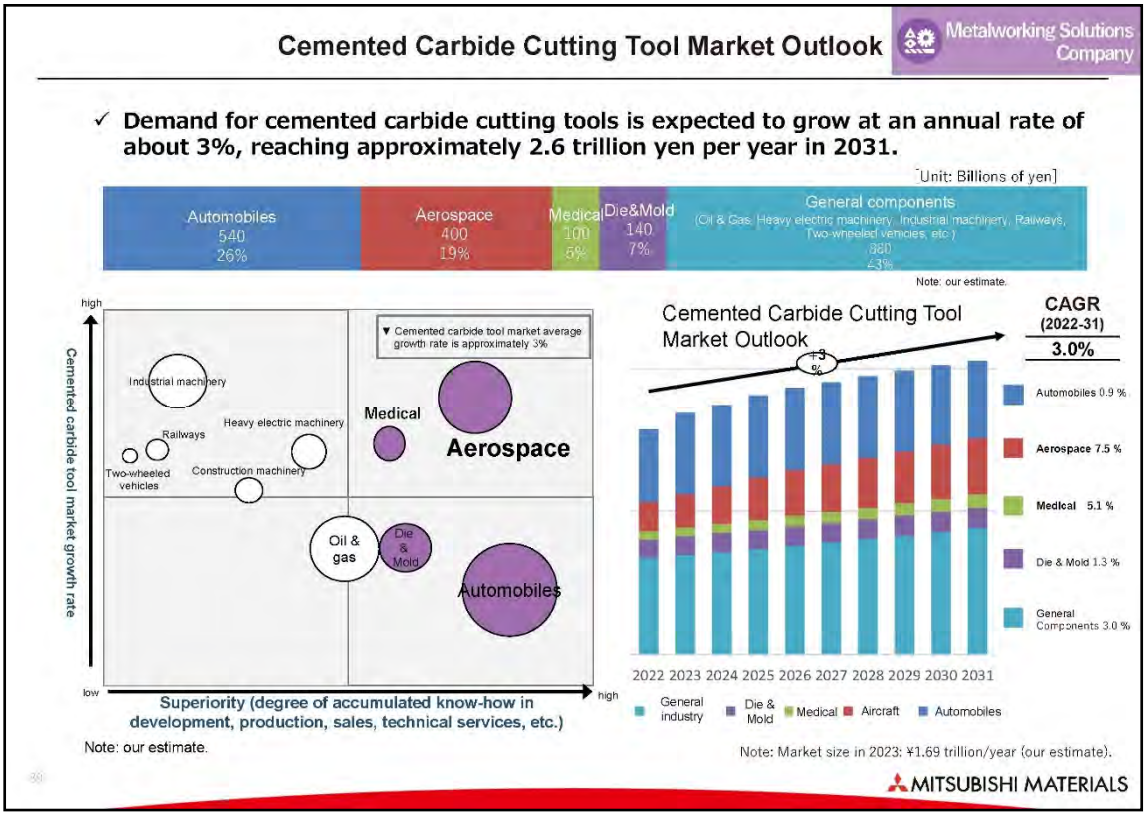
We plan to increase earnings by taking measures including further increasing overseas sales, strengthening capability to develop products and find solutions mainly in the processing of hard-to-cut and hard-to-process materials, which are high value-added areas, and reducing costs through DX.

The strategies for the tungsten business include expanding business for rechargeable batteries in addition to providing materials for carbide tools. Also, we will strengthen environmental capabilities in light of increasing awareness of climate change among stakeholders. Measures include boosting sales through collaboration with partners and enhancing our tungsten recycling capabilities.

The solutions business is not yet large in terms of business scale, but we intend to make the sale of services to manufacturing sites a major source of revenue. Specifically, we will offer not only products but also optimization of processing conditions and proposals of new processing methods as solutions to issues and problems our customers face on site.

Measures include using DX to deepen these solution services so that our customers can take advantage of them, and we will also seek to strengthen our business base by taking M&A into account in areas of solutions that we cannot handle on our own.

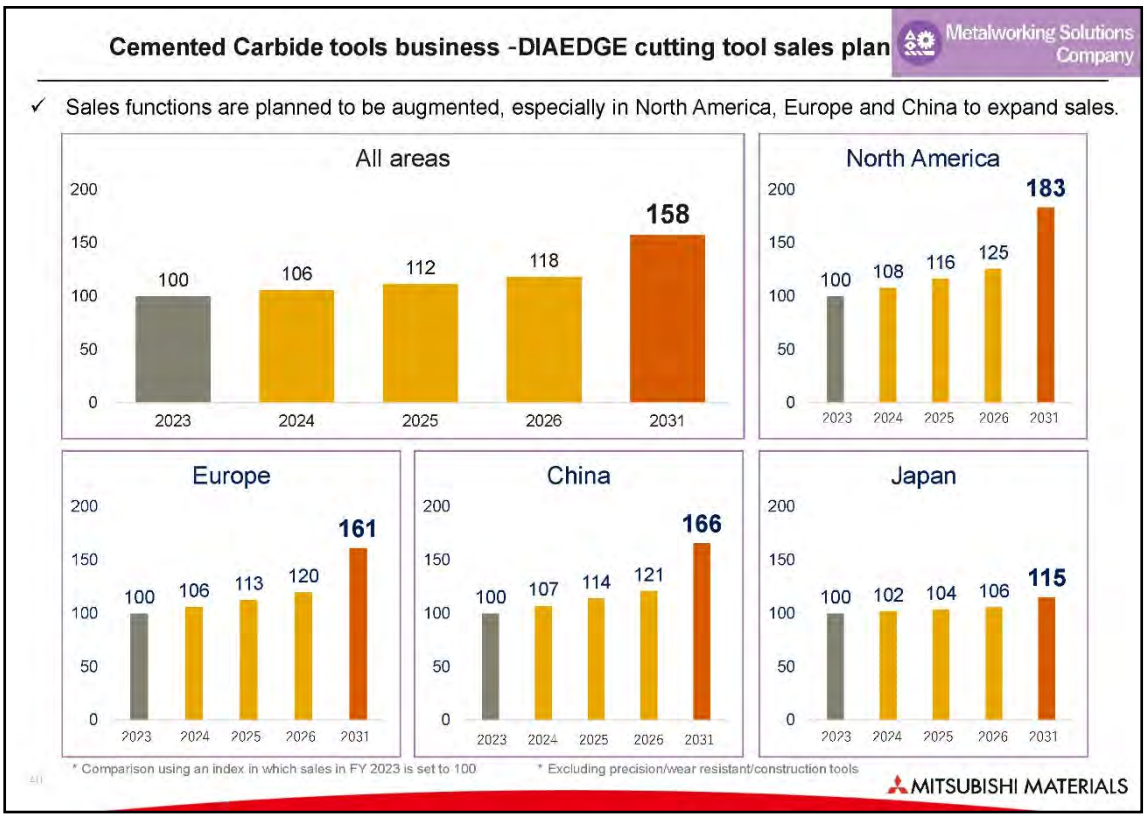
【Carbide tools business: Carbide cutting tool market outlook】



I will explain the global market size of cutting tools. We expect that demand for carbide cutting tools will continue to grow at an annual rate of about 3% and exceed ¥2 trillion worldwide by 2030.

The matrix on the left side of the slide plots the market growth rates of carbide tools on the vertical axis and the superiority of our products on the horizontal axis. The size of the circles indicates the market size. Our company's main targets are the automobiles, aerospace, medical and die & metal industries shown in purple.

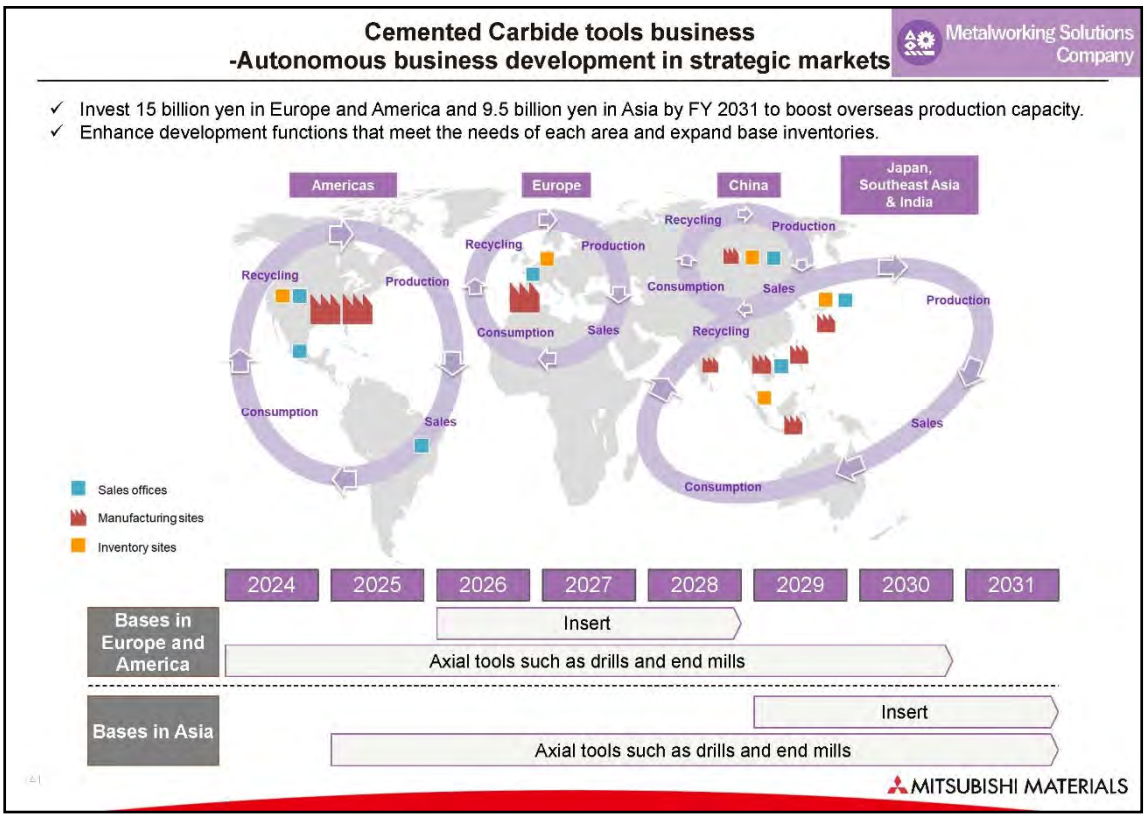
【Carbide tools business: DIAEDGE cutting tool sales plan】



The graph on the slide shows the sales plan for cutting tools sold by Mitsubishi Materials under the DIAEDGE brand, a core product in the carbide tool business, with the FY2023 results as 100.

In the carbide tools business, we plan to increase the total sales from all areas by 58% in FY2031 from the level in FY2023 by augmenting overseas sales again. North America, Europe and China will be the focus areas, and sales are expected to increase by slightly more than 50% in all those areas.

【Carbide tools business: Autonomous business development in strategic markets】

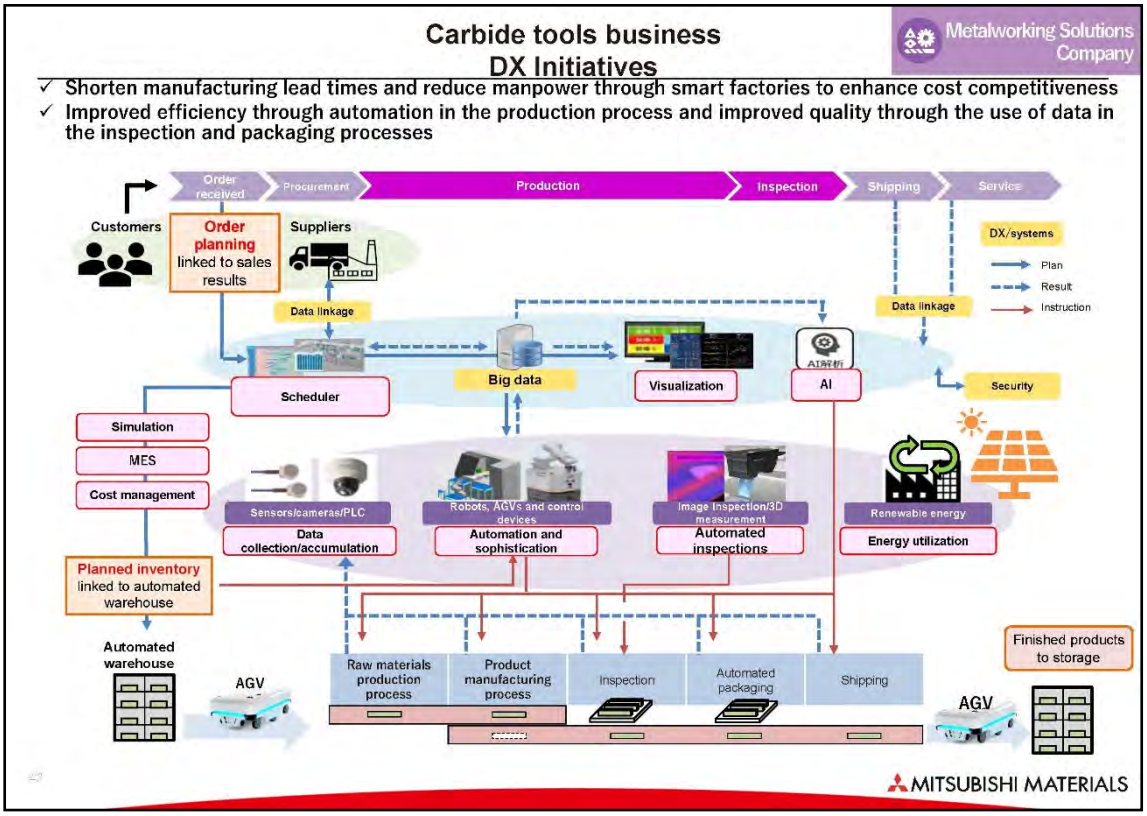


I will explain the global quadrilateral system that serves as a foundation for global business evaluation. To boost overseas production capacity, we plan to invest ¥15.0 billion in Europe and the United States and ¥9.5 billion in Asia by FY2031.

The plan is to accelerate local production and local consumption by transferring part of the management control function as well as the manufacturing function, which has been concentrated in Japan, to each of the four core areas, so that products and services can be provided quickly from sites near demand areas, while reducing the risk of supply chain disruption and reducing GHG emissions related to transportation.

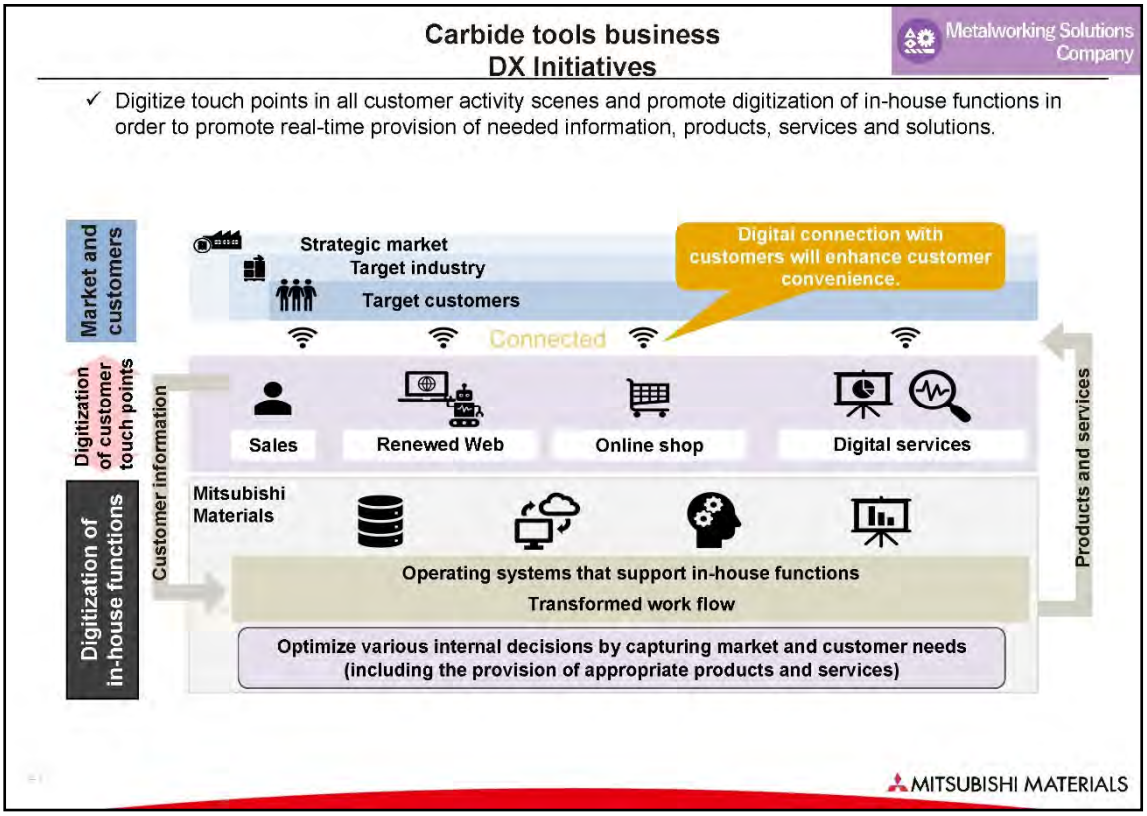
As shown in the lower part of the slide, we will invest in and strengthen the applicable products at bases in Europe, the United States and Asia in each period.

【Carbide tools business: DX Initiatives】



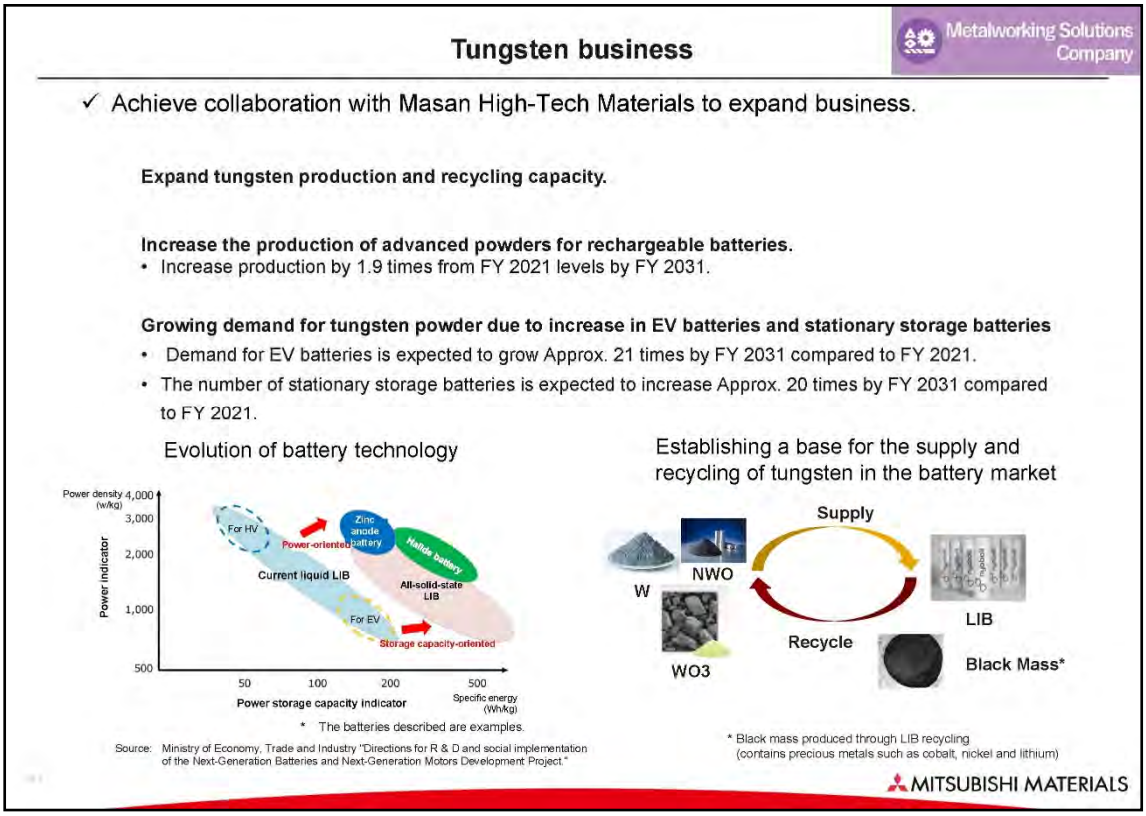
This is a schematic diagram of enhancing manufacturing through DX. By turning manufacturing sites into smart factories, we will collect and store data from production planning to shipping, and automate equipment and inspections. The utilization of DX on the manufacturing side means providing competitive products by reducing lead times and labor for cost reduction, enhancing quality and improving productivity through the realization of smart factories.

【Carbide tools business: DX Initiatives】



This represents the enhancement of customer contacts through the use of DX. By digitizing internal functions and centralizing the management of market and customer information, we can accurately capture customer needs and provide demanded products, information, services and solutions in real time to improve customer satisfaction.

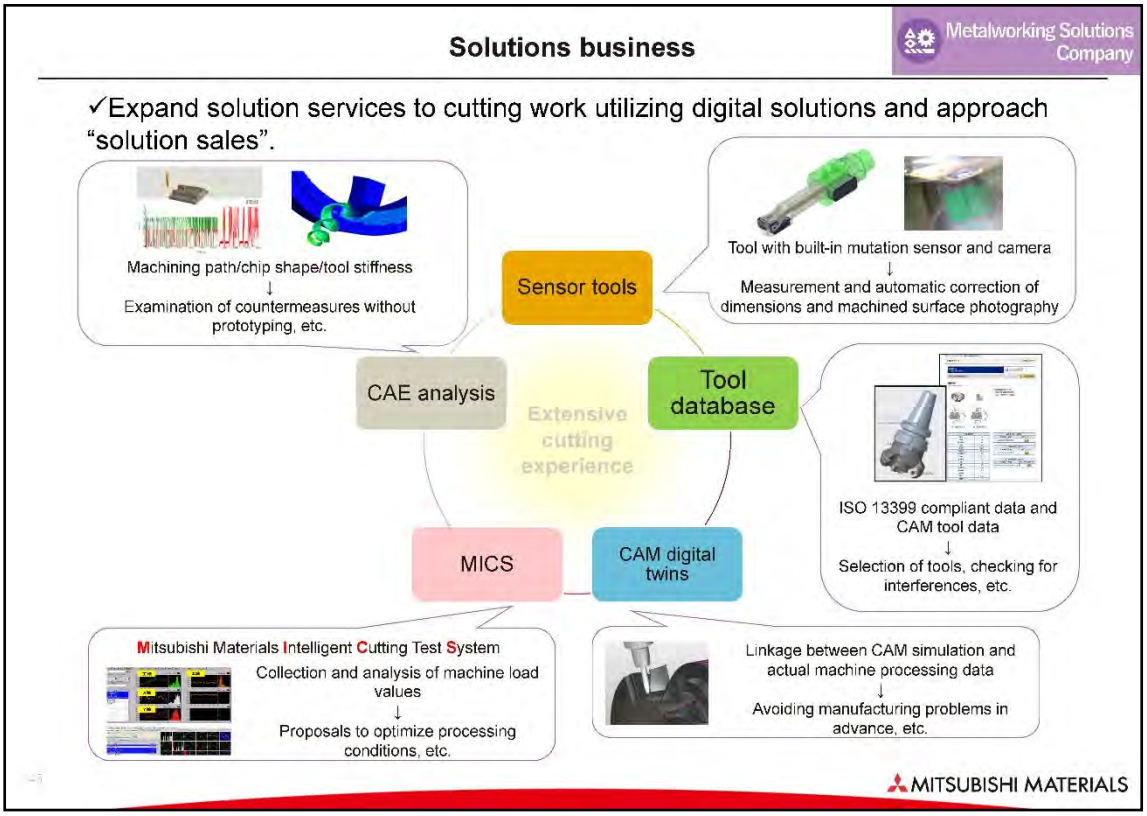
【Tungsten business】



The tungsten business will supply tungsten to the battery market and build a recycling infrastructure in collaboration with Masan High-Tech Materials to expand tungsten production and recycling capacity.

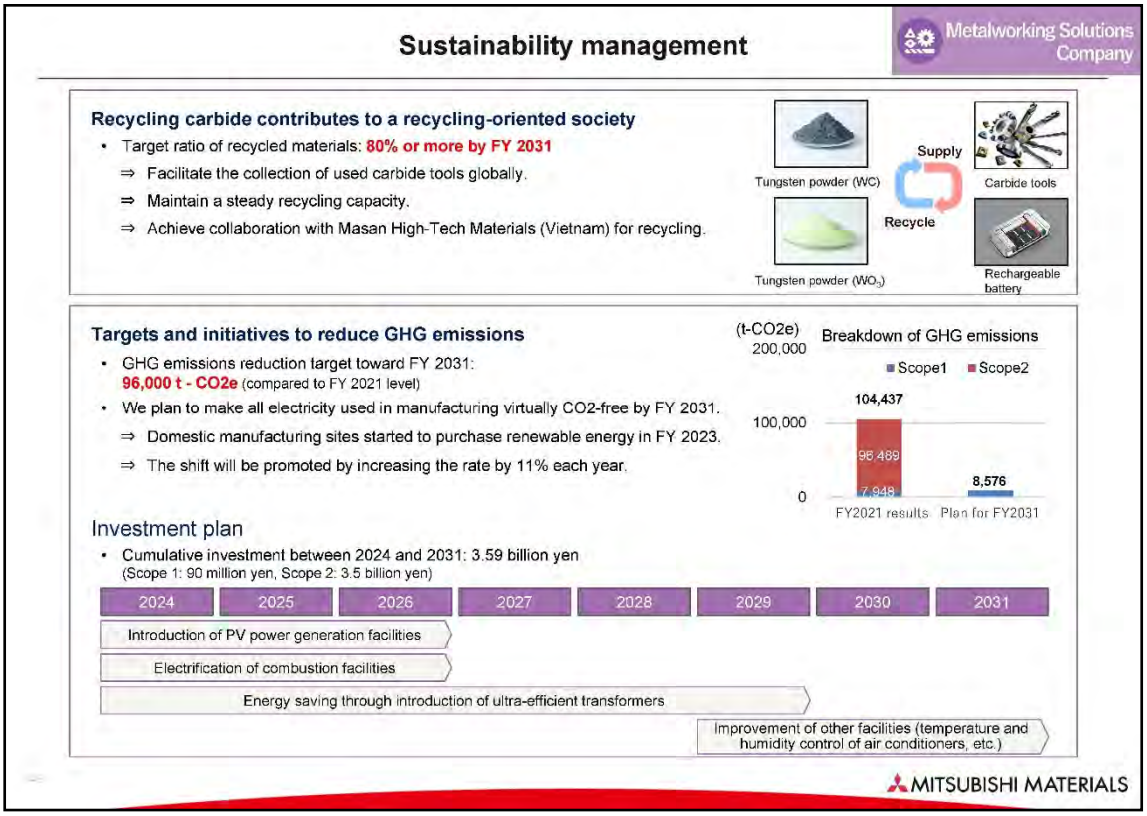
The demand for tungsten powder is expected to grow significantly due to an increase in EV batteries and stationary storage batteries, and we plan to boost the production of advanced powders for rechargeable batteries by 1.9 times from the FY2021 level by FY2031.

【Solutions business】



In the solutions business, we will analyze chip shapes with CAE, simulate machining paths with CAM, and analyze cutting load with the cutting monitoring system by using the technical centers for cutting tools we operate globally. By doing so, we will enhance our solution proposals to solve problems and improve productivity for customers with high-efficiency tools provided by our company.

【Sustainability management】



This is about our commitment to sustainability. While sustainability management is a company-wide policy, the Metalworking Solutions business, in particular, focuses on recycling carbide and reducing GHG emissions.

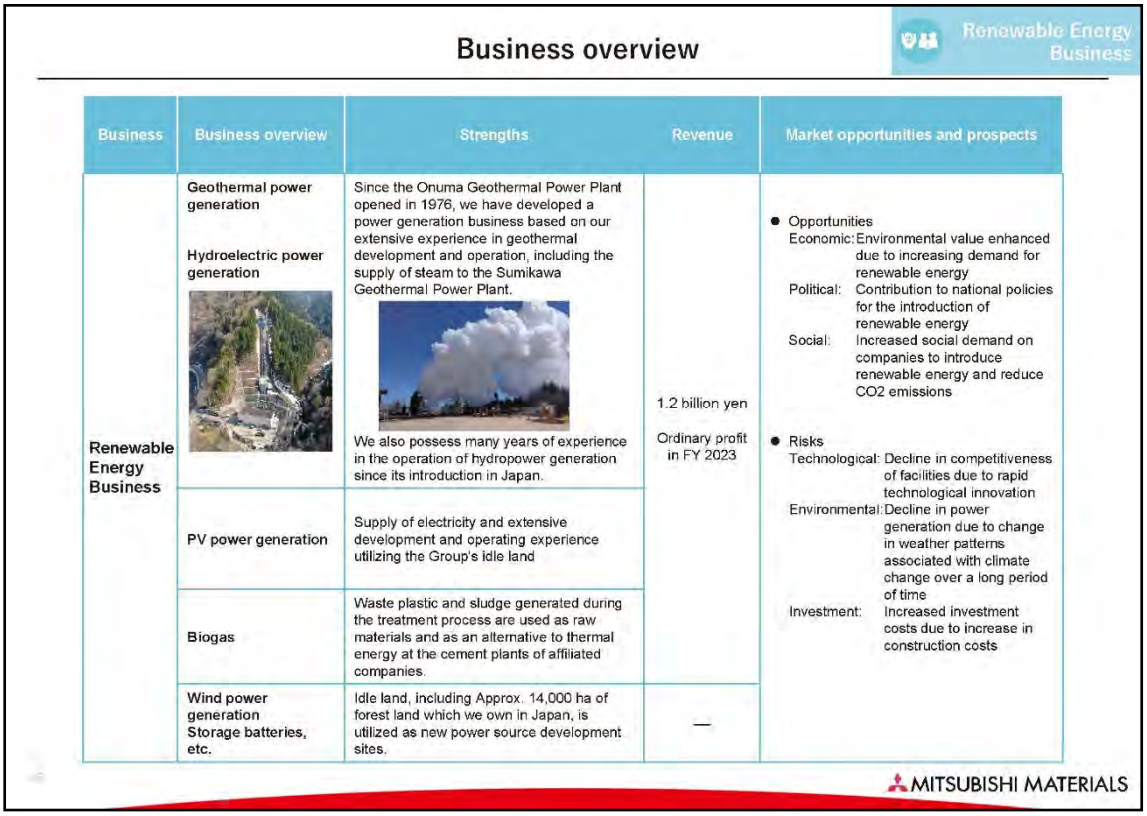
Recycling carbide aims to have a recycling rate of 80% or more by FY2031, and has already achieved 50% as of FY2023. In addition to facilitating the collection of used carbide tools globally, we will collaborate with Masan High-Tech Materials to increase our recycling capacity and improve our global capabilities.

Regarding targets and initiatives to reduce GHG emissions, we make all electricity used for manufacturing carbide tools virtually CO_2-free, with a reduction of approximately 96,000 tons of CO_2 equivalent by FY2031.

As measures for that purpose, our domestic manufacturing sites switched some of the electricity they use to renewable energy starting from FY2023, and we will also deploy photovoltaic (PV) power generation equipment. We plan to invest a total of ¥3.6 billion, including in the introduction of equipment, to achieve our GHG emission reduction plan for FY2031.

This concludes my explanation of the Metalworking Solutions Company.

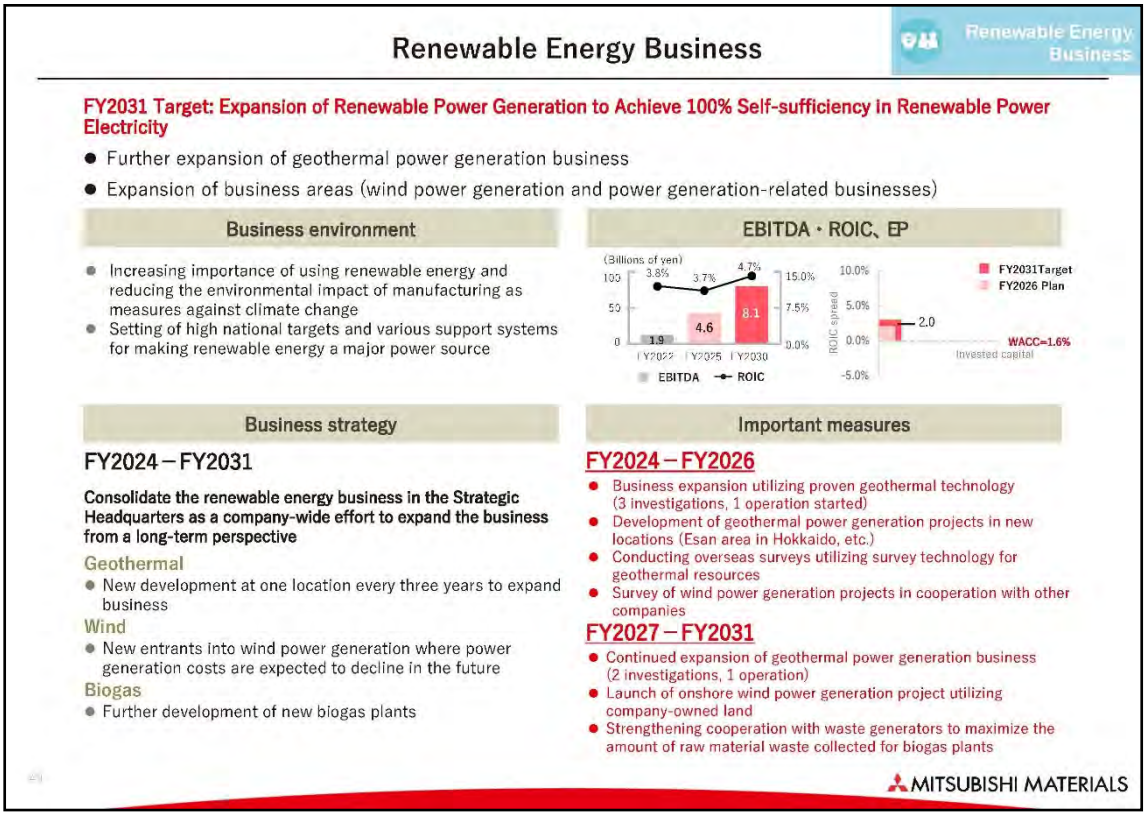
【Business Overview】



Ono: I will explain the Renewable Energy business. It consists of geothermal power generation, hydroelectric power generation, PV power generation, biogas and wind power generation, etc. Geothermal power generation is its main business.

Hydroelectric power generation was started for the operation of domestic metal mines, and we are using the remaining facilities while updating them.

【Renewable Energy Business】

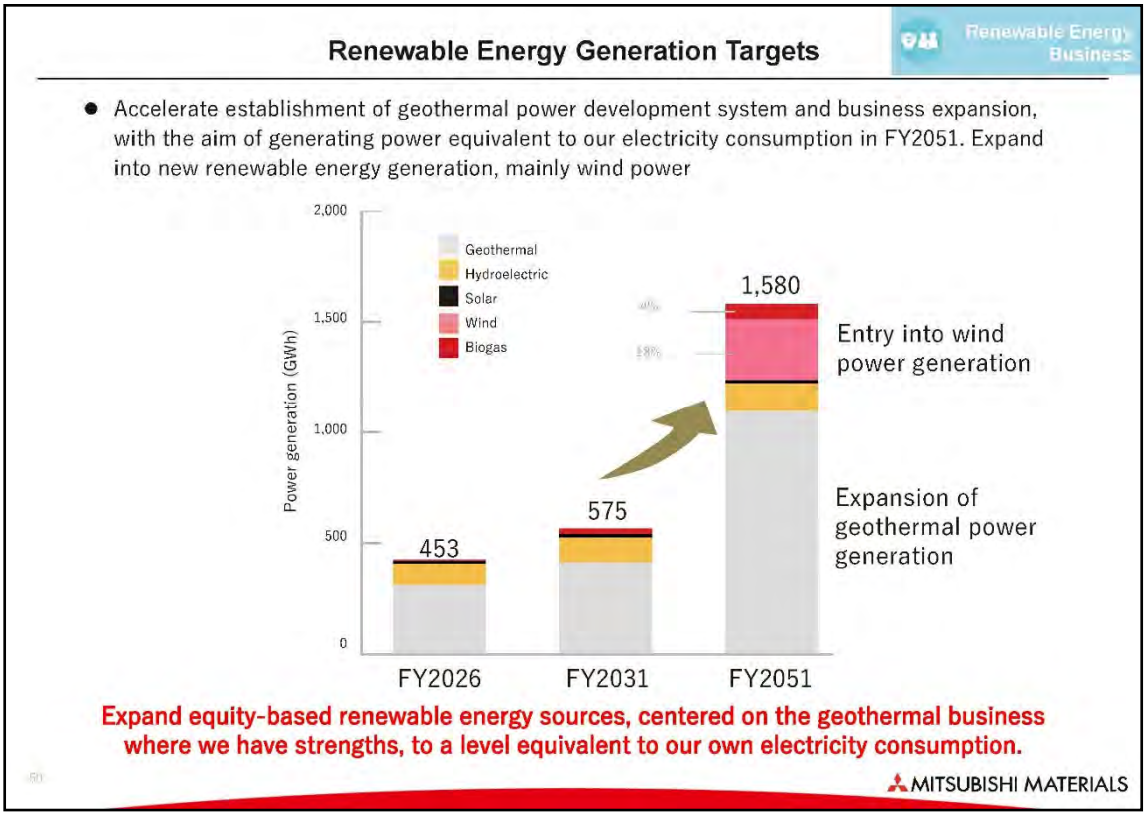


This is about business strategies in the Renewable Energy Business. In addition to further expanding the geothermal power generation business, we are considering entering wind power generation and other fields with the aim of expanding our business areas.

Among the important measures, in Phase 1, we will newly prepare for starting operation at one location every three years to expand geothermal power generation. We will also consider participating in other companies' businesses as well as those that our company has developed itself.

As for overseas, we would like to start with the stage of surveys. For wind power generation, we will take collaboration with other companies into account, since we have no knowledge about it.

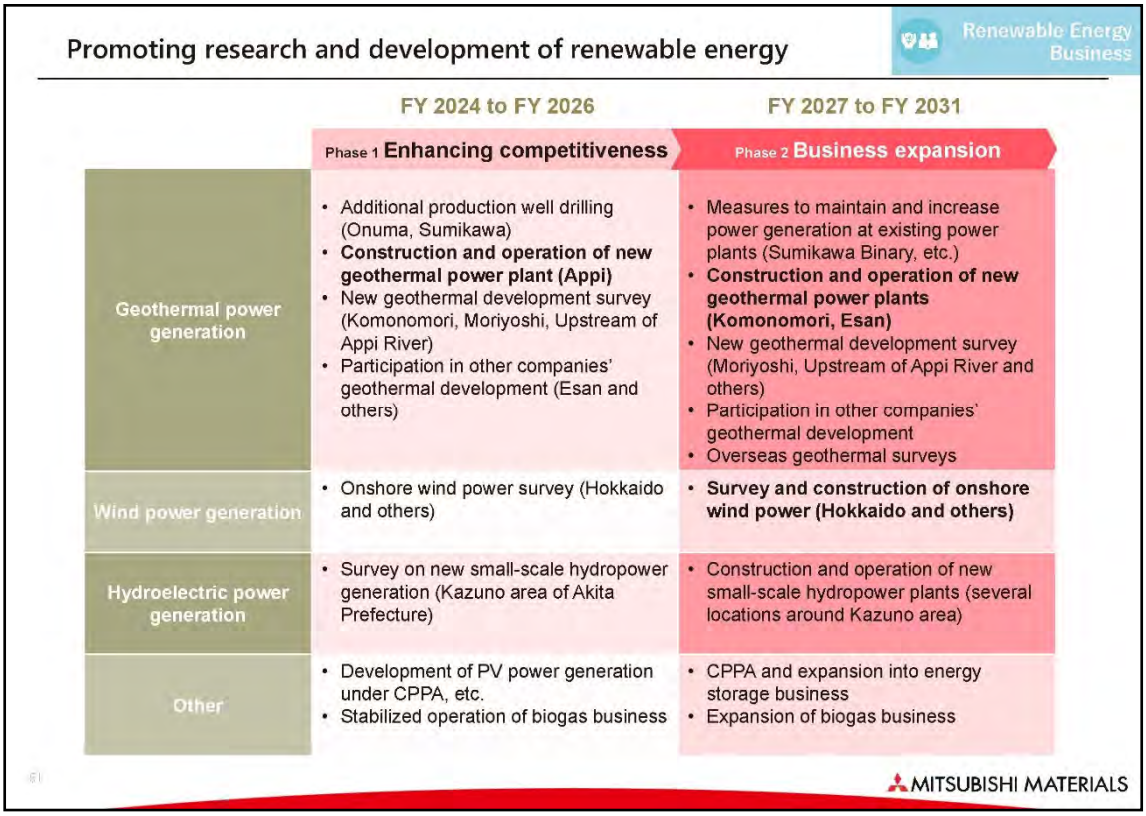
【Renewable Energy Generation Targets】



This is the target of renewable energy generation. The years up to FY2051 are shown as bar graphs.

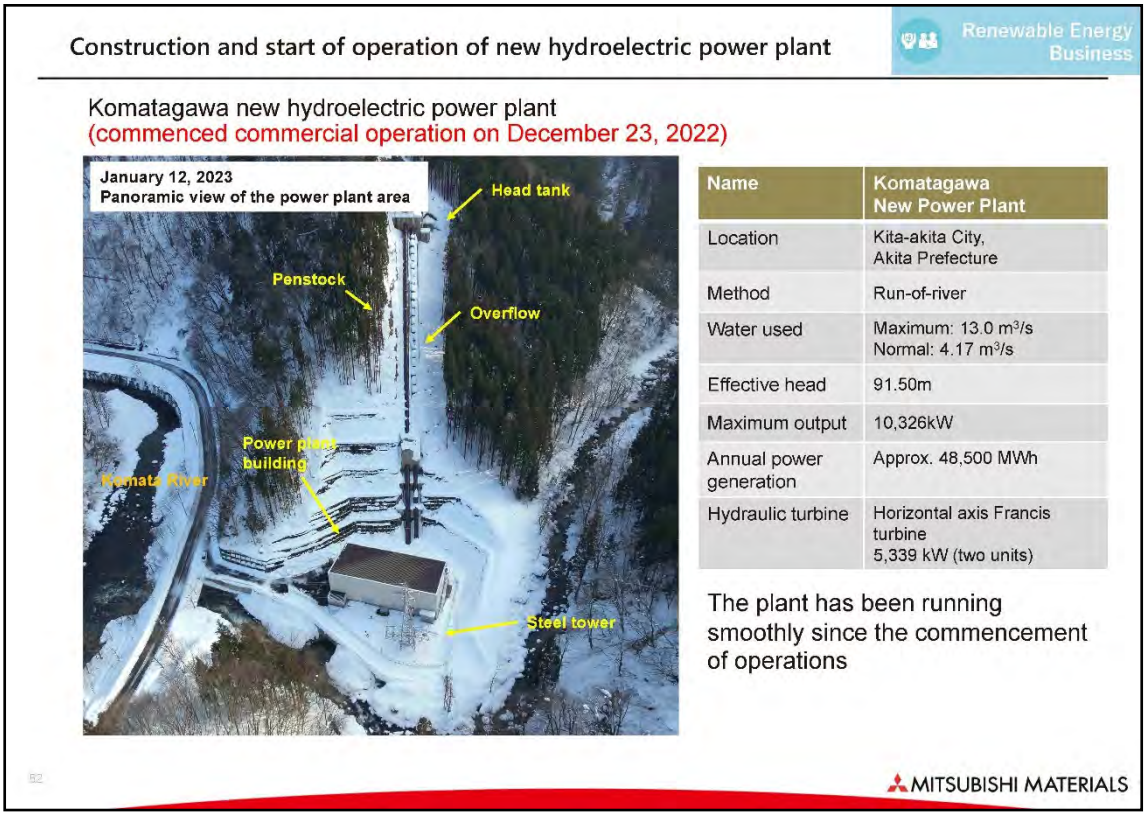
Our major goal is to cover our company's electricity consumption needs with renewable energy power generated by our company through entry into wind power generation and other initiatives in addition to expanding geothermal power generation.

【Promoting research and development of renewable energy】



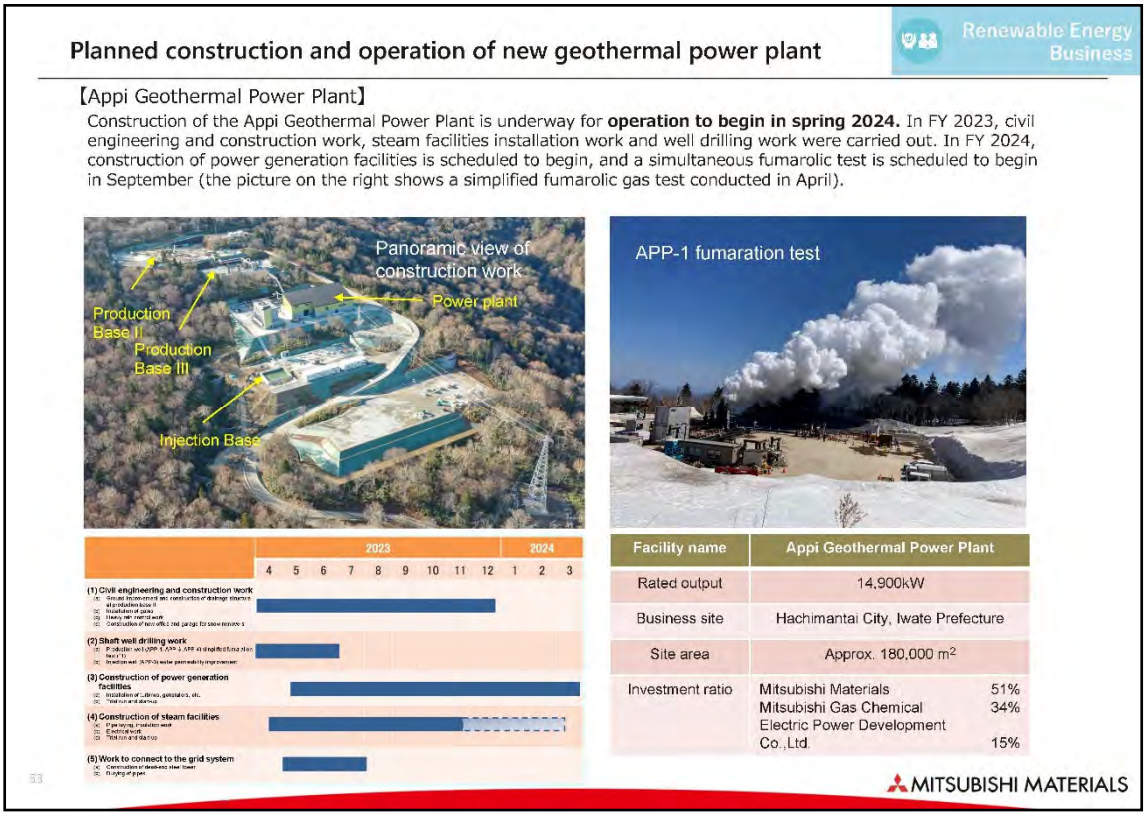
This describes the locations of projects related to power generation businesses in Phases 1 and 2.

【Construction and start of operation of new hydroelectric power plant】



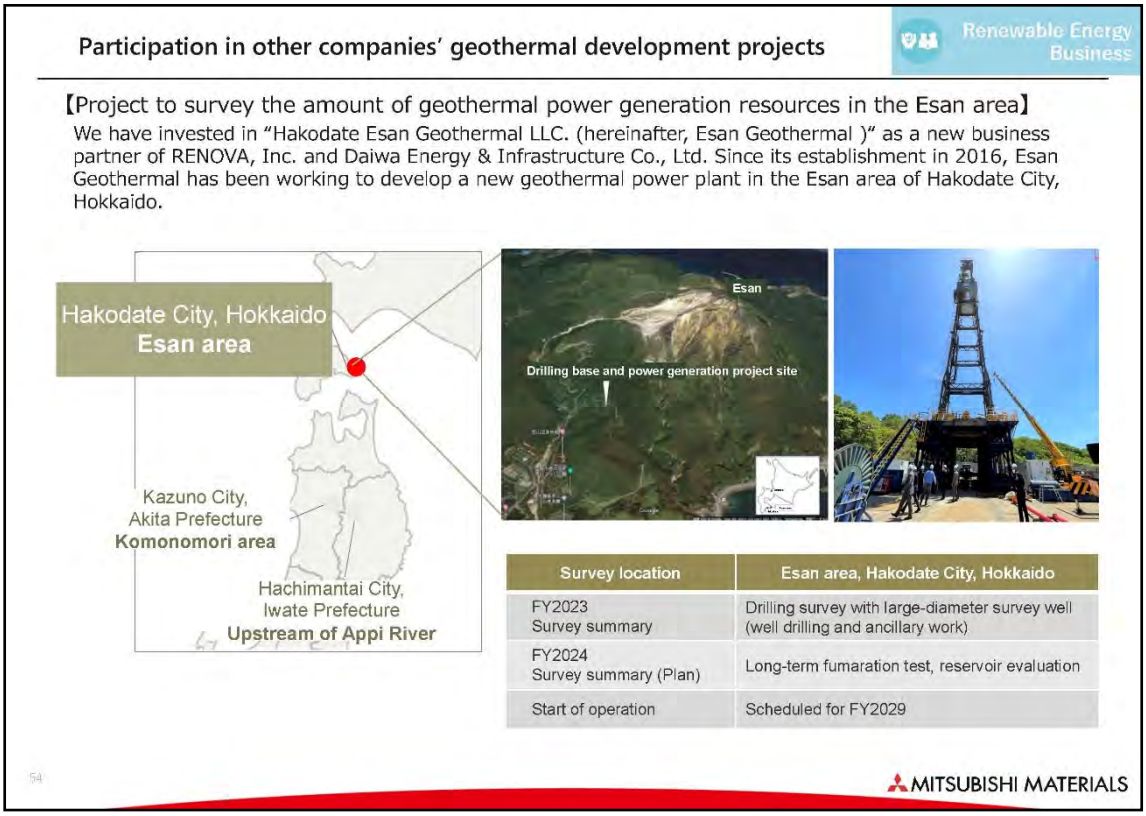
This is the Komatagawa new hydroelectric power plant, which commenced commercial operation in December 2022. It is a relatively large hydropower plant, generating 48,500 MW/h per year. The plant has been operated smoothly since it started.

【Planned construction and operation of new geothermal power plant】



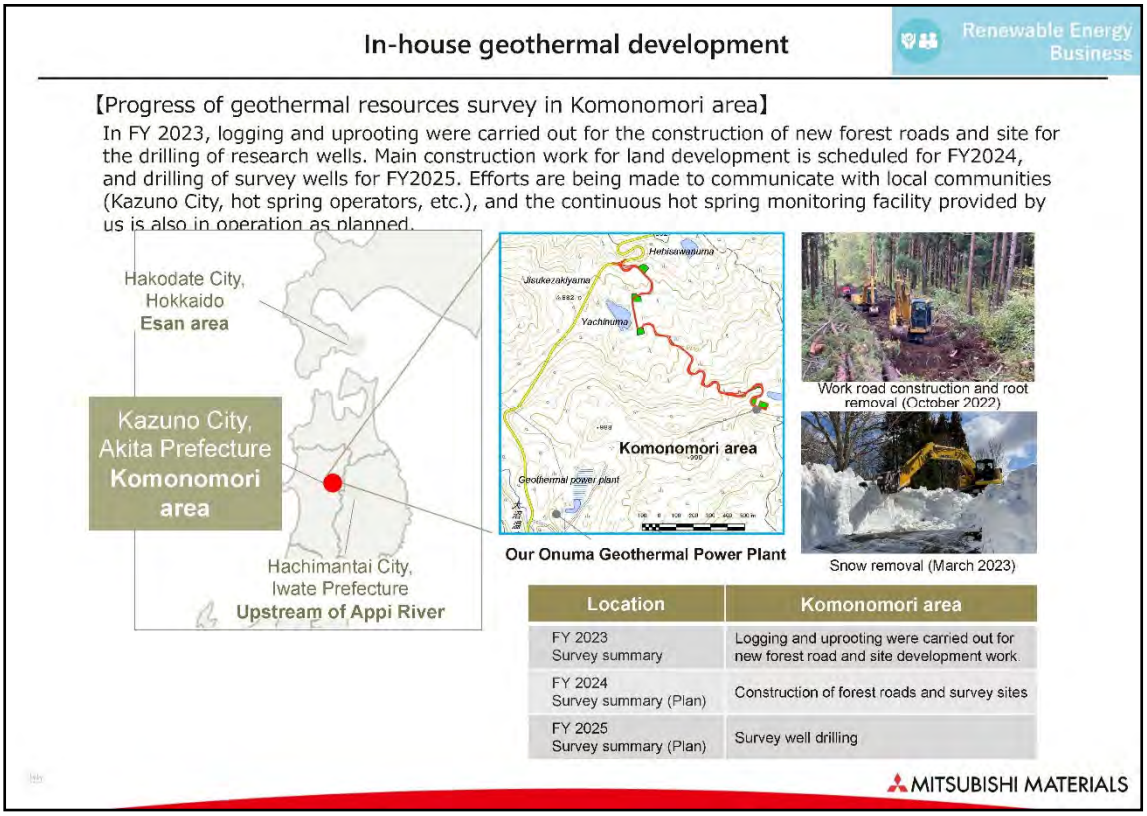
This is Appi Geothermal Power Plant, which is scheduled to start operation in spring 2024. The equipment on the ground has almost been completed. The fumarolic test in April this year confirmed that the required amount of steam was successfully secured, though only for a short period of time. We will proceed with the final construction.

【Participation in other companies' geothermal development projects】



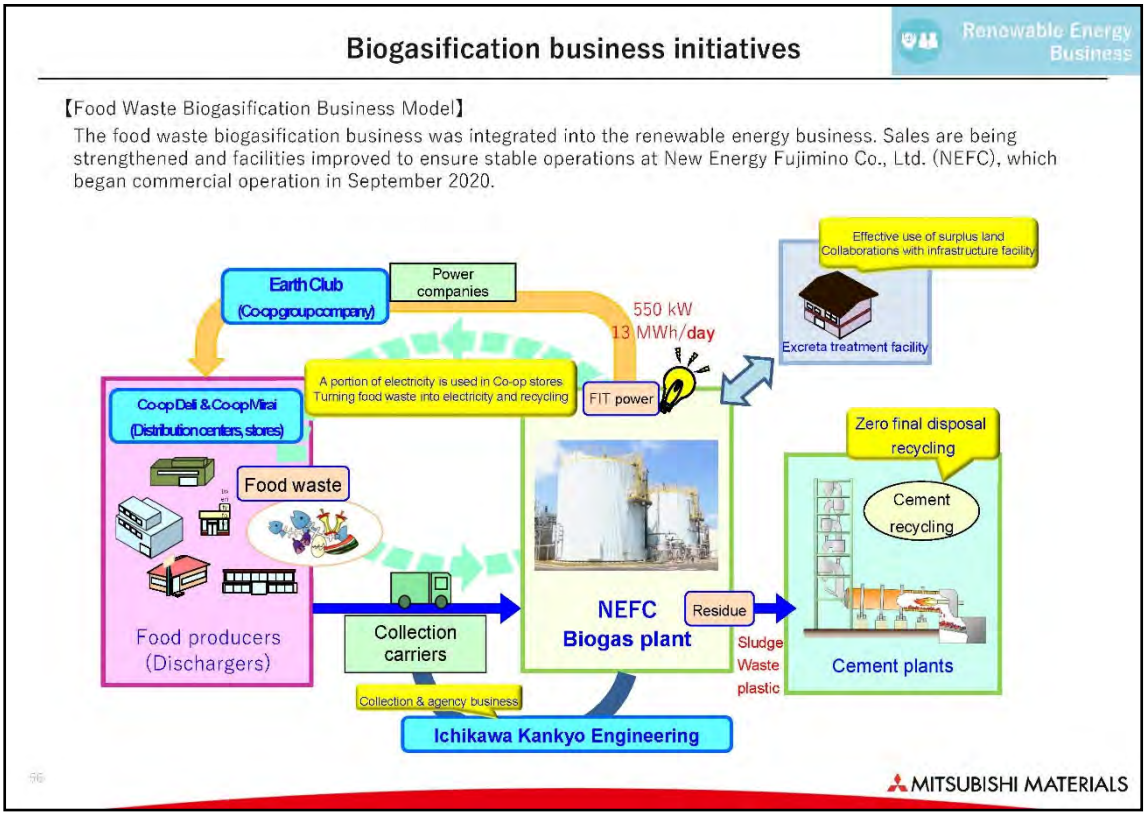
An example of participation in other company's geothermal development project is the Esan area in the city of Hakodate in Hokkaido. The experience we have gained makes it possible for us to participate as a partner in other companies' projects.

【In-house geothermal development】



Following the Appi Geothermal Power Plant, I will introduce the Komonomori area as an example of a project currently in the preparation stage. We are already surveying geothermal resources in some areas, and will begin drilling for specific survey wells in the future. The picture on the right side of the slide shows work road construction for that purpose.

【Biogasification business initiatives】



Finally, this shows the initiatives of the biogasification business. Collected food waste is fermented and biogasified to generate electricity.

The residue of food waste after fermentation is used as a substitute for raw materials and fuel in cement plants, so that no secondary waste is generated. On the other hand, the electricity generated becomes part of renewable energy.

This concludes my explanation.

Question and Answer Session

<Q&A (Summary): Roadmap for achieving targets of the resource business>

Q: The financial indicators by business in the FY2031 Strategy indicate that ordinary profit in the Resources business and the Metalworking Solutions businesses is planned to increase significantly. Please tell us about an overview of your roadmap for achieving ordinary profit of ¥48.3 billion in the Resources business. There are many topics, such as the investment in Western Copper and Gold, the completion of a seawater desalination plant at the Los Pelambres copper mine, and the Mantoverde copper mine. Please explain factors for an earnings increase in the Resources business, including the possibility of additional investment.

Isaji: The biggest contribution comes from the Los Pelambres copper mine. The seawater desalination plant we are currently working on is scheduled to be completed in July 2023.

After that, there will be expansion work, and funds will be needed for that purpose, but after the completion, we will enter the stage of seeing returns. If the copper price is strong, we think we can consistently achieve higher dividend levels than we have in the past.

The Escondida copper mine is also constantly generating returns because it is already operating under an established scheme.

In addition, the Mantoverde copper mine is scheduled to be newly launched around 2028 to 2029, and full-scale returns are expected to be generated in or after 2030.

Q: Is it correct to understand that earnings are expected to be increased through existing businesses, rather than by acquiring new mining concessions and increasing earnings along with them?

Isaji: We are considering some new mine investments in addition to the Mantoverde copper mine we are currently working on, but it will take time to start production. Therefore, we do not expect returns until 2030 onward.

Q: Please tell us about how your company evaluates Western Copper and Gold.

Isaji: Western Copper and Gold is still in an early stage. Production will start in 2030, but of course we need funds first. Therefore, we think returns will be generated 4 or 5 years after the start of production.

In addition to copper, the gold content of the mine is high enough to expect the cost of copper production to be negative, but the current Medium-term Management Strategy does not incorporate its returns.

<Q&A (Summary): Roadmap for achieving targets of the Metalworking Solutions business>
Q: In the Metalworking Solutions business, is the increase in marginal profit due to greater production the biggest factor contributing to the significant increase in ordinary profit to ¥52.7 billion?

Ohara: ROIC for FY2024 is expected to decline. This is because we plan to make an investment, and we expect to enjoy its returns in FY2025 and beyond.

Another major factor is that the rise of customers in the airline industry, which we had anticipated as a sales expansion area before the COVID-19 pandemic, is becoming more realistic. In addition, we would like to continue growth by incorporating price increases and reductions in selling, general and administrative expenses and costs at a fixed rate every year and steadily realizing them.

Q: How do you get customers in the Europe and U.S. market, where there are Sandvik and other very strong competitors?

Ohara: Sales in the Europe and U.S. markets are growing steadily, and we believe we have captured a user base that Sandvik and other major companies have not been able to capture. Factors include the emergence of several areas where we can demonstrate our significant advantages, such as our company's alloy technology and material quality. We will continue to capture demand in such areas.

<Q&A (Summary): Investment to increase copper concentrate processing capacity and production volume of electrolytic copper>
Q: What is the specific amount of investment to increase copper concentrate processing at the Naoshima Smelter & Refinery, and what is expected to be the final electrolytic copper production volume in 2030 resulting from that investment?

Isaji: We expect to need funds at the level of about ¥50.0 billion in the arterial and venous industries in total to increase copper concentrate processing capacity at the Naoshima Smelter & Refinery and the Onahama Smelter & Refinery. Regarding resource recycling, there is also a scheme in which various kinds of support can be obtained from the Ministry of Economy, Trade and Industry, and we would like to utilize it as well.

Ono: Electrolytic copper production is currently expected to be between 440,000 and 450,000 tons at the Onahama Smelter & Refinery and the Naoshima Smelter & Refinery in total, and between 500,000 and 550,000 tons after adding the currently planned capacity increase at the Naoshima Smelter & Refinery.

<Q&A (Summary): Future business reorganization>
Q: You said each business will implement new initiatives. Is there room to consider quitting any businesses or replacing the contents, on the contrary?

Nobuhiro Takayanagi: We believe we had finished reorganizing our business portfolio. In Phase 1 and Phase 2 of the FY2031 Strategy, we will strengthen the businesses we chose.

However, we also believe that portfolio optimization never ends. We will continue considering matters so that our businesses can properly meet the demands of society.

<Q&A (Summary): Factors expected to boost earnings in the Smelting & Resource Recycling business>

Q: As for the financial indicators by business, the Smelting & Resource Recycling business plans to increase earnings significantly toward FY2026 and FY2031. What factors contribute to it? And are there any particular concerns about the competition for E-Scrap collection?

Isaji: A major factor for the expected increase in earnings in the Smelting & Resource Recycling business is the expansion of the recycling business. The growth in the arterial industry also contributes to it, but only at a limited ratio.

E-Scrap collection is very important for that, but over the past year or so, the competition has become even more intense. In particular, European competitors have announced a number of recycling projects on the east coast of the United States that are planned to be launched in 2025 or 2026. We are also considering various measures to keep up with the competitors.

<Q&A (Summary): Earnings growth in the Electronic Materials & Components business>

Q: As for the financial indicators by business, the Electronic Materials & Components business plans to increase earnings through FY2031, while earnings will not go up very much in FY2026. Please tell us about the assumptions, business environment and effects of the measures.

Ishii: One thing is that earnings will not rise to the full extent because investment will precede until FY2026. One reason that earnings will not grow significantly until FY2026 is that there are residual costs of businesses from which we decided to exit by FY2026 after reviewing our portfolio.

On the other hand, the semiconductor market is expected to rise steadily. Our view is that we will strengthen our plants until FY2026 and we can reap the benefits from FY2026 to FY2031.

<Q&A: (Summary) Measures to improve ROIC>

Q: Regarding the approaches to the growth strategy for advanced products, I understood that the main driver would be a rise in marginal profit due to increasing volume, but I cannot help being concerned about the part of demand circulation.

I am also concerned about how you will pass on rapid changes in costs caused by investment made in advance. Please explain how you plan to increase margins.

For example, given the increase in fixed costs due to investment that is made in advance, margins might be tight for the time being, and you might maintain the average profit margin including synergies with Luvata. Please explain whether there is room for improvement in order to increase margins.

Ishii: In the Copper & Copper Alloy business, price pass-through is certainly the most important point. This is factored into the profitability improvement plan as "price optimization." We are currently requesting customers to accept two-stage price increases. The first stage was almost completed in FY2023, and the second stage will start in October 2023, and we have almost received their approval. We need to make appropriate investments to continue steadily providing value to our customers, and we are carefully negotiating price increases for that purpose with them.

Because it is like being dependent on others, we think what we need to do is to increase yield rates even more.

To increase yield rates, we will be more aggressive than ever in our efforts to reduce the defect rate. We will improve problems such as aging facilities through investment. As part of our DX initiatives, we are also taking measures at the same time to take in information that has not been grasped, identify the relationship with the defect rate, optimize conditions and reduce manufacturing costs. In any case, we have incorporated all our initiatives to increase margins.

In addition, regarding high value-added, you mentioned synergies with Luvata. Although we have not been able to fully generate synergies yet, we are considering expanding the individual businesses of Luvata.

Of course, we will try to achieve synergies, but at Luvata, we are beginning to see the fruits of steady investment that had been completely halted until we purchased it. The conditions have improved very much from last year to this year, and we would like to continue making improvements.

In terms of high value-added, we will work on lower processes than the domestic rolling business. Therefore, value-added has increased in the sense that the degree of processing has increased. We believe that expanding the sales of Luvata's product groups such as superconducting wires means increasing the total margin, and we would like to strengthen this as well.

<Q&A: (Summary) Costs associated with measures to increase the recycling rate>

Q: In the Metalworking Solutions business, you said the target is to increase the ratio of recycled materials to 80% by FY2031. What is the latest recycling rate? Please also tell us which product this recycling rate refers to.

There are figures of investment for enhancement in building a network to achieve a recycling rate of 80%, but what is the overall budget size that should be assumed? I think there is also a problem that the total amount of GHG emissions must be reduced while production is increased. Please explain your specific measures.

Ohara: Ohara will answer your questions about processing recycling. First of all, regarding the collaboration with Masan High-Tech Materials, we are working on mutual use of technologies including joint research, and we believe that the results in the recycling area are significant.

As of the previous fiscal year, the recycling rate was 51%. We are going to increase it to 80%, and the target is all the carbide tools we produce. In other words, we intend to use recycled materials for all of cutting tools, rock tools, wear-resistant tools, and carbide materials.

We are rapidly increasing the collection volume overseas because we need to boost our collection capacity for recycling.

Currently, we are collecting most items overseas, and Japan New Metals smelts them after shipping them to Japan, or they are converted locally and brought to Japan for processing.

We are considering the future possibility of working with Masan High-Tech Materials to collect them not only in Japan, but also in Germany, Canada, China, and in the far future, Vietnam.

A certain amount of budget to strengthen the recycling network is incorporated into the investment plan.

<Q&A (Summary): Effect of investment in Exurban and future overseas expansion>

Q: Regarding investment in Exurban, please explain the economic effects of this investment and the plans for overseas expansion outside the United States.

Isaji: As for Exurban, we joined a project it had already proceeded with, and at that point there was already a plan related to Indiana in the United States.

The amount of this investment is extremely limited. For some areas, the project will be examined and technologies will be developed in the future. We participate in it because our company's technologies will be useful there, and they also have high hopes. When this project is commercialized, we would like to re-examine how our company should be involved and make a final decision at that stage.

Recently, there has been a trend toward forming economic blocs, and there is also a movement in recycling that processing is carried out at the location where recycled materials are generated as much as possible. Exurban's project is also a new effort for it.

The United States is a country that had not done much in the way of recycling and buried everything, but it has made a clear commitment to recycling resources. We decided to make an investment because we believe there is a huge business opportunity for the future.

It is in a slightly different form from that of the E-Scrap business we are currently working on, and the idea is to build facilities in various regions for local production and local consumption. The existing

business has been to bring in raw materials that cannot be disposed of from all over the world by taking advantage of our Smelters & Refineries. Therefore, we think they can complement each other well.

<Q&A (Summary): Entry into Renewable Energy business>
Q: Regarding the Renewable Energy business, you said that your company has a policy to cover the company's electricity needs with renewable energy. While there would be no problem in expanding geothermal power generation, which is the company's strength, I think it would be more efficient to buy renewable energy from other sources when it comes to wind power generation, an area where the company does not have strength or knowledge. Please tell us your thoughts on this point.

Ono: Wind resources in Japan are relatively concentrated in the area from Hokkaido to Tohoku.

Our company owns some land in that area. We thought we could begin wind power generation by using this land.

Although we may purchase renewable energy power from other companies during the transition period, we think that owning our own power sources may be more beneficial than purchasing electricity. We would like to proceed with the project in a reasonable manner, keeping your suggestions in mind.