UBE Corporation

2024 Management Overview Briefing

May 21, 2024

Event Summary

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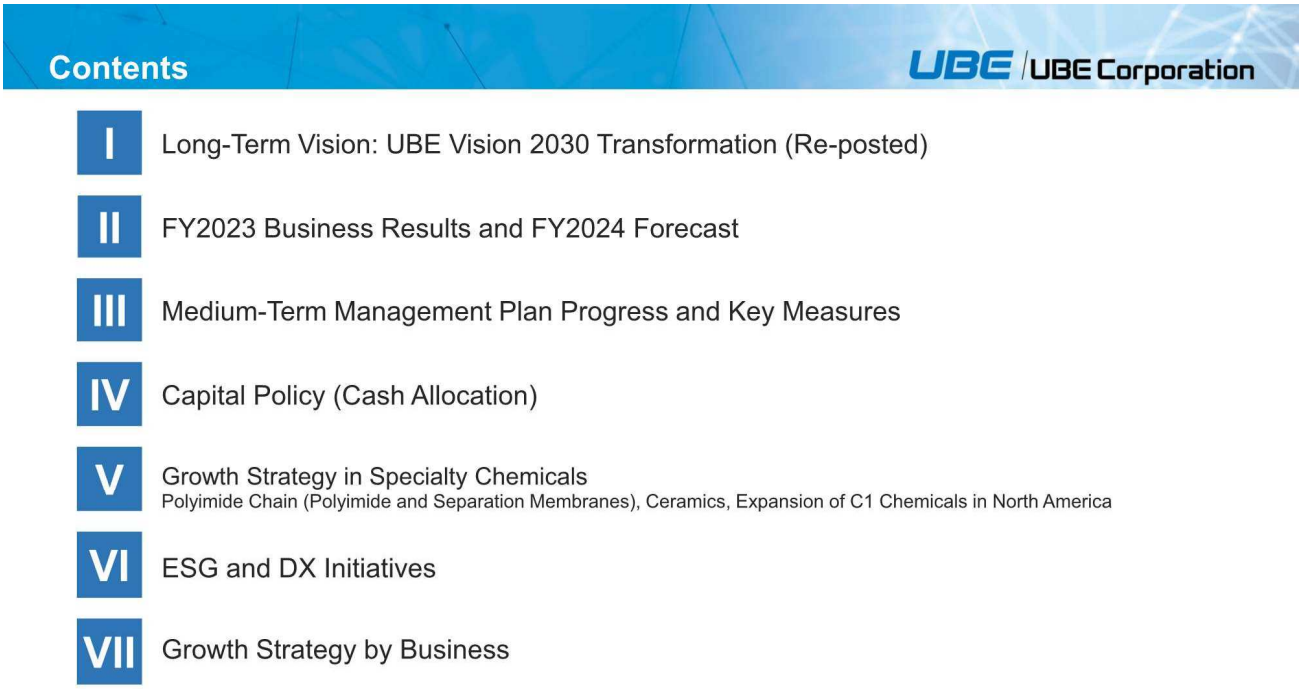
[Venue]	Webcast
[Number of Speakers]	2 Masato Izumihara — President and Representative Director, CEO Hirotaka Ishikawa — Director, Executive Officer, CFO

Presentation

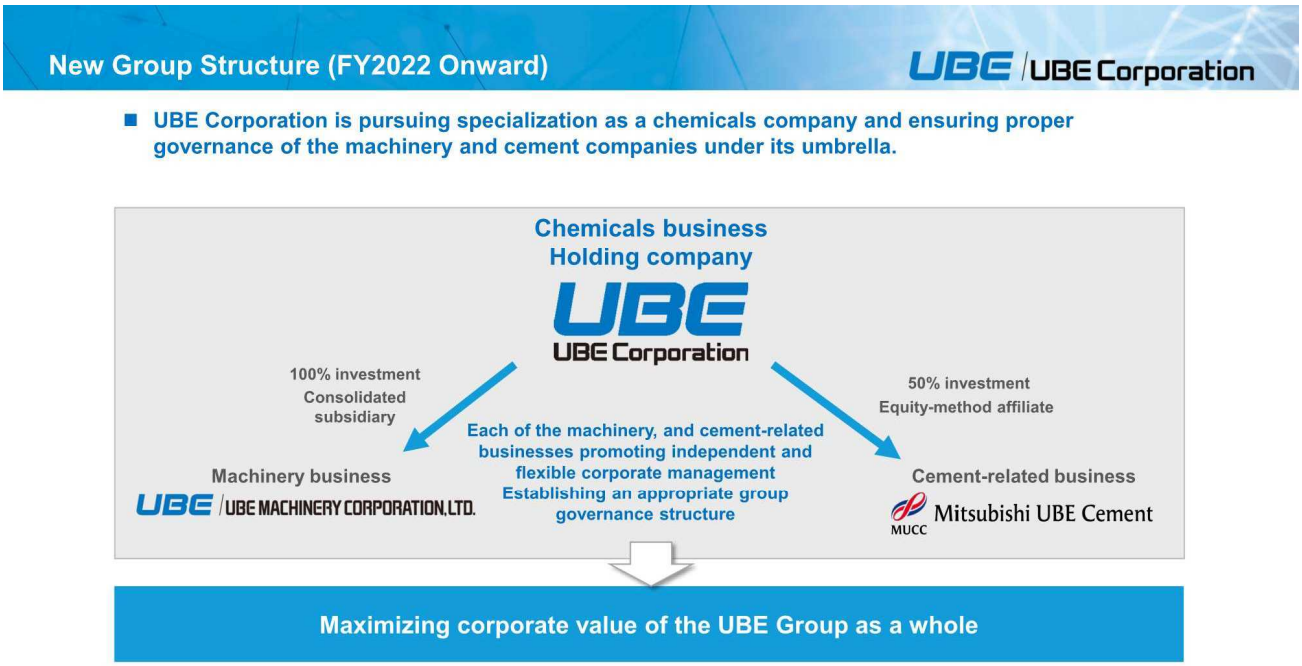
Izumihara: I am Izumihara of UBE. Thank you very much for your continued support, both from analysts and investors.

I will begin by explaining the current business situation and future policies in light of the financial results for FY2023.



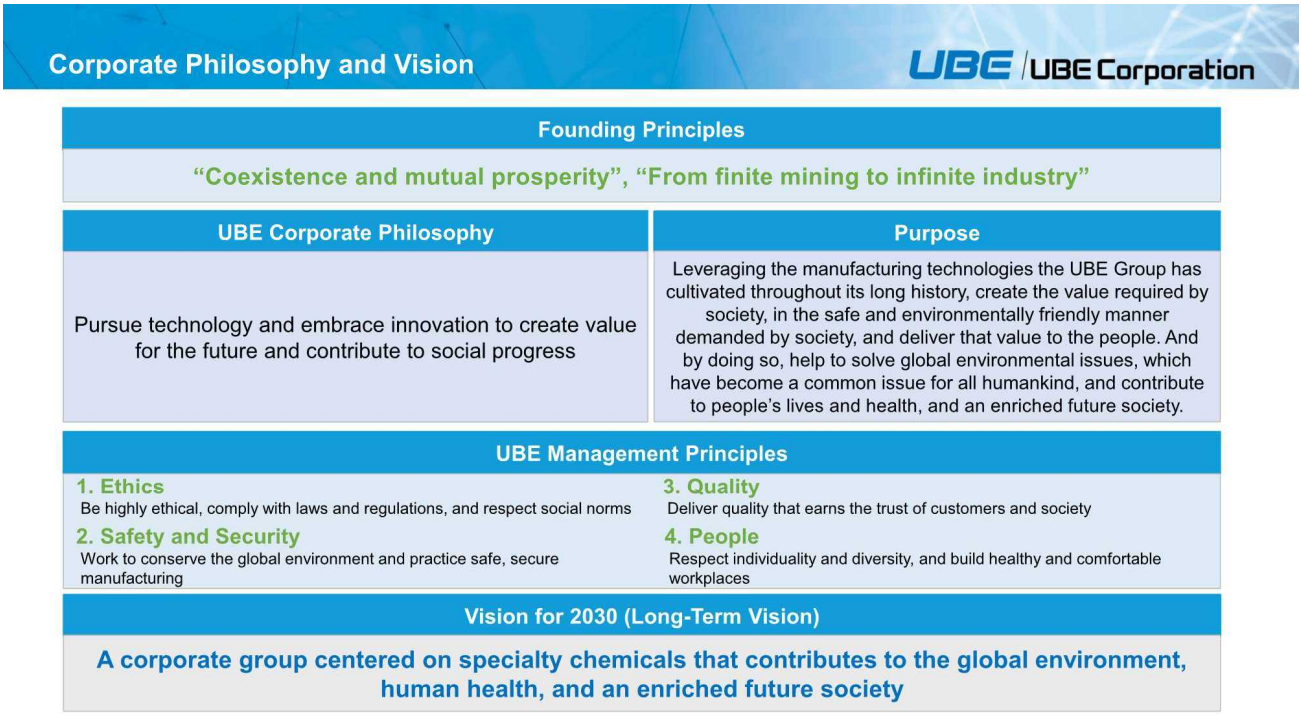
The contents of this briefing, as shown here.

I would like to mention the long-term vision for 2030, which we refer to as UBE Vision 2030 Transformation.

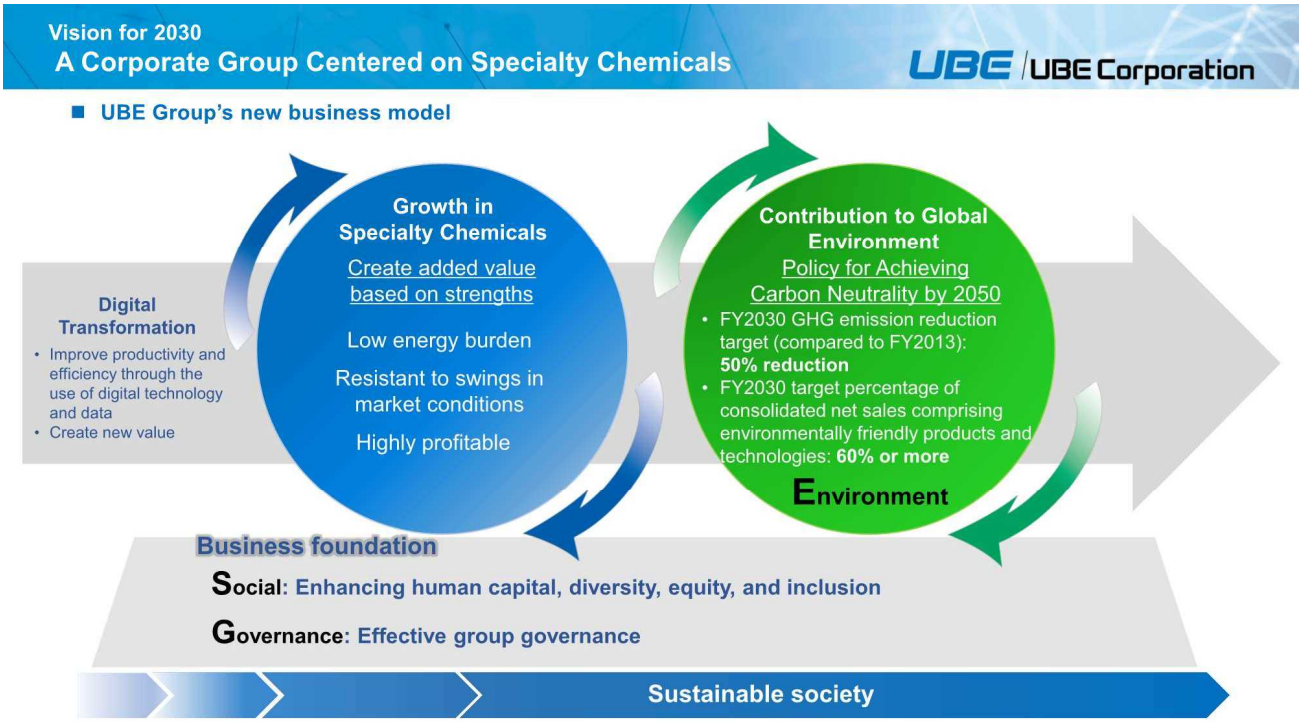


As you are all aware, The cement business was fully integrated with Mitsubishi Materials Corporation and became an equity-method affiliate from FY2022. UBE promotes specialization as a chemical business company. And for the machinery and cement operating companies, we will provide appropriate governance as a holding company.

Each business maximizes the value of the group as a whole by promoting independent and flexible corporate management. We have formulated a new medium-term business plan based on this new structure.



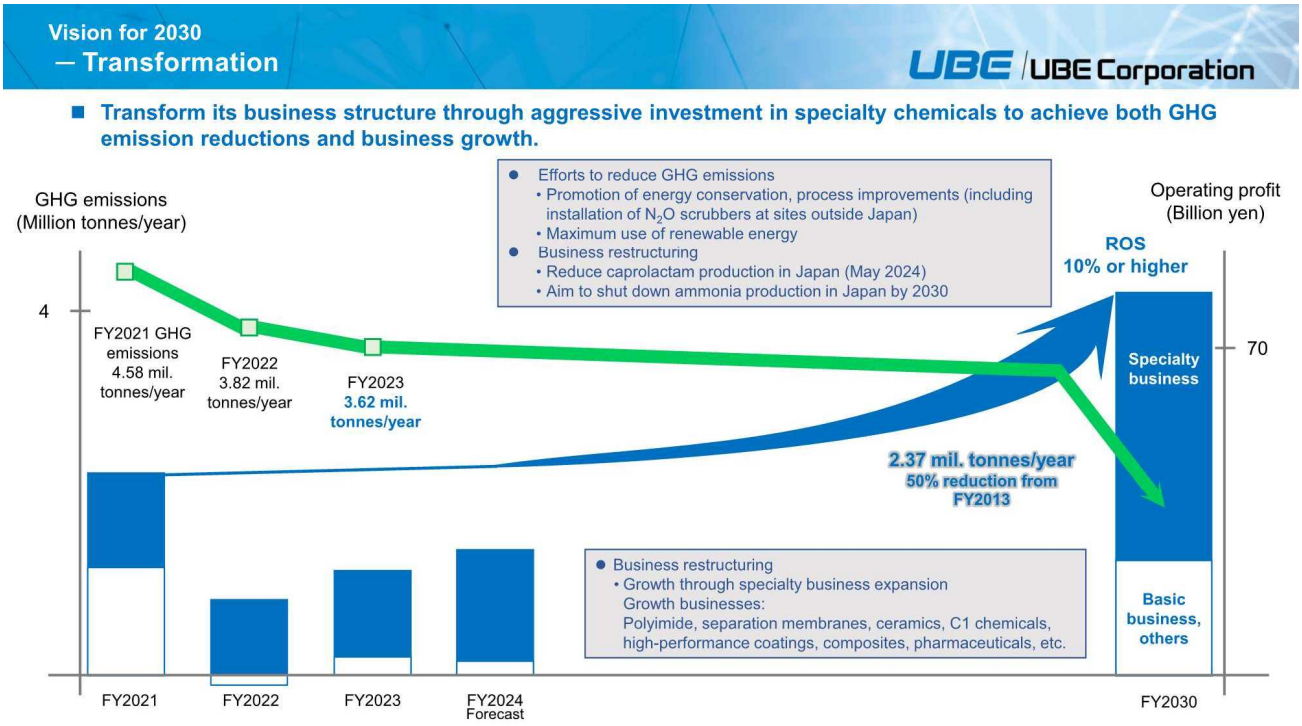
In formulating the medium-term management plan, we have gone back to the founding spirit, the management philosophy, the corporate purpose and management policies. We have established a long-term vision of being a corporate group centered on specialty chemicals that contributes to the global environment, human health, and an enriched future society. We imagine this future society is a digitalized society.



While I mentioned that specialty chemicals will be the core of our business, it is indisputable that the commodity products sector, which is currently energy-intensive and cost-competitive, will face significant challenges.

Based on our unique strengths, we will expand our highly profitable specialty business, which has a low energy burden and is less subject to market fluctuations. This will also lead to a reduction in our own GHG (greenhouse gas) emissions and our specialty products are almost identical to the products that contribute to the environment. We are trying to draw up a growth strategy that integrates the growth of these specialty chemicals and our contribution to the global environment, and we are working together like two wheels on a cart.

And as a foundation to support this, we will enhance our human capital and strengthen governance more. In addition, we will promote DX as a measure to further accelerate and speed up these efforts.



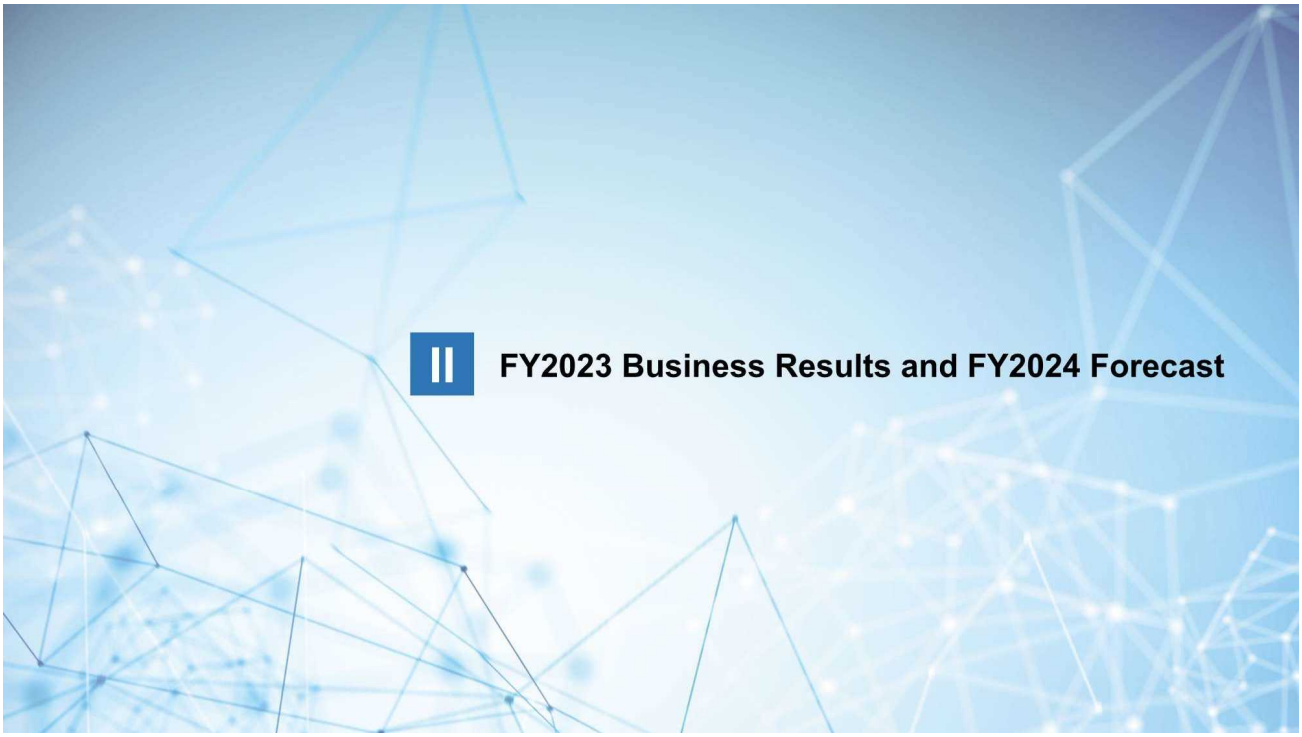
This figure symbolically shows how we will transform toward 2030.

We will transform our business structure by aggressively investing in specialty chemicals and we will achieve both GHG emissions reduction and growth. The green arrow in the graph indicates GHG emissions, to be reduced by half toward 2030 (vs 2013). And this blue arrow shows operating profit.

As for our efforts to reduce GHG emissions, we will continue our steady activities such as promoting energy conservation and maximizing the use of renewable energy, but it is difficult to achieve significant reductions by these efforts alone. So, we will continue to make steady efforts to reform our business structure.

Domestic caprolactam production will be reduced May 2024. And we have already stated that we aim to stop the production of ammonia by 2030.

While implementing structural reforms, we will steadily increase profits by expanding specialty businesses as a whole. With these specialty businesses as drivers, we hope to become a profitable specialty company with ROS of 10% or more in 2030, even in bad times.



We will explain our results of FY2023 and our forecast for FY2024.

FY2023 Business Summary

UBE Corporation

(Billion yen)

		FY2022	FY2023	Difference
Key Figures	Operating profit	16.2	22.5	6.2
	Ordinary profit	(8.7)	36.3	45.1
	Profit attributable to owners of parent	(7.0)	29.0	36.0
Key Indicators	Return on sales (ROS)	3.3%	4.8%	1.5%
	Return on equity (ROE)	(1.9)%	7.5%	9.4%

■ FY2023 Performance — Compared to the Previous Fiscal Year

- Operating profit increased due to steady sales of separation membranes and after-sales servicing for machinery products, as well as an increase in royalty income from the pharmaceutical business.
- Ordinary profit and profit attributable to owners of parent increased significantly due to the increase in operating profit, as well as an improvement in equity method investment profits resulting from the progress of price adjustment in the cement-related business (equity-method affiliate).

■ Measures Taken in FY2023

- Business expansion and capacity increase
  - ✓ Started expanding the ceramics (silicon nitride) plant (+50%) in Japan
  - ✓ Commenced construction of a new R&D building at the Osaka Research & Development Center in Japan
  - ✓ Finished expanding the PCD manufacturing facilities (+4,000 tonnes) in Thailand
  - ✓ Decided to establish a new DMC/EMC plant (+100,000 tonnes) in the U.S.
- Alliances, mergers, acquisitions, and business restructuring
  - ✓ Decided to absorb API Corporation (planned for December 2024)
  - ✓ Converted UBE Scientific Analysis Laboratory, Inc. into a joint venture with Dai Nippon Printing Co., Ltd. (equity-method affiliate)

This is a summary of FY2023.

Operating profit increased due to strong sales of separation membranes and after-sales service for machinery products, as well as an increase in royalty income from the pharmaceuticals business. However, the profit increase was less than initially expected, partly because the basic business struggled.

Ordinary profit and profit attributable to owners of the parent increased significantly from a loss in the previous fiscal year due to an increase in operating profit and an improvement in equity in earnings of affiliates as a result of sales price adjustments and price increases in the cement-related business.

In terms of profit attributable to owners of parent, the results exceeded the forecast at the beginning of the period due to one-time non-operating income and other factors. As a result, dividends and other items have also been increased.

As for measures implemented in FY2023, we have been aggressively investing in facilities for business expansion and capacity building and have accelerated these investments when necessary. In Japan, we expanded production facilities for ceramics (silicon nitride). In Thailand, we added production facilities for polycarbonate diols (PCD).

However, the most important decision we made was the construction of a new DMC/EMC plant in the US. We will explain this again later.

In the area of alliances and restructuring, we have decided to merge API Corporation, a CDMO company acquired in FY2022, in December 2024 in order to accelerate the integration process or PMI.

FY2024 Earnings Forecast: Key Figures

UBE / UBE Corporation

- **Expecting increased revenues and profits by securing the recovery in the business environment.**
- **Although anticipating underachievement on the original medium-term management targets, intending to make aggressive investments for future growth while maintaining financial soundness.**

(Billion yen)

Item	FY2022	FY2023	FY2024 (Forecast)	Difference	FY2024 (Original target)
Net sales	494.7	468.2	510.0	41.8	520.0
Operating profit	16.2	22.5	27.0	4.5	40.0
Ordinary profit (loss)	(8.7)	36.3	37.0	0.7	47.0
Profit (loss) attributable to owners of parent	(7.0)	29.0	29.5	0.5	33.0
Interest-bearing debt	218.1	213.4	269.0	55.6	189.0
Shareholders' equity	361.6	408.7	424.0	15.3	424.0
D/E ratio	0.60 times	0.52 times	0.63 times	0.11 times	0.45 times
Investments	39.7	39.7	81.0	41.3	56.0
Return on sales (ROS)	3.3%	4.8%	5.3%	0.5%	8%
Return on equity (ROE)	(1.9)%	7.5%	7.1%	(0.4)%	8%
Return on invested capital (ROIC)	(2.0)%	4.7%	4.8%	0.1%	(Reference) 6%
Share of profit (loss) of entities accounted for using equity method related to MUCC*1 Group	(24.6)	13.0	11.0	(2.0)	8.0*2

FY2024 assumptions (business factors): Exchange rate at ¥150.0/USD Naphtha at US$700.0/tonne (CIF) Australian coal at US$168.0/tonne (CIF)

*1 Mitsubishi UBE Cement Corporation *2 Provisional figure assumed prior to launch of the MUCC Group

The forecast for FY2024 is summarized here.

We expect to see a recovery in the business environment, and we anticipate an increase in both sales and profits. For FY2024, we project net sales of JPY510 billion and operating profit of JPY27 billion, with an estimated 20% increase in operating profit.

On the other hand, ordinary profit and profit attributable to owners of the parent company are JPY37 billion and JPY29.5 billion, respectively. The increase of them will be smaller than the increase in operating pofit, partly due to the absence of a temporary positive factor from non-operating income that occurred in FY2023, and lower earnings from affiliates related to cement.

We expect profit attributable to owners of the parent in FY2024 to fall short by about 10% of the target of the medium-term plan, originally set at JPY33 billion on a net income basis.

Although we do not expect to achieve the original plan of the medium-term management plan, we will make aggressive investments for future growth while maintaining financial soundness.

The equity capital of JPY424 billion is in line with the original plan. On the other hand, the D/E ratio is 0.63x, and investments are expected to be JPY81 billion, more than double the level of the previous year.

FY2024 Earnings Forecast: Net Sales and Operating Profit by Segment

UBE / UBE Corporation

- **Expecting the Specialty Products segment to grow almost as planned, driven by the expansion of separation membranes and ceramics.**
- **Anticipating the Polymers & Chemicals segment to improve compared to the previous fiscal year due to improvements in the business environment but to significantly underachieve the original target.**
- **Forecasting the Machinery segment to exceed the target.**

(Billion yen)

Segment	Net sales						Operating profit						FY2024 forecast ROIC (%)
	FY2023		FY2024		Difference		FY2023		FY2024		Difference		
	Original target	Results (A) *1	Original target (B)	Forecast (C)	(C) – (A)	(C) – (B)	Original target	Results (A) *1	Original target (B)	Forecast (C)	(C) – (A)	(C) – (B)	
Specialty Products	70.0	63.8	75.0	70.0	6.3	(5.0)	12.5	12.1	13.0	12.5	0.4	(0.5)	11.6% *3
Polymers & Chemicals	320.0	258.6	316.0	288.0	29.4	(28.0)	24.0	2.5	22.0	9.5	7.0	(12.5)	2.7% *3
Machinery	98.0	96.9	100.0	104.0	7.1	4.0	5.5	7.2	6.0	7.0	(0.2)	1.0	7.5% *3
Others	57.0	74.5	54.0	72.0	(2.5)	18.0	3.5	4.5	4.0	2.0	(2.5)	(2.0)	–%
Adjustment *2	(25.0)	(25.4)	(25.0)	(24.0)	1.4	1.0	(4.5)	(3.8)	(5.0)	(4.0)	(0.2)	1.0	–%
Total	520.0	468.2	520.0	510.0	41.8	(10.0)	41.0	22.5	40.0	27.0	4.5	(13.0)	4.8%

*1 UBE America Inc. and UBE CORPORATION AMERICA INC. will be reclassified from the "Others" segment to the "Polymers & Chemicals" segment from FY2024. The results for FY2023 are reference figures reflecting the segment reclassification.
*2 Adjustment includes elimination of inter-segment transactions..
*3 The ROIC for the Specialty Products, Polymers & Chemicals, and Machinery segments is calculated based on business assets that can be managed by each business (working capital, fixed assets), and the calculation method differs from the company-wide ROIC.

This table shows our forecast for FY2024, broken down by segment, for net sales and operating profit.

The Specialty Products segment is expected to grow generally in line with the original plan, driven by the expansion of separation membranes and ceramics. In the Polymers and Chemicals segment, the business environment is expected to improve due to the recovery of food packaging film and automobile production. Although YoY performance will improve, it will fall far short of the original plan. On the other hand, we already expect that the Machinery segment will exceed the plans for both FY2023 and FY2024.

I think it is clear from the ROIC by segment that we will be investing resources in the specialty product and in structural reform of the polymers and chemicals in the future.

This year marks the third and final year of the original medium-term plan. Therefore, I would like to explain the progress of this three-year medium-term plan and important measures to be taken in the future based on this information.

Medium-Term Management Plan: Deviation from Original Target

UBE / UBE Corporation

(Billion yen)

Business portfolio	Net sales									Operating profit								
	FY2022			FY2023			FY2024			FY2022			FY2023			FY2024		
	Original target	Results	Difference	Original target	Results	Difference	Original target	Forecast	Difference	Original target	Results	Difference	Original target	Results	Difference	Original target	Forecast	Difference
Specialty	143.5	138.2	(5.4)	149.0	152.9	3.9	162.0	172.5	10.5	23.5	18.3	(5.2)	24.5	18.6	(5.9)	24.0	24.0	–
Basic	238.5	236.9	(1.6)	252.0	201.0	(51.0)	240.0	217.5	(22.5)	11.0	(3.4)	(14.4)	16.5	0.1	(16.4)	15.5	1.0	(14.5)
Machinery	106.0	96.9	(9.1)	98.0	96.9	(1.1)	100.0	104.0	4.0	5.0	5.2	0.2	5.5	7.2	1.7	6.0	7.0	1.0
Other* (incl. adjustment)	22.0	22.8	0.8	21.0	17.4	(3.6)	18.0	16.0	(2.0)	(5.0)	(4.0)	1.0	(5.5)	(3.4)	2.2	(5.5)	(5.0)	0.5
Total	510.0	494.7	(15.3)	520.0	468.2	(51.8)	520.0	510.0	(10.0)	34.5	16.2	(18.3)	41.0	22.5	(18.5)	40.0	27.0	(13.0)

*Adjustment includes elimination of inter-portfolio transactions.

- **Overall performance will fall short of the final year target of the medium-term plan due to the deterioration of basic businesses. However, specialty businesses are expected to achieve the targets.**
  - **Basic business**
    Heavily impacted by factors such as the stagnation in China's economy, achieving the original medium-term management target is difficult. The performance of caprolactam and nylon polymers has fallen significantly below expectations due to sluggish sales volumes and declining sales prices. The industrial chemicals is also affected by the slow demand for ammonia in industrial applications in Japan and the falling international ammonia market prices.
  - **Specialty business**
    Although some products were affected by inventory adjustments, the steady growth of separation membranes, ceramics, and high-performance coatings has supported the overall business, and it is expected to catch up with the original target in the final year.
  - **Machinery segment**
    Both machinery products and after-sales servicing have been relatively strong, and the segment is expected to exceed the original target.

This table illustrates the deviation from the original medium-term management plan, broken down by business portfolio, from a numerical perspective.

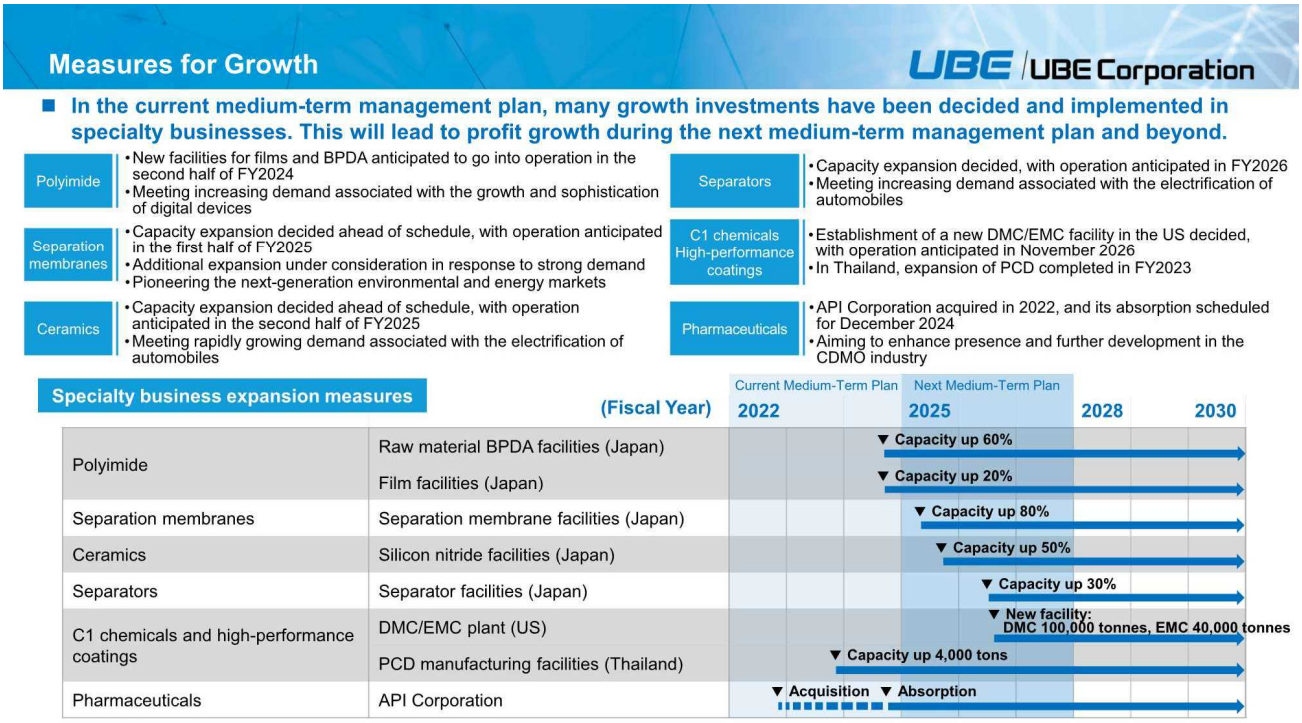
We are looking at the portfolio of specialty, basic, machinery and others. The reason for the failure to achieve the plan is clear, as stated in the statement, "overall performance will fall short of the final year target of the

medium-term plan due to the deterioration of basic businesses. However, specialty businesses are expected to achieve the targets". The basic businesses, which were expected to support earnings to a certain degree when the medium-term plan was formulated, have dragged down significantly.

The reason for this is that Chinese economy is stagnant and even in such an environment, Chinese suppliers did not stop increasing their capacity. Therefore, market prices for caprolactam and nylon polymers were much lower than expected. the deterioration of the business environment, including sluggish demand for ammonia, is unfortunately not temporary, but must be viewed as structural.

On the other hand, some specialty products were affected by inventory adjustments during the past three years. Still, steady growth in separation membranes, ceramics, and high-performance coatings supported overall growth, and we expect to catch up with our original plan in the final year.

And for the Machinery segment, both machinery products and after-sales services have been relatively strong, so we expect to exceed the original plan.



We have taken the necessary measures to achieve growth.

During the period of the original medium-term plan, we decided on and implemented numerous growth investments in the specialty business, accelerating those that were feasible. However, the results will not be visible until this medium-term management plan. Therefore, it can be said that we have effectively prepared for profitable growth for the three years of this medium-term plan.

As for polyimide, new facilities for film and raw material BPDA are scheduled to start operation in H2 of FY2024.

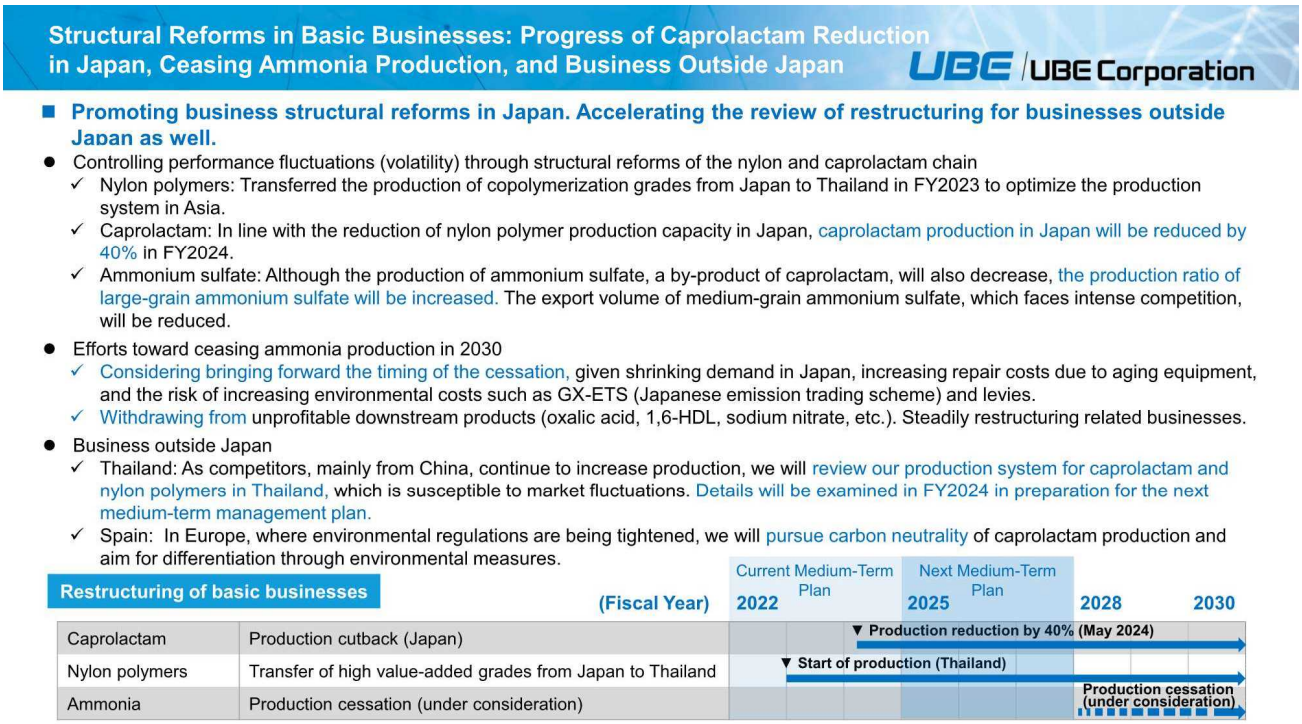
In the area of separation membranes, we have already made a decision in 2023 to increase capacity ahead of schedule. We are also considering further expansion in the future. We are striving to develop next-generation environmental energy markets, not only for biogas applications, but also for hydrogen separation and bioethanol dehydration.

We have also decided to expand our ceramics capacity ahead of schedule. There is a rapid expansion of bearing and substrate applications for electric vehicles and we need to meet this demand.

Also, we made an announcement about the separator. Demand for HEV applications has finally grown to our expectations, and although the timing is a little late, we have decided to increase our capacity.

For C1 chemicals and high-performance coatings, we have decided to build new DMC and EMC facilities in the US. Alternatively, in Thailand, we have already completed the expansion of polycarbonate diols.

In the area of pharmaceuticals, the acquisition of API Corporation and its absorption into the Company will enhance our presence in the CDMO industry.



I still believe that the challenge lies in structural reform of the basic businesses. We need to steadily promote reform of domestic business structure. Regarding our overseas operations, we intend to accelerate our reorganization efforts in response to the structurally deteriorating business environment.

In order to curb volatility through structural reforms, we have already completed the optimization of our production system in Asia in FY2023 by transferring the production of copolymer grade from Japan to Thailand.

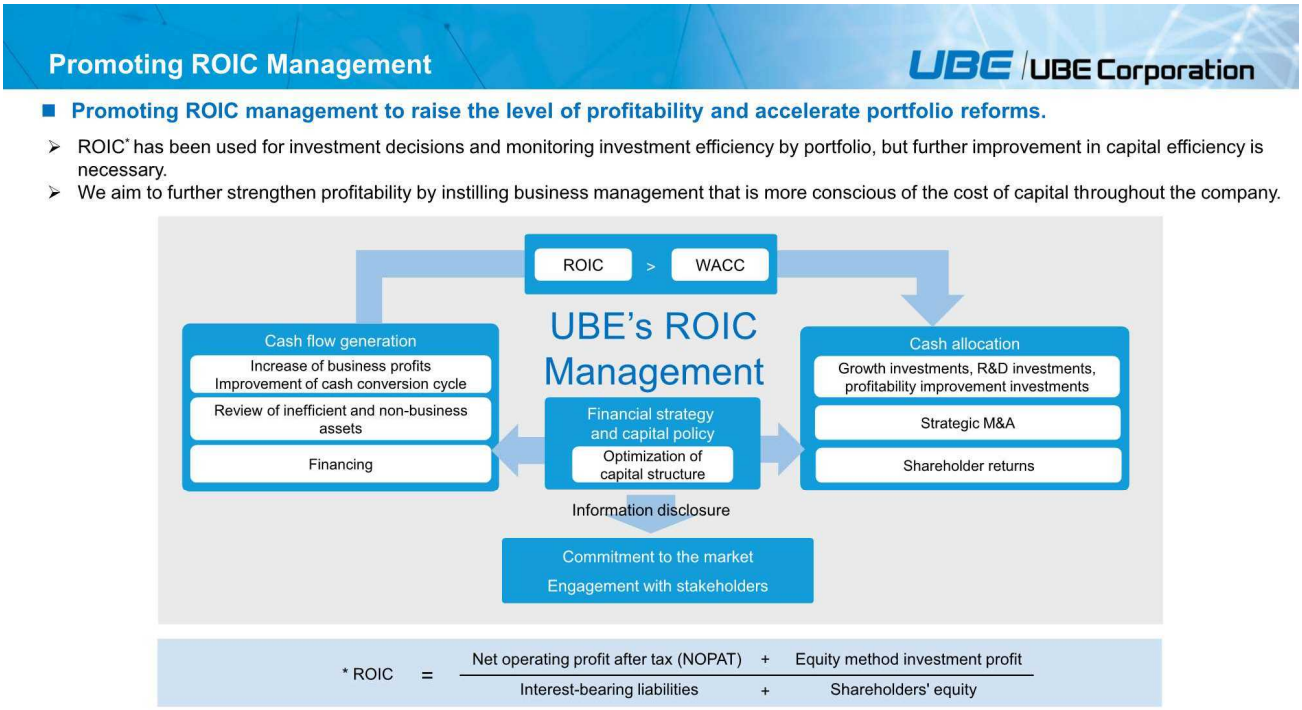
In addition, caprolactam production will be reduced by 40% during the maintenance work in May 2024, in line with the reduction in domestic nylon production capacity. With this reduction, the production of ammonium sulfate will reduce but we will increase the production ratio of large-grain ammonium sulfate to increase the value-added in the basic business.

We have been solemnly working toward the cessation of ammonia production in Japan by 2030. However, increased environmental costs, such as shrinking domestic demand, increased repair costs due to aging facilities, and the levy of GX-ETS (emissions trading), will be a reality in the future. Therefore, we are considering accelerating the shutdown timeline by approximately two years.

On the other hand, we have already been steadily withdrawing from downstream businesses that produce unprofitable products.

In our overseas business, we will review the production system for caprolactam and nylon polymers in Thailand, which has been most affected by the Chinese suppliers. Details will be finalized to reduce the impact on management by the end of FY2024.

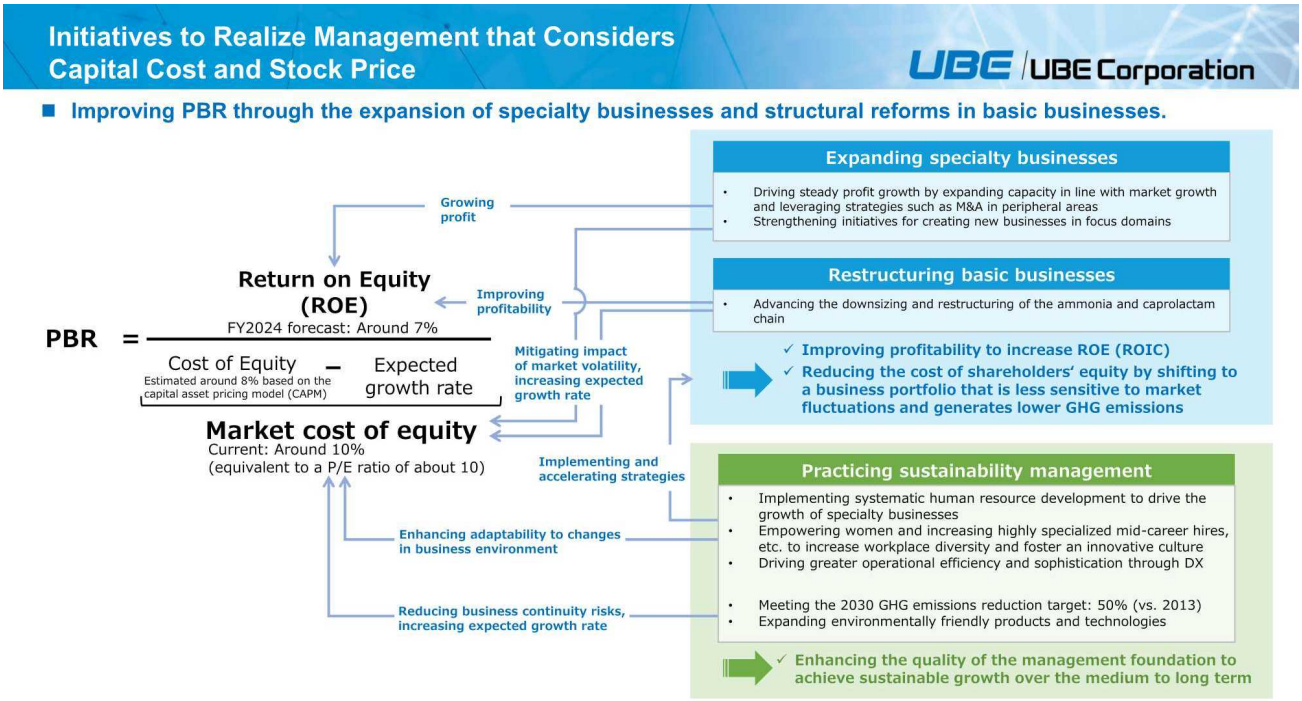
On the other hand, in the face of stricter environmental regulations in Spain, we will promote the carbon neutralization of caprolactam production and aim to differentiate ourselves from our competitors by responding to environmental issues. By doing so, we can maintain the business in European market.



From here, changing the topic a little. I would like to touch on the promotion of ROIC management, which we are now particularly focusing on.

We have used ROIC to make investment decisions and monitor investment efficiency by portfolio for long time, but we would like to further strengthen our profitability by spreading more awareness of the cost of capital throughout the company.

For example, we would like to have all executives set ROIC targets for their own business units, or sub-KPIs that are derived from the ROIC tree and are optimal for each department. So that ROIC management can permeate down to the end of the organization.



The Tokyo Stock Exchange has requested listed companies to take measures to realize management that is conscious of the cost of capital and stock price. We would like to improve P/B ratios through the expansion of specialty businesses and structural reforms of basic businesses, which we already disclosed at the corporate governance report.

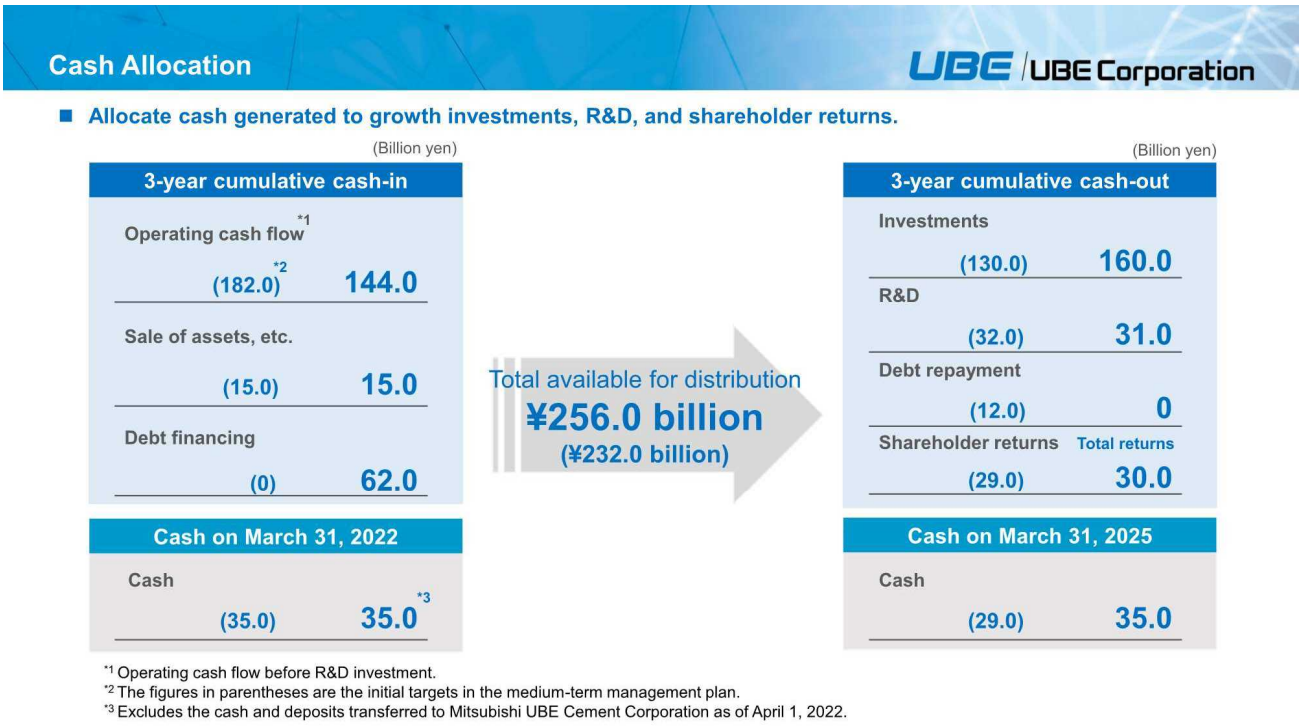
P/B ratio is expressed by the formula shown here. In order to increase the numerator, ROE, and especially R in this context, we should expand our specialty business while making aggressive investments. Then, to lower the denominator, the cost of shareholders' equity, we will lower the impact on management by restructuring the basic businesses and expand the specialty business, which is less susceptible to market fluctuations. I believe that this is one possible way to reduce the volatility of business performance.

Furthermore, when considering the market's concerns about our company's future, it is evident that we currently have high GHG emissions. You may wonder if we will be able to achieve the reductions as planned and survive in a decarbonized society.

In this regard, we will steadily implement the business restructuring reforms, including the suspension of ammonia production. In addition, we would like to improve the quality of our management base and eliminate such concerns about the future by promoting sustainability management, such as by securing and developing human resources to drive the growth of the specialty business and promoting DX.

In other words, I believe that the way to improve P/B ratios is to steadily implement the original medium-term plan or long-term vision and, above all, to produce results. If we can gain the confidence of the market, we believe that P/B ratios will naturally improve.

From here I will talk about capital policy and cash allocation.

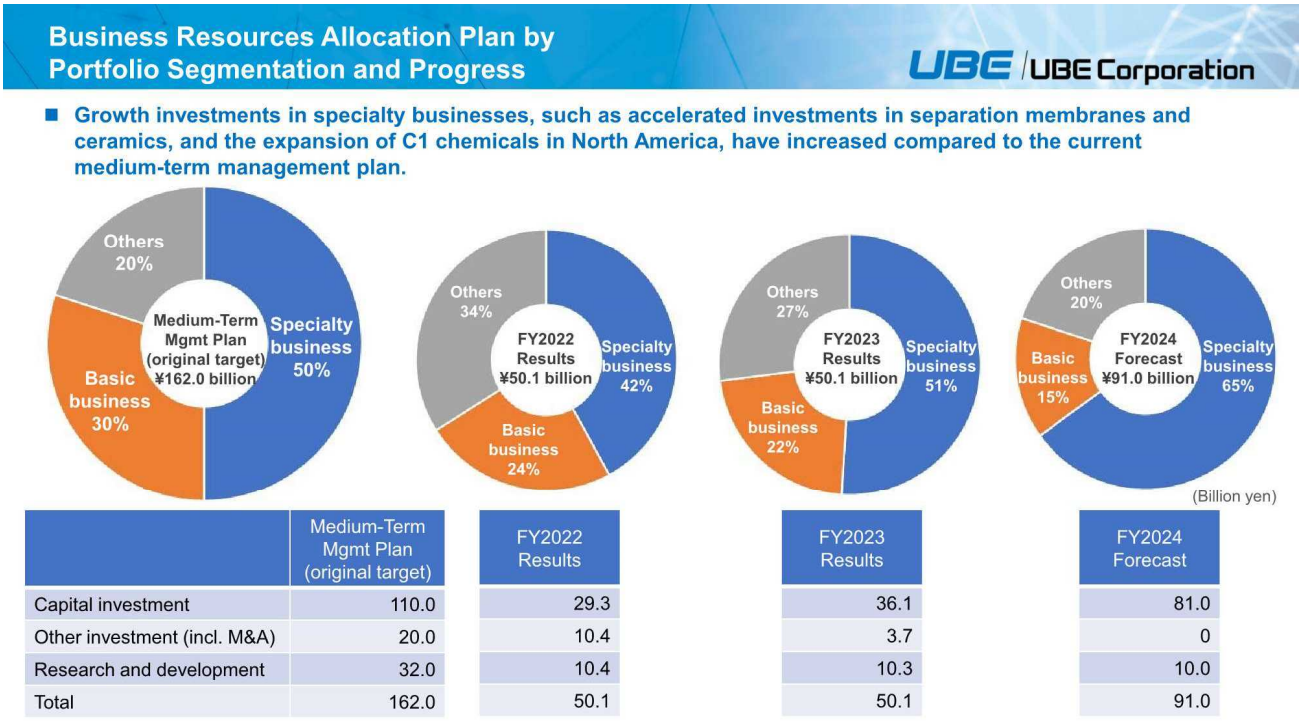


The left side shows the cash-in over the three-year period, and the right side shows the cash-out. And the figures shown in parentheses are the originally planned figures for the medium-term plan.

The cash-in decreased by about JPY38 billion compared to the originally planned figures due to the underachievement of profit. In this context, the allocable amount is JPY256 billion, including debt financing, which is expected to increase by JPY24 billion.

Regarding the utilization of the increased cash, we have decided to raise investments from JPY130 billion to JPY160 billion for aggressive capital investment.

In terms of cash at the end of the period, we would like to keep roughly JPY35 billion as the standard amount on hand.

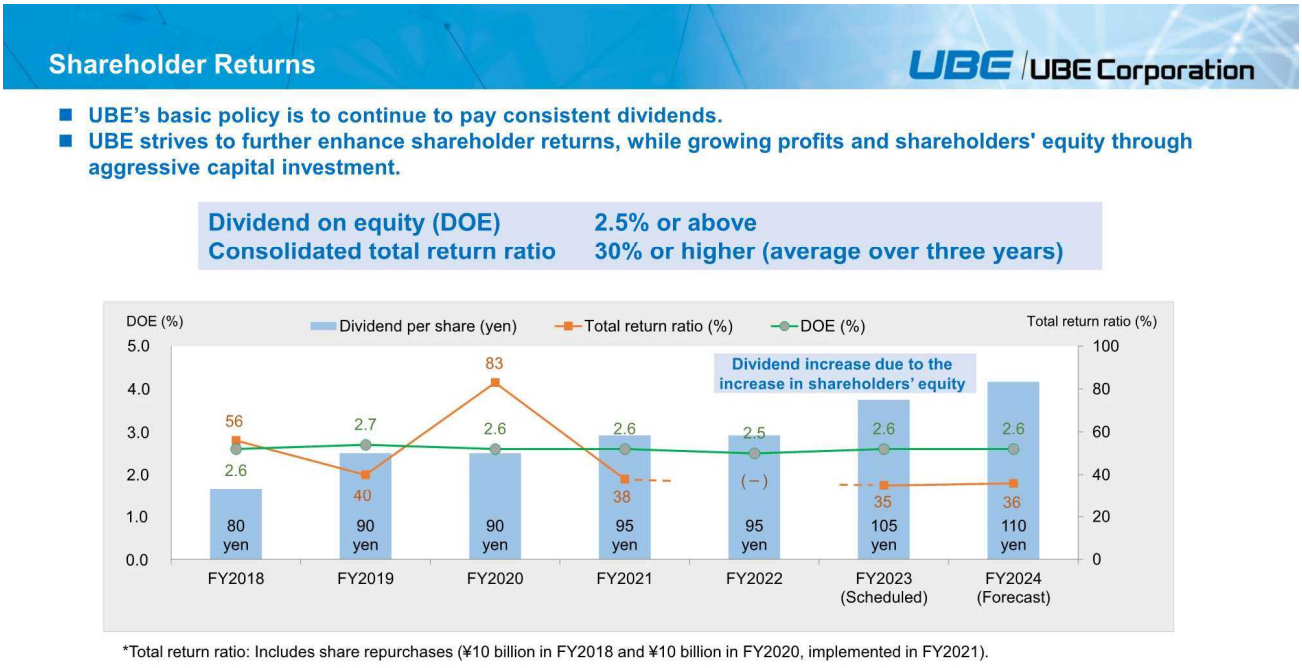


	Medium-Term Mgmt Plan (original target)	FY2022 Results	FY2023 Results	FY2024 Forecast
Capital investment	110.0	29.3	36.1	81.0
Other investment (incl. M&A)	20.0	10.4	3.7	0
Research and development	32.0	10.4	10.3	10.0
Total	162.0	50.1	50.1	91.0

This is the business resources allocation plan, including capital investment, other investment including M&A, and research and development expenses, by portfolio.

In the original plan of the medium-term plan, we estimated that total capital investment, other investment, and R&D expenses would amount to JPY162 billion and we planned to allocate half of our management resources to specialty businesses. However, as seen on the graph for FY2022, FY2023, and FY2024, investment in the specialty business is expected to increase compared to the original plan due to accelerated investments in separation membranes and ceramics, as well as the expansion of C1 Chemicals in North America.

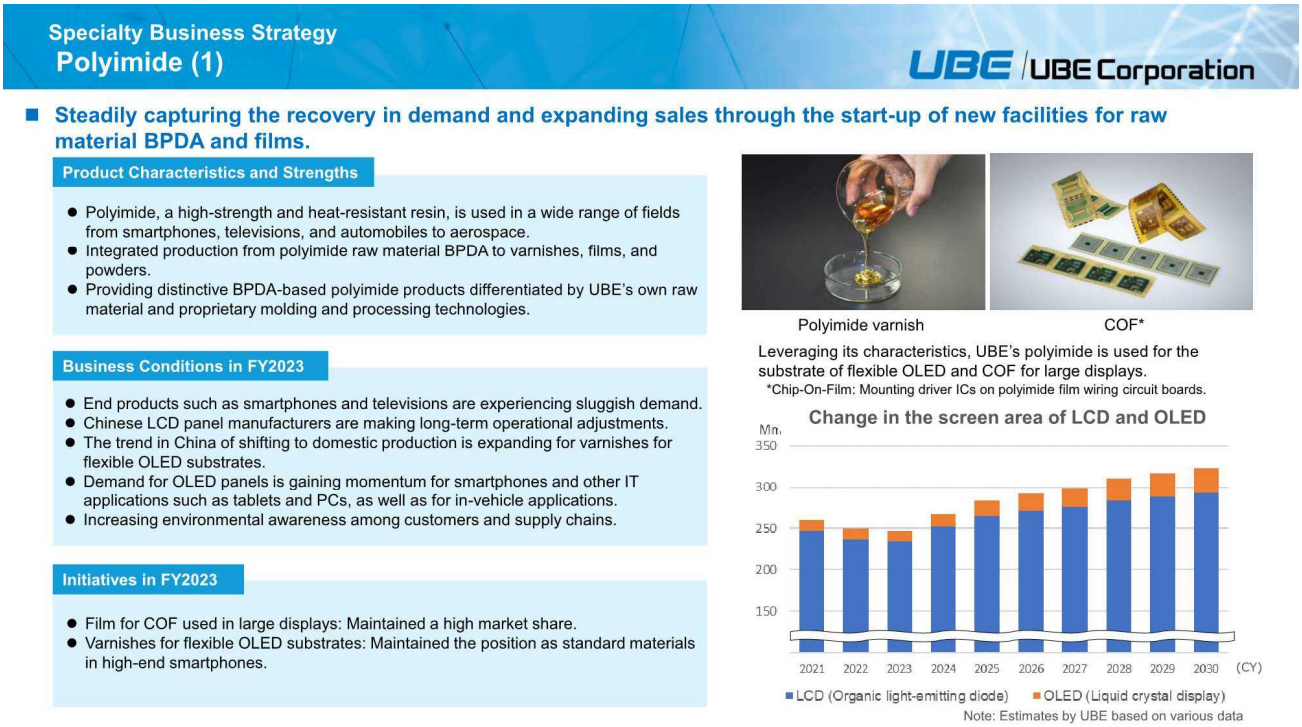
Over the three years, this investment totals JPY191 billion. We anticipate investing JPY29 billion more in management resources than the JPY162 billion outlined in the original medium-term plan, thereby increasing the ratio of specialties from 50% to 55% over the three-year period.



I would like to explain about shareholder returns. Our basic policy is to maintain stable dividends. In the three years of the medium-term management plan, we have made particularly aggressive capital investments to increase profits and shareholders' equity, and to further enhance shareholder returns in the future.

We have two indicators of shareholder return: DOE and consolidated total return ratio. Based on these indicators, we have decided to pay a dividend of JPY105 for FY2023, up JPY5 from our original forecast of JPY100. And for FY2024, we expect a dividend of JPY110.

From here, I would like to explain our four specialty businesses that we are focusing on: polyimide, separation membranes, ceramics, and C1 Chemicals.



This is about polyimide. Our polyimide is a resin with excellent strength and heat resistance, and its raw material is BPDA, a unique raw material. From raw material BPDA, we have integrated production of varnish, film, and powder. It is used for flexible OLED substrates and COF for large displays.

The business environment for FY2023 was not favorable. However, we worked to secure stable earnings by maintaining a high market share for COF films and maintaining our position as a standard agent for high-end smartphones for varnishes, among other measures.

Specialty Business Strategy
Polyimide (2)

UBE / UBE Corporation

■ **Creating new demand with innovative new polyimide products.**

Outlook for FY2024 and Beyond, and Vision for 2030

Outlook for FY2024 and Beyond

- Sales in FY2024 are expected to be at the same level as FY2023.
- Demand for COF films will recover slightly from FY2023 but will not reach the peak level.
- The trend in China of shifting to domestic production will continue for varnishes for flexible OLED substrates.
- Polyimide powder will capture the recovery in demand for semiconductor materials in the second half of FY2024.

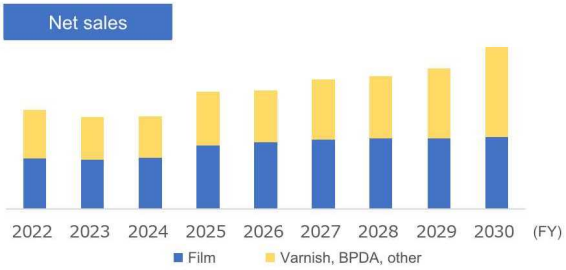
Vision for 2030

- Leveraging the strengths of BPDA, films, and varnishes to maintain and expand a high share in niche markets.

Future Strategies

- Expansion of the varnish business through the development of innovative polyimide varnishes.
- Business expansion in mobility and semiconductor applications in addition to displays applications.
- Business expansion with environmentally friendly products such as water-based polyimide varnishes.

(Left) Example of application for new varnish. As a binder for silicon-based anodes in lithium-ion batteries, it suppresses electrode expansion.
(Right) Examples of powder application: Used in molding parts for heat-resistant components in semiconductor manufacturing equipment and precision insulating components in semiconductor inspection equipment.



As for our policy for FY2024 and beyond, demand of films for COF hit bottom in 2024 and is on a recovery trend. As we move toward 2030, we will strive to expand our business not just in isolated areas but comprehensively, leveraging our strength in integrated production from raw materials.

Therefore, the strategy for the future is to develop innovative varnishes. We are working on further improving optical properties and heat resistance. We would like to develop various new applications including a new varnish or powder.

Specialty Business Strategy
Separation Membranes (1)

UBE / UBE Corporation

■ **Continuing strong demand for CO_2 separation membranes for biomethane production.**

Product Characteristics and Strengths

- Efficient separation of specific gases from mixed gases.
- Wide range of uses such as CO_2 separation, nitrogen enrichment, dehumidification, H_2 separation, alcohol dehydration, etc.
- Excellent durability, gas permeation, and separation due to unique polyimide technology.

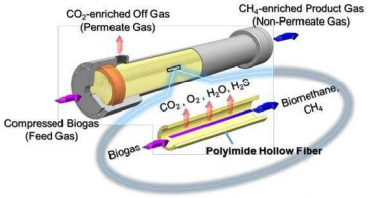
Business Conditions in FY2023

- Increased orders, far exceeding the medium-term management plan.
- Continuing strong demand for CO_2 separation membranes for biomethane production in particular.
- Growing momentum for the use of non-fossil raw materials and energy. Alcohol dehydration is gradually growing.

Initiatives in FY2023

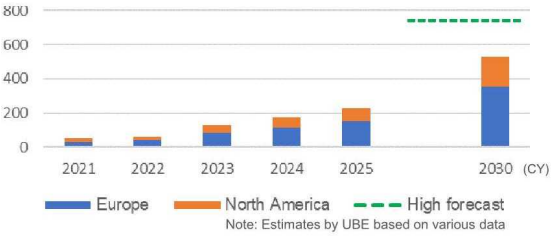
- Cultivated the biomethane markets in South America and Asia, which are expected to grow following Europe and North America.
- Increased production capacity by addressing bottlenecks.
- Conducted marketing in association with the upcoming manufacturing facilities for polyimide hollow fiber membranes (Ube) and for separation membrane modules (Sakai), both scheduled to go online in the first half of FY2025.

CO_2 separation membranes for biomethane production



A separation membrane module consisting of bundles of polyimide hollow fiber membranes. CO_2 separation membranes concentrate methane by separating and removing CO_2 in biogas. The concentrated biomethane is used as renewable energy.

Biomethane production (billion m^3)



Note: Estimates by UBE based on various data

This is about separation membranes.

Our separation membranes are made of our bundled polyimide hollow fibers. This gives it excellent durability, gas permeability, and separation properties. It is used for a wide range of applications, such as CO2, nitrogen, and hydrogen separation, dehumidification, and alcohol dehydration.

In FY2023, there was a significant increase in orders over the medium-term plan, with particularly strong demand continuing for CO2 separation membranes for biomethane production.

The CO2 is separated from the biogas and the methane is concentrated. The concentrated biomethane is then used as a renewable energy source. In order to meet this strong demand, we have been increasing our production capacity in FY2023 by addressing bottlenecks and have been constructing new facilities that are scheduled to start operation in H1 of 2025.

Specialty Business Strategy
Separation Membranes (2)

UBE / UBE Corporation

■ **Steadily promoting capacity expansion and seizing growth opportunities for environmentally friendly products.**

Outlook for FY2024 and Beyond, and Vision for 2030

Outlook for FY2024 and Beyond

- Continuing strong demand for CO_2 separation membranes for biomethane production.
- Following the growth of alcohol dehydration, increasing demand for hydrogen separation membranes for H_2 recovery and effective utilization in sustainable aviation fuel (SAF) and chemical production.
- Planning new investments following the manufacturing facilities scheduled to go online in the first half of FY2025.

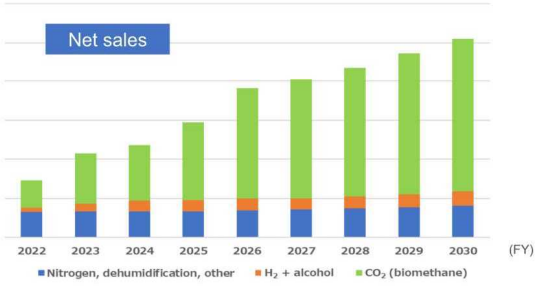
Vision for 2030

- Secure the biomethane demand predicted to grow several times in both Europe and North America.
- Environmentally friendly products such as CO_2 separation, H_2 separation, and alcohol dehydration will increase approximately three-fold (compared to FY2023).
- Flexible production facility operation capable of meeting rapid increases in demand.

Future Strategies

- Strengthen product capabilities and marketing centered on the environment and energy field.
- Promote the development of highly-durable products that contribute to waste reduction in addition to aim carbon neutrality by gas separation which generate renewable energy.

(Left) Example of H_2 separation in a chemical plant.
(Right) Example of generating biomethane from a landfill site.



Note: The above figures Include prototype sales

We expect strong demand for CO2 separation membranes for biomethane production to continue in FY2024 and beyond. There is also increasing demand for alcohol dehydration membranes, which is used for the dehydration of bioethanol., and hydrogen membranes, which is used for the recovery of hydrogen, which is necessary for the production of sustainable aviation fuel (SAF) and chemicals.

Therefore, I am wondering if further new investments need to be made and decisions made in FY2024. In addition to establishing a flexible facility structure capable of responding to such a surge in demand, we would like to strengthen our marketing efforts in the Asian market, especially in the environmental energy field.

Specialty Business Strategy
Ceramics (Silicon Nitride) (1)

UBE Corporation

■ **Leveraging UBE's strengths to meet the rapidly expanding demand for xEV applications.**

Product Characteristics and Strengths

- Silicon nitride is a high-strength ceramic with excellent fracture toughness, wear resistance, and thermal shock resistance.
- UBE manufactures high-quality silicon nitride powders using the imide-decomposition process.
- UBE's product offers uniform grain size, low impurities, and microstructure that can be controlled.
- UBE's silicon nitride is highly regarded as a global standard.

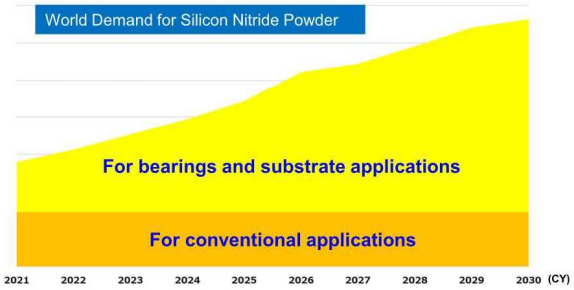
Business Conditions in FY2023

- For bearing and substrate applications for the xEV market, downstream customers are planning to increase production, accelerating demand growth.
- Demand-supply balance has become very tight, making productivity improvement essential.

Initiatives in FY2023

- Decided to expand silicon nitride production facilities to meet surging demand. Expanded facilities are scheduled to go online in the second half of FY2025, increasing production capacity by about 1.5 times.

The extremely high-purity silicon nitride produced by UBE's proprietary manufacturing process is used to realize high-precision and high-durability ceramic products, which support the electrification of vehicles as bearing balls, etc.



Note: Estimates by UBE based on various data

This is about ceramics (silicon nitride). Our silicon nitride is produced by our proprietary imide-decomposition process. With its uniform grain size and low impurity content, it is highly regarded as a standard in the high-end market.

In FY2023, the business environment is characterized by accelerating demand growth, especially for bearings and substrates for the xEV market. The supply-demand balance has become extremely tight, and we have decided to add a new facility in FY2023 to meet this demand.

Specialty Business Strategy
Ceramics (Silicon Nitride) (2)

UBE Corporation

■ **Steadily advancing capacity expansion and seizing future growth opportunities.**

Outlook for FY2024 and Beyond, and Vision for 2030

Outlook for FY2024 and Beyond

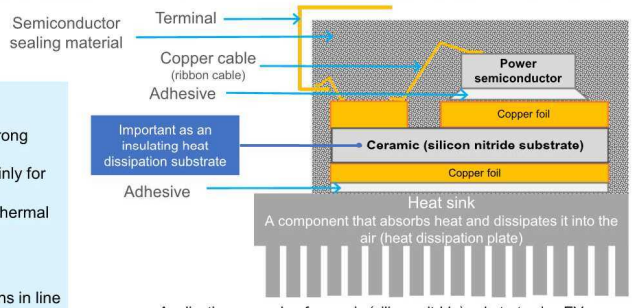
- Although the growth of the xEV market is slowing down slightly, there is strong interest in UBE's silicon nitride powder.
- For bearing applications, the need for silicon nitride balls is increasing, mainly for high-end vehicles.
- For substrate applications, high-strength silicon nitride that can withstand thermal stress and enable thin designs is essential due to the rise in operating temperatures of power semiconductors.

Vision for 2030

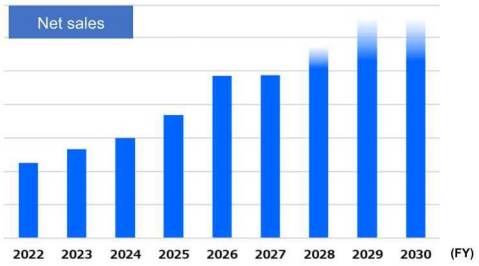
- Securing the strong demand expected for bearing and substrate applications in line with the growth of the xEV market.
- Meeting the expanding demand through appropriate production facility planning.
- Environmentally friendly products will increase by approximately three-fold (compared to FY2023).

Future Strategies

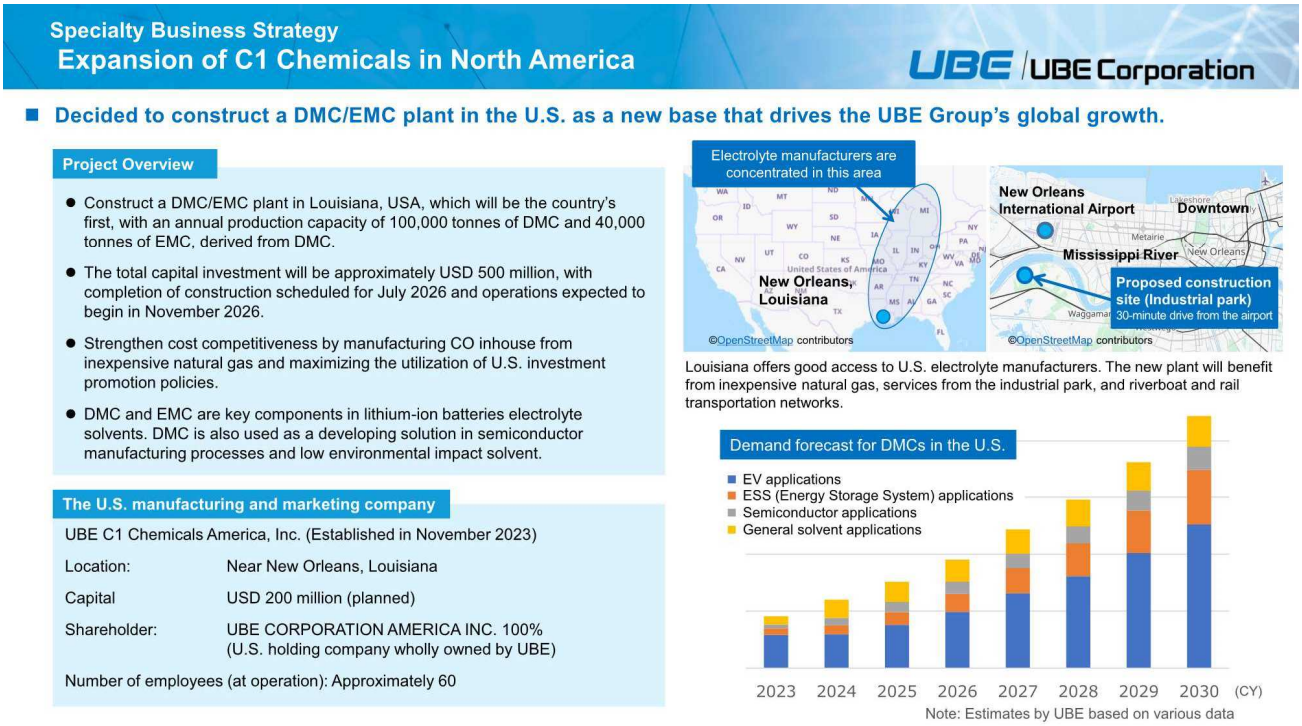
- Maximize the productivity of existing facilities, focus supplies to the expanding bearing and substrate applications, and connect to the production increase (second plant) in the second half of FY2025.
- Even after the production increase, UBE is planning further increases in line with demand to satisfy market requirements.



Application example of ceramic (silicon nitride) substrates in xEV power semiconductor modules



As for our future goals, we anticipate strong demand for bearings and substrates will continue as the xEV market continues to grow so we intend to meet this demand. However, there is a time gap until the new plant becomes operational. Therefore, we plan to maximize the productivity of our existing facilities until the new plant is constructed and operational.



This is about C1 Chemicals. We announced our decision on the construction of DMC/EMC plant in the US at the end of February 2024. This plant is expected to become a new base that will drive the global growth of our group.

The new plant will be located in Louisiana, USA. Electrolyte manufacturers have good access in Louisiana, and inexpensive natural gas and various services are available from industrial parks. And transportation on rivers such as the Mississippi River or by rail are available. We will construct a 100,000-ton at the DMC plant and a 40,000-ton at the EMC plant for its derivatives.

DMC/EMC is the main component of electrolyte solvents in lithium-ion batteries. In addition, DMC is also used in other ways, such as a developer solution for semiconductor manufacturing processes. US companies are now relied entirely on imports from China and other countries so we will manufacture them locally with a capital investment of approximately USD500 million. It is scheduled to begin operation in November 2026.

We are considering maximizing the use of USA investment promotion policies, either federally through the IRA Act, or through state and county subsidies and tax credits and such.

Specialty Business Strategy
Global Expansion of C1 Chemicals

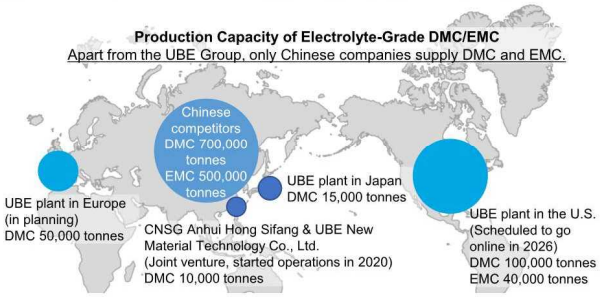
UBE / UBE Corporation

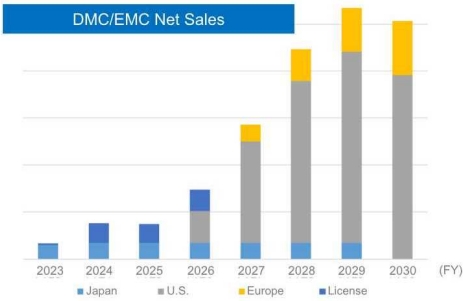
Strategy toward 2030

- Secure a market leader position as the only DMC/EMC supplier in the U.S.
- In the future, plan to construct a polycarbonate diol (PCD) plant, positioning it as a manufacturing and technical service base for the high-performance coatings business in North America.
- Following North America, consider constructing a DMC 50,000-tonne facility in Europe. Responding to customers' local production needs, establish a supply system at three bases in Asia, North America, and Europe.
- In China, expand the licensing business for DMC and EMC, following the licensing business for DMO and MEG.
- The outlook for the entire C1 chemical chain, including the high-performance coatings business, is net sales of ¥60-80 billion in FY2030.

Advantages of UBE's DMC

- Unlike competitors' manufacturing processes that use ethylene-derived raw materials (dependent on naphtha crackers), UBE's process uses CO and methanol as the main raw materials. This allows for greater freedom in plant location and the ability to obtain DMC as the sole target product.
- High-purity DMC suitable for electrolyte and semiconductor applications can be obtained.
- Carbon neutrality will be possible in the future by utilizing bio-methanol, green methanol, etc.

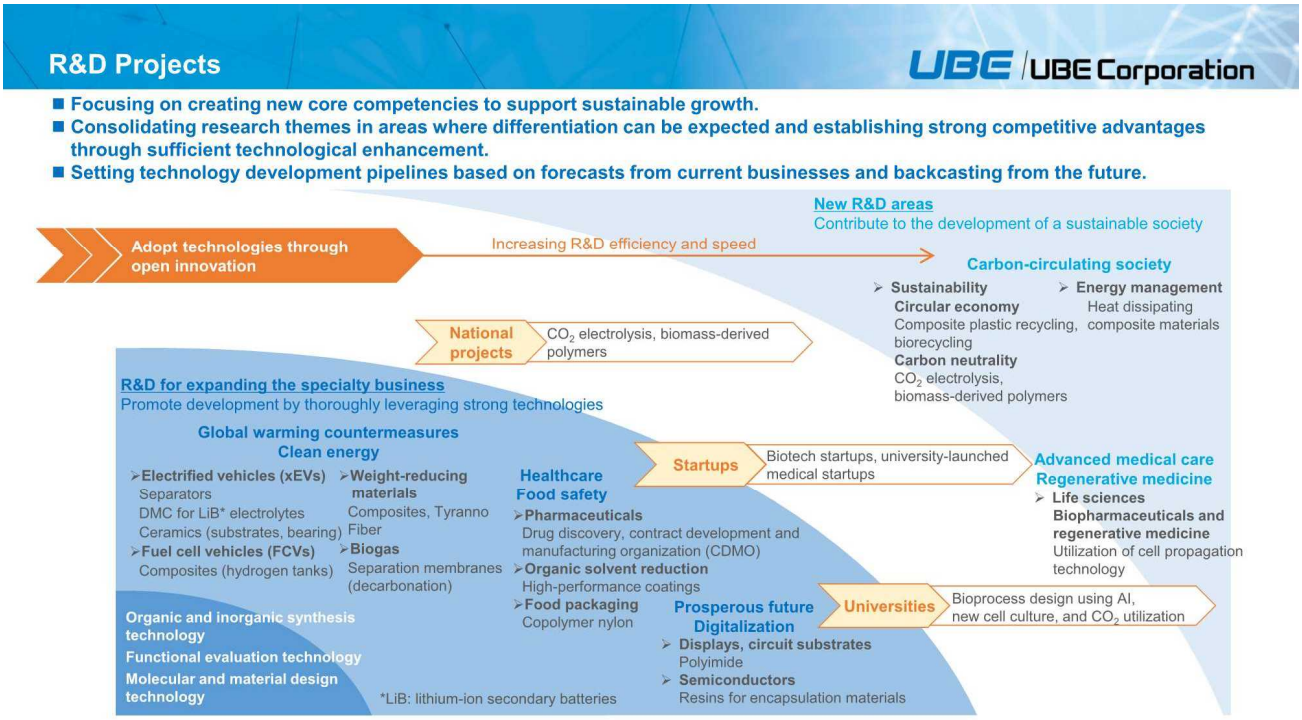




As for our future strategy, we would like to secure a market leadership position as the only DMC/EMC supplier in the US.

We will use DMC as a raw material to expand our high-performance coatings business including polycarbonate diols (PCD), polyurethane dispersions (PUD), and more. We would like to position the DMC plant as a starting point and base, and plan to construct a plant for PCD at a later date after the completion of the DMC plant.

As for further global expansion, we are considering the construction of a 50,000-ton DMC facility in Europe, following North America. We would like to establish a supply system with three bases in Asia, North America, and Europe. Through this, we would like to expand our business including high-performance coatings toward 2030.



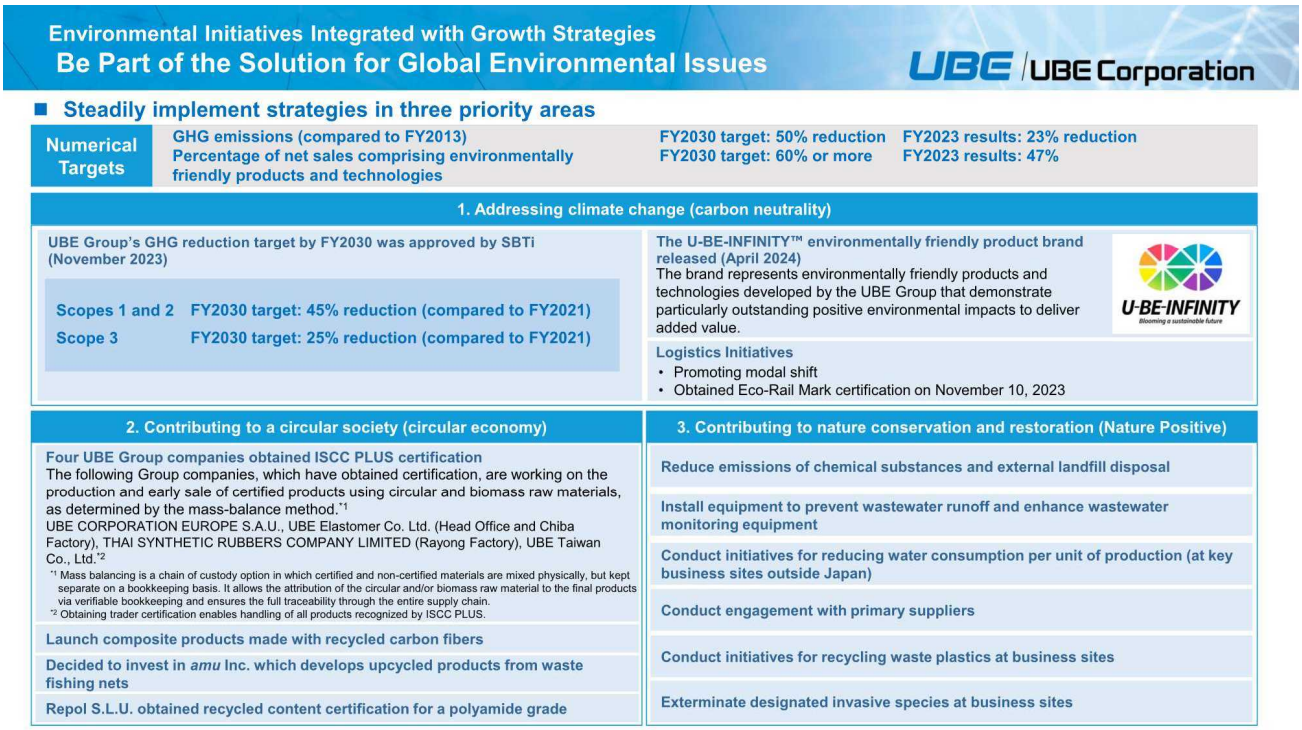
Let me mention about research and development. R&D is based on our core technologies (organic and inorganic synthesis technologies, etc.), with the expansion of existing specialty businesses conducted by the development divisions of each business unit, as shown in the blue area.

As for the creation of new businesses with an eye on the future, corporate R&D division has been responsible, mainly in the areas of sustainability, energy management, and life sciences. However, creating completely new businesses is not an easy task because it involves the dispersion of resources, and the probability of success is low. Therefore, we would like to focus on businesses that have sufficient technological background.

At the same time, we aim to increase the involvement of the corporate R&D division in the medium to long-term initiatives of our existing businesses. The division will be responsible for creating core competencies that will serve as the technological foundation for future business growth.

To achieve this, we plan to establish a technology development pipeline where forecasts from current business activities align with backcasts from future technologies and markets.

From here, I would like to explain about ESG and DX initiatives.



First of all, we are addressing global environmental issues by integrating with our growth strategy. We have established three priority areas and are steadily implementing strategies in each of them. The priority areas are “addressing climate change (carbon neutrality)”, “contributing to a circular society (circular economy)” and “contributing to nature conservation and restoration (Nature Positive)”.We are advancing in three areas to contribute to ESGs.

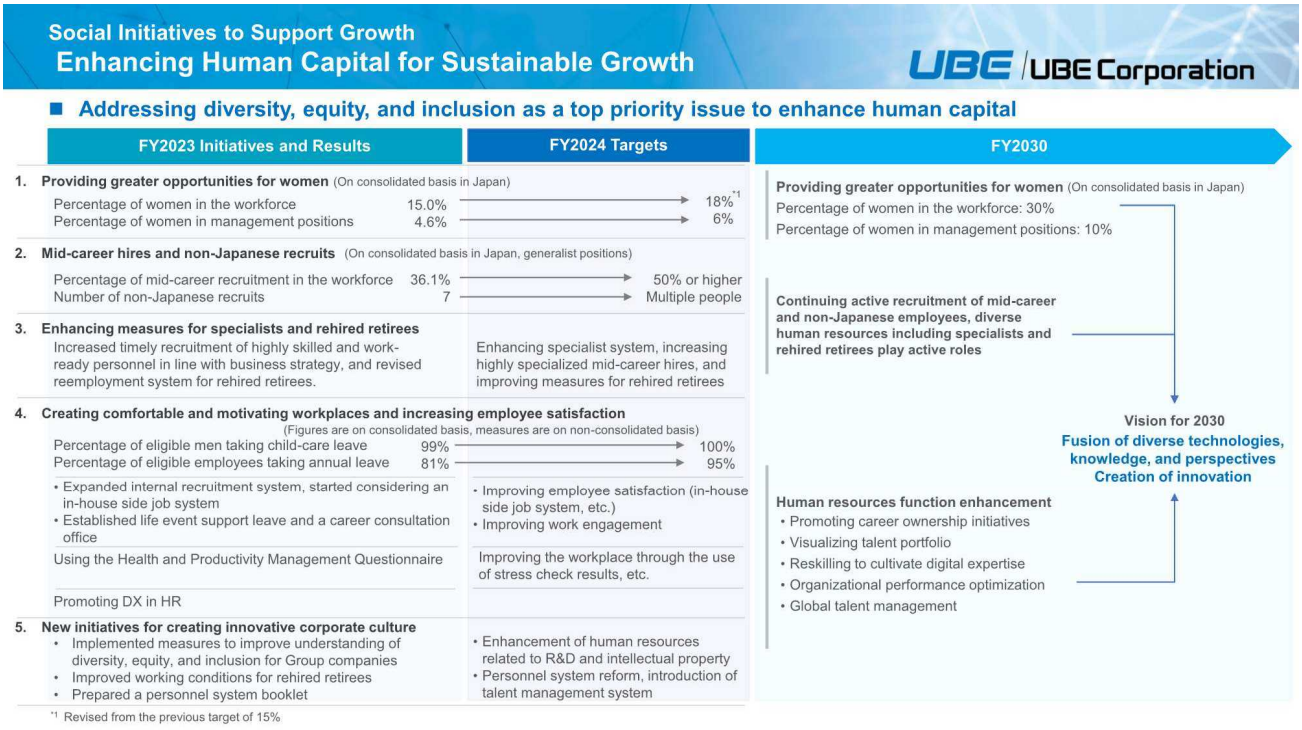
As an overall numerical target, the major goal is to halve GHG emissions by 2030. We have set a major goal of increasing the ratio of environmentally friendly products and technologies to sales to 60% or more, and we are making steady progress in this area.

As for carbon neutrality, we obtained SBT certification in 2023. We would like to promote initiatives that are authorized by external parties.

We have established U-BE-INFINITY as a brand for our environmental products. Among the products our group is developing, we plan to implement an environmental brand strategy by assigning this type of brand to products and technologies that demonstrate significant environmental contributions.

As for our contribution to the circular economy, we have obtained ISCC PLUS certification for our synthetic rubber and other businesses. In this way, we hope to use our environmental responsiveness to differentiate our business.

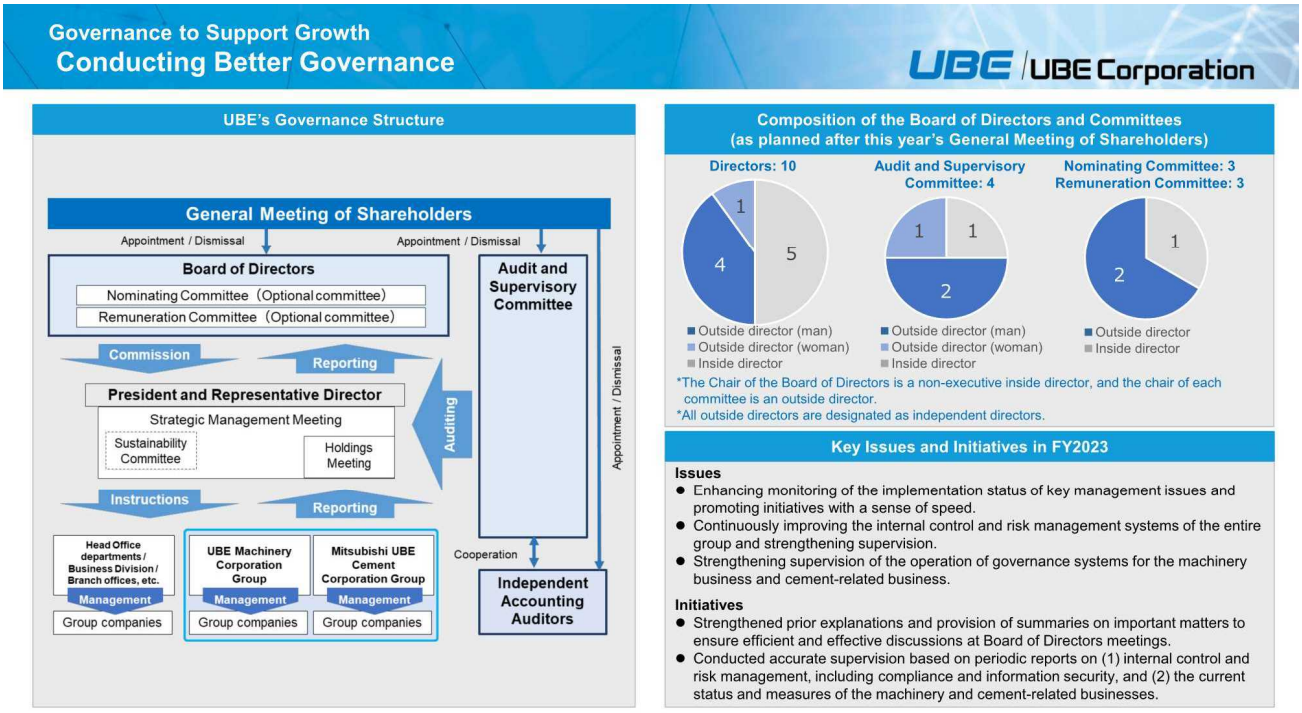
As for Nature Positive, the TNFD was released in 2023, and we would like to work on information disclosure based on this.



This page explains “enhancing human capital for sustainable growth” that supports our growth strategy. We view diversity, equity and inclusion as our most important issue and promote the strengthening of human capital.

With regard to providing greater opportunities for women, we are moving forward by steadily meeting the numerical targets. We are also actively promoting career and non-Japanese hires. We are also working to create opportunities for a diverse range of human resources, including professionals and rehired retirees.

Then, we are implementing various measures to create comfortable and motivating workplaces and increase employee satisfaction. We are also striving to create an innovative corporate culture by further enhancing our HR (personnel functions), particularly as a specialty business company.

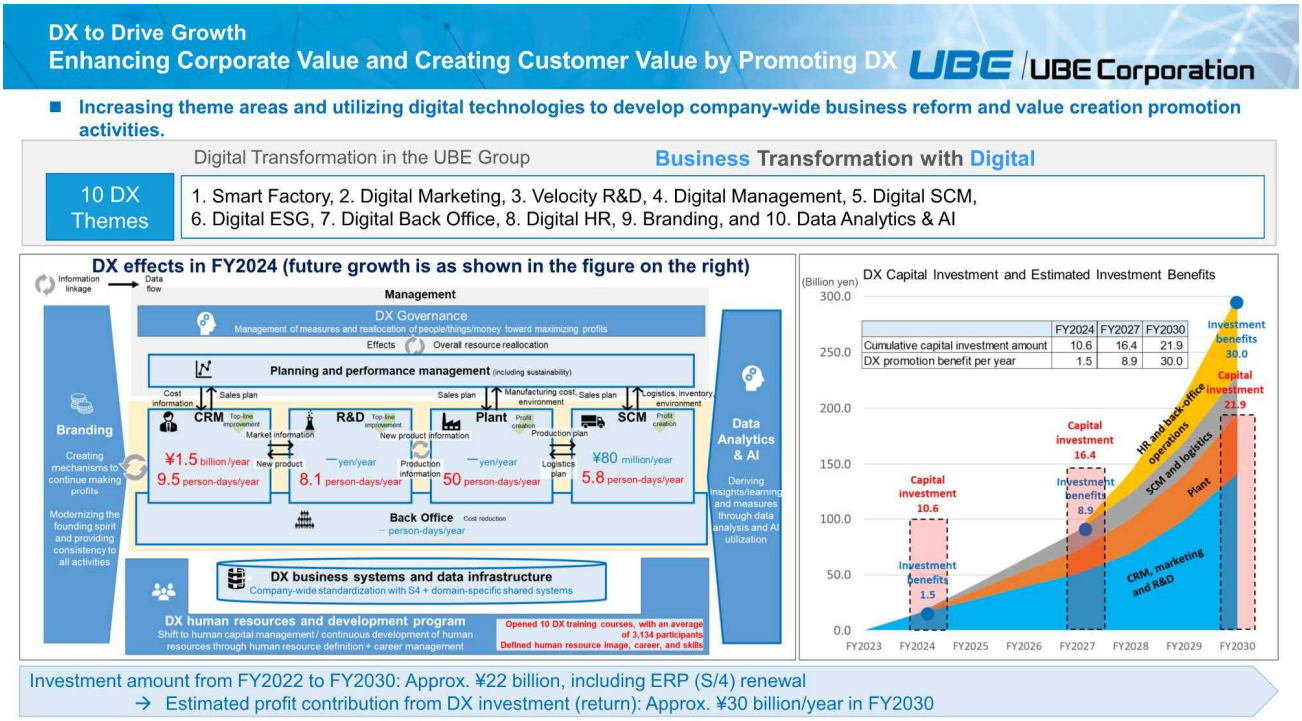


I would like to touch on our governance.

The Company has an Audit Committee. The Board of Directors, of which there are 10 members in total, is divided equally between internal and external directors.

And the Board of Directors has two voluntary committees: the Nominating Committee and the Remuneration Committee. These committees are chaired by outside directors, with the majority of their members also being outside directors. All outside directors are independent directors.

We are proud of the balanced composition of our Board of Directors and the dynamic discussions that take place.



This slide explains the DX promotion that we are particularly focusing on in the medium-term management plan.

We call DX “Business Transformation with Digital,” and we believe that digital technology is merely a tool and means to achieve this. We are developing this initiative to promote company-wide business reform and value creation by utilizing this technology.

Thus, the themes are spread quite widely. At present, there are 10 areas, including smart factories in the manufacturing field, digital marketing, supply chain management, research and development, and human resources, with a director in charge of each theme. We involve young employees in the field as to promote human resource development.

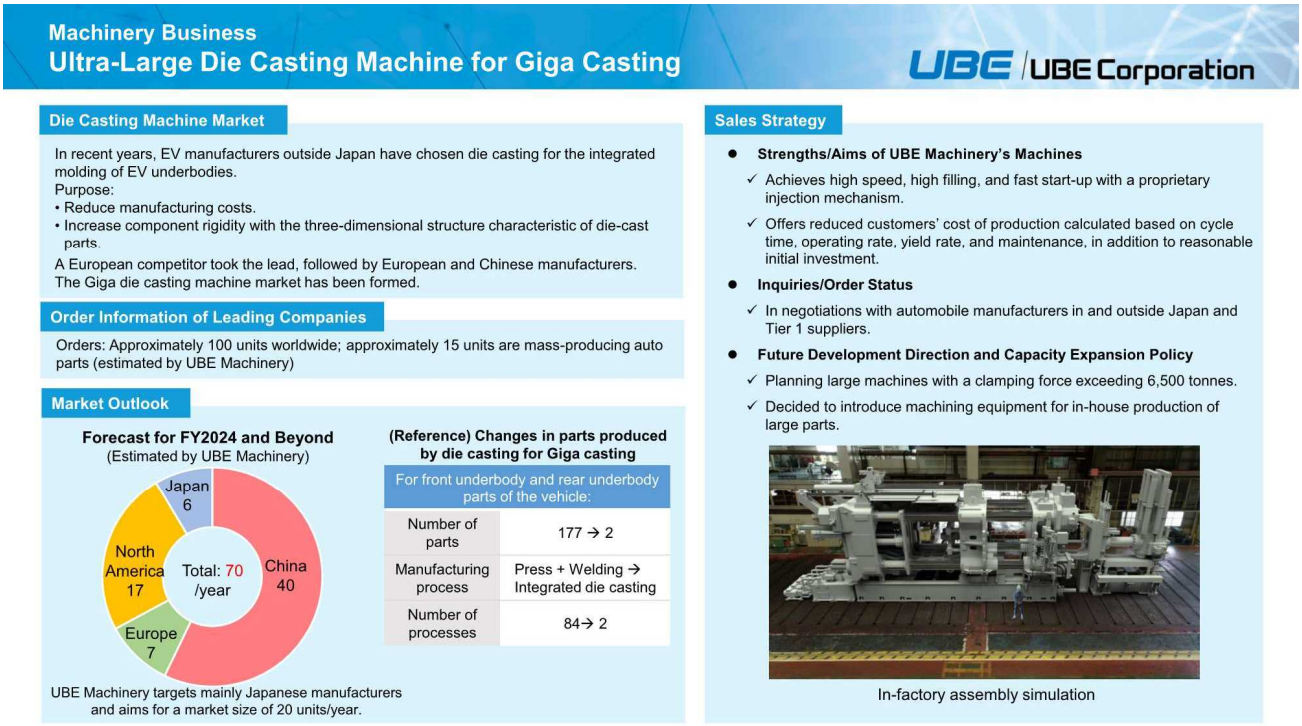
We have invested JPY10 billion in facilities over the three years of the medium-term management plan, including updating our ERP (Enterprise Resource Planning system), and we are considering investing another JPY10 billion or more by 2030. We would like to proceed with this kind of DX while clarifying the investment effect and return on investment.

I will skip the explanation about businesses other than the four specialty businesses I mentioned earlier. However, I would like to mention the machinery and cement business.

This is about the machinery business. Our machinery business is divided into two main categories: molding machines and industrial machines. In terms of the business environment of molding machines, capital investment has been increasing due to the shift to EVs in the automobile-related market. In the industrial machinery business, however, demand for biomass fuel transfer equipment, which has supported our business until now, has reached its peak. We anticipate future demand for various carbon-neutral capital investments and make sure to catch such opportunity.

As for future strategies, for molding machines, we will focus on receiving orders for ultra-large machines for Giga casting and increasing production capacity. And as for industrial machines, we will capture the environment-related capital investment, especially demand for ammonia combustion facilities and floating offshore wind turbines.

And we will expand after-sales service for both molding and industrial machines. We will create a system of earnings through after-sales service.



I will briefly touch on Giga casting. In recent years, EV manufacturers in the US and elsewhere have been aggressively pursuing integrated molding of EV underbody. They are attempting to reduce manufacturing costs and weight by using this technology. This has led to the formation of the Giga die-casting machine market.

The pie chart shows our forecast for the market after FY2024. We anticipate a total global demand of about 70 units per year. Ube Machinery is primary targeting Japanese users so we expect that the real targeting market is approximately 20 units per year, primarily in North America, Japan, and China. We would like to take about half of this number.

Regarding the status of inquiries and orders, we have always had an advantage in large die-casting machines so we are currently negotiating with domestic and foreign automakers and Tier 1 companies for die casting machine for Giga casting, as we are the only Japanese die-casting machine manufacturer.

We are planning a large machine with a capacity of over 6,500 tons in the future. In addition, we have already made a decision to introduce machining equipment for in-house production of large parts used in this ultra-large machine and are working to improve our production system.

Cement-Related Business

UBE / UBE Corporation

■ **In FY2024, the business will take steps to improve competitiveness, create new businesses, and strengthen efforts toward carbon neutrality.**

Summary of FY2023 Performance

- Compared to FY2022, which posted a final loss due to cost increases caused by soaring energy prices and other factors both in and outside Japan, as well as a review of the production system, FY2023 achieved profitability (V-shaped recovery).
- The business in Japan saw a recovery in performance in the cement business due to the completion of a 5,000-yen price increase announced in response to rising costs such as soaring energy prices, and the effects of improvements such as the increased use of low-cost thermal energy.
- Business outside Japan saw a significant increase in profits year on year, mainly due to the smooth implementation of price increases in the U.S. ready-mixed concrete business.

FY2024 Performance Forecast

- Business in Japan
  The company anticipates some factors that will reduce profits, such as rising logistics and material costs in the cement business and a decrease in electricity sales in the environmental energy business. However, overall operating profit from business in Japan is expected to remain at the FY2023 level due to the contribution of cement price increases throughout the year and further expansion of low-cost thermal energy use.
- Business outside Japan
  Despite higher material prices and labor costs, the U.S. cement and ready-mixed concrete business expects operating profit at the same level as the previous year due to higher sales volume resulting from a recovery in demand in the Southern California region and further price increases. On the other hand, the profit of the Australian coal business is expected to decrease. As a result, overall operating profit from business outside Japan is expected to decline compared to FY2023.

Carbon Neutrality / Circular Economy Initiatives

- Promoting initiatives to achieve carbon neutrality by 2050 and the interim target of a 40% reduction in CO_2 emissions by 2030 (vs. 2013).
- Began the world's first ammonia co-combustion test with actual equipment in the cement manufacturing process.
  (Adopted as a project to promote the construction of a carbon-neutral industrial complex in Yamaguchi Prefecture in FY2023)
- Began studying CO_2 storage and reuse from the cement manufacturing process with Osaka Gas Co., Ltd., and joint studies for CCS between Malaysia and Japan with Mitsui & Co., Ltd.

Mitsubishi UBE Cement Corporation Performance

(Billion yen)

Item		FY2022	FY2023	FY2024 (forecast)
Net sales		576.3	585.3	605.0
	Of which, business outside Japan	140.1	178.1	195.0
Operating profit (loss)		(28.4)	45.7	43.0
	Of which, business outside Japan	8.0	30.7	28.0
Ordinary profit (loss)		(25.8)	47.7	42.0
Profit (loss) attributable to owners of parent		(47.3)	24.6	21.0
Total demand for cement in Japan (million tons)		37.24	34.58	35.00
Coal price (USD/tonne)		356	142	180

*The above coal prices are reference indices and differ from actual procurement prices.

Finally, let me explain about our cement-related business.

This is a summary of FY2023 financial results. In FY2022, the Company posted a final deficit due to soaring energy prices, especially coal prices, a review of the production system immediately after the merger, and an extraordinary loss due to the closure of a plant. However, the Company achieved to return to the black in FY2023.

The main reason for the V-shaped recovery was the completion of the JPY5,000 price increase in the domestic business. Then, there were efforts to expand the use of inexpensive thermal energy such as cheap coal. In the overseas business, the rapid implementation of price increases in the US ready-mixed concrete business and other factors have enabled this V-shaped recovery.

In contrast, for FY2024, although domestic demand for cement is assumed to be 35 million tons, operating profit for the domestic business as a whole is expected to be at the same level as in FY2023. On the other hand, the overseas business will lose the profit as the coal business performance in Australia deteriorates. As a result, the overseas business as a whole will see a decrease in profit, leading to an overall decline in profit for both domestic and overseas operations combined.

However, the profit for both FY2023 and FY2024 will be higher than the planned profit of JPY39.0 billion in FY2025, the final year of the three-year management plan of Mitsubishi UBE Cement.

That is all I have to say. Thank you very much.

Questions and Answers

[Business restructuring of the Basic Business]

Q1: You mentioned that you are considering shutting down ammonia production in Japan in FY2028, two years earlier than planned, but does that mean that it will be shut down to coincide with the periodic repairs in May 2028?
If production ceases in 2028, will the associated costs leading up to the shutdown be reduced, e.g., will there be no need to provide allowances?

A1: It is still at the consideration stage, but if production is shut down in 2028, it will be at the time of the periodic repairs. In addition, there will probably be things that need to be changed in the way we think about periodic repairs to prepare the shutdown, but that has not been determined at this time.

Q2: With the shutdown of ammonia production, will the production of related products and caprolactam in Japan also cease?

A2: That is correct. We have already withdrawn from oxalic acid, 1,6-hexanediol, and sodium nitrate, which are downstream products of domestic ammonia and caprolactam.

Q3: Due to structural reforms, the scale of the basic business will shrink by 2030. Am I correct in understanding that the basic business will secure a certain level of profit as the negative impacts from ammonia and caprolactam are eliminated and other basic businesses expand?

A3: We believe so, but we recognize that our challenge is to grow other businesses to absorb the fixed costs of the ammonia and caprolactam businesses.

Q4: The cost of periodic repairs for ammonia is significant. Is it correct to assume that UBE will become more asset-light as a result of the shutdown?

A4: That is correct.

Q5: You mentioned that your Spanish operations will seek to survive by achieving carbon neutrality for caprolactam, but should they not consider scaling down production like your Thai operations?

A5: In contrast to the Asia market, we believe that we can differentiate ourselves in the European market through environmental responses, even in the basic business. We also believe that enhancing the added value of ammonium sulfate can support overall profits. However, our considerations are not based on the assumption of continuing the business. We will keep a close eye on market trends and swiftly change our direction if needed.

[Specialty Business – Polyimide]

Q6: Net sales of polyimide are forecast to remain unchanged in FY2023 and FY2024. What is the reason for this? You forecast a sales increase in FY2025, but for what use are you expecting growth?

A6: FY2023 and FY2024 are affected by the operating adjustments of panel manufacturers and the increased domestic production of varnishes for flexible OLED in China. We expect a sales increase in FY2025 as a result of the launch of new facilities for raw material BPDA and films.

Q7: You mentioned that varnishes are increasingly being produced domestically in China. How do you perceive the competitive environment? In addition, am I correct in understanding that BPDA as a raw material remains the source of differentiation?

A7: Domestic production of varnishes in China is expected to continue, but we will strive to differentiate in technology and quality in order to secure our position in the market.
The uniqueness of BPDA is the source of differentiation. We are also developing new applications that leverage the product's strengths, such as varnishes for silicon negative electrode LiB binders and powders for semiconductor manufacturing devices.

[Specialty Business – C1 Chemicals]

Q8: Was license revenue included from the time when the medium-term plan was formulated? Additionally, please clarify why no license revenue is expected after FY2027 in the plan.

A8: A certain amount of license revenue was included in the medium-term plan. However, we have not included license revenue for after FY2027 since we do not anticipate significant demand going forward, given that we have already sold licenses to a substantial degree.

Q9: Why are no DMC sales expected in Japan in FY2030?

A9: This is because DMC production at the Ube Chemical Factory will be shut down following the closure of ammonia production in FY2030.

Q10: From how many companies do you anticipate license revenue to be recorded in each of FY2024, FY2025, and FY2026?

A10: A substantial amount of resources will be required, such as dispatching personnel as supervisors for plant construction. Therefore, in order to ensure that we can respond to each project responsibly, we are planning to receive license revenue from around 2 to 3 companies each year.

Q11: You are planning to build a 50,000 ton DMC facility in Europe. What is the reason for building your own plant instead of selling licenses? Also, when will the decision be made?

A11: In addition to the business potential of DMC itself, the high-performance coating business handled by the Spanish operations can also benefit from the internal production of DMC, its raw material, in Europe. The project, including when the decision will be made, has not yet materialized, but we hope to have a site in Europe.

[Specialty Business – Separators]

Q12: You have announced a capacity increase for separators, but will the facility have higher production efficiency than conventional facilities?

A12: A separator facility was launched in 2020, but that facility and the one to be expanded this time are designed to improve production efficiency by operating together as a single set. Production efficiency will improve and production costs will be reduced further when the new facility is launched.

Q13: It is my observation that UBE's separator business mainly targets HEVs. HEVs are currently regaining momentum, but have you envisioned a scenario for this capacity increase in which BEVs return to the mainstream?

A13: We will be able to respond even if BEVs become mainstream, as our cost competitiveness will improve with the launch of the new facility.

[Machinery Business – Ultra-Large Die Casting Machines for Giga Casting]

Q14: You have received an order from Ryobi for an ultra-large die casting machine for Giga casting. How is the order progressing? Also, have you received inquiries from other customers?

A14: There are no problems or schedule delays for projects for which we have already received orders. We have received various inquiries about the product, and our expectations for the future have not changed.

Q15: You mentioned that you are also planning a machine with a clamping force exceeding 6,500 tons. When will development begin?

A15: We are working on developing an even larger machine in consultation with customers and are making steady progress.

Q16: You mentioned that your target market is 20 units per year. What will be the impact on revenue if this is achieved?

A16: It is difficult to specify the revenue impact at this point, but we expect the added value of Giga casting machines to be greater than that of conventional machines, given our technological advantage and the fact that we are the only supplier in Japan.

[ESG and DX Initiatives]

Q17: Are there any examples where initiatives to solve global environmental issues have actually contributed to revenue?

A17: The ISCC PLUS certification is highly valued by customers, especially for non-tire applications of synthetic rubber, and has resulted in differentiation. We have also established U-BE-INFINITY, an environmentally friendly product brand. We are looking forward to its future effects.

Q18: You expect DX to have a 30 billion yen effect in FY2030, but in which areas will it contribute the most?

A18: We expect significant effects in CRM, marketing, and R&D. As for the investment effect, we will explain in a more transparent way in the future.