



Ube Industries, Ltd.

2021 Management Overview Briefing Session

May 19, 2021

Event Summary

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[Number of Speakers]	1 Masato Izumihara President and Representative Director, CEO

Presentation

Moderator: Good morning, everyone. Thank you very much for taking time out of your busy schedule to participate in today's Management Overview Briefing Session of Ube Industries, Ltd.

President Izumihara will now give a 60-minute presentation based on the materials, followed by a question and answer session. The entire meeting is scheduled to last 90 minutes.

Now we will begin the session. President Izumihara, please.

Contents		
I	FY2020 Business Results and FY2021 Forecast	
II	Progress of Vision UBE 2025 — Prime Phase	
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Izumihara: Good morning, everyone. This is Izumihara from Ube Industries.

Thank you very much for taking time out of your busy schedule to attend our management overview briefing session today. Since we have limited time, I would like to move on to the explanation. I believe you have prepared the materials at hand.

First, the second page. Page numbers are attached in the lower right corner.

Here is the contents of today's presentation. I would like to explain these six points.

FY2020 Financial Summary



(Billion yen)

		FY2019	FY2020	Difference
Key Figures	Operating profit	34.0	25.9	(8.1)
	Profit attributable to owners of parent	22.9	22.9	(0)
Key Indicators	Return on sales (ROS)	5.1%	4.2%	(0.9)%
	Return on equity (ROE)	6.9%	6.6%	(0.3)%

■ Year-on-Year

- Due to the impact of COVID-19, demand declined significantly in the chemicals and machinery segments centering on the first half of the fiscal year. Market conditions also declined in the chemicals segment. Operating profits were down despite benefiting from cost reductions as coal prices declined and due to cost-cutting, owing to scheduled maintenance of the ammonia plant.
- Profit attributable to owners of the parent was in line with fiscal 2019, owing to a reduction in taxes in accordance with a partial reversal of deferred tax liabilities.

■ Versus Forecast

- Operating profits were generally in line with the initial forecast (¥26.0 billion), as declining market conditions for chemicals were offset by the benefits of lower coal prices and cost reductions.
- Profit attributable to owners of the parent was higher than the initial forecast (¥14.0 billion) due to a reduction in taxes in accordance with a partial reversal of deferred tax liabilities.

■ Measures Taken

- 1. Alliances, mergers, and acquisitions:** Integration of cement business (with Mitsubishi Materials Corporation), establishment of joint venture for electrolytes (with Mitsubishi Chemical Corporation)
- 2. Capacity increases:** Synthetic rubber (Thailand), polycarbonate diol (PCD; Thailand), separators (Sakai, Japan), commenced construction to expand production of polyimide raw material (Ube, Japan)
- 3. Reorganization:** Absorption of Ube Ammonia Industry, Ltd., realignment of injection molding machine business through absorption of U-MHI Plotech Co., Ltd. etc

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First, I would like to review the financial results for FY2020 and explain the financial forecast for FY2021. Page 4, the summary of financial results for FY2020.

For FY2020, operating income will be JPY25.9 billion and net income attributable to shareholders of the parent company will be JPY22.9 billion, and the management indicators are as you can see.

Compared to the previous fiscal year, demand in the chemicals and machinery sectors declined significantly, especially in the first half of the fiscal year, due to the impact of the new coronavirus et cetera, and the market for chemical products also deteriorated.

This was partly due to the biennial scheduled repairs at the ammonia plant. On the other hand, despite the effects of cost reductions such as the decline in coal prices and the curbing of overhead costs, operating income decreased by JPY8.1 billion, or down 24%.

As for net income attributable to shareholders of the parent company, there was a reversal of deferred tax liabilities. Specifically, withholding tax on dividends from European subsidiaries is no longer required due to the implementation of a tax treaty between Japan and Spain. As a result, tax expenses decreased, and we were able to secure the same level of net income as the previous fiscal year.

In comparison with the original plan, operating income was revised downward in Q2 due to the large decline in the first half, but the recovery from the second half was remarkable, and in the end, we were able to increase operating income as originally expected.

Profit attributable to shareholders of the parent company has increased significantly from the initial forecast due to the decrease in tax expenses as mentioned above.

In the last fiscal year, the main measures we implemented were the alliance relationship, the integration of the cement business with Mitsubishi Materials Corporation, for which we signed a final agreement. In the electrolyte business, we have formed a joint venture with Mitsubishi Chemical Corporation.

In the area of capacity expansion, we increased production of synthetic rubber [bottles] in Thailand. Also in Thailand, we built a new facility for PCD polycarbonate diol in the second phase. In Sakai, we have expanded the production of separators for lithium-ion batteries, and we have also started construction to increase production of BPDA, a raw material for polyimide.

In terms of reorganization, the merger of Ube Ammonia Industry, or the reorganization of its injection molding machine business. This completes the incorporation of the injection molding business of the former Mitsubishi Heavy Industries. This is what we are doing.

FY2021 Earnings Forecast



- Earnings projected to recover from impact of COVID-19, with both **net sales and operating profits forecasted to increase in real terms** (Net sales projected to decline due to **application of Accounting Standard for Revenue Recognition**)

(Billion yen)

Item	FY2020	FY2021	Difference
Net sales	613.8	570.0 <i>650.0</i>	(43.8) <i>36.2</i>
Operating profit	25.9	37.0	11.1
Ordinary profit	23.2	34.5	11.3
Profit attributable to owners of parent	22.9	21.0	(1.9)
Interest-bearing liabilities	214.7	185.0	(29.7)
Shareholders' equity	359.0	360.0	1.0
Return on equity (ROE)	6.6%	5.8%	(0.8)%
D/E ratio [times]	0.60 times	0.51 times	(0.09) times

Note: Figures shown in italics are before applying Accounting Standard for Revenue Recognition

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I would like you to look at the next page, page 5.

For the current fiscal year, we are forecasting an increase in both sales and operating income, as we expect a recovery from the impact of coronavirus.

Net sales will be JPY570 billion in FY2021, which is about JPY80 billion less than the previous accounting standard due to the application of the revenue recognition accounting standard, et cetera, and the net presentation of so-called trading company-like purchase and sales transactions. Therefore, the figures in

parentheses are the figures before the application of the new standard, but if you look at the actual figures in parentheses, you can see an increase of about 6%.

Operating income will be JPY37 billion, an increase of JPY11.1 billion, or up about 43%, over the previous fiscal year.

Regarding net income attributable to owners of the parent company, although the tax expenses mentioned earlier decreased temporarily in FY2020, ordinary tax expenses will be incurred in FY2021, so the net income is JPY21 billion. If you look at it on a net income basis, it will be a slight decrease.

Interest-bearing debt is expected to be reduced by about JPY30 billion. In the last fiscal year, cash and deposits and interest-bearing debts were both inflated due to the securing of surplus funds, but this fiscal year, they will be restored to a certain degree. As a result, the D/E ratio will also improve.

Equity capital is expected to be JPY360 billion, which reflects a dividend of JPY90 as shareholder returns in FY2020 and a share buyback of JPY10 billion. On a capital basis, it is almost the same as the previous fiscal year.

FY2021 Earnings Forecast by Segment



- Profits in the chemicals and machinery segments projected to increase as demand recovers, while profits expected to decline in the construction materials segment due to the impact of rising coal prices

(Billion yen)

Segment	Net sales			Operating profit		
	FY2020	FY2021	Difference	FY2020	FY2021	Difference
Chemicals	259.3	280.0 <i>290.0</i>	20.7 <i>30.7</i>	8.1	20.5	12.4
Construction Materials	282.8	200.0 <i>270.0</i>	(82.8) <i>(12.8)</i>	14.7	11.5	(3.2)
Machinery	78.7	95.0 <i>95.0</i>	16.3 <i>16.3</i>	2.8	5.0	2.2
Others	3.1	3.0 <i>3.0</i>	(0.1) <i>(0.1)</i>	0.4	0.5	0.1
Adjustment*	(10.1)	(8.0) <i>(8.0)</i>	2.1 <i>2.1</i>	(0.3)	(0.5)	(0.2)
Total	613.8	570.0 <i>650.0</i>	(43.8) <i>36.2</i>	25.9	37.0	11.1

*Includes elimination of inter-segment transactions

Note: Figures shown in italics are before applying Accounting Standard for Revenue Recognition

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The following page 6 shows the forecast for the current fiscal year by segment.

As you can see from the operating income on the right, the Chemicals and Machinery segments are expected to have increases in profits due to a recovery in demand. In the Construction Materials segment, profits are expected to decrease due to the impact of higher coal prices.

■ **Vision for 2025**

“We Continue to Create Value for All Stakeholders”

The UBE Group will anticipate market needs and create products and services that are in harmony with the environment. Furthermore, the Group will positively contribute to all stakeholders as a corporation with a global presence.

■ **Strategies for Realizing the 2025 Vision**

1. Leverage the consolidation of the organization under three internal companies to promote independent business development and governance for each internal company
 - (1) Chemicals: Further stabilize revenues and drive the growth of the entire Group
 - (2) Construction Materials: Generate stable profits and cash flow, and expand new businesses
 - (3) Machinery: Operate the business according to its business characteristics and increase the value of the business.
2. View changes in the business environment as both challenges and opportunities, linking them to growth
 - (1) Be part of the solution for global environmental issues
 - (2) Capture new markets through further globalization
 - (3) Enhance governance and foster a healthy corporate culture
3. Key measures to address management and business issues
 - (1) Expand human management resources
 - (2) Utilize ICT

■ **Medium-Term Management Plan: Basic Strategies**

1. Strengthening the platform for business growth
2. Strengthening the management platform (corporate governance)
3. Addressing and being part of the solution for resource, energy, and global environmental issues

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On the next page, I would like to explain the progress of the medium-term management plan.

Moving onto page 8.

Vision UBE 2025 Prime Phase is a three-year medium-term management plan that started in FY2019.

The original discussion started in 2015, when we discussed the medium-term plan before this one. In order to discuss where we want to be 10 years from now, we discussed where we want to be in 2025 in each of our businesses, including chemistry, and formulated the previous medium-term business plan by back casting the discussion.

Three years have passed since then, and when we formulated the current mid-term plan, we wanted to come up with more specific policies to realize our vision for 2025, so we came up with the three policies listed here in parentheses: 1, 2, and 3.

The first is to build an independent offensive and defensive structure for each of the three companies.

In Chemicals, we will increase the stability of earnings and drive the growth of the entire group. In order to achieve both stability and growth, we need to accelerate the shift to specialties. This is the kind of policy that we have put in place.

In the Construction Materials business, we will generate stable profits and cash flow despite the continuing downward trend in domestic demand for cement, and expand new businesses. One of the solutions we came up with was the complete integration with Mitsubishi Materials Corporation.

In the machinery division, we have been promoting autonomous business management because our business characteristics are different from those of the equipment industry, such as chemicals and construction materials, but we will further promote this policy to increase the value of our business as a machinery business.


As for the second item in parenthesis 2, we see changes in the business environment as challenges that need to be cleared, and at the same time, as opportunities or business chances that can lead to growth. We are working on global environmental issues from that perspective. I will explain more about this later.

Furthermore, the promotion of globalization or the enhancement of governance functions. We want to connect this to growth in this way.

Then, as a means to accomplish these various tasks, we would like to enhance our human management resources. We also have a policy of actively utilizing ICT and digital technology.

As the three basic policies of this medium-term management plan, we have been working on strengthening the business growth base listed here and the following three-year action plan under this basic policy.

Although some specific strategies have been revised due to the current business changes, the three basic policies themselves remain unchanged and are being implemented.

Medium-Term Management Plan: Progress of Numerical Targets					
<ul style="list-style-type: none"> Although in the process of recovering from the impact of COVID-19, the projections differ significantly from the numerical targets for the last fiscal year of the medium-term management plan 					
Key Figures				(Billion yen)	
Item	FY2019 (Results)	FY2020 (Results)	FY2021 (Forecast)	FY2021 (Original target)	
Net sales	667.8	613.8	570.0 <i>650.0</i>	770.0	
Operating profit	34.0	25.9	37.0	55.0	
Ordinary profit	35.7	23.2	34.5	58.0	
Profit attributable to owners of parent	22.9	22.9	21.0	35.0	
Key Indicators					
Return on sales (ROS)	5.1%	4.2%	6.5% <i>5.7%</i>	7%	
Return on equity (ROE)	6.9%	6.6%	5.8%	10%	
<small>Note: Figures shown in italics are before applying Accounting Standard for Revenue Recognition</small>					

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Next page, page 9, compares the current situation with the target figures of the mid-term plan.

Although we are in the process of recovering from the impact of coronavirus, we have unfortunately deviated significantly from the numerical targets for the final year of the medium-term management plan.

The rightmost column in the table shows the target values for the final year of this mid-term plan. Our goal was to achieve JPY55 billion in operating income, but this year's forecast of JPY37 billion in operating income is far below our target.

We have also fallen far short of our management targets.

Net Sales and Operating Income: Progress by Segment



(Billion yen)

Segment	Net sales				Operating profit			
	FY2019 (Results)	FY2020 (Results)	FY2021 (Forecast)	FY2021 (Original target)	FY2019 (Results)	FY2020 (Results)	FY2021 (Forecast)	FY2021 (Original target)
Chemicals	286.0	259.3	280.0 <i>290.0</i>	350.0	14.5	8.1	20.5	32.0
Construction Materials	303.0	282.8	200.0 <i>270.0</i>	330.0	14.5	14.7	11.5	16.5
Machinery	90.7	78.7	95.0 <i>95.0</i>	105.0	4.9	2.8	5.0	7.0
Others	4.5	3.1	3.0 <i>3.0</i>	5.0	0.5	0.4	0.5	0.5
Adjustment*	(16.5)	(10.1)	(8.0) <i>(8.0)</i>	(20.0)	(0.6)	(0.3)	(0.5)	(1.0)
Total	667.8	613.8	570.0 <i>650.0</i>	770.0	34.0	25.9	37.0	55.0

*Includes elimination of inter-segment transactions

Note: Figures shown in italics are before applying Accounting Standard for Revenue Recognition

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The next page, page 10, shows a comparison with the targets of the medium-term management plan by segment.

As you can see from the operating income figures on the right, there is a large deviation from the original plan for each segment. Particularly in the chemical industry, there is a difference in nylon and battery materials.

Developing businesses	Tyranno Fiber, lithium titanium oxide (LTO)
Active growth businesses	Nylon, fine chemicals, high-performance coatings, synthetic rubber, polyimides, separation membranes, separators
	Magnesia and calcia, biomass fuel, resource recycling
Platform businesses	Caprolactam, industrial chemicals, pharmaceuticals
	Cement and ready-mixed concrete, energy
	Molding machines, industrial machines, steel products

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The next page, page 11, shows our business portfolio for this mid-term plan.

We have divided our businesses into three categories, developing businesses, active growth businesses, and platform businesses, and we have set a policy of concentrating our resources in the middle, active growth businesses.

Business Resources Allocation Plan by Portfolio Segmentation and Progress **UBE**

- Overall investment amount will be lower than the projection due to the impact of COVID-19, but the ratio of business resources allocated toward **active growth businesses** will be higher than the ratio (26%) in the previous medium-term management plan
- Continue a certain level of resource investment for **building business platform** and for **reducing costs** through **streamlining** in order to ensure stable operations



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The next page, page 12, shows the investment plan for management resources by portfolio and the progress of the plan.

On the far left is the original medium-term plan. We are planning to invest JPY205 billion in total, including capital investment, investment and loans, and research and development expenses, whereas the three-year forecast on the far right is JPY176.3 billion.

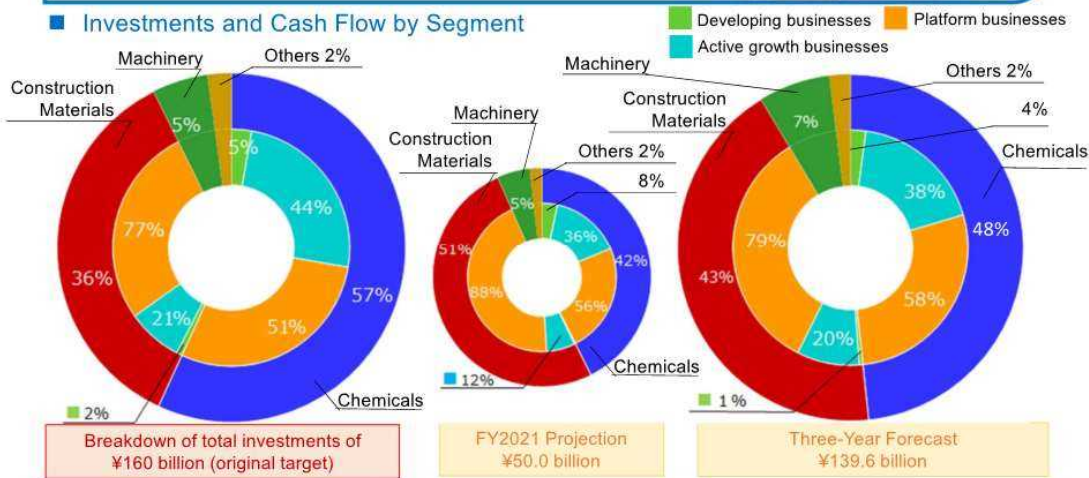
Market expansion has been slower than expected due to the impact of coronavirus and other factors, and investments, especially in active growth businesses, have been pushed back or cancelled. As a result of these factors, the total amount of investment has decreased. However, the basic concept of investing in active growth businesses has not changed, and the ratio of investment in active growth businesses was about 26% in the previous medium-term plan, but in the current three-year forecast, it is 29%, which is an improvement over the previous plan.

As for the investment of resources in platform businesses, these are not so much affected by the economy, so we are investing to a certain extent in core development, rationalization, and cost reduction. As a result, the ratio of investment in platform businesses has increased.

Investments and Cash Flow: Progress by Segment



Investments and Cash Flow by Segment



Three-Year Cash Flow Plan

	Medium-Term Management Plan (original target)	FY2021 forecast	Three-Year Forecast
Operating cash flow	200.0	57.0	191.4
Investment cash flow	(160.0)	(50.0)	(130.0)
Free cash flow	40.0	7.0	61.4

(Billion yen)

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Next, page 13. This shows the progress of capital investment, investment and loans by segment, and cash flow.

The leftmost pie chart shows the capital investment and financing plan of the original plan. JPY160 billion is planned, of which the chemical sector accounts for 57%, as shown in the blue part of the chart. And 44% of the total chemicals will be invested in active growth businesses.

Compared to the original plan, our three-year forecast is JPY139.6 billion, a decrease of more than JPY20 billion in the total amount of capital investment, investment and loans. Of this, 48% was in the chemical sector. We had assumed that growth investments would be mainly in the chemical sector, but the market environment was not conducive to such growth investments, and as a result, the ratio of the chemical sector declined.

Cash flow plan, the table is provided below.

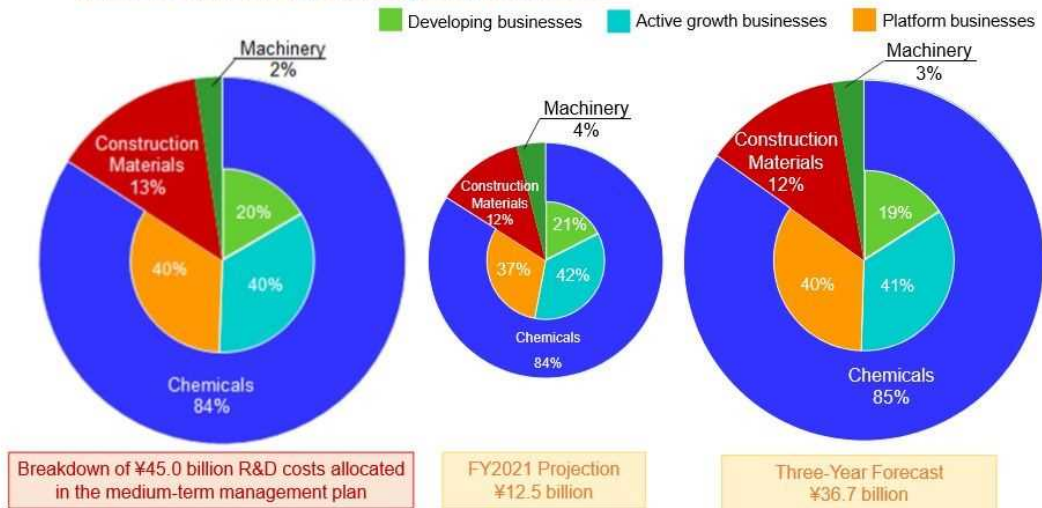
Due to this decrease in capital investment, investment and loans, free cash flow, which was originally expected to be JPY40 billion, is now forecasted to be JPY61.4 billion for the next three years.

Although total operating income for the three years decreased, free cash flow was higher than planned due to a decrease in capital investment, investment and loans. This is also the reason for the share buyback.

R&D Costs: Progress



- Centering on the chemicals segment, allocate R&D resources with focus on the target business domains and active growth businesses



Original target in medium-term management plan includes amounts related to production technologies. Actual results and forecast do not include amounts related to production technologies, accounting for the difference. However, actual R&D spending is generally proceeding according to plan.

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The next page, page 14, shows the status of investment in R&D expenses.

On the left, the original plan of the medium-term management plan was to invest JPY45 billion, but the three-year forecast on the right is JPY36.7 billion, a decrease of over JPY8 billion.

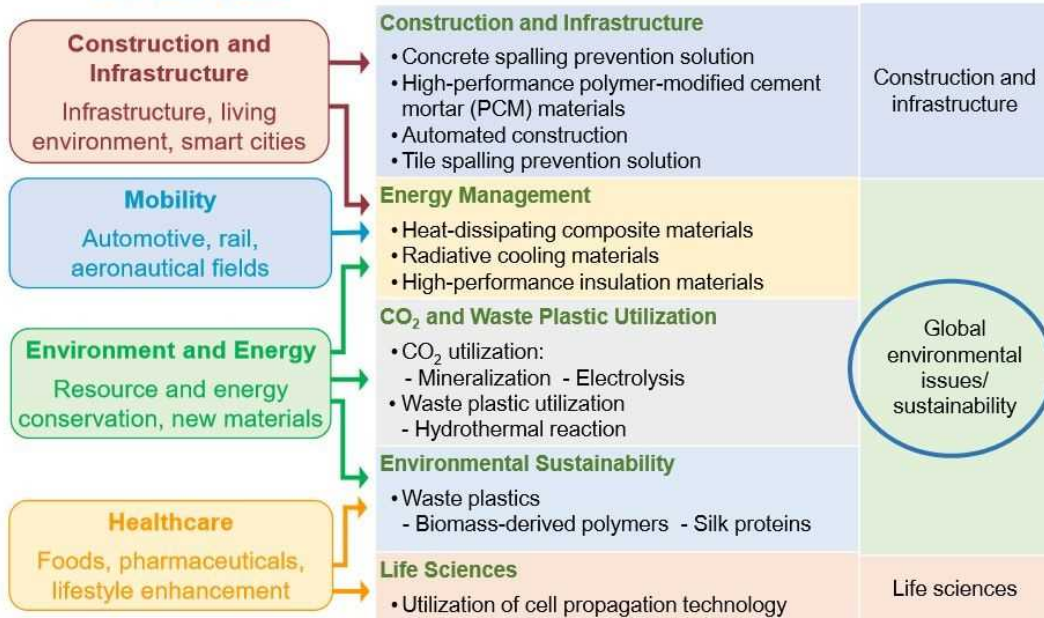
The reason for this is explained in the notes below, but the original plan included expenses related to production technology. This is an expense that is included in the manufacturing cost, but in the three-year forecast, we have changed the classification of this expense so that it does not include production technology-related expenses, but only testing and research expenses. Therefore, you can see that the actual status is almost as planned.

Therefore, even under these circumstances, we have not reduced our R&D expenses and are implementing them almost as planned. In terms of the content, we are focusing our R&D resources on the so-called oriented business domains or active growth businesses, mainly in the chemicals segment, and the ratio of the breakdown shown in the pie chart is almost as planned.

R&D: Five Priority Fields



- Now focusing on five fields from four business domains previously, to create new businesses



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Please see the next page.

For your information, I will explain the status of our R&D activities in the four business domains on the left. Construction and infrastructure, mobility, environment and energy, and healthcare. We used to focus our R&D efforts on these four business domains, but now we have reorganized them into these five areas. Construction and infrastructure, energy management, CO₂ and waste plastic utilization, environmental sustainability, and life sciences. Focusing on these five areas, we are promoting the creation of new businesses.

In particular, the middle three, global environmental issues/sustainability, and research and development themes related to these issues. In particular, it is summarized again on the next page, page 16.

R&D Projects for Environmentally-Friendly Products and Technologies



Project Name	Project Description
Energy Management	
Heat-dissipating composite materials	Development of high thermal conductivity materials for power electronics
Radiative cooling materials	Development of heat-dissipating materials using radiative cooling effect
High-performance insulation materials	Develop high-performance insulating sheets for plants
CO₂ and Waste Plastic Utilization	
CO ₂ utilization for polycarbonate diol	Study of polycarbonate diol manufacturing method using CO ₂ as a raw material
CO ₂ mineralization*	Accelerated carbonation of CO ₂ utilizing calcium in industrial waste
CO ₂ electrolytic olefin synthesis*	Conversion of CO ₂ to useful chemical raw materials through electrolysis
Nitrogen cycle*	Effective utilization of NO _x in exhaust gases through conversion to ammonia
Multilayer film recycling*	Separation and recycling of multilayer plastic films through hydrothermal processing
Chemical recycling of reinforced nylon components	Study of depolymerization and repolymerization of glass fiber-reinforced PA6
Recycled materials from waste plastics	Development of new functional recycled materials from waste plastics
Recycled nylon material made from waste fishing nets	Waste plastic material recycling
Adoption of Ebara Ube Process (EUP) for gasification of waste plastics	Compound materials from recycled nylon made from waste fishing nets and recycled carbon fiber
Adoption of Ebara Ube Process (EUP) for gasification of waste plastics	Chemical recycling of waste plastics by technology licensor (JGC Corporation)
Environmental Sustainability	
Biomass-derived polymer raw materials*	Development of new manufacturing methods for biomass-derived polymer raw materials
CNF/PA6 composites*	Development of PA composites using cellulose nanofibers
PA66 alternative nylon	Development of manufacturing technology for bio-based high-strength PA as PA66 alternative
Silk proteins	Development of applications for functional proteins made from silkworm cocoons
Biomass-derived PA	Study of biomass-derived copolymer PA

*New Energy and Industrial Technology Development Organization (NEDO) project

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We are actively participating in the NEDO project, which is a research and development theme that contributes to the global environment. There is a limit to what individual companies can achieve, so through collaboration with other companies and open innovation with academia, we are actively incorporating these external technologies to promote research and development that contributes to the environment in particular.

Taking a further step forward from the UBE Group Environmental Vision 2050 that was announced in May 2020, the UBE Group in April 2021 announced **a policy to achieve carbon neutrality by 2050**. The policy calls for the UBE Group to achieve net-zero emissions of greenhouse gases (GHGs) from its business activities. The Group will also strive to help the broader society become carbon neutral by pursuing R&D for products and technologies that are beneficial for the environment and the practical application of eco-friendly innovations. The UBE Group will work as a leading solution provider to help realize a decarbonized society.

UBE Group Policy for Achieving Carbon Neutrality by 2050

1. Achieve carbon neutrality for the Group's business activities (minimizing GHG emissions and developing innovative technologies), by:

- (1) Practicing rigorous energy conservation and making process improvements
- (2) Maximizing the use of CO₂-free energy
- (3) Realigning the business structure to reduce dependency on fossil resources (minimize the use of fossil resources)
- (4) Pursuing R&D and bringing products to market in fields such as CO₂ utilization technology and non-fossil raw materials

2. Help the broader society become carbon neutral, by:

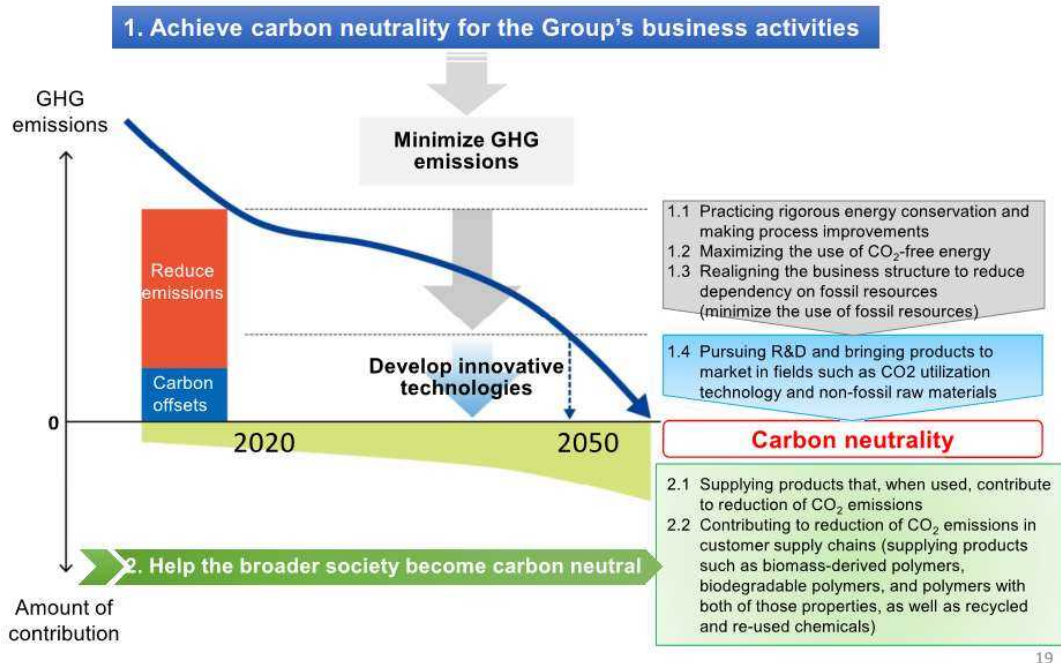
- (1) Supplying products that, when used, contribute to reduction of CO₂ emissions
- (2) Contributing to reduction of CO₂ emissions in customer supply chains (supplying products such as biomass-derived polymers, biodegradable polymers, and polymers with both of those properties, as well as recycled and re-used chemicals)

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On the next page, I would like to explain a little bit about our company's approach to global environmental issues.

This is page 18. In May of last year, we declared the UBE Group Environmental Vision 2050 to reduce GHG emissions by 80%, in line with the government target at the time. As you know, last fall, the Suga administration declared 2050 carbon neutrality. In response, we have taken our environmental vision one step further, and in April this year, we declared the UBE Group's policy for achieving carbon neutrality by 2050.

We will challenge to reduce greenhouse gas emissions from our own business activities to virtually zero. This means in scope one and scope two. In addition to taking on the challenge of achieving zero emissions, we will promote research and development related to products and technologies that contribute to the environment, and through the practical application of our innovations, we will contribute to the carbon neutrality of society as a whole and work as a solution provider to lead the decarbonized society. We have declared that we would like to fulfill these roles.



The figure on the next page 19 may help you understand. Minimizing GHG emissions as a challenge to become carbon neutral in our own business activities.

In order to achieve this goal, we will make efforts to reduce emissions by, for example, promoting thorough energy conservation, improving processes, maximizing the use of CO₂-free energy, and restructuring our business structure, as shown on the right. However, after all, I think it is difficult to achieve zero emissions.

Therefore, it is important to develop innovative technologies to offset this problem, and to promote research and development and practical application of technologies for CO₂ utilization and non-fossil resources as shown on the right. We would like to achieve carbon neutrality while working on these things.

On the other hand, society as a whole is moving toward carbon neutrality. In order to realize carbon neutrality in society as a whole, we would like to increase the supply of technologies and products that contribute to the environment, as shown on the right.

Initiatives to Address Global Environmental Issues



- Critical issue for UBE Group: Addressing climate change

FY2030 PKI for Addressing Climate Change

Item	Target
Addressing climate change	Achieve 20% reduction of GHG emissions in chemicals segment by FY2030 compared with FY2013 levels

PKIs and Initiatives to Address Four Global Environmental Issues

Item	Targets/Initiatives
Global Environmental Issues	Aim for environmentally-friendly products and technologies to account for 50% or more of net sales by FY2030
Climate change	Supply materials and products that help to reduce GHG emissions and/or capture GHGs, etc.
Marine plastics	Develop and supply solutions that contribute to solving issues with plastics
Biodiversity conservation	Contribute to a healthy natural environment and biodiversity conservation through business activities
Water resource conservation	Contribute to the conservation of water resources through appropriate use and management of water

R&D projects for environmentally-friendly products and technologies (P.16)

Stipulate internal guidelines for environmental products and technologies, based on impact of natural environment on organizations as stated in revised ISO 14001:2015

Applicable products: Synthetic rubber for energy saving tires, nylons for vehicle weight reduction, nylon for food packaging (food waste reduction), polyimide products (OLED-TV materials, EV motor insulation materials, etc.), lithium-ion battery (LiB) separators, gas separation membranes, Heliofresh, etc.

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Next page, page 20. We have also set a medium-term numerical target for these efforts for FY2030.

In terms of global warming countermeasures, we will reduce GHG emissions by 20% by FY2030. The cement division will be separated from April next year, so this is not counted here.

However, that does not mean that it is irrelevant. I believe that the policy for the cement division will be decided by the new integrated company. However, I believe that the policy will be basically the same as ours for 2050.

In addition, global environmental issues are not limited to global warming, so we will also address issues such as marine plastic, biodiversity, and conservation of water resources.

With regard to these four issues, including global environmental issues and global warming, we have decided to set numerical targets, and have set a plan and goal to increase the ratio of environmentally friendly products and technologies to consolidated sales to 50% or more by FY2030. For this purpose, we are also working on R&D themes that contribute to the environment, as I mentioned earlier.

In order to determine what constitutes an environmentally friendly product or technology, we have established internal guidelines based on ISO14001. Based on this, the target products are listed in red below. We define these as products that contribute to the environment.

Growth in Chemicals Segment



- April 2022: Cement business to be converted into an equity method affiliate
→ The UBE Group aims for further growth in chemicals segment

Target Direction

- Leverage our proven manufacturing capabilities fostered through more than 120 years in business and our strengths in specialty chemicals technology that we have refined, to continue creating value that is needed by a sustainable society. In this manner, we will realize sustainable growth as a global corporation that addresses global environmental issues and contributes to people's longevity, health, and a better future society.

Direction of Growth

- Change the composition of the business to focus on specialty chemicals
Build a resilient business portfolio with growth potential, whose composition centers on specialty chemicals that have a low energy burden and are resistant to swings in market conditions

Segment and Product Focus

Fine chemicals (incl. high-performance coatings), nylon composites, polyimide products (incl. separation membranes), etc.

Growth Strategies

1. Prioritize the allocation of business resources to core business and products that are positioned as specialty chemicals, and expand the business scale globally.
2. Pursue growth in fields peripheral to the core businesses, through mergers, acquisitions, and alliances.
3. Pursue R&D aimed at the practical application of innovative technologies and products that help to reduce environmental burdens and achieve carbon neutrality.

22

Now, I would like to explain the basic concept of the Group's growth strategy. Please see page 22.

As mentioned in the section titled Growth in Chemicals, the Cement business will become equity method affiliates from next April. As a result, it will not be included in the consolidated net sales or consolidated operating income, so we would like to aim for further growth in the Chemicals business.

When we are asked what is the significance of our company's existence, we believe that it is to continue to create value based on the strengths of our solid manufacturing capabilities and, in particular, our specialty chemical technologies, which have been cultivated over our more than 120 years of history, and to achieve sustainable growth as a global company that contributes to global environmental issues, people's lives and health, and a prosperous future society. We will continue to create value based on these strengths, and contribute to global environmental issues, human life and health, and an affluent future society.

Therefore, the direction we should aim for is to promote specialization. We will shift to a business structure centered on specialty chemicals, which have a low energy load and are less susceptible to market fluctuations, and build a business portfolio that combines resilience and growth potential.

To this end, we will focus on fine chemicals, including high-performance coating materials, as a business and product that will be a particular growth driver. Then there are nylon composites. Polyimide-related products, including separation membranes. We would like to fulfill our growth by focusing on these.

The growth story is to expand the scale of the company globally by focusing management resources on specialty chemicals. We will also be more proactive than ever in M&A. We also want to promote growth in our core businesses and products and their peripheral areas.

In addition, we would like to promote the practical application and research and development of innovative technologies and products that contribute to reducing environmental impact and becoming carbon neutral.

Integration of Cement Business

- April 2022: Integration of entire business portfolio of Cement and Construction Materials Company with cement business of Mitsubishi Materials as of April 2022
→ Create second largest cement manufacturing and marketing company in Japan

History Leading Up to Integration

- Establishment of Ube-Mitsubishi Cement Corporation in 1998 through 50/50 investment by UBE and Mitsubishi Cement, for integration of sales and logistics
→ Realize significant cost reductions including logistics costs, and increase market share (sales-based)
- Allocate business resources to growth fields while maintaining strong competitiveness amid changing business conditions. Both companies recognize the need to fully integrate their businesses including manufacturing, to maintain the growth cycle.
→ Further develop the existing relationship between the two companies and integrate their cement businesses. Capitalize on the respective strengths of both companies and realize synergies to achieve sustainable growth and build an operating framework that is optimal for both companies.

Expected Benefits of Integration

- Optimize the production framework and rebuild the sales and logistics frameworks → Improve efficiency throughout the supply chain and maximize synergies
- Merge production engineering, R&D, and other businesses → Enhance planning and development capabilities
→ Aim to improve revenues through synergies realized from integration

Growth Strategies after Integration

- Direct cash flows generated from the cement business in Japan toward concentrated investment in businesses that are anticipated to generate growth.*
*Overseas cement and ready-mix concrete and high-performance inorganic materials made from high-quality limestone
Through these efforts, the company will endeavor to realize sustainable growth as a corporation that is contributing to the development of social infrastructure and advancement of a recycling-oriented society

23

Next, on page 23, there is a brief summary of the integration of the Cement business.

Next April, Japan's second largest cement manufacturer and distributor will be born.

As I have already explained to analysts, in 1998, our company and Mitsubishi Materials Corporation established Mitsubishi Ube Cement, a company that integrated our sales and logistics divisions, which has produced certain benefits, including a significant reduction in logistics costs.

However, at that time, the end of the 1990s, domestic demand was around 70 million tons. However, in the last fiscal year, due in part to the coronavirus crisis, domestic demand fell below 40 million tons for the first time since the 1960s, to 38.66 million tons.

In the midst of such drastic changes in the business environment, both companies have agreed that in order to continue to maintain competitiveness, invest management resources in growth areas, and maintain the growth cycle, complete integration, including the production division, is necessary.

As shown here, the expected effects of the integration are to improve efficiency and maximize synergies in the entire value chain by optimizing the production system and restructuring the sales and logistics system. We hope to realize integration benefits of more than JPY10 billion after FY2025.

In addition, I believe that we will be able to take further steps toward carbon neutrality by bringing together our production technologies, research and development, and especially our technologies that contribute to the environment.

And after the integration, as a growth strategy, the cash flow generated from the domestic cement business will be invested intensively in growth areas. One of the growth areas is the cement and ready-mix concrete business overseas, especially in the US, which will be brought in by Mitsubishi. We will also bring our own high-quality limestone-based high-performance inorganic materials business, mainly from Ube Materials. We would like to actively engage in these activities as well.

We also hope to achieve sustainable growth as a company that contributes to the development of a recycling-oriented society.

Chemicals: Nylon (Polymer) Strategy



- Optimize the global polymerizing capacity and product lineup
- Address environmental issues surrounding plastics

Immediate Business Conditions

- Three production bases in Japan, Thailand, and Spain continue to record high operating rates and sell out of production. Overall, has overcome the impact of COVID-19
- Demand for food-wrapping films is firm. Sales prices increased in accordance with improved market conditions for raw materials

Strategies of Current Medium-Term Management Plan

- Change business plan from pursuing business scale by increasing ratio of caprolactam for internal use, to pursuing profitability by optimizing polymerizing capacity
- Promote marketing and innovation based on market trends, such as material/chemical recycling, bio raw materials, weight reduction, thickness reduction

FY2020 Results

- Commenced study to optimize production allocation in Asia region, and decided to invest in production of added value product at plant in Thailand
- Expanded into industrial films in addition to food wrapping films → Contributed to vehicle weight reduction through increased adoption of pouch LiBs

FY2021 Strategies

- Configure manufacturing lines to match the needs of local markets in the Asia region including Japan
- Develop recycling technologies for nylon products to contribute to a circular society

25

I would like to explain the policy and progress of each business segment, but since there are many different businesses, I would like to briefly explain the main points of each business.

The next page, page 25, begins with the nylon business in the chemicals division.

The nylon business is largely divided into polymers and composites. Polymers are used for extruded films, mainly for food packaging applications.

In the current business environment, demand is strong even under the coronavirus crisis, due in part to stay-at-home demand. The strategy of this medium-term management plan was originally to expand the ratio of caprolactam self-consumption by increasing the polymerization capacity of nylon and to expand the scale of the nylon business. However, due to the deteriorating market conditions, we have changed our policy to recover and improve profitability by optimizing the polymerization capacity globally with the existing capacity.

In fiscal 2020, in line with these policy changes, we examined the optimal production system in Asia. In conclusion, we decided to remodel the facilities and manufacture value-added products, which are copolymerized products used for food packaging here in Thailand.

In the current fiscal year, we will look at the growing food packaging market in Asia and shift to a manufacturing line configuration that meets the requirements of the local market.

On the other hand, with regard to polymers, we are working on recycling technology for nylon products to contribute to a recycling-oriented society, for example, separating nylon and olefin multilayer films and reusing them. We are also working on the development of these kinds of technologies.

Chemicals: Nylon (Composite) Strategy



- Expand the composite business in order to shift to specialty products
- Strengthen the framework for continuous development of added value products

Immediate Business Conditions

- Sales for automotive applications rapidly recovering, with production and sales of composite products up year-on-year

Strategies of Current Medium-Term Management Plan

- Expand composite production facilities outside of Japan and shift to high added-value products and technologies
- Build a framework for generating profits by strengthening the marketing and innovation functions

FY2020 Results

- Strengthened the foundations of the composite business and commenced commercial production of nylon composites at North American subsidiary Premium Composite Technology North America, Inc.
- Strengthened the composite development conducted at the Osaka Research & Development Center (ORDC), taking into account the market access
- Once again selected to supply plastic liner material for high-pressure hydrogen tank in new MIRAI fuel-cell vehicle continuing from debut model.
- Also established a framework for production of high-pressure hydrogen tank liners in Spain, aimed at FCV applications for OEMs.



MIRAI fuel-cell vehicle unit

FY2021 Strategies

- Build a unified operating framework for manufacturing facilities and sales offices, to further expand and add depth to the composite business in North America
- Establish a composite business development group at ORDC, and strengthen the capabilities for developing global markets

Next, on page 26, you will see the strategy for nylon composites.

Composites, injection applications used for automotive parts, et cetera. are the main focus.

Polymers account for a little more than 60% of our nylon business, with composites accounting for the remainder, but the market for composites is much larger. In addition, higher profitability can be expected, and we will focus on the expansion and promotion of the composites business in order to promote the specialization of the nylon business.

In the current business environment, which is mainly for automotive applications, there was a large drop in the first half of FY2020, but since the second half of the year, there has been a rapid recovery, and the production and sales of composite products have finally increased compared to the previous year. In addition, the supply-demand situation remains tight at present.

As a strategy during the medium-term management plan, we have been expanding our production bases for composite products, especially overseas, and have been acquiring downstream compounding companies one after another, such as Repol in Europe and PCTNA in North America.

In FY2020, even in the midst of the coronavirus crisis, PCTNA, one of the North American bases, began commercial production of UBE nylon composite products. In addition, the recent cold wave in the US, which led to the declaration of force majeure for other companies' products, has also been a tailwind, and the evaluation of our products is progressing steadily.

The picture on the right shows the fuel cell unit of the FCV, MIRAI. Our materials are also used in the high-pressure hydrogen tank liner of the new MIRAI, as they were in the first generation. In Spain, we have also established a production system for grades for hydrogen tank liners for other automobile companies. I would like to focus on these points in particular.

In FY2021, we will further strengthen the marketing function of the Osaka Research and Development Center, which we call ORCA, to enhance our ability to develop global markets in Japan, the United States, Europe, and Asia.

Chemicals: Caprolactam and Ammonium Sulfate Strategy



- Secure stable operations and achieve cost reductions to increase overall competitiveness of ammonia chain
- Increase production and sales of high added value large-grain ammonium sulfate

Immediate Business Conditions

- Demand for caprolactam recovering as market conditions improve and spreads widen, as impact of COVID-19 fades in China
- Firm demand for ammonium sulfate, limited impact on sales from COVID-19 pandemic

Strategies of Current Medium-Term Management Plan

- Caprolactam: Maintain full production and achieve cost reductions while making certain to execute revenue-enhancing investments in Thailand.
- Ammonium sulfate: Full increase in production of large-grain ammonium sulfate (high added-value product)

FY2020 Results

- Ammonium sulfate: Maintained sales volumes for large-grain ammonium sulfate for Japanese market at fiscal 2019 levels, despite production limited by reduced production of caprolactam

FY2021 Strategies

- Caprolactam:
Continue stable operations and efforts for cost reductions
- Ammonium sulfate:
Ensure stable production and quality of large-grain ammonium sulfate for future sales opportunities. Accelerate development through the collaborative efforts of production bases in Japan, Thailand, and Spain, and increase the share of large-grain ammonium sulfate



Shipping facilities
of ammonium
sulfate

27

Next, on page 27, is the business strategy for lactam and ammonium sulfate.

As for the current business environment, demand for caprolactam has been recovering, especially in the Chinese market, since bottoming out in September last year. As market conditions are rising and spreads are widening, the average spread in the first half of last year was around the mid-USD600 range, and in the second

half of last year, it rose to USD800 to USD900, and in FY2021, our plan assumes a lactam spread of USD900. In April and May, it has been above USD1,000.

However, we do not have high expectations for the lactam market. Our strategy for this fiscal year is to continue stable operations and cost reduction, and to maintain the competitiveness of the entire chain.

In addition, this large grain product in ammonium sulfate is positioned by our company as a so-called specialty product that supports the cost competitiveness of the lactam chain.

Particularly in Japan, as the steel industry closes its blast furnaces, large-grain products of ammonium oxime sulfate are becoming increasingly valuable. In Thailand and Spain, we are also able to secure large premiums of 20% to 30% compared to ordinary products. We will continue to increase the composition of large grain ammonium sulfate and plan to increase sales of large grain.

Chemicals: Fine and Industrial Chemicals Strategy



- Study business expansion by developing C1 chemical chain business in North America
- Study reconstruction of ammonia chain in Ube area

Immediate Business Conditions

- Adjusting product prices to reflect rising prices for raw materials and fuel
- Overall demand is firm partly due to recovery from impacts of COVID-19. In particular, demand is increasing for high-purity DMC for LiB applications in xEVs
- Demand for ammonia in Far East markets remains high due to unstable global supply

Strategies of Current Medium-Term Management Plan

- Study the establishment of North American manufacturing facilities for global development of C1 chemicals chain (DMC and PCD)
- Study reconstruction of ammonia chain in Ube area

FY2020 Results

- Continued feasibility studies regarding selected sites for C1 chemical manufacturing facilities in North America (since FY2019)
→ Commence study for establishing DMC joint venture in China in addition to manufacturing facilities in the U.S., to meet increased demand
- Enhance production capacity and increase sales of for high-purity nitric acid

FY2021 Strategies

- Decide on location of new manufacturing facilities for C1 chemicals chain in North America, and establish DMC joint venture in China
- Secure stable ammonia production to take advantage of non-maintenance year (implemented every other year)



DMC manufacturing equipment

28

The next page, page 28, is about the Fine Chemicals and Industrial Chemicals business.

First, I would like to talk about fine chemical products in the current business environment. Demand for these products also fell sharply in the first half of FY2020, but from the second half of FY2020, demand has been generally firm due to the recovery from the impact of coronavirus. As mentioned there, demand for high-purity DMC is increasing, especially for lithium-ion battery applications in xEVs.

As a strategy for this mid-term plan, we have positioned the fine Chemicals business, including high performance coatings, as the center of our future growth strategy. Therefore, we are hurrying to consider a

production base in North America for the global development of the C1 chemical chain, such as DMC, and PCD.

Last year, we conducted a feasibility study to narrow down the production bases, but due to the coronavirus crisis and abnormal weather, the study has been delayed. We are hoping to finalize our base by the end of this fiscal year.

As for the Ammonia business, the market has risen to over USD500, but I believe that it will settle down to some extent in the future. As the world moves toward carbon neutrality, the market for ammonia will change dramatically as ammonia as a fuel, green ammonia or blue ammonia, becomes more popular. I believe that the entire market will change drastically because the demand is different by an order of magnitude.

How we should respond to this. As we conduct various simulations, including the restructuring of the ammonia chain business in the Ube area, we would like to set a direction for the future.

Chemicals: High-Performance Coating Strategy



- Promote marketing and innovation by strengthening the capability to propose solutions in the global market

Immediate Business Conditions

- Market for water-based and solventless polyurethane coatings currently expanding centering on Chinese market
- Firm demand having overcome impact of COVID-19

Strategies of Current Medium-Term Management Plan

- Polycarbonate diol (PCD): Accelerate global business development and increase sales
 - Construct second production line for PCD in Thailand and ensure the top share in the global market
 - Increase sales with a view toward capturing volume business in North and Central America and establishing manufacturing facilities in the U.S.
- Polyurethane dispersion (PUD): Develop the business in the Asian market, beyond niche markets in Japan
 - Strengthen the formulation engineering by collaborating with acrylic dispersion and additive manufacturers, and accelerate the market development
- Oxetane: Accelerate efforts to develop global market, centering on 3D printer applications
 - Strengthen the development capabilities and commence manufacturing and supply in Thailand

FY2020 Results

- PCD: Secured full production levels through vertical startup of second production line in Thailand
- PUD: Developed markets according to plan

FY2021 Strategies

- PCD: Increase global production and sales and accelerate sales growth in North American market
- PUD: Built technical service center in Shanghai, China as demand continues to grow
Increase production capacity of existing facilities and commence study of new plant to be built in Asia during next medium-term management plan



Second PCD manufacturing facilities in Thailand

29

Next, on page 29, I would like to talk about the high performance coating business.


In the current business environment, shipments stagnated significantly in the first half of last year due to the impact of coronavirus, but the market for waterborne and solventless polyurethane coatings has been steadily expanding as the Chinese market recovers. It is a so-called environmentally friendly coating material. PCD, PUD, and oxetane, each have a growing market.

In the last fiscal year, as I explained earlier, we succeeded in the vertical start-up of the PCD facilities in the second phase in Thailand. It's already in full production. This year, we will focus on expanding sales of PCD,

especially in the North American market, in anticipation of the establishment of C1 Chemical’s US base in the future.

PUD, polyurethane dispersion, for which we will set up a technical service base in China. We are also planning to expand the capacity of our existing plant in Ube. In addition, we would like to consider building new plants in Asia in the next medium-term plan. I think it will probably be in Thailand or China, but we would like to start looking into it.

Chemicals: Synthetic Rubber Strategy



- Strengthen the immediate business platform through unified operation of three production bases leveraging the UBEPOL brand
- Split off synthetic rubber business in Japan and strengthen profitability. Synthetic rubber business continues to be important and a focus

Immediate Business Conditions

Demand that had sharply declined due to the impacts of COVID-19 is steadily recovering


Strategies of Current Medium-Term Management Plan

Shift to specialty products for butadiene rubber (BR) business

- Bring to market new grades of vinyl cis rubber (VCR) with enhanced elasticity and improved fuel economy
- Develop next-generation BR with improved fuel economy and wear resistance

Strengthen platform in order to fulfill supply responsibilities

- Increase sales of added-value products
- Enhance cooperation between three global bases of production
- LUSR (Malaysia): Increase production and shift to VCR (start building VCR manufacturing facilities)



TSL Synthetic rubber manufacturing equipment

FY2020 Results

- Conducted global marketing capitalizing on three global bases of production
- Captured recovering demand without incurring opportunity losses

FY2021 Strategies

- Achieve operational safety and stability, strengthen cost competitiveness

Plant	Location	Start of Operation	Manufacturing Capacity (Kilotonnes/year)
Chiba	Japan	1971	126
TSL	Thailand	1997	75
LUSR	Malaysia	2015	50 → 72 (Scheduled for June 2021)
Total			273

The next page, page 30, is about the synthetic rubber business.

As for the current business environment, the synthetic rubber business is mainly used for tires, so the demand for tires dropped sharply in the first half of last fiscal year. Although demand has been recovering steadily since the second half of the year, spreads continue to be in a difficult condition.


However, even under these circumstances, our subsidiary in Thailand is posting solid profits. However, in Chiba, due to the slump in the price of butadiene, a raw material, the situation has remained severe, and profits have not been generated. In FY2021, we are planning to conduct periodic maintenance twice in the Chiba area, so we expect that the situation will continue to be difficult, and we will not see a recovery in profits until FY2022 or later.

In this context, at the end of last month, we announced the spin-off of our domestic business. By doing so, we hope to strengthen our profitability and quickly rebuild our business.

It should be noted that we are not giving up our synthetic rubber business. The position or importance remains the same. We will make the company a wholly owned subsidiary as a means to rebuild on our own.

As a specialized BR manufacturer, we believe that we can continue to secure profitability with differentiated specialty grades. In addition to the integration of manufacturing, sales, and technology, we will move flexibly in a tripolar fashion to improve management efficiency. Or, by promoting specialization, we would like to recover our profitability.

Chemicals: Polyimide Strategy



- Steadily increase revenues as an active growth business

Immediate Business Conditions

- Market for varnishes for flexible OLEDs continues to grow
- Firm demand for chip-on-film (COF) for 4K and 8K displays, driven by stay-at-home demand
- Growth in markets for flexible printed circuit (FPC) substrates for smartphones and vehicles

Strategies of Current Medium-Term Management Plan

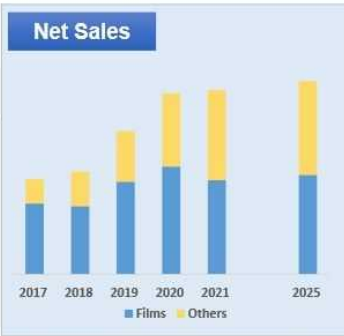
- Develop varnishes into a core product in addition to films
- Increase sales for displays, solar cells, and composite release liners, in addition to the market for electronic circuit substrates
- Enhance production capacity and implement cost reductions: Increase production through debottlenecking of biphenyl tetracarboxylic dianhydride (BPDA), and bring the existing film line to full production

FY2020 Results

- Sales increased beyond projections in varnishes and chip-on-film (COF) and flexible printed circuit (FPC) films
- Made decision to build new BPDA plant (to begin operating in October 2023)
- Reached target for last fiscal year of current medium-term management plan, achieving it ahead of schedule in fiscal 2020


FY2021 Strategies

- Meet growth of flexible OLED market and firm demand for COF, and make certain to capture future new demand by developing new products and markets



Net Sales

Year	Films	Others
2017	Low	Low
2018	Low	Low
2019	Medium	Medium
2020	High	High
2021	High	High
2025	High	High



Polyimide films

31

Now let's move on to the next page, page 31. This is about the polyimide business.

As stated at the beginning of this report, we are making steady progress in expanding our earnings as an actively expanding business.

In the current business environment, demand for films for 4K and 8K displays, for varnishes for OLEDs, and for external sales of raw material monomers is strong, even in the coronavirus crisis.

During the period of this mid-term plan, we have been aiming to maximize the profits of the entire polyimide chain, and as mentioned at the end of the results for FY2020, we have already reached the target for the final year of this mid-term plan in FY2020, one year ahead of schedule.

In order to further expand our business, we made the decision to build a new plant for raw material BPDA last year, as I mentioned earlier. It is scheduled to be operational in October 2023.

In addition to responding to the current expansion of the flexible OLED market and the steady demand for COF film, we will continue to develop new products and markets with an eye to the future, such as developing markets other than those for displays.

Chemicals: Separation Membrane Strategy



- Further strengthen the business platform for nitrogen membranes (core product)
- Focus on developing markets by developing new membranes for mobility and energy/environment

Immediate Business Conditions

- Gradual recovery in demand for explosion-proofing applications in resources sector
- Demand for aircraft explosion-proofing applications recovering gradually starting from the second half of fiscal 2021, having been impacted by COVID-19
- Growth in environmental/energy market
Biogas application: Growth in methane concentration applications in North America and Europe (Bioalcohol: Meet demand resulting from facility upgrades and capacity increases by customers)

Strategies of Current Medium-Term Management Plan

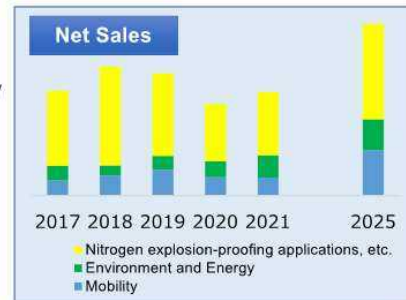
- Nitrogen: Increase competitiveness by strengthening sales offices
- Mobility: Increase adoption for aircraft and railway
- Environment & Energy: Increase sales in biogas and bioalcohol markets

FY2020 Results

- Increased sales in biogas market

FY2021 Strategies

- Strengthen business platforms in environment and energy sectors, and strengthen competitiveness of nitrogen membranes and dehumidifying membranes
- Expand the technology platform to address policies on carbon neutrality



Membrane Type	Main Applications
Nitrogen	Explosion-proofing (aircraft, resources, etc.)
Dehumidifying	Railway, instrumentation
Decarbonation	Biogas
Hydrogen, etc.	Recovery and purification of hydrogen, etc.

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Next, I would like to talk about the separation membrane business, which is also a part of the polyimide chain because it is a polyimide hollow fiber separation membrane.

In the current business environment, this is also one of the products that has been most affected by the coronavirus crisis. Nitrogen separation membrane for explosion-proof applications in resource systems, or for explosion-proof applications in aircraft. This means that demand has exactly evaporated in FY2020. We expect a gradual recovery in aviation explosion-proof applications from the second half of FY2021, but the pace will be slow.

On the other hand, with the focus on environmental issues, biogas, the methane enrichment market in North America and Europe are expanding or becoming more active.

In FY2020, as I mentioned earlier, we worked to expand sales in the biogas market and recover from the loss of demand for resources and explosion-proof aircraft systems. We believe that there is a lot of room for expansion of this business in FY2020 and beyond. Especially in the environmental and energy fields, the potential for market expansion is expanding, and we would like to expand this market while strengthening our sales structure.

Chemicals: Separator Strategy

UBE

- Increase efficiencies through integrated management of non-coated and coated separators business
- Further capture increases in demand centering on vehicle applications by strengthening development and achieving cost reductions

Immediate Business Conditions

- Automotive demand was slow in first half of fiscal 2020 due to impact of COVID-19, but started to recover in second half with demand growing in fiscal 2021
- Increasing demand to secure cost reductions

Strategies of Current Medium-Term Management Plan

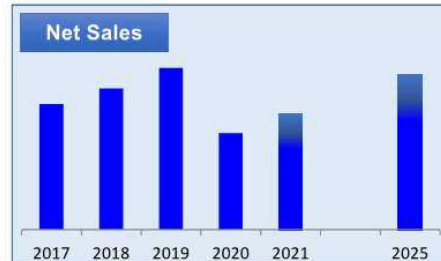
- Actively capture business with strong future promise
- Refine product qualities to fulfill performance requirements

FY2020 Results

- Not able to increase sales of both coated and non-coated separators as planned due to sharp decline in automotive demand caused by impact of COVID-19
- Operated new facilities according to plan during fiscal 2020

FY2021 Strategies

- Strengthen relationships with performance-oriented customers and make certain to capture next-generation projects of core customers
- Further strengthen the sales and development activities
- Realize cost reductions and increased sales through operation of new facilities



33

On the next page, page 33, is the business strategy for separators.

As you can see from the results for FY2020, there was a temporary sharp drop in demand for automotive applications last year due to the coronavirus crisis. As a result, we have not achieved our sales expansion plan for both non-coated and coated products, but demand is on a recovery trend from the second half of the fiscal year.

In this context, as I mentioned earlier, we are on schedule to start operation of the new facilities in the 13th phase of Sakai by the end of FY2020. We believe that the demand for separators will continue to grow with the expansion of the EV and HEV markets, but at the same time, we believe that the market will become more difficult due to the growing presence of Chinese players and intensifying price competition.

Rather than competing in price wars, we would like to strengthen our relationships with customers who place importance on functionality, and promote cost reductions by operating new facilities, in order to achieve stable expansion in areas where we can firmly take advantage of the merits of the dry process.

Chemicals: Pharmaceutical Strategy

UBE

- Strengthen the drug discovery pipeline and establish a production framework that meets market needs

Immediate Business Conditions

- Shift in drug discovery from lifestyle diseases to rare diseases and unmet medical needs
- Active pharmaceutical ingredient (API) needs are shifting toward small quantity, high-potency APIs with the shift in drug discovery and growth of the market for anti-cancer agents

Strategies of Current Medium-Term Management Plan

- Expand the scope of basic research, and accelerate and increase the efficiency of the search cycle through computational chemistry
- Shift to a group of manufacturing facilities that support small quantity, high-potency APIs
- Commercialize contract API manufacturing for nucleic acid drugs, which is an emerging new market

FY2020 Results

- Filed for U.S. Food and Drug Administration (FDA) approval of new drug application for EYBELIS®
- Supplied intermediates for Avigan® Tablet

FY2021 Strategies

- Establish order of priority for projects in drug discovery pipeline and advance projects to rapidly reach next stage
- Increase profits by commencing manufacturing of high-potency APIs at fifth pharmaceutical plant
- Strengthen technical capabilities and marketing for nucleic acid drugs



Fifth pharmaceutical plant

34

Next, on page 34, I would like to talk about the pharmaceutical business.

As you know, our pharmaceutical business consists of both in-house pharmaceuticals, drug discovery research, and contract manufacturing, and API manufacturing. In the area of drug discovery research, we are strengthening our drug discovery pipeline, and in the area of API manufacturing, we are building a production system that meets the needs of the market.

In FY2020, we filed a New Drug Application, NDA, with the US Food and Drug Administration, FDA, for our in-house drug, EYBELIS, a glaucoma treatment developed in collaboration with Santen, and started marketing it in South Korea and other Asian countries, and promote lifecycle management.

In API manufacturing, we supply intermediates for Avigan. Although it was a sudden request, we were able to manufacture and supply the products as scheduled.

In the current fiscal year, for drug discovery, will move at an early stage in the drug discovery pipeline. In addition, we will complete the construction of our fifth pharmaceutical plant in June, which will be suitable for the production of small volume, high potency APIs. We would like to start it up as soon as possible.

Construction Materials: Cement and Ready-Mix Concrete Strategy

UBE

- Overall strategy:
Continue supplying products that offer value for social infrastructure while contributing to the global environment

Cement and ready-mixed concrete

Immediate Business Conditions

- Demand for cement in Japan was up slightly compared with the FY2019 at 3.9 million tonnes, but at the lowest level since 1990.
- Coal prices up since FY2019
- Accelerated shift toward realizing a decarbonized society

Strategies of Current Medium-Term Management Plan

- Address declining demand for cement in Japan and rising coal prices through cost reductions and energy conservation
- Prepare for integration with Mitsubishi Materials Corporation and implement initiatives to rapidly realize synergies

FY2020 Results

- Secured export orders centering on Chinese customers amid weak demand in Japan, to maintain full production levels at plants
- In September 2020, signed a definitive agreement with Mitsubishi Materials to integrate businesses

FY2021 Strategies

- Further improve framework for stable operations and shipment and implement measures for cost reduction
- Systematic reduction of GHG emissions by deploying high-efficiency coolers at Kanda Factory and building third facilities for waste plastics processing at Ube Factory
- Steadily advance preparations to integrate businesses with Mitsubishi Materials and rapidly realize synergies



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Next, I would like to talk about the Construction Materials business. In the Construction Materials Division, I would first like to talk about the cement and Ready-mixed Concrete business.

We have talked about this to some extent in the previous section on business integration, so I will touch on it briefly.

In the current business environment, as I mentioned earlier, domestic demand for cement is declining, and it will not recover significantly in FY2021, at around 39 million tons. We expect it to remain at the lowest level since 1990, continuing from last year.

As for coal prices, we enjoyed cost benefits last year, but prices have risen since the previous year, so we expect the severe environment to continue.

In terms of our strategy for FY2021, we will continue to promote stable shipments and ongoing cost reduction measures. At the same time, we will strive to systematically reduce GHG emissions by installing high-efficiency coolers at the Kanda Plant and waste plastic facilities at the Ube Plant.

However, the biggest challenge for the year is to make steady preparations for the integration with Mitsubishi Materials as planned. After the integration, we must make preparations so that synergies can be realized as soon as possible.

Construction Materials: Magnesia/Calcina and Energy Strategy



Magnesia/Calcina and Energy Businesses

Immediate Business Conditions

- Magnesia/Calcina: Steel and automotive production is on a recovery trend having overcome the worst impacts of COVID-19, but is still short of pre-COVID-19 levels
- Energy: Accelerated shift toward realizing a decarbonized society, and further increased interest in biomass fuel

Strategies of Current Medium-Term Management Plan

- Magnesia/Calcina: Realize stable operations and shift to high added-value products → Refurbish the second production line at the Ube Factory
- Fine materials: Expand sales by strengthening marketing and development capabilities, and make certain to capture demand
- Energy: Provide stable supply of competitive energy and expand biomass fuel business

FY2020 Results

- Magnesia/Calcina: Demand for high added-value product was comparatively firm amid declining demand for core products in steel and refractory applications, centering on first half of fiscal 2020
- Fine materials: Made certain to capture recovering demand from automotive industry, and steadily secured sales volumes
- Energy: Achieved stable production of torrefied pellets, and used coal center to store and supply palm kernel shells (PKS)

FY2021 Strategies

- Magnesia/Calcina: Increase production of high added-value magnesia, increase sales and production capacity of neutral solidification material
- Fine materials: Capture new business by strengthening MOS-HIGE sales and development, reduce costs, and expand applications
- Energy: Increase biomass fuel use at independent power producer (IPP) facilities, study manufacturing of torrefied pellets outside of Japan

Then, on the next page of the Construction Materials Division, magnesia and calcina, the Energy business.

The current business environment for magnesia and calcina, whose customers are mainly in the steel and automobile industries, was also greatly affected by coronavirus in the last fiscal year. Although the worst is over and the economy is on the way to recovery, it still has not reached the level of pre-coronavirus days.

Our strategy for this fiscal year is to expand our business in magnesia, especially in high value-added products, such as high-purity products that Chinese companies cannot produce. And we want to increase the volume and recover it. In addition, we will strive to expand sales of neutral solidifiers etc., the market for which is expanding.

Then, in the energy business, we will expand the use of biomass fuel in our IPP power plants. We have our own facilities for torrefied pellets and PBT of about 60,000 tons, and we are already in the process of putting them into full operation. We would like to consider this overseas production and further expand our biomass fuel business.

Machinery: Metal & Plastics Processing Machinery Strategy



- Overall strategy: Benefit customers by supplying products and services with brand appeal

Metal & Plastics Processing Machinery

Immediate Business Conditions

- Automotive market was heavily impacted by COVID-19 in addition to U.S.-China trade friction, but is now on a gradual recovery trend
- Shift to xEVs is accelerating, creating growing needs for vehicle weight reduction and electrification

Strategies of Current Medium-Term Management Plan

- Die casting machines and extrusion presses: Increase profits by developing products to meet weight reduction and electrification needs and by developing markets
- Injection molding machines: Secure stable revenues by unified global business management and enhanced sales outside of Japan
- Machinery servicing: Continue to increase revenues by integrating and expanding the global servicing network
- All businesses: Increase productivity to support growth in the scale of the businesses

FY2020 Results

- Integrated the injection molding machine business (U-MHI Platech absorbed by Ube Machinery)
Commenced production at Nagoya Machinery Works, and developed and brought to market new models that leverage integration advantages
- Continued developing products and processes for automotive weight reduction needs

FY2021 Strategies

- Strengthen product competitiveness in preparation for the recovery of capital investment



Injection molding machine :
HH (Double H) Series



Net Sales

■ Servicing: 40% increase from FY2015
■ Machinery: 35% increase from FY2015

FY2021 target

Moving on to the machinery section. On page 37 is the business strategy for molding machines.

In the current business environment, the Molding Machine business is also linked to capital investment in the automobile industry, so it is one of the businesses that has been most affected by coronavirus. Although there has been a gradual recovery trend since the second half of the year, the situation continues to be difficult.

At the same time, the need for lighter vehicles and EVs is increasing. We will develop products that meet these needs. In addition, since the market is expanding overseas rather than domestically, we will expand overseas sales and further enhance our global service network. This has been our strategy during this mid-term plan.

Last fiscal year, as I explained earlier, we completely integrated the injection molding machine business of the former Mitsubishi Heavy Industries. We hope that the effects of this integration will enable us to steadily develop and launch new models, and establish an optimal production system.

Capital investment will gradually recover this year. In order to capture this recovery demand, we would like to strengthen our cost competitiveness and shorten our lead time.

Machinery: Industrial Machinery Strategy



Industrial Machinery

Immediate Business Conditions

- Capital investment postponed both in and outside of Japan due to impact of COVID-19, with budgets being reduced
- Expect new markets for environmentally-friendly machinery to emerge toward efforts to realize carbon neutrality

Strategies of Current Medium-Term Management Plan

- Focus on process and cost management for current IPP projects to secure profits
- Create new revenue sources by developing products that are environmentally friendly and contribute to resource recycling, and through business alliances
- Machinery servicing: Increase revenues by strengthening the servicing capabilities outside of Japan and servicing of equipment from other companies

FY2020 Results

- Made steady progress in constructing previously ordered IPP projects
- Assumed chemical equipment business of Hitachi Plant Mechanics Co., Ltd. (July 2020)

FY2021 Strategies

- Chemicals equipment business to contribute revenues
- Create development projects for products that contribute to carbon neutrality



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Another strategy of the Machinery Division is the Industrial Machinery business.

In the current business environment, demand is recovering, but not to the extent of capital investment, so there is still a tendency to postpone investment projects or reduce budgets. On the other hand, the market for environmental equipment is becoming more and more active toward the realization of carbon neutrality.

In FY2020, we took over the chemical equipment business from Hitachi Plant Mechanics. This fiscal year, we would like to make this contribution to earnings, and as I mentioned earlier, we would like to create products that contribute to the environment and product development themes that contribute to carbon neutrality.

Shareholder Returns



Dividend on equity (DOE) 2.5% or above
Consolidated total return ratio 30% or higher (average over three years)

- ◆ Shareholder returns for FY2020 will be 90 yen per share (planned) and 10 billion yen for treasury stock acquisition.
- ◆ Projected FY2021 dividend of ¥90 per share equaling FY2020 dividend, through overall assessment based on UBE's policy on shareholder returns (DOE of 2.5% or above) and current profit levels
- ◆ Balance of growth investment and shareholder returns, based on equity and cash flow situation



Note: Ube Industries conducted a consolidation of shares by consolidating every 10 shares into one share effective October 1, 2017. Dividends per share for FY2016 and earlier have been converted based on the shares after the share consolidation.

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Lastly, I would like to say a few words about shareholder returns. Page 40.

With regard to shareholder return, we set two indicators when we announced the current medium-term management plan.

One is, as in the past, a consolidated total return ratio of 30% or more. We also added a new indicator, DOE, which is the dividend on equity ratio of at least 2.5%. These indicators are designed to ensure not only profit and loss for the year, but also stable dividends.

In addition to the dividend of JPY90 per share as mentioned earlier, we will repurchase JPY10 billion of our own shares as announced recently. This is how we plan to return profits to our shareholders.

For FY2021, we expect to pay a dividend of JPY90 per share, the same amount as in FY2020, based on a comprehensive assessment of the shareholder return policy I have just explained and the current level of profits.

Based on this capital adequacy and the cash flow situation I mentioned earlier, we would like to maintain a good balance between investments for growth and shareholder returns.

That's all from me. Thank you very much.

Moderator: Thank you.

Question & Answer

Moderator: We will now begin the question and answer session.

Questioner A: Thank you very much for your explanation. Let me ask two questions.

The first point is capital investment. The results have fallen behind the mid-term plan this time and have not reached it. You mentioned that the investment in strategic businesses in particular has been delayed, and I would like to ask you what exactly is the reason for the delay in investment here.

Also, on another page, I didn't see the name of separators listed as one of the key products for the future, but I guess it was excluded from the key products because of its stable growth. Let me first make sure about this.

Izumihara: First of all, as I explained earlier, the amount of capital investment has decreased from the initial investment plan, but this is mainly due to investments in active growth businesses, especially those that we had hoped to expand in line with market expansion. However, the main reason for the decrease is that we were unable to do so because the market was not ready for it, even if we wanted to.

In particular, we expected to increase the capacity of the separator. Initially, we thought that we would have to make more and more capital investments every year during this period, but due to the economic slowdown and the coronavirus crisis, we were not able to make that assumption, and this is why there is a big difference in the amount of capital investments.

Also, as I explained earlier about the strategy of the separator business, we are sure that the volume will continue to grow, but on the other hand, we are not sure if we can continue to be a profitable business. In our view, this is a very difficult situation that will continue.

Therefore, we do not want to unnecessarily chase volume or market share, but rather we want to steadily earn money in areas where we can make a profit. In that sense, as you mentioned earlier, separators are not included in the growth businesses that we will focus on in the future, but it will still be a business that we will expand.

However, I would like you to understand that it is not as rapid as we had previously thought, as Questioner A mentioned earlier.

In any case, we would like to keep up with the cost of this separator business and maintain a certain position, but we are not looking to grow by making more and more capital investments and pursuing higher and higher volumes.

Questioner A: Thank you very much. I would like to briefly confirm the strategy of the separator, although it has been explained that the dry type for hybrid has more characteristics. In terms of EVs, it has been said for a long time that the wet type is better, but what measures do you think will be taken to capture the EV market or how will your strengths be demonstrated?

Izumihara: There are characteristics among the various dry methods. There are various characteristics to ensure high power output, or to maintain safety.

Under such circumstances, among these EVs, our strengths can be demonstrated in these characteristics, or the wet type is more superior in these characteristics. We will focus on those areas where we can take advantage of our strengths, or where we can make the most of our models. I think it's a matter of how we determine what we need to do and how we can segment them.

Questioner A: Thank you very much. The second point is about CO2. In terms of CO2 emissions, construction materials account for roughly two thirds of your company's CO2 emissions, while chemicals account for one third. I understand that ammonia is a fairly large part of the chemicals.

Technically, the production of construction materials will be separated to JV, but you mentioned earlier that you are aiming for more than JPY10 billion in synergy effects when the production is separated. In terms of the future strategy, it is more relevant to Mitsubishi Materials Corporation, but the cement business in the US was expanded, and there is a risk of a considerable increase in terms of CO2 rather than synergy.

I would like to ask you to confirm whether there is any possibility that the JPY10 billion in synergies will be eaten up by a form of reverse synergy although this is not a good way to put it.

There is also ammonia in the chemicals. This was released the other day, and you mentioned that you are working on ammonia fuel for ships. Will they import green or blue ammonia, or will you initially supply the gray ammonia that is currently produced in Japan? Please tell me about this.

Izumihara: First of all, as I mentioned earlier, how to respond to environmental issues in the cement sector in the future is something that should be thoroughly discussed in the new integrated company.

In the new integrated company, responding to global environmental issues at the same time as future growth strategies will be a major issue. Naturally, this will be a major issue for cement companies, and the industry as a whole will have to make efforts in the direction of carbon neutrality. I believe that this goal is the same.

However, the question is how much environmental investment will be required for the cement business in relation to this, and whether this will greatly reduce the benefits of integration. This is something that needs to be discussed in various future studies.

It is also a problem for the entire cement industry. Cement can no longer avoid CO2 from process origins, so if there is no major innovation at this point, it will be very difficult to reduce this CO2. If we have to bear the burden of CO2 emissions throughout such entire lifecycle, how we should bear it throughout the value chain. I think that the issue of cost burden will also come up.

I believe that this is a problem that cannot be solved by a single cement company, but in any case, although it is not counted in our accounts, I think we have to look at it carefully within our own scope. I don't see it as irrelevant because it is not consolidated.

Therefore, this will be discussed within the new integrated company, and we will have to think about how much capital investment we will have to make and how much we will have to pay for it.

As for ammonia, which is used as fuel for ships, for the time being, we are using our current ammonia. Therefore, we will first supply ammonia that is not green or blue, and then participate in future business possibilities and efforts to implement it in society. So, at this point, we are not responsible for the supply of these products, but rather for bringing them from outside.

Questioner A: Understood. However, if the market expands by handling ammonia as such fuel in the future, are you considering changing your current ammonia production to green or blue ammonia from outside? Is this a part of your long-term vision?

Izumihara: As I explained earlier, the demand for green and blue ammonia will change by an order of magnitude as they become more widely used. Even if the co-firing application is only 20% at most, it is said that 3 million tons of 20% co-firing application will be needed by 2030, and 30 million tons by 2050. The current domestic demand for ammonia is about 1 million tons, so the order of magnitude is changing.

Therefore, as I mentioned earlier, I believe that the market environment for ammonia business will completely change. In response to this, I would like to know if it is possible to conduct business using our existing knowledge in areas such as logistics.

This will involve running various simulations to explore the possibilities. In order to pursue this possibility, we are going to participate in these specific movements together and work on them. We are currently the top manufacturer of ammonia, so we are trying to find out what we can do through this kind of project.

Questioner A: Understood. That is all. Thank you very much.

Questioner B: I also have two questions.

You talked about carbon neutrality just now, so I would like to ask about it as well.

I understand the concept of carbon neutrality, the promotion of specialization, the reduction of carbon emissions from business activities, the reduction of CO₂ emissions, and the creation of various high value-added products.

Your company has extensive knowledge of C1 chemicals, and has an efficient production system for ammonia. How can you effectively utilize the existing intellectual property of bulk processes, especially those that emit a lot of carbon dioxide, to help other companies achieve carbon neutrality and benefit your company?

If it is sold at a bargain price, the boomerang effect may have an adverse effect on your business base in the long run. I would like to see you make a profit from this kind of business and contribute to increasing shareholder value, but how will you utilize such intellectual property? Even if you don't do it yourself, please let me know your thoughts on how to use it effectively.

Izumihara: Our existing technologies, especially C1 and other carbon-based technologies and products. We may not need this technology in the future, but how we can utilize it in society as a whole, and how we can respond if it is used in a way that is not entirely optimal.

I would like to make a decision based on handling of various kinds of intellectual property. This is especially true for the C1 chemical IP that Questioner B mentioned. Even if we don't deal with it ourselves, we believe that there are other businesses that can use it more effectively and in a better way for the global environment as a whole.

This is exactly the reason why we are engaged in a certain amount of licensing business using our C1 chemical technology, especially in China. I think you are right about the various points that need to be considered, especially when considering the global environment as a whole, as Questioner B mentioned.

How we can incorporate our C1 chemical technology, which is one of our particular strengths, as a carbon-cycling technology. We would like to keep this in mind as we develop our individual businesses, so I will also keep your comment in mind.

Questioner B: I sincerely hope that other companies will also make effective use of the IP, and that your company will be able to earn a reasonable profit from it, which will benefit the shareholders.

Izumihara: I understood. Thank you very much.

Questioner B: This is the second point. You mentioned ammonia earlier, and I would like to confirm two points related to this.

For one thing, according to my estimate, ammonia-related emissions account for roughly 20% of the total GHG emissions of the global chemical industry. So, although ammonia is a very large GHG emitter in the chemical industry, it is only about 1% of the global GHG.

It is true that there is a possibility of an explosive increase in ammonia production capacity, but when that happens, what do you think will happen to the competitiveness of small and medium-sized ammonia production capacity of 500,000 tons, since even your company scale is a small and medium-sized company when viewed on a global scale?

If the current mindset of demonizing coal becomes widespread, demand for coal, which accounts for 27% of the world's primary energy, will be drastically reduced, and then something will have to be done to fill the gap. I think there is a risk of a major shortage of crude oil, which could lead to a major increase in raw material and fuel prices.

With that in mind, your company is now using coke, and is not much affected by fluctuations in raw material and fuel prices. However, what are your thoughts on the risk of large fluctuations in the relative value of raw material and fuel prices when you change your corporate structure, including carbon neutrality in the long term?

Izumihara: The reason why I dared to say something about the ammonia business earlier is that we are also aware of such a major problem. As you say, the production of ammonia as a fuel will increase rapidly. Naturally, the increasing amount of ammonia will have to be blue or green ammonia to counter global warming, so more and more of such things are being added.

However, there are concerns about whether this will really increase the number of things that are truly cost viable. However, as the whole world is now competing with each other for technological innovation in carbon neutrality, blue ammonia in the form of CCUS, or green ammonia that comes completely from renewable energy sources, for example, may become cost effective.

If this happens, I think it will be extremely difficult for our ammonia business based on petcoke to survive. Based on this premise, how far we should go in the ammonia business is a major issue for us.

So at some point, we have to make a decision about that. Of course, as Questioner B just said, if we really demonize coal in the world as a whole and eliminate such coal energy, whether it will be viable as a whole. Regarding what happens to the energy cost as a whole, I think you are right.

Even so, how a single business company responds to the global trend will depend on how far we really want to go in the ammonia business in the future.

Especially in the Ube area, the entire ammonia chain is organically linked to some extent. When we consider ammonia as a basic business, we will have to make a judgment at some stage about the future of the business, and at the same time, we will have to decide whether we really want to continue the ammonia business, given the direction we have set to focus on specialties.

Or, whether we should secure such capacity-light supplies from outside and establish a system to supply them in Japan. I'm sure there are many ways to think about it. As I explained earlier, we have been running various simulations for a long time.

In that sense, I think we are getting closer and closer to the time when we need to make a decision, and I would like to work on that in the future. It is as I explained earlier.

Questioner B: I understood. The reason why I am asking this is because the technology is not yet solidified and the strategies of various countries are not yet finalized, and I personally think that if you make a hasty investment, it is likely to be a big waste of money.

In terms of measurement, energy-derived substances are measured in Scope 1 and Scope 2, but purchased chemical substances are not measured. So, we still don't know which way ammonia will go, so I really don't want you to do it too quickly without such a framework. We would like you to maximize the profits of your shareholders.

Izumihara: Yes. I understood. Thank you very much.

Questioner B: Thank you very much. Goodbye.

Questioner C: Thank you.

The first point is polyimide, and I'm referring to page 31. I think the pace of progress for films in FY2020 was better than the full-year plan. I believe this is better than the target for FY2025, so I would like to know where the deviation comes from in this area.

Also, the progress in areas other than film seems to be a little slow, but what kind of progress is actually being made? Please divide the contents into film and others. Thank you.

Izumihara: In terms of film, single-sided COF film was particularly strong in FY2020, mainly for display applications. This may be related to stay-at-home demand, but display applications for LCD and OLED were also strong.

Particularly in FY2020, the volume of some double-sided COFs, which we had expected to decrease slightly, exceeded our expectations. These areas have led to a higher-than-expected growth in film.

Overall, I believe that demand for films, including those for FPCs, will remain strong in the future, but I wonder if it was too good in FY2020 in the overall sales composition.

Varnishes, on the other hand, are steadily growing in line with the assumptions made in the mid-term plan. Therefore, I believe that varnishes, especially those for the flexible OLED market, will also continue to grow steadily.

A slight concern is how this will affect the demand for flexible OLEDs, as semiconductors are not readily available. Although there will be some impact, overall, the number of films, varnishes, and polyimide related products, as well as polyimide products made by other companies using our BPDA monomer in various ways, is increasing. Therefore, including the external sales of raw material monomers, we believe that we will be able to steadily increase business profits for the polyimide family as a whole.

The film you mentioned earlier is doing well, and I don't feel that the varnish is lagging behind. I'm sure it will be growing steadily.

Questioner C: Could you please add one point to the last part of the BPDA? I thought that the fact that other companies use BPDA might mean that your company can also make modified polyimide by adding different acid anhydrides. Please tell me what you think of this.

Izumihara: As you said, our basic idea is to increase the number of BPDAs that we consume ourselves, but there are also applications that we cannot do ourselves, and customers can make good use of various characteristics. So, in a sense, we are not necessarily thinking of incorporating all of them into our products.

We would like to make steady progress in the areas in which we are strong. We would like to make a decision based on what kind of position we can take in the technology and in the various value chains.

Questioner C: My second question is about the capital investment in the medium-term plan on page 13.

Construction materials. This is the total amount for the three years. This is probably more in the current three-year forecast than in the original medium-term plan. I think the figure for FY2021 accounts for about half of the three-year forecast, so I have the impression that you will be investing quite a bit in construction materials. If you could, please explain how you are investing more in these areas than you originally thought.

I don't know if this will be one of them, but I think you mentioned torrefied pellets on some page earlier. This is not limited to the three-year period, but please tell us how promising you think torrefied pellets are from a medium- to long-term perspective.

Izumihara: Compared to the core businesses, investment in construction materials will be mainly for stable operation, rationalization, and cost reduction. This is a form of doing what needs to be done without being particularly affected by changes in the economy, so there has been no decrease.

Basically, we are not aware that we are investing more than planned here.

As for the torrefied pellets that you mentioned earlier, we are currently co-firing about 15% of the torrefied pellets in our IPP facilities to get the benefits of FIT.

Since these torrefied pellets can be handled in exactly the same way as coal, I think it would be a big advantage for electric power companies that use coal-fired power to switch to this biomass fuel, using their existing material handling facilities as they are.

Therefore, we would like to expand this fuel biomass business in the future, and the 60,000 ton demonstration facility in Ube is currently in full operation. Now, white pellets are imported and carbonized in Japan, but this process itself will be done overseas. That is exactly why we are considering overseas production.

We believe that this is one of the biggest opportunities for the energy business division to take in the midst of these headwinds for coal. The further expansion of the biomass fuel business is a major theme for the energy business, and this kind of business for coal is in a difficult situation. We would like to develop this business into a business that can replace this to some extent.

Questioner C: I understood very well. Thank you very much.

Izumihara: Thank you very much.

Moderator: Thank you. We received a few more questions, but since the time is up, we will conclude the question and answer session.

Lastly, President Izumihara, please give us a few words.

Izumihara: Thank you very much for taking time out of your busy schedule to join us today.

I think there are some parts that I couldn't answer sufficiently during the question and answer session. We would like you to ask your questions through various interviews with our IR department.

We would like to disclose as much information as possible, and in particular, we would like to proactively provide information so that people can have a clear understanding of our future growth strategy.

We appreciate your continuous support. Thank you very much for today.

Moderator: This concludes the management overview briefing. Thank you very much for your participation.

[END]
