Vision UBE 2025 — Prime Phase

Management Overview Briefing

Wednesday, May 20, 2020

Ube Industries, Ltd.

Masato Izumihara, President and Representative Director

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I FY2019 Business Results and FY2020 Forecast

FY2019 Financial Summary

(Billion yen)

		FY2018	FY2019	Difference
Key Figures	Operating profit	44.5	34.0	(10.5)
	Ordinary profit	47.8	35.7	(12.1)
Key Indicators	Return on sales (ROS)	6.1%	5.1%	(1.0)%
	Return on equity (ROE)	10.1%	6.9%	(3.2)%

Year-on-Year

- Revenues were down mainly due to lower sales volumes for coal and a decline in market conditions for nylon and other chemicals caused by a slower Chinese economy.
- Both operating profit and ordinary profit were down. These results were heavily impacted by a decline in market conditions for chemicals and a lower demand in Japan for cement and other construction materials, despite the benefits of lower prices for coal and other raw materials

Versus Forecast

- Net sales fell short of the forecast as market conditions for chemicals, cement demand in Japan, and shipments of machinery were below expectations.
- Operating profit was significantly lower than the forecast due to lower-than-projected revenues, despite the benefit of lower raw material prices, including coal.

Measures Taken

1. **Alliances, mergers, acquisitions:**
   Acquired a North American compound manufacturer (Premium Composite Technology North America Inc.), established a joint venture for electrolytes (Mitsubishi Chemical Corporation), established a joint venture for ceramic filters (Kyocera Corporation), acquired a company that manufactures chemical plant machinery and provides after-sales service
2. **New facilities and added capacity:**
   Increased production of polyimides (films and varnishes), began expansion of polycarbonate diol (PCD) production in Thailand, started construction of fifth pharmaceuticals plant
3. **Cost reductions, etc.:**
   Started operation of exhaust heat recovery power plant at Isa Cement Factory

Approach to FY2020 Earnings Forecast

1. While it is impossible to clearly predict the impact of COVID-19, the earnings forecast was prepared based on the following assumptions (impact on net sales forecast)

(1)	Chemicals	• No impact on net sales of daily essentials such as foods and pharmaceuticals, or for semiconductor applications • Negative impact on automotive-related net sales and net sales for other industries, most significantly in Q2 to Q3, so that net sales will decrease by 10 to 15% in annual average
(2)	Construction Materials	• Construction materials-related net sales to decrease by 5% in annual average due to stagnant construction sector • No impact on energy-related businesses
(3)	Machinery	• Net sales to decrease by more than 10% in annual average, due to postponement or suspension of capital investment projects centering on automotive-related capital investment through Q2

Cumulative net sales from (1) to (3) above to decrease by around ¥46.0 billion for full-year earnings forecast

Earnings forecast incorporates savings from implementing various cost reduction measures in accordance with the projections

2. Reevaluate accordingly if situation changes in the future

FY2020 Earnings Forecast

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- Profits will decline, but balance sheet will not change significantly.

(Billion yen)

Item	FY2019	FY2020	Difference
Net sales	667.8	614.0	(53.8)
Operating profit	34.0	26.0	(8.0)
Ordinary profit	35.7	23.5	(12.2)
Profit attributable to owners of the parent	22.9	14.0	(8.9)
Interest-bearing liabilities	190.7	190.0	(0.7)
Shareholders' equity	332.3	337.0	4.7
Return on equity (ROE)	6.9%	4.2%	(2.7)%
D/E ratio [times]	0.57 times	0.56 times	(0.01) times

FY2020 Earnings Forecast by Segment

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- Profits will decline significantly in chemicals and machinery, while declining slightly in construction materials.

(Billion yen)

Segment	Net sales			Operating profit		
	FY2019	FY2020	Difference	FY2019	FY2020	Difference
Chemicals	286.0	260.0	(26.0)	14.5	9.5	(5.0)
Construction Materials	303.0	290.0	(13.0)	14.5	13.5	(1.0)
Machinery	90.7	79.0	(11.7)	4.9	3.5	(1.4)
Others	4.5	3.0	(1.5)	0.5	0.5	(0.0)
Adjustment*	(16.5)	(18.0)	(1.5)	(0.6)	(1.0)	(0.4)
Total	667.8	614.0	(53.8)	34.0	26.0	(8.0)

*Includes elimination of inter-segment transactions

II Progress of Vision UBE 2025 — Prime Phase

Vision UBE 2025

Vision for the UBE Group in 2025 and strategies for realizing that vision

Vision UBE 2025 — Prime Phase

Medium-term management plan for the next three years through fiscal 2021, a milestone on the road to achieving Vision UBE 2025

Vision UBE 2025 — Prime Phase

■Founding Principles of UBE

"Coexistence and mutual prosperity"

"From finite mining to infinite industry"

■UBE Corporate Philosophy

Pursue technology and embrace innovation to create value for the future and contribute to social progress

■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.

■Basic Strategies of Medium-Term Management Plan: No Change in Basic Strategies Despite Current Conditions

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

Medium-Term Management Plan: Progress of Numerical Targets

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- While numerical targets have not been achieved under the current difficult economic climate, we will make certain to execute necessary strategies in accordance with the basic strategies.
  It will be difficult for us to achieve the numerical targets for the final year of the medium-term management plan. However, we will not change the numerical targets because it is too difficult at this time to project the earnings in the final fiscal year.

Key Figures

(Billion yen)

Item	FY2019 (Results)	FY2020 (Forecast)	FY2021 (Initial plan)
Net sales	667.8	614.0	770.0
Operating profit	34.0	26.0	55.0
Ordinary profit	35.7	23.5	58.0
Profit attributable to owners of the parent	22.9	14.0	35.0
Key Indicators			
Return on sales (ROS)	5.1%	4.2%	7%
Return on equity (ROE)	6.9%	4.2%	10%

Net Sales and Operating Income: Progress by Segment

(Billion yen)

Segment	Net sales			Operating profit		
	FY2019 (Results)	FY2020 (Forecast)	FY2021 (Initial plan)	FY2019 (Results)	FY2020 (Forecast)	FY2021 (Initial plan)
Chemicals	286.0	260.0	350.0	14.5	9.5	32.0
Construction Materials	303.0	290.0	330.0	14.5	13.5	16.5
Machinery	90.7	79.0	105.0	4.9	3.5	7.0
Others	4.5	3.0	5.0	0.5	0.5	0.5
Adjustment*	(16.5)	(18.0)	(20.0)	(0.6)	(1.0)	(1.0)
Total	667.8	614.0	770.0	34.0	26.0	55.0

*Includes elimination of inter-segment transactions

Target Business Domains

- Expand existing businesses and their peripheral businesses, develop new businesses, and continue to supply new value to markets and customers, in the four business domains

Environment and energy
(resource and energy conservation, new materials)

- Battery materials
- Energy
- Resource recycling
- Lithium titanium oxide (LTO)
- Inorganic specialty materials
- Biomass fuel

Mobility (automotive, rail, aeronautical fields)

- Nylon
- High-performance coatings
- Synthetic rubber
- Separation membranes
- Ceramics
- Battery materials
- Fine materials
- Molding machines
- Tyranno Fiber
- Lithium titanium oxide (LTO)

Construction and infrastructure
(infrastructure, living environment, smart cities)

- High-performance coatings
- Separation membranes
- Ceramics
- Cement and ready-mixed concrete
- Magnesia and calcia
- Industrial machines and steel products
- Neutral solidification material
- Heavy metal immobilizer
- Next-generation maintenance and improvement systems

Healthcare (foods, pharmaceuticals, lifestyle enhancement)

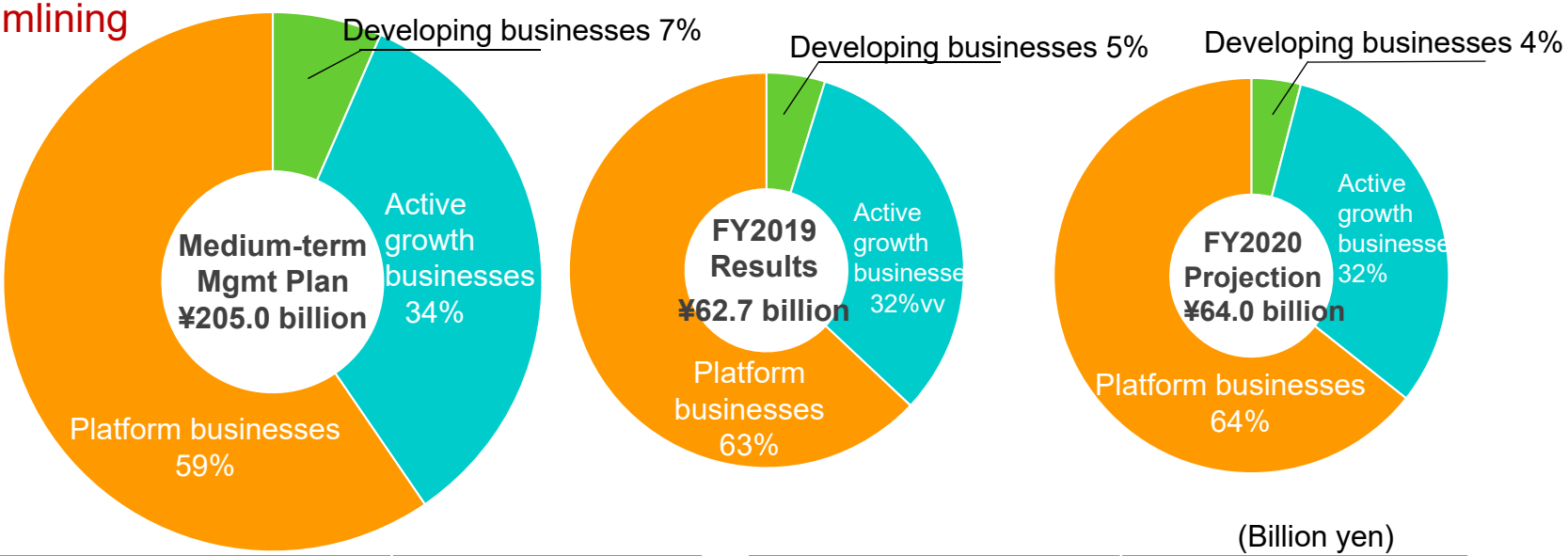
- Pharmaceu-ticals
- Nylon
- Industrial chemicals
- Fine chemicals
- Healthcare-related substance production system

Business Portfolio Segmentation

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, electrolytes, pharmaceuticals
	Cement and ready-mixed concrete, energy
	Molding machines, industrial machines, steel products

Business Resources Allocation Plan by Portfolio Segmentation and Progress

- Generally on track with increasing the ratio of business resources allocated to active growth businesses (from 26% under previous medium-term management plan)
- Continue resource investment for building business platform and for reducing costs through streamlining



(Billion yen)

	3-Year Total (Medium-Term Management Plan)	FY2019 Results	FY2020 Projection
Capital investment	140.0	47.6	47.0
Other investment (including M&A)	20.0	2.2	3.0
Research and development	45.0	12.8	14.0
Total	205.0	62.7	64.0

Investments and Cash Flow: Progress by Business Segment

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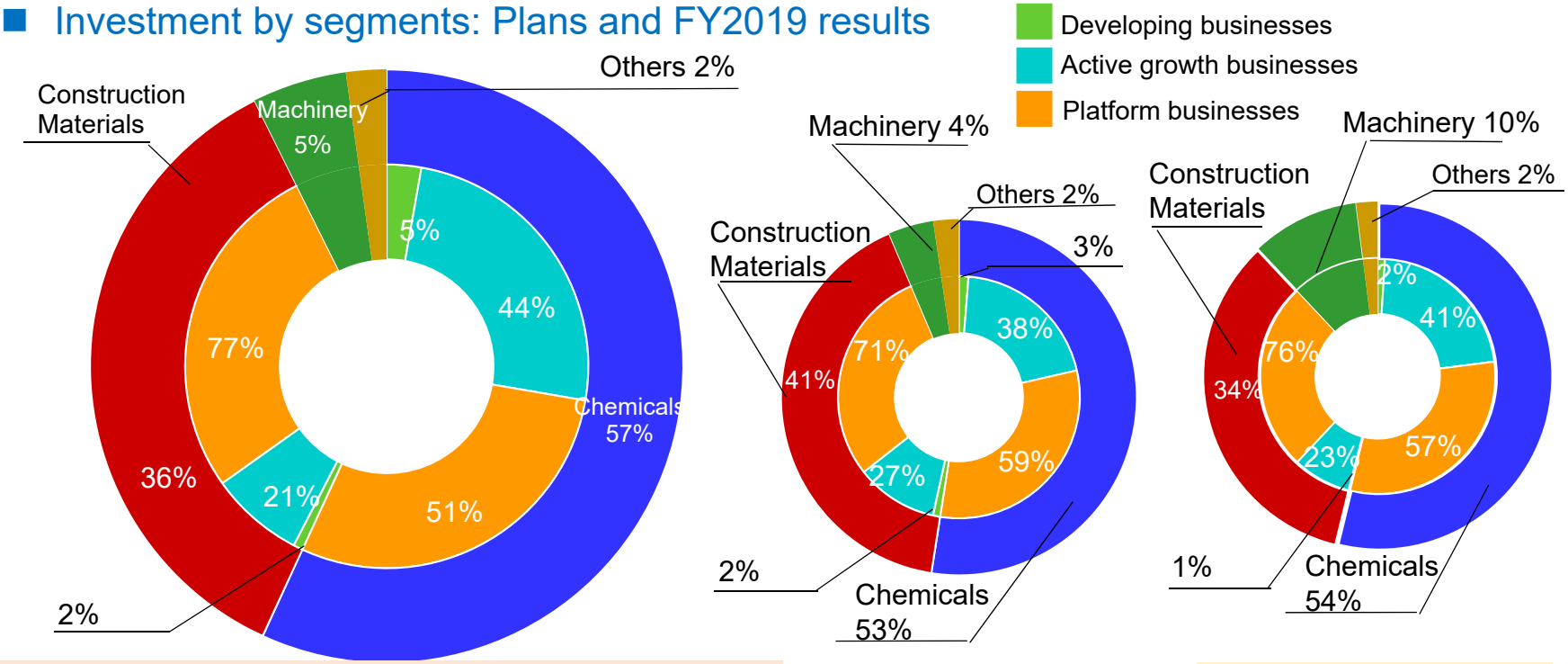
Investment by segments: Plans and FY2019 results



Breakdown of total investments of ¥160.0 billion over three years

Breakdown of FY2019 investments of ¥49.8 billion

Breakdown of FY2020 investments of ¥50.0 billion

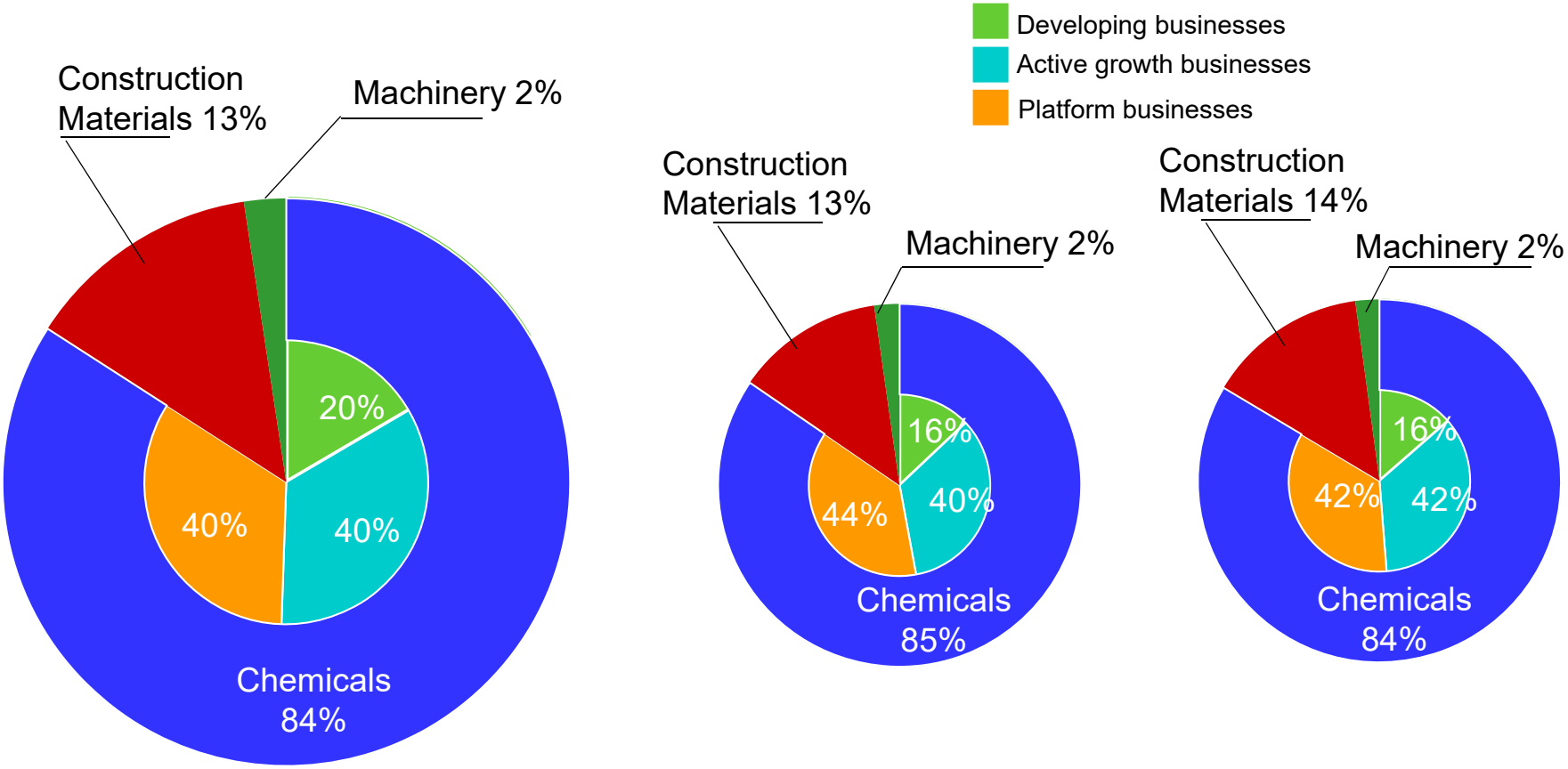
Cash flow: Plan (over three years) and FY2019 results

(Billion yen)

	3-Year Total (Medium-Term Management Plan)	FY2019 Results	FY2020 Projection
Operating cash flow	200.0	68.4	54.0
Investment cash flow	(160.0)	(40.6)	(50.0)
Free cash flow	40.0	27.8	4.0

R&D Costs: Progress

- Allocate R&D resources focusing on the target business domains and active growth businesses



Breakdown of total R&D costs of ¥45.0 billion over three years

Breakdown of FY2019 R&D costs of ¥12.8 billion

Breakdown of FY2020 R&D costs of ¥14.0 billion

Research and Development

- Advance developing and new businesses in four business domains, leveraging strategic technologies with competitive advantages

Environment and Energy	**Carbon-reducing businesses** (CO_2 sequestration in minerals, CO_2 co-electrolysis methanation) **Inorganic specialty materials** (Strontium carbonate)	**Waste plastics recycling** (material recycling, chemical recycling) **Thermal management components and materials** (High-performance insulation materials, heat-dissipating composite materials)
Mobility	**Developing businesses** **New battery materials (lithium titanium oxide (LTO))** **CMC for next-generation jet engines (Tyranno fiber)**	**Automotive weight-reducing materials and components** (Composite materials)
Construction and Infrastructure	**Next-generation maintenance and improvement systems** (Urethane concrete spalling prevention solution, high-performance polymer cement mortar (PCM), automated construction, environmentally-friendly water-based coating materials)	
Healthcare	**Healthcare-related substance production system** (Cell culturing system, substance production system)	

Segment Report: Business Plan and Progress in the First Year of the Medium-Term Management Plan

Chemicals Company: Overall Strategy

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Medium-Term Management Plan target

Foster stability and further develop businesses by contributing to a low-carbon society while continuing to create value for customers

Changes in business environment that had major impact on Chemicals Company

- Decline in Chinese economy due to U.S.-China trade conflict
  → Decrease in demand for various materials
- Decrease in demand for automobiles
- Sharp decline in demand due to COVID-19 pandemic

Revised Medium-Term Management Plan due to changing business conditions

→No changes to overall business plan for Chemicals Company under medium-term management plan, but accelerate implementation

- Accelerate the shift to specialty chemicals
- Secure stable revenues from the basic chemicals business, and enhance growth potential by expanding the specialty business
- Increase the business presence in the Americas in addition to Asia and Europe to further expand the presence in the global market
- Further develop and increase sales of environmentally-friendly products and technologies, and create new businesses that contribute to a low-carbon society

Chemicals Company: Nylon Strategy

- Optimize the global polymerizing capacity
- Shift to specialty chemicals by expanding the composite business
- Address environmental issues surrounding plastics

Immediate Business Conditions

- Shrinking market for injection applications and intensified competition due to decline in automotive sales
- Injection applications: Firm demand for food-wrapping films but decline in prices in accordance with caprolactam market conditions

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
- Expand composite production facilities outside of Japan and shift to high added-value products and technologies
- Promote marketing innovation based on market trends, such as material/chemical recycling, bio raw materials, weight reduction, thickness reduction

PCTNA acquired in North America

FY2019 Results

- Expansion of composite facilities: Acquisition of Premium Composite Technology North America Inc. (PCTNA) in North America

FY2020 Strategies

- Strengthen global sales activities and enhance the business platform by cost reduction in order to achieve a V-shaped rebound and growth after economic recovery
- Utilize Osaka Research & Development Center to enhance composite development capabilities

Chemicals Company: Caprolactam and Ammonium Sulfate Strategy

- Secure stable operations and achieve cost reductions to increase overall competitiveness of ammonia chain
- Improve revenues by increasing production and sales of large-grain ammonium sulfate

Immediate Business Conditions

- Decline in demand due to U.S.-China trade conflict and impact of COVID-19, and decline in caprolactam market conditions in Asia in tandem with crude oil
- Demand for ammonium sulfate stable overall. Limited impact on sales to customers outside of Japan due to lockdowns that were a concern

Strategies of Current Medium-Term Management Plan

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

FY2019 Results

- Caprolactam: Spreads shrank significantly due to decline in demand, while realizing expected benefits from shifting to a stable phenol-based manufacturing method for cyclohexane
- Ammonium sulfate: Finally realized stable manufacturing of large-grain ammonium sulfate

FY2020 Strategies

- Secure sales volumes and implement cost reductions
- Strengthen coordination between sales and development at three global production bases (Japan, Thailand, and Spain), to further increase production and sales of large-grain ammonium sulfate

Chemicals Company: Fine and Industrial Chemicals Strategy

- Expand business by developing C1 chemical chain business in North America
- Strengthen business platform for ammonia chain

Immediate Business Conditions

- High-purity dimethyl carbonate (DMC): Steady growth for lithium-ion battery (LIB) applications in electric vehicles (xEVs)
- 1,6-hexanediol: Excess supply in global market due to aggressive moves by overseas competitors (significant decline in market conditions)
- Adjust prices of ammonia products to reflect increased logistics costs

Strategies of Current Medium-Term Management Plan

- Establish manufacturing facilities for C1 chemicals chain (DMC and PCD) in North America
- Establish a business model that generates income gain from investment in C1 technology licensees of dimethyl oxalate (DMO) and monoethylene glycol (MEG)
- Ensure industry-leader position for ammonia-related products (liquid ammonia, nitric acid, etc.) in Japan

FY2019 Results

- Conducted feasibility studies regarding selected sites for C1 chemical manufacturing facilities in North America
- Nippon Ekitan Corporation decided to build a new liquefied carbonic acid plant within the grounds of Ube-Fujimagari Factory, and the company will begin supplying raw material carbon dioxide in 2021
- Captured demand from competitors' withdrawal from nitric acid business, and increased production capacity for high-purity nitric acid

FY2020 Strategies

- Establish manufacturing facilities for C1 chemicals chain in North America
- Streamline business through absorption-type merger of Ube Ammonia Industry, Ltd. (from second half of FY2020)

Chemicals Company: High-Performance Coating Strategy

■ Promote marketing innovation aimed at strengthening the capability to propose solutions in the global market

PCD application examples

Immediate Business Conditions

Market for water-based and solventless polyurethane coatings currently expanding centering on Chinese market

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 further 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 shift manufacturing to first PCD production line in Thailand

FY2019 Results

- PCD: Started building second PCD production line in Thailand, and successfully expanded the market as planned
- PUD: Steady growth in demand, but development of new customers in Asia has been slower than initially planned

FY2020 Strategies

- PCD: Achieve vertical start-up of second PCD production line in Thailand, and accelerate efforts to increase sales in global market including in newly-entered North American market
- PUD: Establish a lineup of environmentally-friendly new products and strengthen sales activities prioritizing the Chinese, South Korean, and Taiwanese markets in order to capture new projects. Also begin evaluating the expansion of manufacturing facilities as demand grows

Chemicals Company: Synthetic Rubber Strategy

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- Strengthen the immediate business platform: Leverage the UBEPOL brand and three global bases of production to capture No. 1 position in Asian market

Immediate business conditions

Sharp decline in demand and stagnant market conditions due to COVID-19

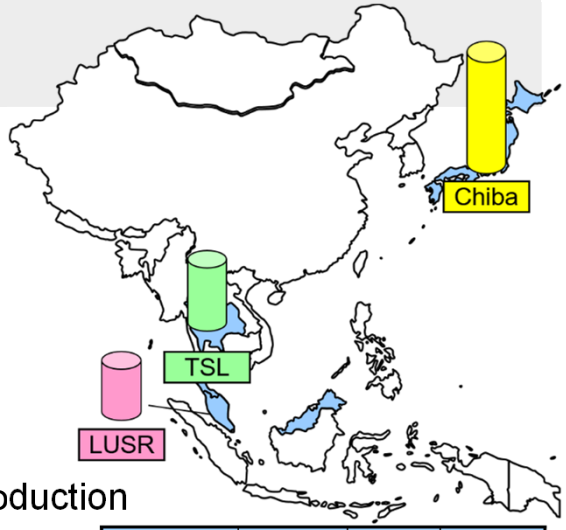
Strategies of Current Medium-Term Management Plan

Shift to specialty products for butadiene rubber (BR) business

- Develop new grades: Conduct joint development with strategic customers (major tire manufacturers), expand the lineup of vinyl cis rubber (VCR) products, develop BR with better wear resistance, develop BR with better processability
- Develop new catalyst BR: Create next-generation BR

Strengthen platform in order to fulfill supply responsibilities

- Increase sales of added-value products: Steady inquiries for VCR
- Enhance cooperation between three global bases of production
- LUSR (Malaysia): Increase production and shift to VCR to meet customer requirements



Plant	Location	Start up	CAP (MT/Y)
Chiba	Japan	1971	126,000
TSL	Thailand	1997	72,000
LUSR	Malaysia	2015	50,000
Grand Total Cap of UBE group			248,000

FY2019 Results

- Conducted global marketing capitalizing on three global bases of production
- Could not take maximum advantage of capacity, due to production issues

FY2020 Strategies

- Achieve operational safety and stability, strengthen cost competitiveness

Chemicals Company: Polyimide Strategy

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- Steadily increase revenues as an active growth business and further accelerate the growth strategy

Immediate Business Conditions

- Market for varnishes for flexible OLED gaining significant momentum in China since the second half of FY2019
- Strong demand for chip-on-film (COF) for 4K and 8K displays
- Growth in markets for flexible printed circuit (FPC) substrates for smartphones and vehicles

Strategies of Current Medium-Term Management Plan

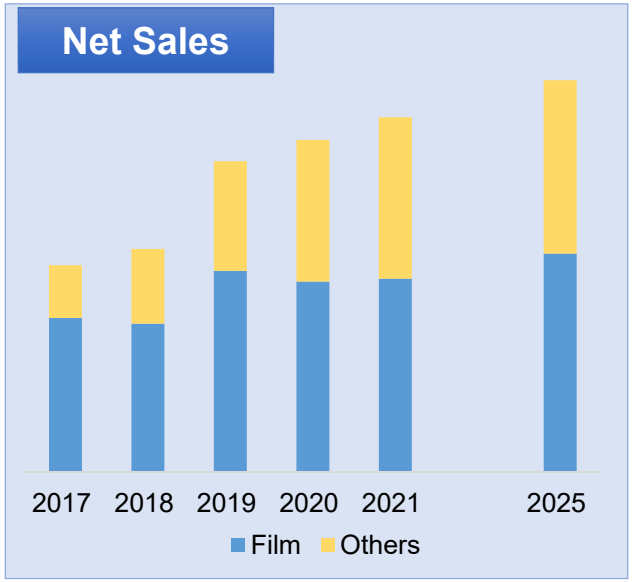
- Develop varnishes into a core product in addition to films
- Increase sales for displays, solar cells, and composite release liners, in addition to the market for electronic circuit substrates
- Enhance production capacity and implement cost reductions: Increase production through debottlenecking of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

FY2019 Results

- Sales increased beyond projections in varnishes and chip-on-film (COF) and flexible printed circuit (FPC) films
- Increased production capacity according to plan

FY2020 Strategies

- Additionally focus on increasing sales for applications other than for electronic circuit boards (such as varnishes, biphenyl tetracarboxylic dianhydride (BPDA) insulation coating applications, and powders for semiconductor devices)



Polyimide varnish

Chemicals Company: 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

- Slowdown of explosion-proofing market for resource industry due to slowing economy and decline in crude oil prices
- Growth in environmental/energy market
  (Biogas application: Growth in methane concentration applications in North America and Europe)
  (Bioalcohol application in North America: Upgrade and increase capacity of facilities)

Strategies of Current Medium-Term Management Plan

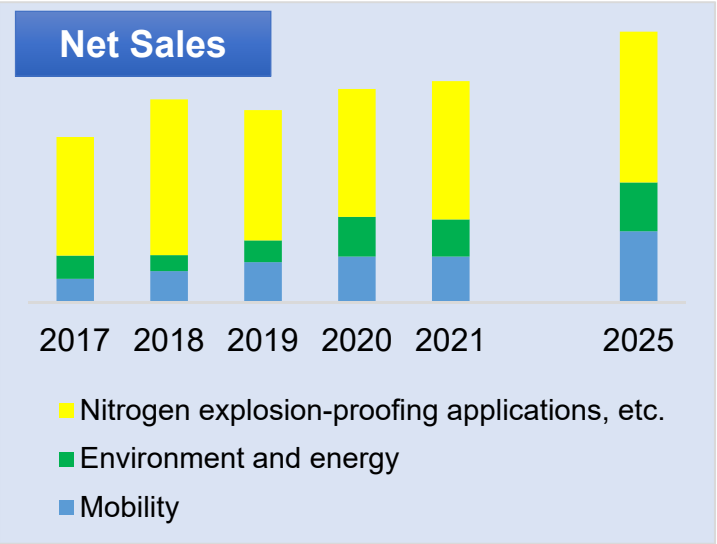
- Nitrogen: Increase competitiveness by strengthening sales offices
- Mobility: Increase adoption for aircraft and railway
- Environment & Energy: Increase sales in biogas and bioalcohol markets

FY2019 Results

- Expand sales in mobility field and biogas market

FY2020 Strategies

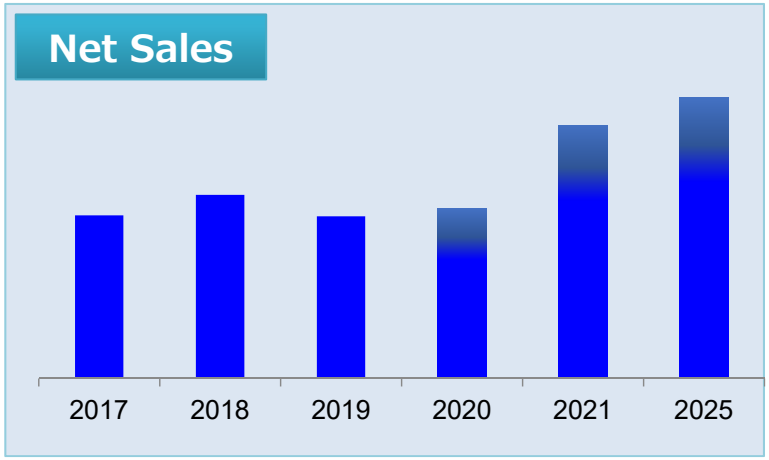
- Achieve targets by increasing sales for other applications to compensate for expected slowdown in explosion-proofing applications for resource industry



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

Chemicals Company: Separator Strategy

- Increase efficiencies through integrated management by Ube Maxell Co., Ltd. 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

- Sharp decline in automotive demand due to COVID-19, U.S.-China trade conflict, and decline of Chinese economy
- 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

FY2019 Results

- Not able to increase sales of both coated and non-coated separators due to deteriorating market conditions
- On track toward starting operation of new facilities in FY2020, and made progress with unified management of separator business

FY2020 Strategies

- Strengthen relationships with performance-oriented customers
- Further strengthen sales and development activities in order to securely capture demand when economy rebounds

Chemicals Company: Tyranno Fiber and LTO Strategy

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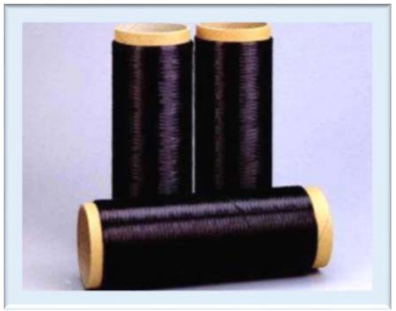
■ Tyranno fiber: Develop fibers for ceramic matrix composites (CMC) used in civil aircraft engine components and materials, and develop mass production technologies for them

Immediate Business Conditions

- Aerospace industry projected to yield stable growth of approx. 5% annually over long term. However, earnings of airline companies and aerospace companies are declining due to COVID-19, leading to concerns that development schedules and commercialization will be postponed in the short term.

Strategies of Current Medium-Term Management Plan

- Stabilize quality for grades used in high-pressure applications, and reevaluate the process control to reduce costs
- Further develop high-quality grades



Tyranno fiber

■ Lithium titanium oxide (LTO): Commercialize anode materials and LTO that realize high input/output, excellent safety, and long life LIB

Immediate Business Conditions

- R&D stage aimed at widespread adoption for non-general use applications, such as future solid-state batteries

Strategies of Current Medium-Term Management Plan

- Strengthen cooperation with customers and contribute to battery performance improvements
- Establish a technology platform for widespread adoption as an anode material for solid-state batteries

LTO

Chemicals Company: Pharmaceutical Strategy

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

Immediate Business Conditions

- Global pharmaceuticals market continues to grow at an annual rate of around 5%
- 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

FY2019 Results

- Licensed potential candidate compound for treatment of non-alcoholic steatohepatitis (NASH) to a major drug company in Europe
- Started building fifth pharmaceutical plant for high-potency APIs

Four proprietary drugs

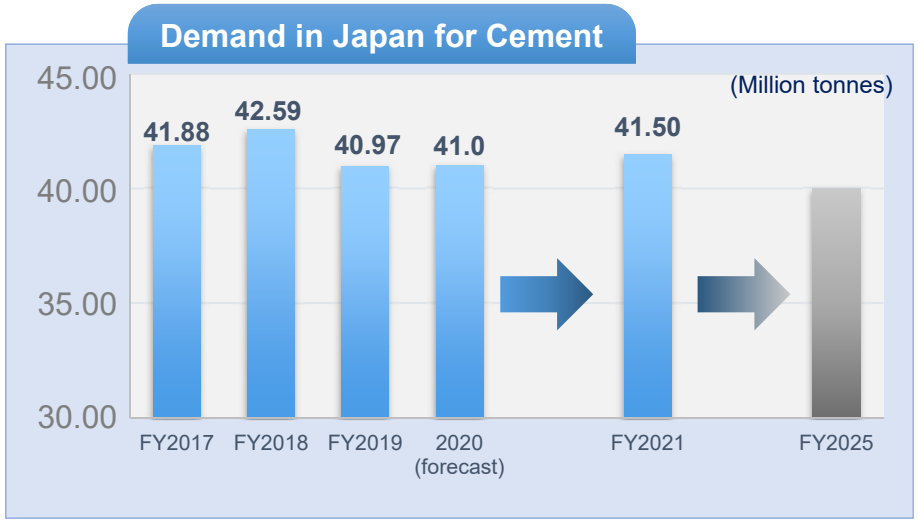
FY2020 Strategies

- Establish order of priority for projects in drug discovery pipeline and advancing projects to rapidly reach next stage
- Stably supply intermediates for Avigan® Tablet
- Strengthen marketing for contract manufacturing of high-potency APIs

Construction Materials Company: Cement and Ready-Mix Concrete Strategy

■ Overall strategy: Continue to supply products that offer value for social infrastructure

Cement and ready-mixed concrete



Immediate Business Conditions

- Cement demand in Japan: 41 million tonnes (lowest since 1990)
- After initial decline, coal prices have since stabilized at under $70

Strategies of Current Medium-Term Management Plan

- Cement and ready-mixed concrete:
  Continue adjusting prices
  Implement energy conservation measures, reduce costs
  → Deploy high-efficiency facilities, increase waste use as alternative fuel
- Recycling: Create new recycling businesses, increase sales of environmental materials

FY2019 Results

- Savings from lower coal prices diminished by lower cement demand in Japan
- Started operation of exhaust heat recovery power plant at Isa Cement Factory according to schedule

FY2020 Strategies

- Continue adjusting prices, including to compensate for cost increases from SOx regulation of marine fuel oil
- Further improve framework for stable operations and shipment, implement energy-saving measures and cost savings, and install high-efficiency coolers at Kanda Cement Factory

Construction Materials Company: Magnesia/Calcia and Energy Business Strategy

Magnesia/Calcia and Energy Businesses

Immediate Business Conditions

- Magnesia and calcia: Crude steel production volumes in 2019 fell below 100 million tonnes for the first time in 10 years
- Energy: Increased interest in biomass energy, driven by global environmental issues

Strategies of Current Medium-Term Management Plan

- Magnesia and calcia: Realize stable operations and shift to high added-value products
  →Second phrase of the Ube Factory renovation
- Fine materials: Increase production capacity for MOS-HIGE (outside of Japan)
  →Shift to full production at fourth production line in Thailand
- Biomass: Increase biomass fuel use at independent power produce (IPP) facilities, study manufacturing of torrefied pellets outside of Japan

FY2019 Results

- Magnesia and calcia: Sales volumes decreased due to decline in market conditions (maintained prices)
- Fine materials: Postponed operation of fourth MOS-HIGE production line in Thailand due to slow vehicle sales
- Biomass: Started operation of torrefied pellet demonstration facilities according to plan

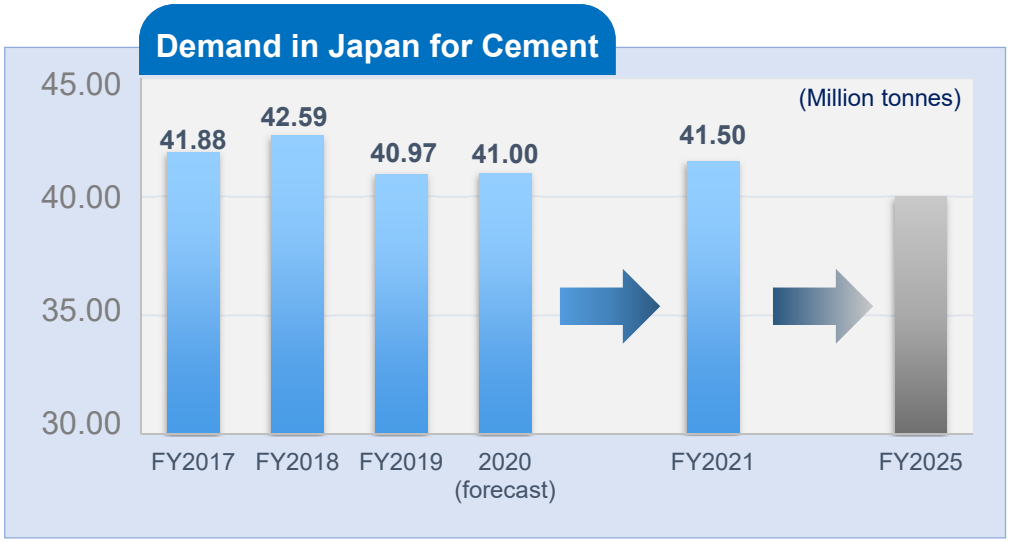
Torrefied pellets

FY2020 Strategies

- Magnesia and calcia: Secure volumes and implement strategies to increase sales for non-steel applications
- Fine materials: Capture new business by strengthening MOS-HIGE sales and development, reduce costs, and expand applications
- Biomass: Stabilize production of torrefied pellets and increase usage of biomass fuel at IPP facility

Construction Materials: Business Integration with Mitsubishi Materials Corporation, Ltd.

- Purpose:
  Realize further growth for construction materials business, and maintain and enhance its competitiveness
  → Direct cash flows generated from the cement business in Japan toward concentrated investment in businesses that are anticipated to generate growth in international markets. Through these efforts, UBE and Mitsubishi Materials will endeavor to realize sustainable growth as corporations that are contributing to the development of social infrastructure and advancement of a recycling-oriented society
- Schedule of Integration: April 2022 (may be subject to change)
- Scope of Integration: Cement and ready-mixed concrete businesses, limestone resources businesses, energy and environmental-related businesses, construction material businesses, and other related businesses
- Type of Integration: UBE and Mitsubishi Materials to establish a new equally-owned joint venture to assume the businesses as an equity method affiliate



Cement demand in Japan to decrease over medium and long term

↓

Strengthen business foundation through integration including manufacturing integration

↓

Foster growth areas and achieve sustainable growth

Machinery Company:
Metal & Plastics Processing Machinery Strategy

UBE

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

Metal & Plastics Processing Machinery

New factory in Nagoya

Immediate Business Conditions

- Further slowdown of automotive market that has been **heavily impacted by COVID-19** in addition to U.S.-China trade conflict
- The shift to next-generation vehicles is accelerating, which means **the needs for vehicle weight reduction and EVs** will keep growing

Strategies of Current Medium-Term Management Plan

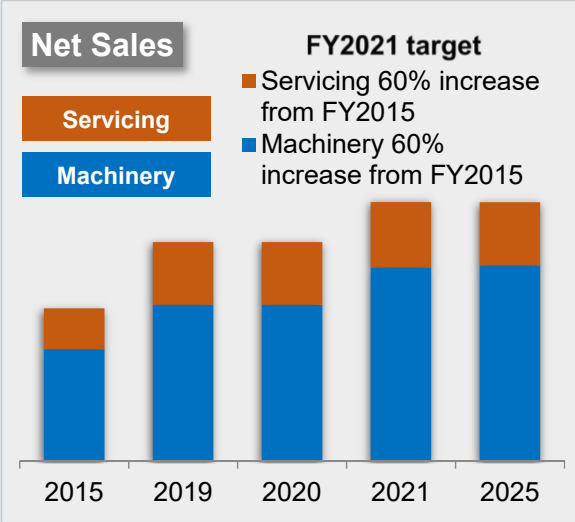
- Die casting machines and extrusion presses: Increase profits by **developing products** that meet needs for vehicle weight reduction and EVs and **developing markets**
- Injection molding machines: Secure stable revenues by **unified global management** of sales, engineering, manufacturing, and servicing, and **increased 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

FY2019 Results

- **Integrated injection molding machine business, and finished construction of a new factory in Nagoya, Aichi Pref. in March 2020**
- **Currently developing machinery and processes for automotive weight reduction needs**
- **Future challenges: Develop the Chinese and southeast Asia markets and adjust prices to reflect rising costs such as material costs**

FY2020 Strategies

- **Improve productivity and achieve cost reductions for future recovery in capital investment**



Machinery Company: Industrial Machine and Steel Product Strategy

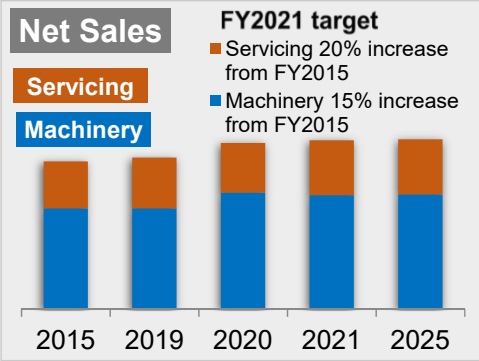
Industrial Machinery

Immediate Business Conditions

- Although **no significant growth is projected** either in or outside of Japan for **existing infrastructure-related markets** (such as for electricity, cement, and steel products), the shift to a low-carbon society will increase **global demand for environmentally friendly equipment**

Strategies of Current Medium-Term Management Plan

- Focus on **processes and cost management for current IPP (electricity)** projects to secure profits
- Create new revenue sources by developing machinery that is **environmentally friendly and contributes to resource recycling, and through business alliances**
- Machinery servicing: Increase revenues by strengthening the servicing capabilities outside of Japan and servicing of **machinery from other companies**



FY2019 Results

- **Manufacturing progress with current IPP (electricity) projects**
- **Resolved to assume chemical equipment business of Hitachi Plant Mechanics Co., Ltd. (July 2020)**
- **Due to COVID-19, benefits from alliance in servicing business outside of Japan (Thailand) will be realized in the future**

FY2020 Strategies

- **Contribute to revenues through smooth start up of chemical equipment business**
- **Generate results in post-IPP businesses (develop machinery for markets seeking environmentally-friendly and resource recycling features)**

Chemical equipment (reactor vessels, etc.)

Steel Products

Immediate Business Conditions

- **Competition is intensifying** in the electric furnace sector due to industry restructuring in Japan and increased electric steel production in China

Strategies of Current Medium-Term Management Plan

- Build an optimized production framework **not targeting volumes**, and improve revenues by pursuing the best product mix

FY2020 Strategies

- **Build a framework that can generate stable revenues from three businesses (steel billets, casting, environmental recycling)**

III

UBE Group's Initiatives for Global Environmental Issues

UBE Group Environmental Vision 2050

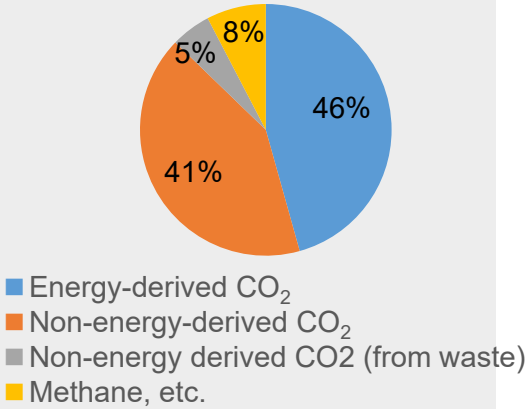
UBE Group Environmental Vision 2050

- The UBE Group engages in corporate activities that are in harmony with nature in order to maintain an abundant global environment
- The UBE Group aims to achieve an 80% reduction in greenhouse gas (GHG) emissions by 2050 and use UBE products and technologies to reduce GHG emissions throughout its supply chains, in order to contribute toward a carbon-free society

New UBE Group targets

- **17% reduction in GHG emissions from FY2013 levels by FY2030**
  →Implement the following initiatives to realize further reductions
  1. Continue to improve and enhance energy intensity through further energy conservation
  2. Increase generation of energy through waste processing and use more renewable energy
  3. **Study measures that include rebuilding the business structure that is currently dependent on fossil resources**
  4. Develop CO_2 recovery and utilization technologies and focus on creating businesses
- **Aim for environmentally-friendly products and technologies to account for 50% or more of net sales by FY2030**

UBE Group GHG emissions
FY2018: 12 million t-CO_2e



Estimated reduction in GHG emissions from UBE Group's environmentally-friendly products and technologies in FY2018: **Approx. 6 million t-CO_2e annually**

UBE announced in April 2020 its support for the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD)

UBE Group Environmental & Safety Principles and Initiatives to Address Global Environmental Issues

■ UBE Group Environmental and Safety Guidelines

We will make it our shared value to prioritize safety in everything we do, realizing safety and security in the workplace and local communities, and conserving the global environment.

1. We will secure healthy, safe and comfortable working conditions, aiming to eliminate occupational accidents.
2. We will ensure the safety and security of facilities and operations, aiming to eliminate facilities accidents.
3. **We will reduce our emissions of waste and chemical substances, and contribute to establishing a recycling-based society by recycling and effectively using resources.**
4. **We will voluntarily and continuously work to address global environmental issues in order to contribute to a sustainable society.**
5. We will strive to maintain and improve the health of working persons, who give vitality to society and corporations.

■ Initiatives to address global environmental issues

The UBE Group's basic approaches to global warming, biodiversity, conservation of water resources, and ocean waste plastics are based on the UBE Group Environmental and Safety Guidelines and published on its corporate website.

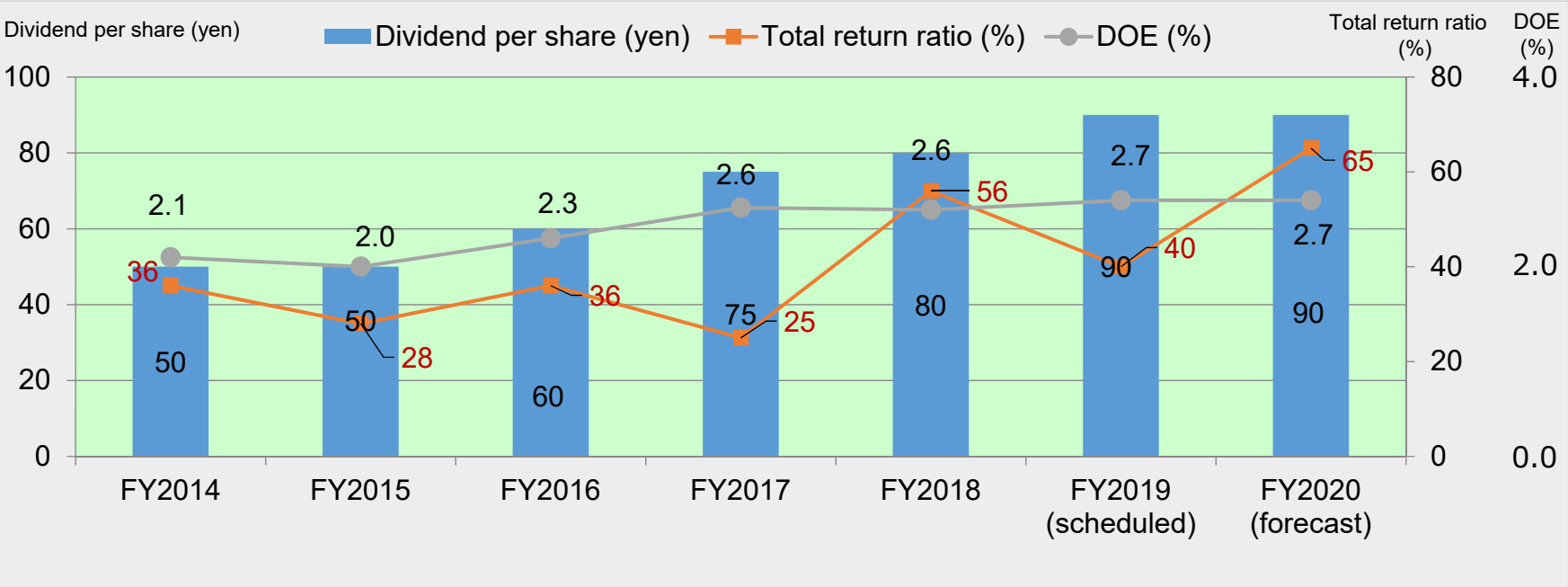
Note: These pages are only available in Japanese as of June 2020.

IV Shareholder Returns

Shareholder Returns

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

- Projected dividend of ¥90 per share in FY2020 based on UBE's policy on shareholder returns (DOE of 2.5% or above)
- 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.

The forecasts contained in this presentation are based on certain assumptions judged to be reasonable by the Company when preparing this report. Actual results can vary significantly from forecasts, due to changes in a wide range of conditions. These conditions can include the economic status of major markets, demand and supply of products, prices for raw materials and fuel, interest and foreign exchange rates, and other prevailing conditions that can impact the business results of the Company.

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