UBE

Change & Challenge 2018

Management Overview Briefing

May 18, 2017

Ube Industries, Ltd.

President and CEO Yuzuru Yamamoto

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I FY2016 Business Results and FY2017 Forecast

Financial Summary: FY2016

Year-on-Year

- Revenues down overall due to strong yen and lower prices for materials
- Operating income down centering on the Cement and Construction Materials segment, which was impacted by lower cement demand in Japan and worsening conditions for exports, and in the Chemicals segment, where raw material prices rose sharply for certain products and costs increased due to regular maintenance.
- Extraordinary loss improved significantly, so that profit attributable to owners of parent increased.

Versus Forecast

- The Cement and Construction Materials and Machinery segments performed below expectations, due to increasingly challenging conditions centering on export conditions. However, the Chemicals and Pharmaceuticals segments compensated through increased sales and improved spreads.
- Net income attributable to owners of parent was higher than forecasted, due to extraordinary profits from negative goodwill, etc.

Main Strategies Implemented in FY2016

- Expand production capacities for active growth businesses: Nylon production in Spain, separator production at Sakai Factory
- Alliances, mergers, and acquisitions to strengthen businesses: Electrolyte business in China, ABS business, injection molding machine business
- Structural changes to speed up segment-oriented management: Integrated the resource business, opened the Osaka Research & Development Center, and reorganized Chemicals Company and Corporate Research & Development.
- Enhance the cost-competitiveness of platform businesses: Introduced new production method for cyclohexanone using phenol, shifted to large-grain ammonium sulphate (Ube), and installed exhaust heat recovery system (Isa).

		FY2015	FY2016	YOY
Key Figures	Operating income	¥41.4 billion	¥34.9 billion	-¥6.4 billion
	Ordinary income	¥39.6 billion	¥33.3 billion	-¥6.2 billion
Key Indicators	Return on sales (ROS)	6.5%	5.7%	-0.8%
	Return on equity (ROE)	7.2%	8.7%	1.5%

FY2017 Earnings Forecast (Key Figures)

Raw material and fuel prices are projected to rise, but revenues and profits are projected to be higher due to increased sales and improved spreads.

(Billion yen)

	FY2016 (Results)	FY2017 (Forecast)	YOY
Net sales	616.5	700.0	83.5
Operating income	34.9	40.0	5.1
Ordinary income	33.3	38.0	4.7
Profit attributable to owners of parent	24.1	24.5	0.4
Return on sales (ROS)	5.7%	5.7%	0%
Return on equity (ROE)	8.7%	8.3%	-0.4%
Dividend per share (yen)	6	6*	

*¥60 per share after consolidation of shares

FY2017 Earnings Forecast by Segment

Profits in the Chemicals segment are forecasted to rise due to increased sales and pricing corrections, also factoring there will be no regular maintenance of the ammonia factory in Japan. Lower profits are projected for the Cement and Construction Materials segment due to higher energy costs (including coal prices) and worsening conditions for exports.

(Billion yen)

Segment	Net sales			Operating income		
	FY2016	FY2017	YOY	FY2016	FY2017	YOY
Chemicals	258.3	310.0	51.7	9.6	18.0	8.4
Pharmaceuticals	10.9	10.0	-0.9	2.4	2.0	-0.4
Cement and Construction Materials	227.2	230.0	2.8	16.2	13.0	-3.2
Machinery	71.6	90.0	18.4	3.6	5.0	1.4
Energy & Environment	59.7	70.0	10.3	2.8	2.5	-0.3
Others	-11.4	-10.0	1.4	0.0	-0.5	-0.5
Total	616.5	700.0	83.5	34.9	40.0	5.1

Assumptions for FY2016 results and FY2017 forecast
Exchange rate: ¥108.4/USD (FY2016) and ¥110/USD (FY2017)
Naphtha (CIF): US$430/tonne (FY2016) and US$520/tonne (FY2017)
Australian coal (CIF): US$80.7/tonne (FY2016) and US$99.4/tonne (FY2017)

II

Progress of the Change & Challenge 2018 Medium-Term Management Plan

Medium- and Long-Term Management Strategy

Business Principles

"Coexistence and mutual prosperity" and "from finite mining to infinite industry"

What we want to become in 10 years

"An enterprise that continues to create value for customers"

The UBE Group will have a positive social impact as a corporate entity having a presence in expanding business domains by developing products and services that anticipate market needs

Toward Sustainable Growth (Environmental and Social Initiatives, Governance)

Environmental:	Address global environmental issues while raising corporate value by reducing greenhouse gas emissions and expanding environmental businesses.
Social:	Increase confidence from all stakeholders through a comprehensive commitment to environmental safety, health management, and compliance under the business principles of coexistence and mutual prosperity.
Governance:	Further enhance the transparency of management, and reduce management risks.

Medium-Term Management Plan: Management Strategies

Strengthen the business foundation to enable sustainable growth

- Strong focus on profitability. Comprehensive cost reductions. Increase revenues from existing products.
- Continue emphasizing cash flow and implement investments to achieve growth. Make certain to generate results from investments.
- Expand the network of international business locations and foster greater coordination between Group companies in and outside of Japan. Rapidly respond to shifting business conditions globally.
- Restore results from the Chemicals segment and secure further growth. Restore operating income to the ¥20 billion level, as a launch pad for the next stage of growth.

Address and be part of the solution for resource, energy, and global environmental issues

- Reduce greenhouse gas emissions throughout supply chains by reducing energy consumption and increasing recycling.

  ➔ FY2021 target:
  Reduce greenhouse gas emissions by 15% compared with FY2005 levels
- Develop and extend technologies and products that help reduce environmental impact.

Medium-Term Management Plan: Progress of Numerical Targets

FY2016: Proceeding overall according to plan.

FY2017: Further improve the revenue strength of businesses, implement streamlining and cost reductions, and firmly execute strategies that were started up until FY2016.

Key Figures

	Unit	FY2016 (Results)	FY2017 (Forecast)	FY2018 (Original plan)
Net sales	Billion yen	616.5	700.0	750.0
Operating income	**Billion yen**	**34.9**	**40.0**	**50.0**
Ordinary income	**Billion yen**	**33.3**	**38.0**	**49.0**
Profit attributable to owners of parent	Billion yen	24.1	24.5	29.0

Key Indicators

Return on sales (ROS)	%	**5.7**	**5.7**	**6.5 or above**
Return on equity (ROE)	%	**8.7**	**8.3**	**9.0 or above**

Net Sales and Operating Income: Progress by Segment

FY2016: Operating income from non-chemicals segments was lower than projected but was nearly offset by operating income from the Chemicals and Pharmaceuticals segments.

FY2017: Strengthen measures in the Cement and Construction Materials segment, which is facing increasingly challenging business conditions, and enhance revenues from other segments including the Chemicals segment.

(Billion yen)

Segment	Net sales			Operating income		
	FY2016 (Results)	FY2017 (Forecast)	FY2018 (Original plan)	FY2016 (Results)	FY2017 (Forecast)	FY2018 (Original plan)
Chemicals	258.3	310.0	345.0	9.6	18.0	20.0
Pharmaceuticals	10.9	10.0	9.0	2.4	2.0	0.5
Cement and Construction Materials	227.2	230.0	250.0	16.2	13.0	20.0
Machinery	71.6	90.0	83.0	3.6	5.0	6.5
Energy & Environment	59.7	70.0	73.0	2.8	2.5	3.5
Others	-11.4	-10.0	-10.0	0.0	-0.5	-0.5
Total	616.5	700.0	750.0	34.9	40.0	50.0

Business Portfolio Segmentation

- No change in the positioning of businesses in the portfolio.
  Target business domains: Environment and energy, mobility, construction and infrastructure, healthcare

	Chemicals and Pharmaceuticals	Cement and Construction Materials	Machinery	Energy and Environment
Developing Fields	New battery materials, specialty inorganic materials (phosphor, optical materials, etc.), biomass fuel, aeronautical fields (Tyranno fiber), environmental materials (neutral solidification material, heavy metal immobilizer, etc.), biomaterials			
Active Growth Businesses	Nylon, synthetic rubber, separators, high-performance coatings, Pharmaceuticals	Fine materials (MOS-HIGE, etc.)	Machinery servicing	
Platform Businesses	Caprolactam and industrial chemicals, fine chemicals, separation membranes, ceramics	Cement and ready-mixed concrete, calcia and magnesia, recycling	Molding machinery, industrial machinery, steel products	Coal, power
Restructuring Businesses	Polyimide, electrolytes			

Developing Fields: UBE will promote growth in these fields to turn them into future sources of income.
Active Growth Businesses: Market expansion is expected and UBE will pursue further growth in its fields of strength.
Platform Businesses: UBE will aim to maintain and expand stable income.
Restructuring Businesses: UBE will revamp the business models and undertake business restructuring.

Target Business Domains

- **Expand existing and peripheral businesses and foster new businesses in the four target business domains**

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

- Battery materials
- Coal
- Power
- Recycling
- New battery materials
- Biomass fuel
- Phosphors
- Optical materials

Mobility
(automotive, rail, aeronautical fields)

- Nylon
- High-performance coatings
- Battery materials
- Synthetic rubber
- Separation membranes
- Molding machinery
- Fine materials
- Tyranno fiber
- New battery materials

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

- Ceramics
- High-performance coatings
- Separation membranes
- Cement and ready-mixed concrete
- Calcia and magnesia
- Industrial machinery Steel products
- Neutral solidification material
- Heavy metal immobilizer

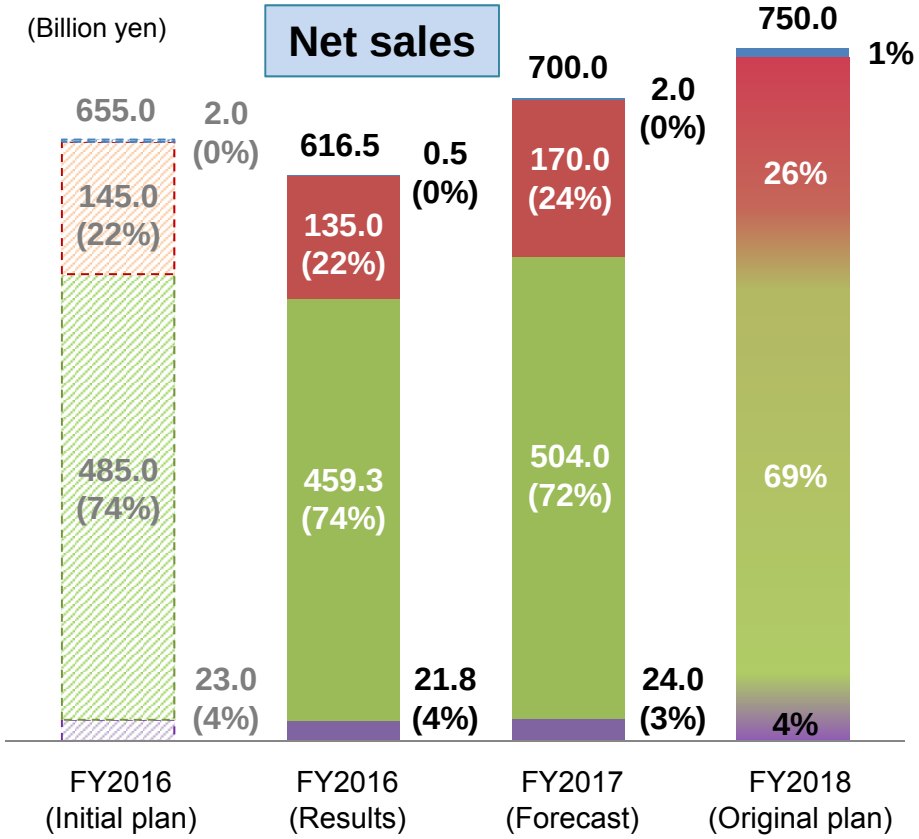
Healthcare
(foods, pharmaceuticals, lifestyle enhancement)

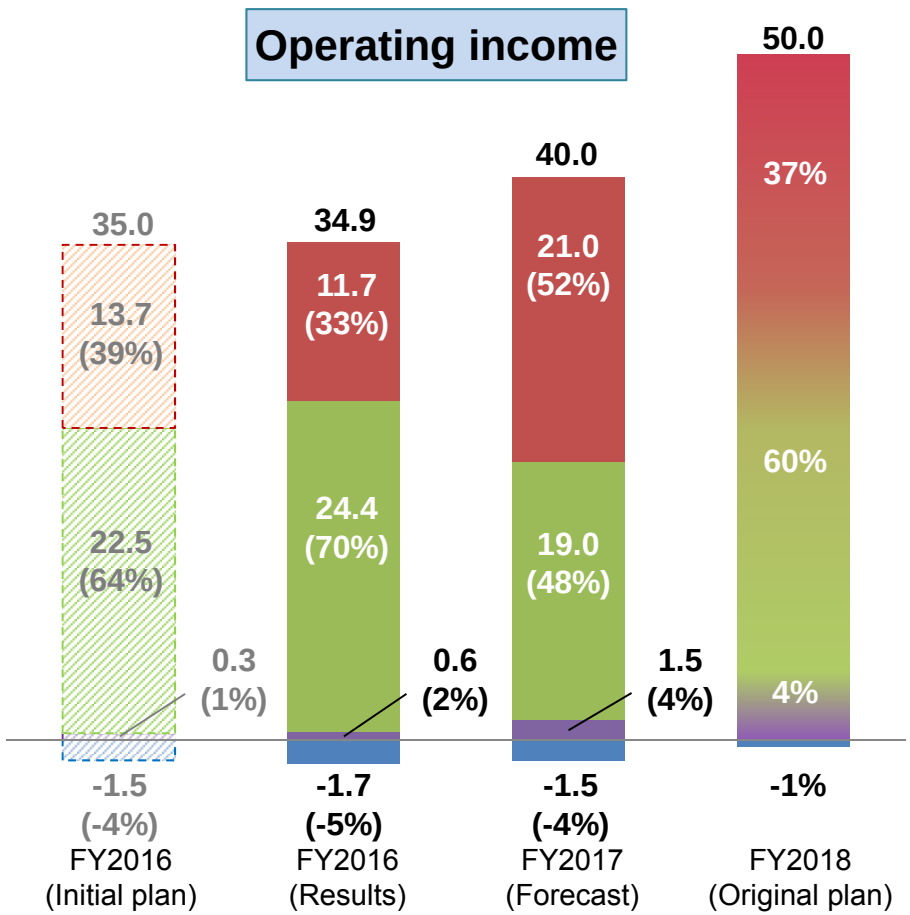
- Pharma-ceuticals
- Industrial chemicals
- Fine chemicals
- Nylon
- Biomaterials

Net Sales and Operating Income: Progress by Business Portfolio Categorization

Net sales: Lower than projected in FY2016, but forecasted to rise in FY2017 due to increased sales from active growth businesses.

Operating income: Nearly in line with projections in FY2016 and forecasted to rise in FY2017. In FY2018, UBE will restructure platform businesses and further improve revenues and profits from active growth businesses.



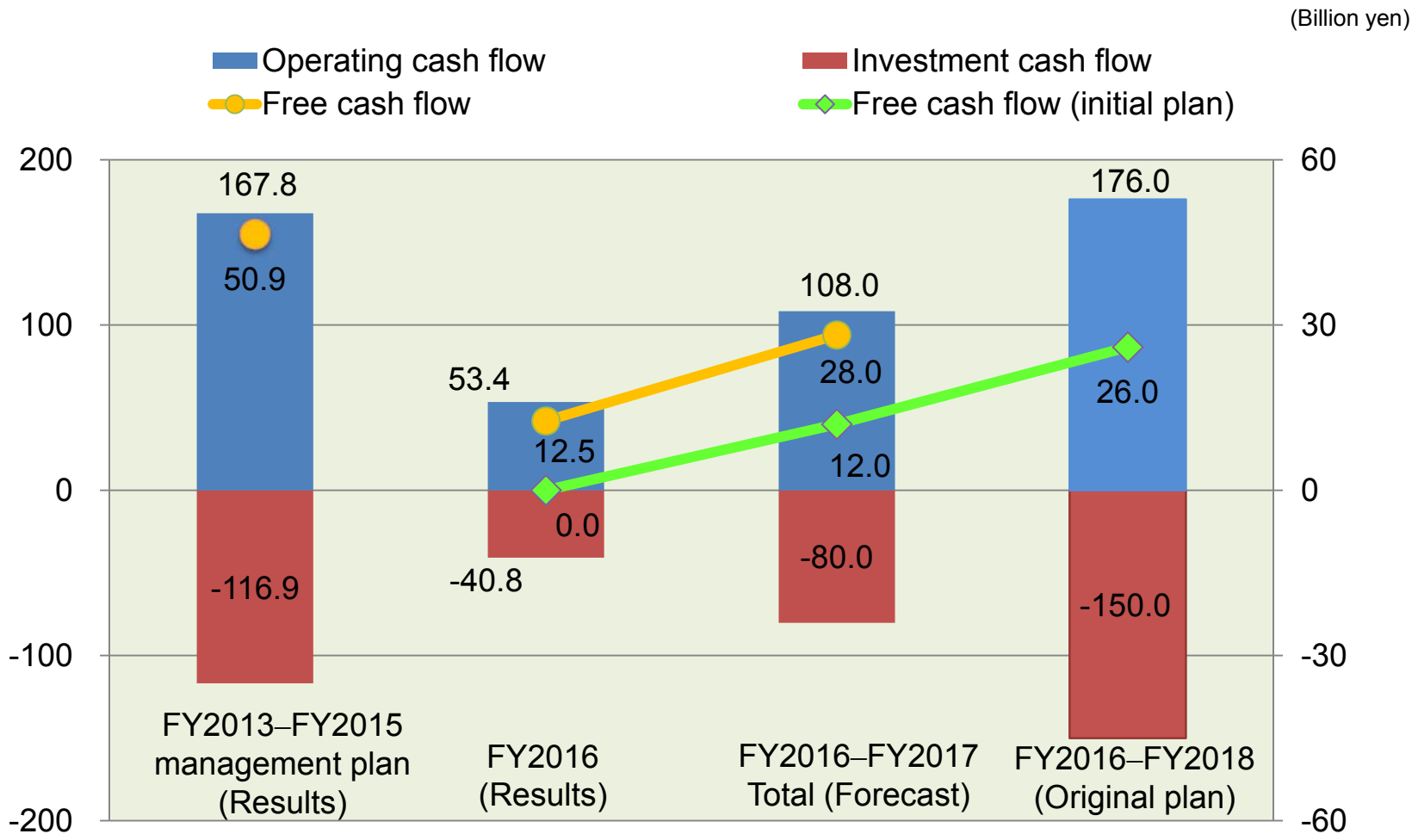


Developing Fields | Active Growth Businesses | Platform Businesses | Restructuring Businesses

Progress of Investment Plan and Cash Flow Plan

- **Develop and implement investment plans for each business, targeting net equity surpluses in each segment for three years.**

  ➔Free cash flows exceeding ¥26 billion yen in three years



Business Strategies

Achieve a full recovery for the Chemicals segment and realize growth-driving products

- **Active growth businesses (nylon, synthetic rubber, separators, and high-performance coatings**

  ➔Drive higher profits through prioritized allocation of business resources.

- **Platform businesses (caprolactam and industrial chemicals, fine chemicals, separation membranes, and ceramics)**

  ➔ Support profits through comprehensive cost reductions and by developing new features tailored to customer needs.

- **Restructuring businesses (polyimide and electrolytes)**

  ➔ Both businesses were made profitable in FY2016. UBE will solidify the profit structure by increasing sales in new application areas and achieving technology differentiation, to move them on from being restructuring businesses.

Chemicals Company: Business Strategies

Issues

- Firmly raise the level of the business to achieve the operating income target of ¥20 billion for the last fiscal year of the medium-term management plan.

  ➔ Aim for operating income of ¥18 billion in FY2017

Measures

- Firmly realize profits from major capital investment projects
- Ensure that product prices are adjusted to reflect rising costs for key raw materials
- Fully realize the advantages from there will be no regular maintenance by securing stable production
- Shift to an organization with integrated production, sales, and engineering, and accelerate the full recovery of the Chemicals Company

Synthetic Rubber Division

- Enhance collaboration with strategic customers: Increase added value through differentiation and specialization

Achieve differentiation and specialization

- Increase in existing grades: VCR, linear BR (for eco-tires), MBR (for resin modification), etc.
- Develop new grades: Promote joint development with strategic customers (major tire manufacturers)
- Develop new catalyst BR: Aim for dominant performance advantage

Chiba: 75%, TSL (Thailand): 60%, LUSR (Malaysia): 60%
➔ Differentiation from general-purpose products of competitors

Build trusted supply chains

- Use the advantages of operating four plants to strengthen multi-supply frameworks → Business continuity planning
- Already secured stable supplies of BD raw material for all plants

Increase production capacity to meet customer growth

- Expand production at the Malaysian plant (from 50 to 72 kilotonnes)
- Study fifth plant → Implement based on market conditions

Important performance required for tires

UBE proposes a customized "UBEPOL BR® " for customers seeking balance between performance and workability by making full use of the design development capabilities as a professional manufacturer of BR.

Engineering Plastics, Caprolactam and Industrial Chemicals Division

Nylon: Firmly execute the growth strategy

Rapidly achieve growth while maintaining spreads against pricing fluctuations for caprolactam raw material.

Extrusion applications (food grade film, etc.)	**Become No. 1 in the global market** **Product excellence and reliability are competitive strengths** Capacity increases: Vertical startup of additional 40 kilotonnes in Spain, and study additional 40 kilotonnes in Thailand. Develop new film materials (copolymers, etc.): Advance collaboration with molding machinery manufacturers
Injection molding applications (auto components, etc.)	**Expand compound business and build global supply organization** Secure new manufacturing plants in United States, Mexico, China, and Europe, and finish building a global supply chain network Have conducted preparations for submitting specifications; currently providing samples which customers are evaluating

Caprolactam and industrial chemicals: Position as raw material for nylon and implement cost reductions

Ensure that competitiveness is improved (proceeding according to plan)

Japan	Change the manufacturing process for cyclohexane	Start operating in November 2017
	Expand production of large-crystal ammonium sulfate	Start operating in April 2018
	Rapidly capitalize on investments and enhance initiatives to secure further cost reductions	
	Maximize benefits from increasing the maintenance interval through stable ammonia production	
Thailand	Improve cyclohexanone production process	Start operating in May 2017
Spain	Implement measures to reduce energy costs including the use of energy schemes	Complete during FY2017

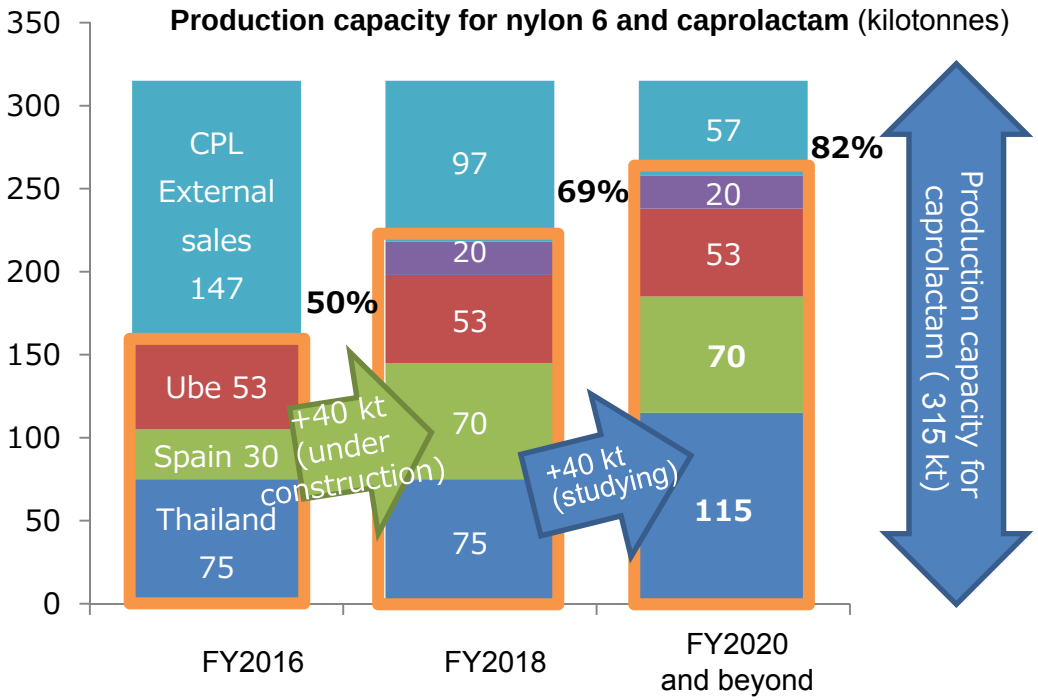
Engineering Plastics, Caprolactam and Industrial Chemicals Division

- Construction of new nylon 6 plant in Spain

  (40 kilotonnes per year, scheduled to go online in February 2018)

- Stable production of high-quality products using UBE's continuous polymerization technology

Supply to expanding global market, mainly driven by wrapping film applications



Black bold character: Ratio of caprolactam for internal use (%)

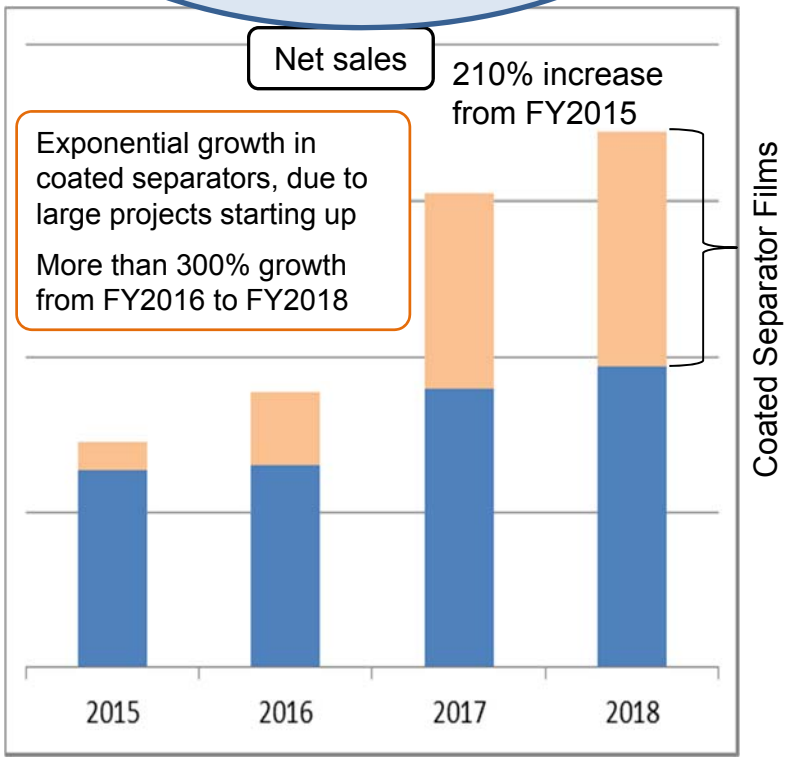
External sales of caprolactam ■ Contract manufacturing ■ Ube ■ Spain ■ Thailand

Battery Materials and Fine Chemicals Division: Separators

- Firmly meet demand for automotive applications and build a strong framework to survive against increased competition

Advantages for automotive applications

- Safety: Low shrinkage in transverse direction, low-temperature shutdown
- High-rate performance: Instantaneous power, rapid charge/discharge
- Stable performance for square and pouch batteries



Growth of dry and coated separators

Growth of automotive market (Startup of large projects using UBE's products)

Enhance revenue strength by deploying new processes and securing cost reductions

Further enhance competitiveness

- Raise productivity and increase production capacity by deploying new processes
- Optimally configure facilities throughout the separators business for both base films and coating films, to maximize revenues

Expand the product lineup (enhance development)

- High-strength, thin separators for high-capacity cells used for EVs
- Low-temperature shutdown separators for high-safety cells
- Development of organic coatings to enhance thermal resistance and adherence strength

Establish a framework that secures stable revenues as the top manufacturer of separators for automotive applications

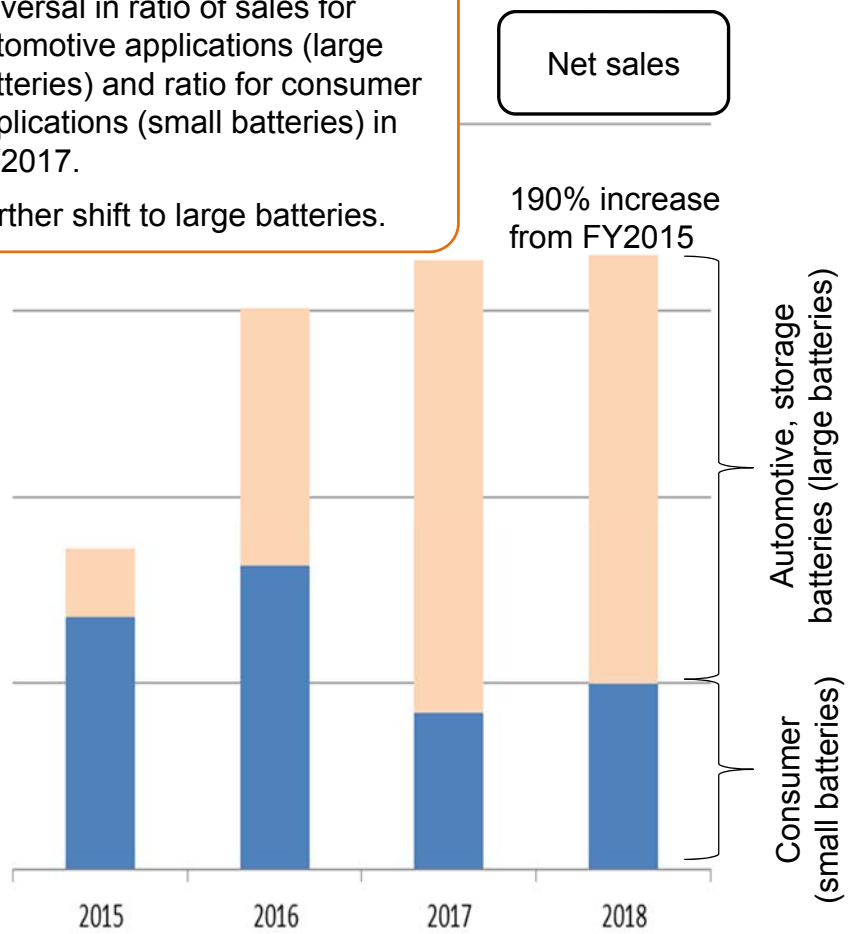
Battery Materials and Fine Chemicals Division: Electrolytes

■ Accelerate business development for automotive and storage battery applications

Firmly expand sales for large battery applications, which grew exponentially in FY2016.

Reversal in ratio of sales for automotive applications (large batteries) and ratio for consumer applications (small batteries) in FY2017.

Further shift to large batteries.



Increase sales, targeting large battery applications

- Develop proprietary additives for automotive and storage battery applications
  ➔ **Propose new feature**
- Maintain market share for high-end consumer applications
- Effectively leverage UBE's intellectual property
- Continue groundwork for tie-up with Mitsubishi Chemical Corporation for business in China

Pursue technology differentiation to establish UBE's presence in the automotive sector as a core manufacturer of electrolytes

Battery Materials and Fine Chemicals Division: High-Performance Coatings

■ Review the FY2018 targets based on the scheduled commercialization of development projects and strengthen the business model for proposal-based development working closely with customers to accelerate business development

- **Polycarbonate diol (PCD):** Raw material for high-grade polyurethane resin. Strengthen the global framework for supply and R&D
  ➔ Steadily developing new demand and expanding into new areas as the No. 1 manufacturer in the world

- **Polyurethane dispersion (PUD):** Strengthen proposal-based development by leveraging materials design and technology

  Changes in business environment
  Higher performance for general-purpose applications and sectors, and stronger chemicals regulations in various countries

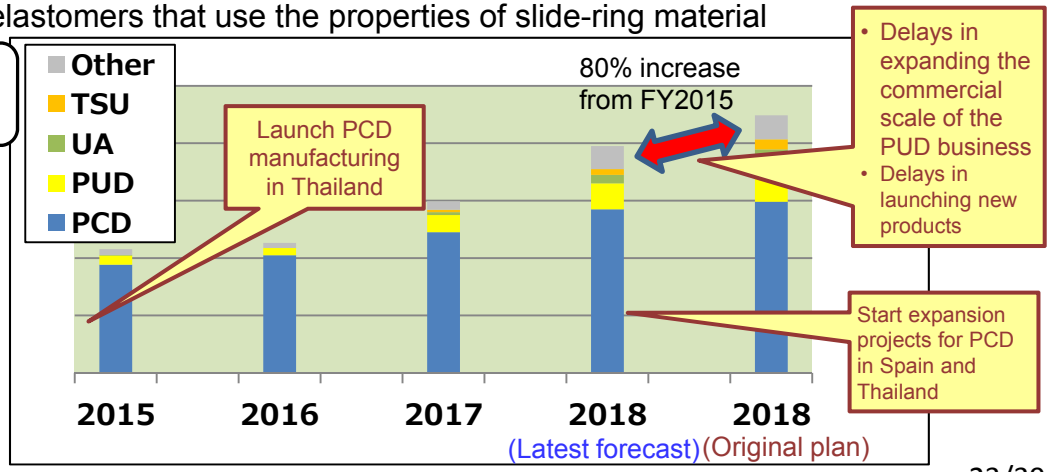
  Issues Accelerate market development (including mergers and acquisitions) for environmental, high-performance polyurethane made from PCD as a key material

  Measures Concentrate business resources on the automotive sector and develop products from high-end through to low-cost grades, while expanding mid-range products for general-purpose applications.

- **New products:** Launch new products such as **urethane acrylate (UA)** and **thermoplastic urethane (TSU)**

  Issues Slight delay in commercial startup

  Measures UA: Launch products in automotive and plastic coating sectors that leverage the strengths (wear and chemical resistance) of PCD-based products
  TSU: Accelerate the development of new elastomers that use the properties of slide-ring material



Polyimide and Specialty Products Division: Polyimides

■ Stabilize the revenue base and rapidly realize revenues from new applications

(1) Market

Varnishes: Develop markets for flexible displays and increase sales (expecting rapid market growth in China)

*Advantage is that UBE is global leading producer of raw material BPDA, track record of suppling super-heat-resistant varnishes to the market for many years including to JV with Samsung, and highly evaluated quality.

Films: Increase market share for FPCs and establish new applications

*Aim to increase market share by increasing sales of new VT films and launching new applications (direct plating and printing)

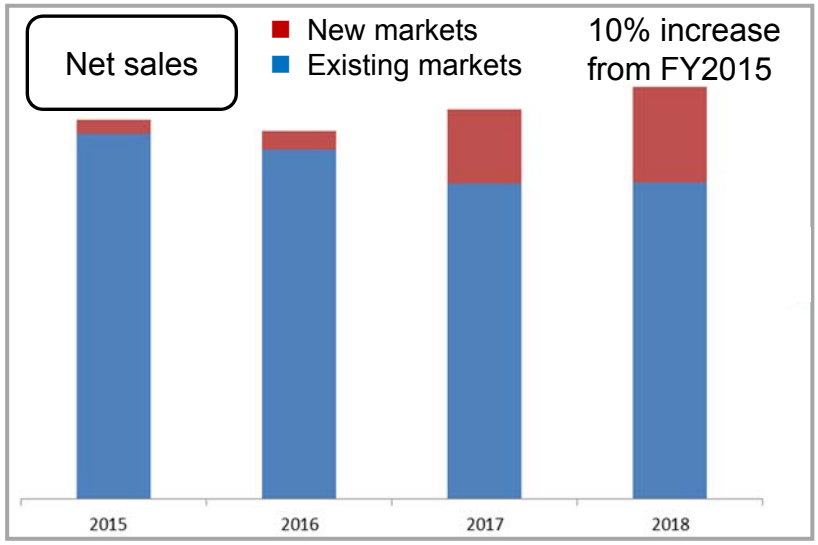
Films: Increase sales of films for double-sided COF for flexible displays

(2) Development

Priority allocation of business resources for market launch of varnishes for flexible displays, and establish a framework for rapid sales growth

(3) Production

- Improve stable production technologies as film sales increase
- Secure further cost reductions



Polyimide and Specialty Products Division: Ceramics and Separation Membranes

Ceramics

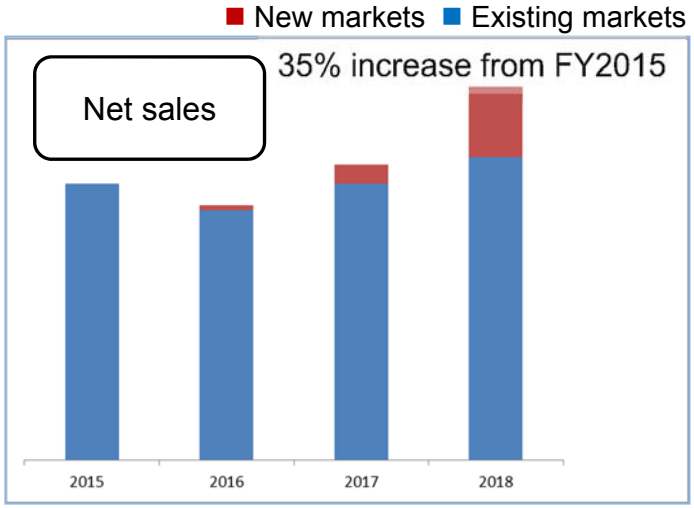
- Increase sales to new and downstream markets, leveraging new materials and new grades

(1) New grades

- Expand the product lineup through commercialization of new technologies

(2) New materials

- Determine the business viability for rapid commercialization of phosphors and new nano-fillers



Separation membranes

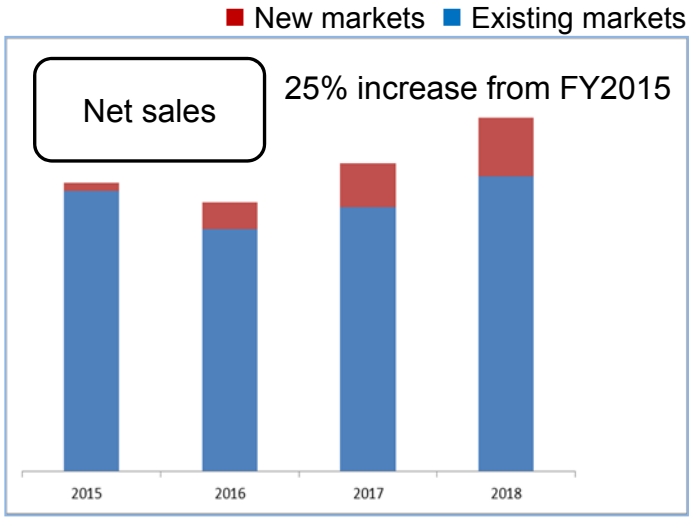
- Maintain strong revenues and increase sales by leveraging new applications and new grades

(1) New grades

- Increase sales in the biomethane market by leveraging new high-pressure, high-recovery membranes

(2) New applications

- Capitalize on the market for aircraft explosion-proof applications (50–100% annual sales growth) and acquire JIS Q 9100 certification



Chemicals R&D: Developing Businesses and New Businesses

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

Accelerate business development by enhancing advanced technologies and using open innovation

Business Domain	Developing Businesses	New Businesses
Mobility	**New battery materials (LTO)** Study mass production and identify commercialization opportunities **CMC for next-generation jet engines (Tyranno fiber)** Improve production technologies and achieve commercialization of specialty fibers	Power control-related materials (components and materials related to power devices) Heat management-related components and materials (new heat-resistant and heat-storing materials)
Environment and energy	**Phosphors for next-generation LEDs** Rapid commercialization, determine business viability **Strontium carbonate nanoparticles for optical films** Rapid commercialization, determine business viability	Automotive weight-reducing materials and components
Healthcare	**Development of new cell culturing technology using polyimide multiporous membranes**	
	Bioreactor components and materials (Rapid commercialization of bioreactor components and materials for manufacturing of biomedicines)	Components and materials for next-generation healthcare applications, leveraging the functionality of polyimide multiporous membranes

Pharmaceutical Division: Drug Discovery

■ Expand the pipeline for proprietary pharmaceuticals and implement life cycle management

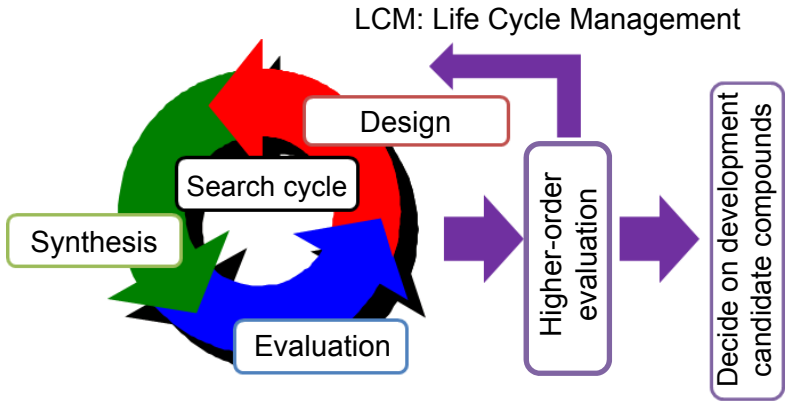
Aims of UBE's drug discovery research

Differentiation and value creation
High probability of success, high value

Qualitative improvements to search cycle
Core competence

Speed and efficiency
Research agility

▶ **Expand the pipeline for drug discovery**



Progress Status

▶ Updates on joint development of new products

- Glaucoma treatment drug DE-117 (Santen Pharmaceutical Co., Ltd.):
  Currently in late Phase II and III clinical trials in Japan, to apply for manufacturing approval in Q2/Q3 FY2017
  Start Phase III clinical trials in Asia
- Pruritis treatment drug SK-1405 (Sanwa Kagaku Kenkyusho Co., Ltd):
  Completed Phase I clinical trials, currently preparing for Phase II clinical trials

▶ Implement activities to elicit pre-clinical research projects (candidate compounds for development)

- Fibrosis treatment drug, diabetic nephropathy treatment drug, anti-cancer drug

▶ Actively pursue joint development with partner pharmaceutical manufacturers

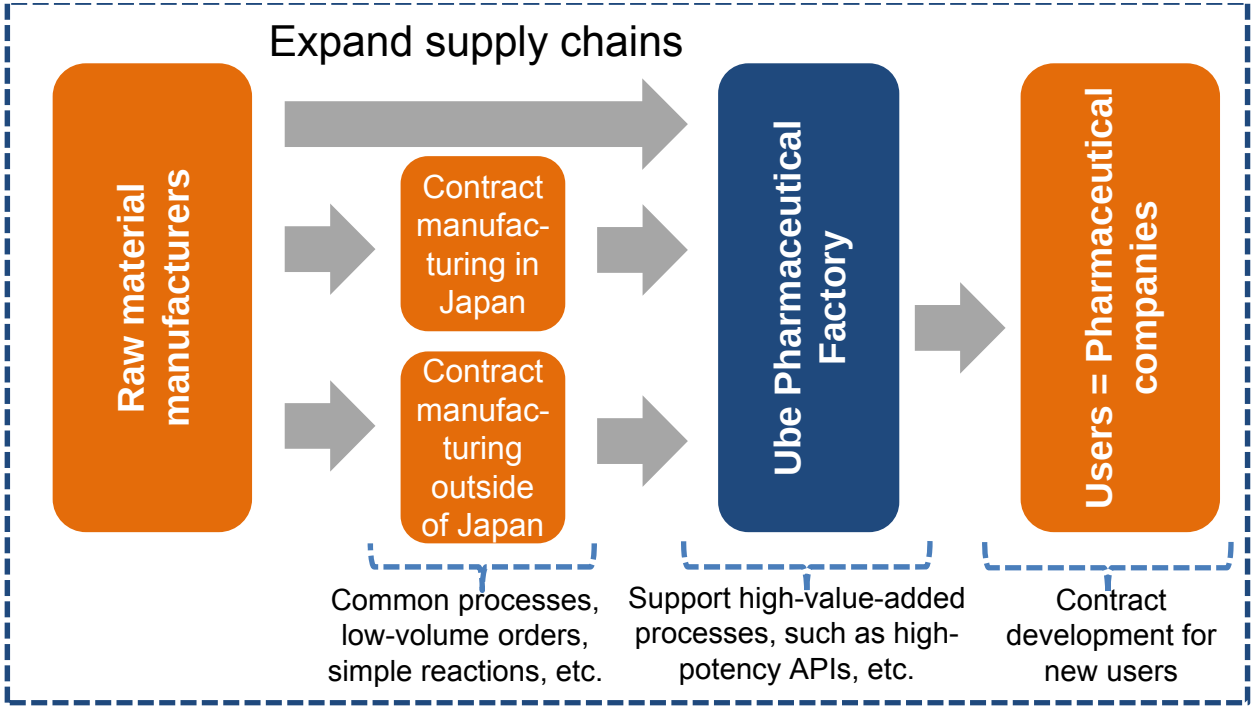
Pharmaceutical Division: Manufacturing and sales of APIs and Intermediates

Aim for business operations that meet changing business conditions and needs

Unmet needs, high-potency drugs, generic drugs: Establish a production framework for high-mix, low-volume manufacturing of APIs and intermediates to meet the diverse needs of pharmaceutical manufacturers (users)

- Expand supply chains to reduce total production costs
- Aim for compact and high-added-value pharmaceutical plants
- Add support for complex reaction processes, and strengthen the marketing

Flowchart for Division of Functions

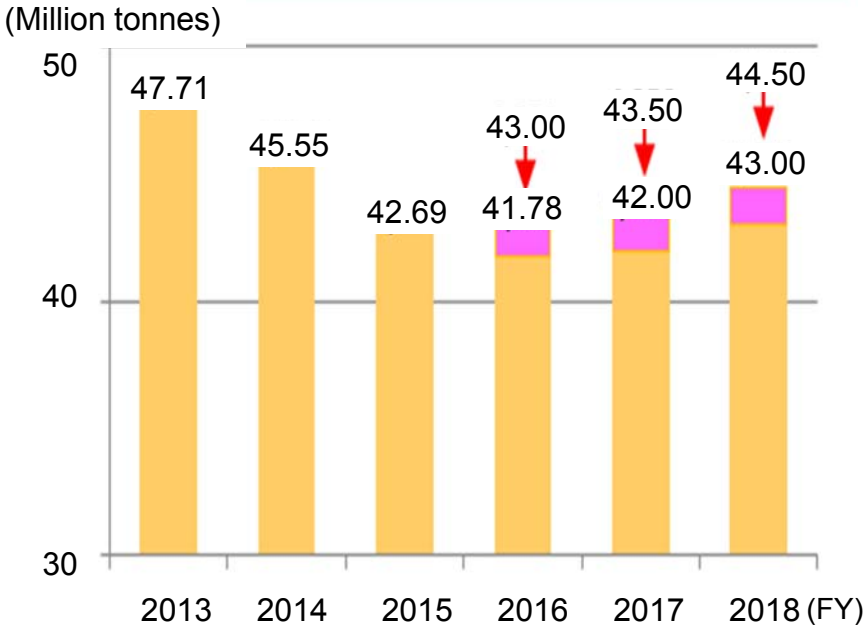


Progress Status

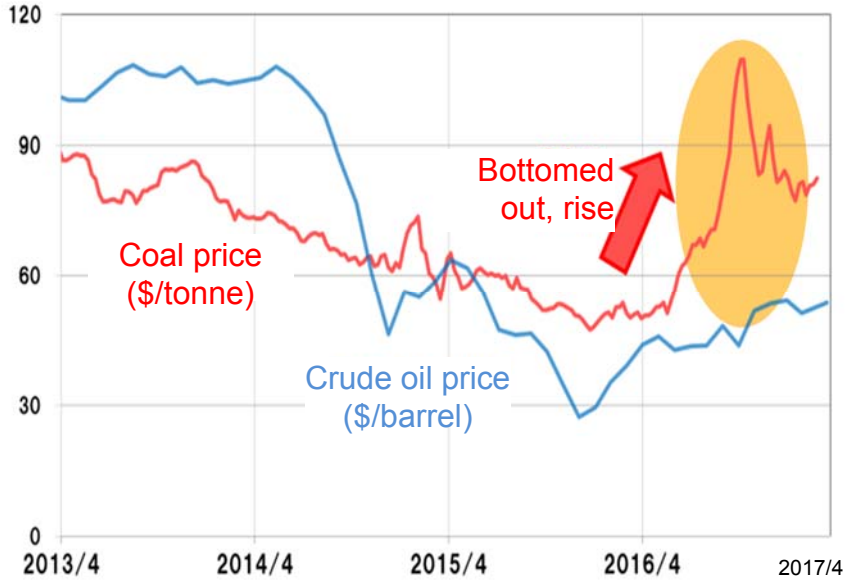
- Continuing search for raw material manufacturers with lower costs, higher quality, and more stable supply
- Secure contract manufacturers outside of Japan that are cost competitive
- On course with deploying facilities to support high-potency APIs
- Steady increase in contracts for commissioned development from new users (expected to lead to business for commercial products)

Cement and Construction Materials Company: Business Conditions

Projected Demand in Japan for Cement



Changes in Energy Costs (Coal, Oil)



Demand: Cement demand and market conditions (Japan, export markets) are worse than projected in medium-term management plan

Furthermore…

Costs: Coal prices rose sharply starting from 1st half of FY2016

Lower revenues and profits than original plan

Confirm the future targets and destinations, and rapidly adapt to changing business conditions

Cement and Construction Materials Company: Progress of Medium-Term Management Plan

Maintain and enhance revenues from platform businesses

- **Cement, ready-mixed concrete, and recycling**

  Cost reductions, production streamlining

  Isa: Begin constructing exhaust heat recovery system in FY2017

  Increased use of waste

  Isa: Begin constructing fourth fuel-based waste processing facilities in FY2017

Exhaust heat recovery system

- **Limestone, calcia, and magnesia**

  Secure limestone resources

  Full-scale development of Kanayamadai mining zone (start mining in FY2018)

  Production streamlining

  Conduct renovations for Ube Material Industries/Ube Factory (FY2016–2019)

Isa limestone mine

- **Enhance the level of collaboration with Group companies**

  ➔ **Maximize synergies within the Group**

  Business restructuring and integration

  - Resource business: Transferred sales and logistics operations for limestone-related products business to Ube Materials Industries (completed in FY2016)
  - Construction materials business: Studying reorganization of the business

Cement and Construction Materials Company: Progress of Medium-Term Management Plan

Expand and extend growth strategies

- **Expand the business areas**

International business: Business development in Southeast Asia and Oceania

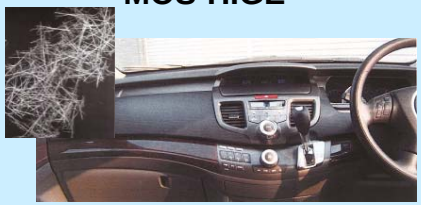
Securing steady cement export customers

Acquired Tokyo Cement Company (Sri Lanka) PLC (FY2016)

Growth of MOS-HIGE (filler for automotive applications)

Establishment of MOS-HIGE manufacturing company in Thailand (commenced in FY2016)

MOS-HIGE



Expand vessel technical consulting business and logistics/trading business

Established joint venture for coastal shipping business in Indonesia (FY2016)

Cement vessel

- **Expand the business scope**

Environmental materials: Develop environmental businesses for water, soil, and air quality

Increase sales of neutral solidification material and heavy metal immobilizer

Advancing through increased collaboration among Ube group (Ube Material Industries, Ube Construction Materials Sales, laboratories)

Strengthen the water purification business

Studying expansion into markets in Southeast Asia

Waste recycling and advanced waste use (waste gypsum board, etc.)

Waste gypsum board recycling business (launch in FY2017)

Water purification agent

Machinery Company: Molding Machinery, Industrial Machinery, and Steel Products Businesses

Enhance the competitiveness of products

Molding machinery

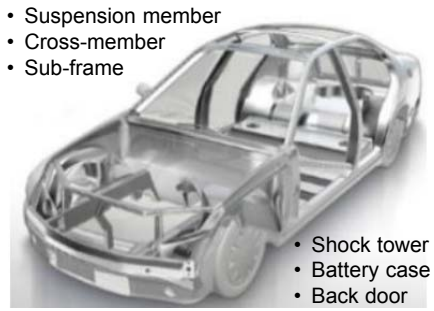
- Die casting machines:
  Secure cost reductions and develop and increase sales of models that meet demand for lighter body components
- Injection molding machines:
  Realize benefits from merger with Mitsubishi Heavy Industries Plastic Technology
  Introduce machinery under a unified brand, pursue global production and increase sales (Japan, North America, China)
  Increase local sales in North America (study production capacity expansion)

Industrial machinery

- Secure cost reductions for large coal conveyance machinery already ordered by power sector
- Expand the licensing business (vertical mills)

Steel products

- Meet the firm demand for billets
  Expand capacity to 360 kilotonnes per year (10% increase from FY2016)



Aluminized body components

Storage and conveyance machinery for coal-fired power plants
(air floating conveyors, unloaders, siloes)

Billets (square bars, flat bars, steel bars, and other materials)

Machinery Company:
Expand the Injection Molding Machine Business

- Merger with Mitsubishi Heavy Industries Plastic Technology

Acquire 10% share of global market for large machinery by expanding the product lineup

Use vendors in China

Wuxi
Ube
Nagoya
Hangzhou
Dongguan

- Increase market share for hydraulic machines
- Expand the servicing framework

Detroit

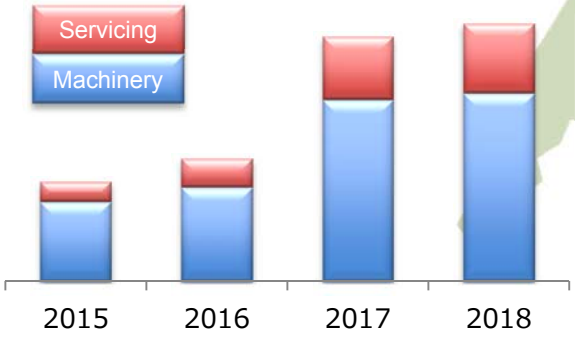
Global business development
- Hydraulic machine with small footprint
- High-performance electric machine

North America

Southeast Asia

Increase sales by expanding sales channels

Net Sales of Injection Molding Machines



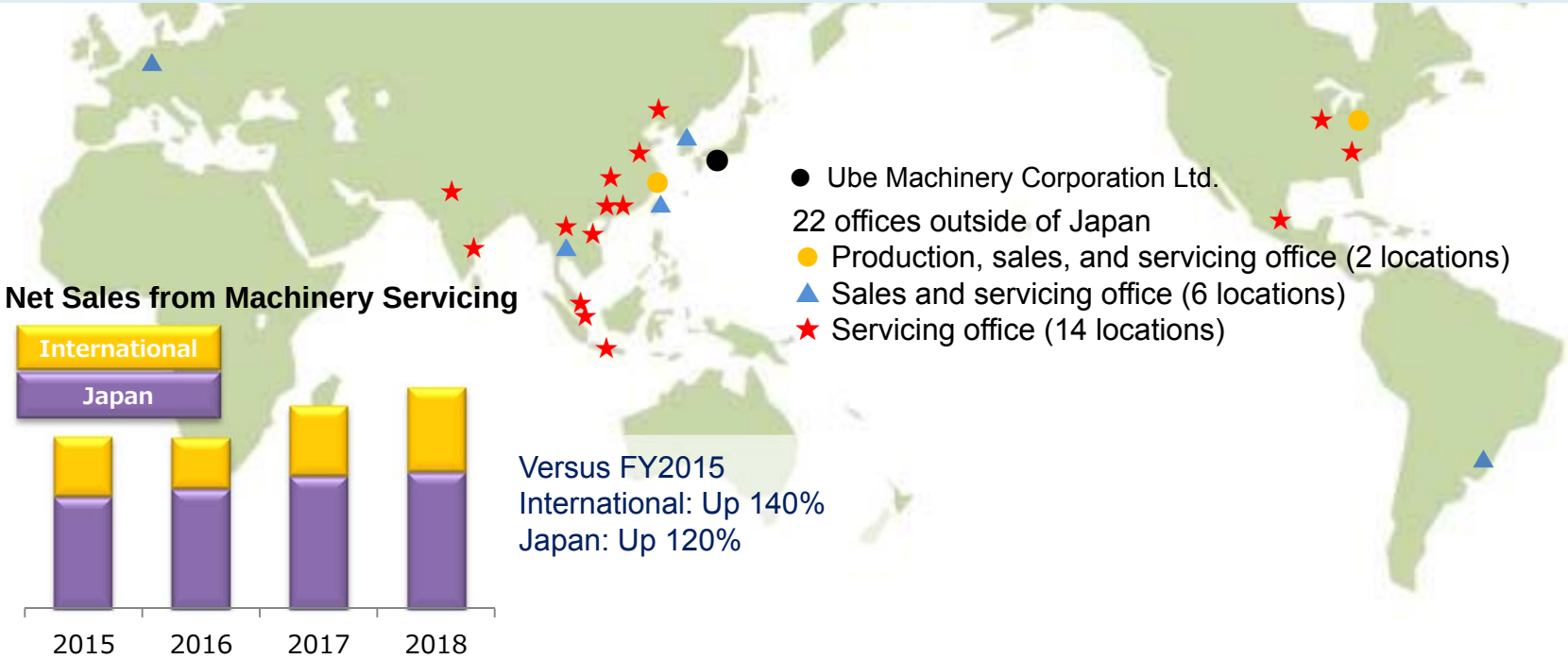
Versus FY2015
Machinery sales: Up 220%
Servicing: Up 300%

Machinery Company: Machinery Servicing Business

■ Expand the servicing business outside of Japan

Machinery servicing business

- Integrate and reorganize offices outside of Japan and enhance the efficiency of servicing activities by merger with Mitsubishi Heavy Industries Plastic Technology.
  Mexico, India, United States, Southeast Asia, China
- Enhance the support for machinery by offering productivity and functional enhancement services and increasing the inventories of spare parts



Energy & Environment Division

- Contribute to the UBE Group through the stable supply of competitive energy (coal, electricity), and by continuing to generate stable revenues

Business conditions

- Increase in fuel costs
- Increasing competition for coal sales and contract coal storage
- Rising demand for biomass fuels due to feed-in tariff scheme

Coal business: Leverage the advantages of Japan's largest thermal coal center

- Secure differentiation by supplying added value (measures for heat generation, mixed coal, impurity removal, combustion technical services, etc.)
- Secure cost reductions (through efficient operation of coal center, maintenance of port facilities)
- Implement plans for Yamaguchi-Ube Power Generation Co., Ltd.

Power business: Secure stable operation

- Implement measures for facility aging and secure cost reductions (efficient upgrades and use of low-cost coal)

Biomass fuel business: Decide on business strategy

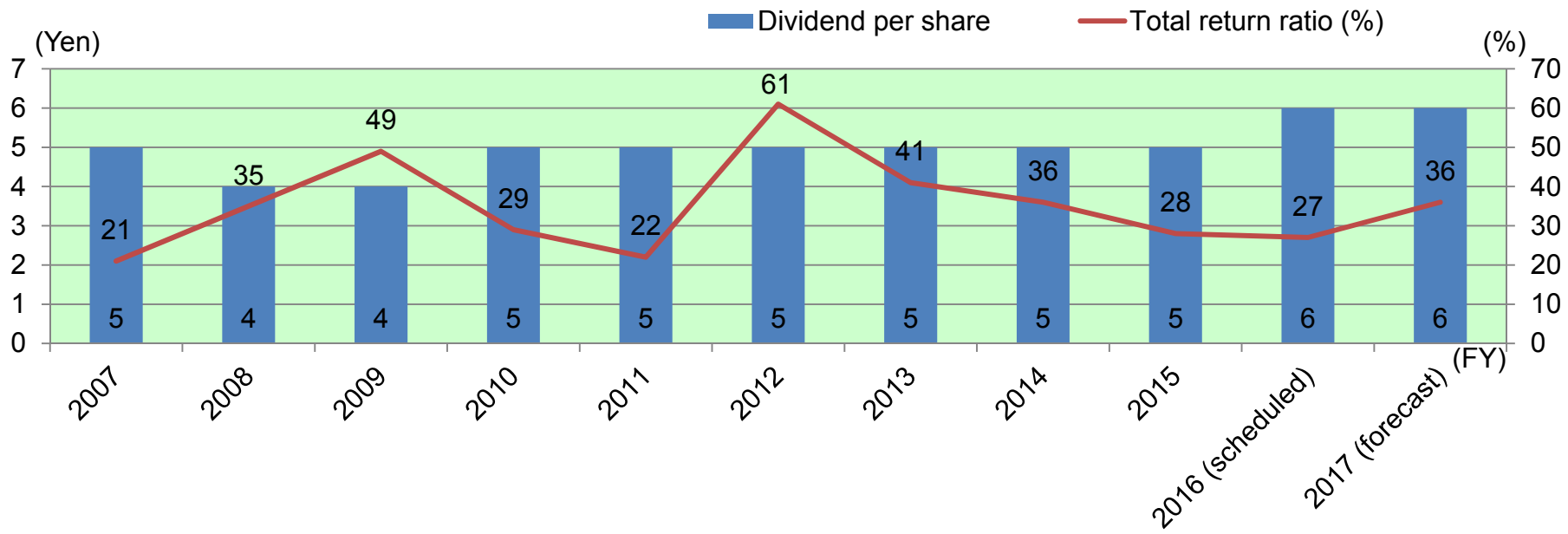
- Develop commercial business for cost-competitive biomass fuels

Shareholder Dividends (Dividend Policy)

Shareholder dividends (dividend policy)

- Consistent and sustainable dividends as a platform for shareholder returns
- Options such as acquiring treasury stock in accordance with profits and cash flows, balanced with achieving financial health and future investments

➡ Aim for a total return ratio (consolidated) of 30% or higher



Reference: Progress of Reduction Targets for Greenhouse Gas Emissions

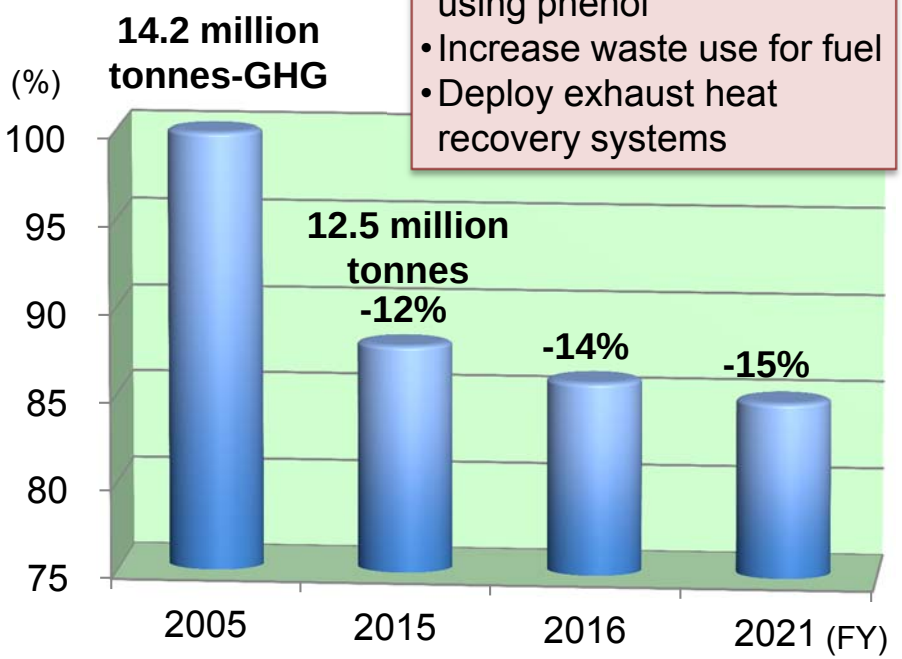
- Address resource, energy, and global environmental issues and contribute to solutions

Taking economic viability into consideration, UBE will reduce greenhouse gas emissions by reducing energy consumption and increasing waste recycling throughout supply chains and develop and enhance products and technologies that help to reduce environmental impacts in order to help realize a sustainable society.

Exhaust heat recovery system at Kanda Factory

(UBE Group in Japan and main offices outside of Japan)

Main Strategies
- Switch to new production method for cyclohexanone using phenol
- Increase waste use for fuel
- Deploy exhaust heat recovery systems



Target: 15% reduction in emissions from FY2005 levels by FY2021

Reference: Progress in Achieving Growth in Environmental Businesses

Percentage of net sales from environmental products

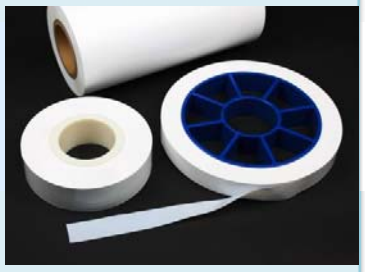
Main environmental products

- Synthetic rubber (tire applications)
- Nylon (automotive applications)
- Recycling (cement and resource recycling)
- Energy-efficient machinery (molding machines, air floating conveyors)

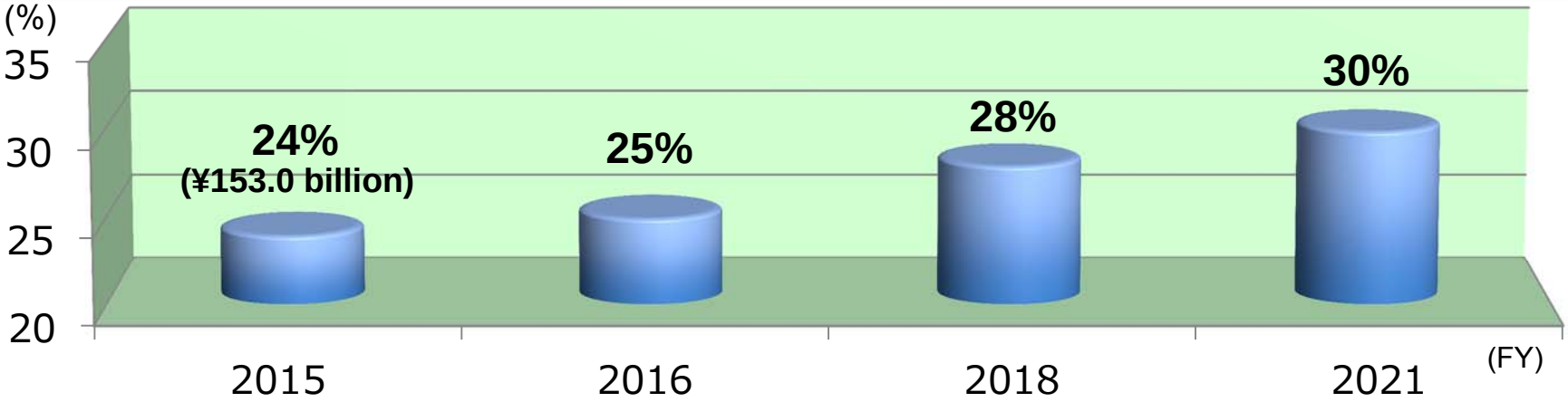
- LIB electrolytes
- LIB separators
- Polyimides
- Gas separation membranes

- High-performance coatings

Hydrogen tank made from nylon resin manufactured by UBE



LIB separators



Aim for sales of environmental products to account for at least 30% of total net sales by FY2021

120th Anniversary

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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