

Fiscal Year Ended March 31, 2013

New Medium-Term Management Plan

Change & Challenge-Driving Growth

May 16, 2013

UBE INDUSTRIES, LTD.

Contents of Presentation

- 1** FY2012 Consolidated Results and FY2013 Forecast
- 2** New Medium-Term Management Plan
“Change & Challenge-Driving Growth”
- 3** Appendix



**FY2012 Consolidated Results and
FY2013 Forecast**



● Lower revenues and profits due to poor market conditions for caprolactam and other chemical products

(Billion yen)

Item	FY2011	FY2012	YoY Change	Factors
Net sales	638.6	626.0	-12.6	Lower selling prices for chemical products
Operating income	46.0	29.9	-16.0	Lower margins for chemical products
Ordinary income	40.8	28.0	-12.7	Improvement of profit / loss on foreign currency exchange and non-operating profit / loss
Net income	22.9	8.2	-14.7	Recorded losses from ceasing caprolactam production at Sakai Factory
Net interest-bearing liabilities	220.8	210.6	-10.1	
Equity capital	199.4	215.5	16.0	
Dividend (Yen / Share)	5.0	5.0	0.0	



FY2012 Consolidated Results

Sales and Operating Income by Segment

(Billion yen)

Segment	Sales			Operating Income		
	FY2011	FY2012	YoY Change	FY2011	FY2012	YoY Change
Chemicals & Plastics	231.0	219.3	-11.6	22.9	5.0	-17.9
Specialty Chemicals & Products	64.3	61.1	-3.2	5.4	1.2	-4.2
Pharmaceutical	11.1	11.4	0.2	3.7	3.4	-0.3
Cement & Construction Materials	209.1	208.3	-0.7	8.6	11.4	2.8
Machinery & Metal Products	72.5	71.3	-1.2	3.0	3.6	0.6
Energy & Environment	62.5	68.7	6.2	3.3	5.9	2.6
Others	25.9	25.2	-0.6	1.0	1.0	0.0
Adjustments*	-38.0	-39.6	-1.5	-2.3	-1.9	0.3
Total	638.6	626.0	-12.6	46.0	29.9	-16.0

* Including offset from intersegment transactions



- Project higher revenues and profits due to improved supply and demand for chemical products and strong demand for cement

(Billion yen)

Item	FY2012	FY2013	YoY Change	Factors
Net sales	626.0	675.0	49.0	Increased volumes for chemical products, other
Operating income	29.9	34.0	4.1	Increased volumes for chemical products, other
Ordinary income	28.0	28.5	0.5	
Net income	8.2	14.5	6.3	Improvement of extraordinary profit / loss
Net interest-bearing liabilities	210.6	215.0	4.4	
Equity capital	215.5	227.5	12.0	
Dividend (Yen / Share)	5.0	5.0	0.0	



FY2013 Consolidated Forecasts

Sales and Operating Income by Segment

(Billion yen)

Segment	Sales			Operating Income		
	FY2012	FY2013	YoY Change	FY2012	FY2013	YoY Change
Chemicals & Plastics	219.3	251.0	31.7	5.0	7.0	2.0
Specialty Chemicals & Products	61.1	74.0	12.9	1.2	4.5	3.3
Pharmaceutical	11.4	10.0	-1.4	3.4	2.0	-1.4
Cement & Construction Materials	208.3	212.0	3.7	11.4	13.0	1.6
Machinery & Metal Products	71.3	76.0	4.7	3.6	4.0	0.4
Energy & Environment	68.7	65.5	-3.2	5.9	4.0	-1.9
Others	25.2	26.0	0.8	1.0	1.0	0.0
Adjustments*	-39.6	-39.5	0.1	-1.9	-1.5	0.4
Total	626.0	675.0	49.0	29.9	34.0	4.1

* Including offset from intersegment transactions



New Medium-Term Management Plan (FY2013–2015)
“Change & Challenge-Driving Growth”





Target Achievement

- **Did not reach revenue targets for final year of medium-term management plan, but improved the financial position**

Item	Unit	FY2009 Result	FY2010 Result	FY2011 Result	FY2012 Result	FY2012 Mid-Term plan	FY2015 Targets
Net debt/equity ratio	Times	1.4	1.1	1.1	0.98	Below 1.0	—
Equity ratio	%	27.3	28.3	30.0	31.4	30 or above	—
Operating income ratio	%	5.0	7.2	7.2	4.8	7.5 or above	8.0 or above
Return on assets	%	4.4	7.2	7.2	4.8	7.5 or above	8.0 or above
Return on equity	%	4.7	9.4	11.9	4.0	12 or above	—
Net sales	Billion yen	549.5	616.0	638.6	626.0	670.0 or above	—
Operating income	Billion yen	27.5	44.3	46.0	29.9	53.0 or above	70.0 or above
Business income	Billion yen	29.3	47.0	47.9	32.1	55.0 or above	—
Net interest-bearing liabilities	Billion yen	244.0	211.0	220.8	210.6	Below 220.0	—
Equity capital	Billion yen	178.8	187.0	199.4	215.5	225.0 or above	—
Cost reductions (compared with FY2009)	Billion yen	—	11.3	21.5	33.6	21.0 or above	—



① Establish a revenue base that enables sustainable growth

- Slow growth of strategic growth businesses, while core platform businesses anchored revenues
- Achieved certain results for: development of technologies and products aimed at markets in developing countries, overseas development tailored to respective business characteristics, and restructuring of production framework and consolidation of facilities.

② Continued to improve the financial position

- Net debt/equity ratio of less than 1.0 times, and secured A credit rating

③ Address and be part of the solution for global environmental issues

- Making progress on reducing greenhouse gas emissions ahead of schedule
CO₂ emissions from energy use
Target to reduce emissions by 15% by fiscal 2015, compared with fiscal 1990 levels; achieved ahead of schedule
- Ensure increased net sales from environmental-related businesses



Recognized Issues

Vision for the Ube Group

- Growth centering on differentiated chemicals businesses
- Achieve stability through diversification amid shifting business conditions



Chemicals businesses:
Driving force for growth

Non-chemicals businesses:
Anchor revenues

Shifting business conditions

- Structural changes rather than cyclical changes of the past
⇒ Cannot respond using just conventional strategies
- Nuclear power plant accident, shale gas development
⇒ Urgent need to address resource and energy issues

Issues toward enhancing corporate value

- Restructure revenues from chemicals segment, and pursue growth of major businesses to become future cornerstone businesses
- Further strengthen the revenue base from non-chemicals segments
- Accelerate the commercialization of new products, aiming to rapidly generate revenues from them

**Group Vision**

**Wings of technology and spirit of innovation.
That’s our DNA driving our global success.**

The Ube Group will embrace a frontier spirit in seeking to achieve coexistence with the global community driven by the limitless possibilities of technology, while continuing to create value for the next generation.

New Medium-Term Management Plan (FY2013–FY2015)

Change & Challenge-Driving Growth

(Basic Strategies)

- 1. Strengthen the revenue base to enable sustainable growth**
- 2. Maximize the global strength of the Ube Group**
- 3. Address and be part of the solution for resource, energy, and global environmental issues**



① Strengthen the revenue base to enable sustainable growth

- Continue the business strategy emphasizing cash flow, while increasing forward-looking investments to achieve sustainable growth over the medium- and long-term
- Concentrate on capital investment for strategic growth businesses, and expand global businesses
- Core platform businesses: Actively invest in segments anticipated to deliver increased profits
- Accelerate efforts to develop and foster new businesses, focusing on energy and environment

② Maximize the global strength of the Ube Group

- Strengthen global marketing
- Share and use information and marketing assets, and strengthen collaboration among Group companies
- Pursue global R&D

③ Address and be part of the solution for resource, energy, and global environmental issues

- Contribute to a sustainable society by actively pursuing initiatives to reduce greenhouse gas (GHG) emissions, reduce electricity and other energy consumption, and conserve biodiversity
- Develop and spread technologies that help to expand the use of renewable energy, as well as conserve resources and reduce environmental impact



■ Targets for FY2015 (Final Year of Mid-Term Management Plan)

(1) Key Figures

Operating income	55.0 Billion yen or above
Equity capital	270.0 Billion yen or above

(2) Management Targets

Return on sales	7 % or above
Return on assets	7 % or above
Return on equity	12 % or above

■ Targets for FY2020

Operating income	80.0 Billion yen or above
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Sales and Operating Income by Segment

(Billion yen)

Segment	Sales			Operating Income		
	FY2012 Result	FY2015 Forecast	YoY Change	FY2012 Result	FY2015 Forecast	YoY Change
Chemicals & Plastics	219.3	265.0	45.6	5.0	16.5	11.4
Specialty Chemicals & Products	61.1	95.0	33.9	1.2	10.5	9.3
Pharmaceutical	11.4	14.0	2.6	3.4	4.0	0.6
Cement & Construction Materials	208.3	223.0	14.6	11.4	14.5	3.0
Machinery & Metal Products	71.3	83.0	11.7	3.6	5.5	1.8
Energy & Environment	68.7	72.0	3.2	5.9	5.0	-0.9
Others	25.2	31.5	6.2	1.0	1.0	0.0
Adjustments*	-39.6	-43.5	-3.8	-1.9	-2.0	-0.1
Total	626.0	740.0	114.0	29.9	55.0	25.1

* Including offset from intersegment transactions



	Pharmaceutical	Chemicals & Plastics	Specialty Chemicals & Products	Cement & Construction Materials	Energy & Environment	Machinery & Metal Products
Developing Fields			Aerospace Information electronics Energy and environment			
Strategic Growth Businesses	Pharmaceuticals		Battery materials Specialty chemicals Specialty plastics Specialty inorganic materials Recycling and renewable energy			
Core Platform Businesses	Actively expand	Synthetic rubber Nylon resins	Lactam and nylon chain			Machinery services
	Strengthen business platform	Caprolactam Industrial chemicals (Polyethylene) (ABS)	Lactam-based fine chemicals Polyimide chain Polyimides Gas separation membranes Semiconductor, electronic, and optical materials	Cement and ready mixed concrete limestone, calcia, and magnesia	Coal Power	Molding machinery Industrial machinery Steel products



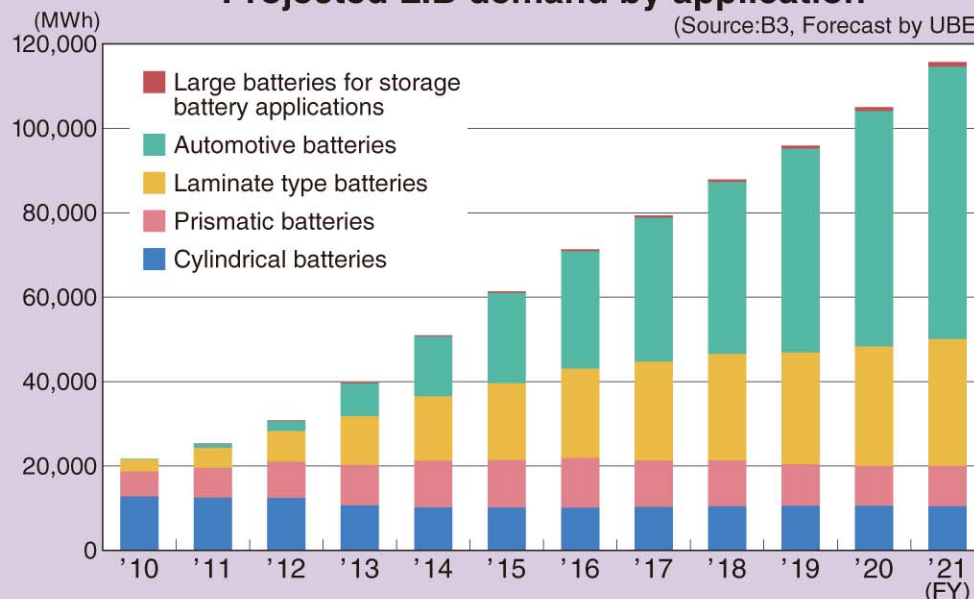
Address changes in and growth of the global market, and increase revenues

Business conditions

- Significant growth of lithium-ion battery (LIB) market over medium- and long-term (5–10% growth annually for consumer applications alone)
- Markets are changing significantly
Regionally: Dominated by Japanese companies
→ Growth of Korean, Chinese and Taiwanese companies
Applications: Centered on consumer applications
→ Both consumer applications and automotive/stationary applications
- Advancements in required performance and quality
- Intense global competition with many manufacturers jumping into market
- Slow development of market for automotive applications

Projected LIB demand by application

(Source: B3, Forecast by UBE)



Further develop existing strengths and take next steps in anticipation that market for automotive applications will fully develop, to successfully compete

Strengths

- ◆ Track record and brand strength
- ◆ Technical advantages (customer support)
- ◆ Cost competitiveness

Next steps

- ◆ Increase production capacity to meet growing demand
- ◆ Development based on future customer requirements
- ◆ Establish global supply framework



■ Electrolytes



- Unmatched record as leader in high-performance electrolytes for consumer applications
- Global supply chain through joint venture with The Dow Chemical Company
- Differentiated grades that leverage additive development capabilities
- Internal manufacturing of main solvents (DMC, DEC/MEC)

■ Electrolyte solvents

- Leverage advantages for quality and cost, and increase supply capabilities for high purity DMC and DEC/MEC

■ Conductive material (AMC)

■ Separators



- Lead the market for automotive applications, through dry manufacturing process
- Strengthen production facilities in a timely manner
- Ensure that separators meet performance requirements
 - Develop and mass-produce film separators through joint venture with Hitachi Maxell
 - Thin film technology and equipment

■ Binders

- Develop the market by leveraging specialty adhesives such as polyimide varnish, oxetane, and PUD

Trigger innovation through technical tie-ups with other companies

Materials development

- Advanced battery materials
- Battery-related materials

■ Safety device

■ Cathode/anode materials

■ Contactless charging

Differentiation technology

Materials evaluation

High quality, stable production

Organic chemicals

Polymers

Ceramics

Technology base



Implement differentiation strategy based on own technology

① Expand businesses that are based on C1 chemicals technology (Strategic Growth Business)

Eco-friendly coating

Build new manufacturing facilities in Thailand for polycarbonate diol (PCD), of which Ube holds a leading global market share

Launch full-scale manufacturing and marketing of polyurethane dispersions (PUDs), in order to develop into a cornerstone for revenues

Electrolyte solvents

Incorporate new manufacturing methods for dimethyl carbonate (DMC), diethyl carbonate (DEC), and methyl ethyl carbonate (MEC) at manufacturing facilities, to strengthen supply capacity and enhance competitiveness

C1 chemicals technology licensing

License dimethyl oxalate (DMO) process for manufacturing ethylene glycol (MEG) to other markets besides China

Initiate study of possible technology licensing for DMO oxamide (slow-release fertilizer)

② Maintain and strengthen the framework for diol production (Strengthen Business Platform)

Increase production at existing plants in Ube (Japan), Spain, and Thailand through debottlenecking, and implement cost reductions

Study a new manufacturing base

③ Develop and promote new businesses (Developing Field)

Rapidly build up the artificial micro carbon (AMC) business:

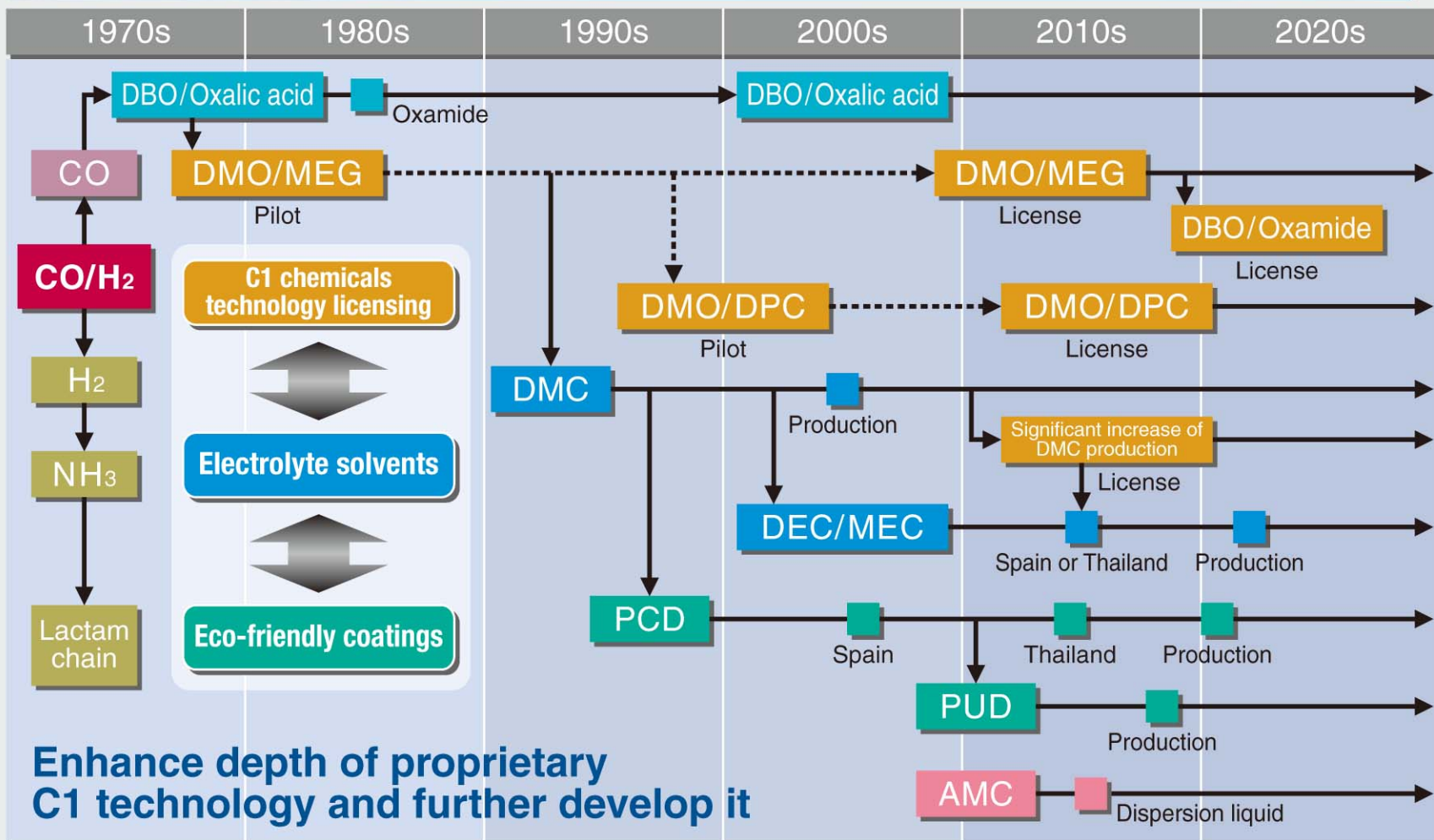
Accelerate the business by developing and commercializing dispersion liquids

Commercialization of slide-ring material (SRM):

Strengthen the level of collaboration with Advanced Softmaterials Inc. (ASM)



Expand businesses that are based on C1 chemicals technology





Business Strategy for Pharmaceuticals

Implement the business model, and get the business on track for stable growth by building the foundations of the business and reaping results

- Drugs discovered by Ube: Expand the pipeline of drug development and pursue rapid licensing, alongside lifecycle management of existing drugs discovered by Ube
- Contract pharmaceuticals manufacturing: Expand the level of technology (such as handling of highly pharmacologically-active compounds) and strengthen supply chains to expand the business, centering on active ingredients for new drugs
- Establish an overseas manufacturing base, manufacture active ingredients for generic drugs, and advance the business model for contract process development

◆ Current state of joint development and life-cycle management

Trade name (development code)	Indication	Current status (marketing countries)	Future plans
Talion Generic name: Bepotastine besilate Sales: Mitsubishi Tanabe Pharma Corporation	Antiallergy agent ● Allergic rhinitis ● Urticaria ● Skin disorders with pruritus ● Allergic conjunctivitis	● Talion tablets (Japan, Korea, China, Indonesia) ● Talion oral disintegrant tablets (Japan) ● Bepreve ophthalmic solution (US)	● Expand the life-cycle management New indications and formulas, penetration into emerging market, etc.
Calblock Generic name: Azelnidipine Sales: Daiichi Sankyo Co., Ltd.	Antihypertensive agent ● Hypertension	● Calblock tablets (Japan) ● Rezaltas combination tablets (Japan)	● Pursue sales promotion as Olmesartan/Calblock family marketed Daiichi Sankyo Co., Ltd.
Effient/Efient Generic name: Prasugrel Sales: Daiichi Sankyo Co., Ltd. Eli Lilly and Company	Antiplatelet agent ● Heart attack, stroke, etc.	● Effient tablets (US, Europe and 60 countries)	● Expand sales into global countries and regions ● Japan Cardiac applications: Apply for in fiscal 2013 Brain applications: Phase 3 clinical trials scheduled to be completed in fiscal 2014
(DE-117) Co-development: Santen Pharmaceuticals Co., Ltd.	Antiglaucoma agent ● Glaucoma and ocular hypertension	US: Phase 1/ phase 2 clinical trials	● Pursue global development
(DS-1442) Co-development: Daiichi Sankyo Co., Ltd.	Dyslipidemia treatment drug ● Dyslipidemia	US: Phase 1	● Pursue global development

◆ Status of Pharmaceuticals Manufactured on Contract Basis

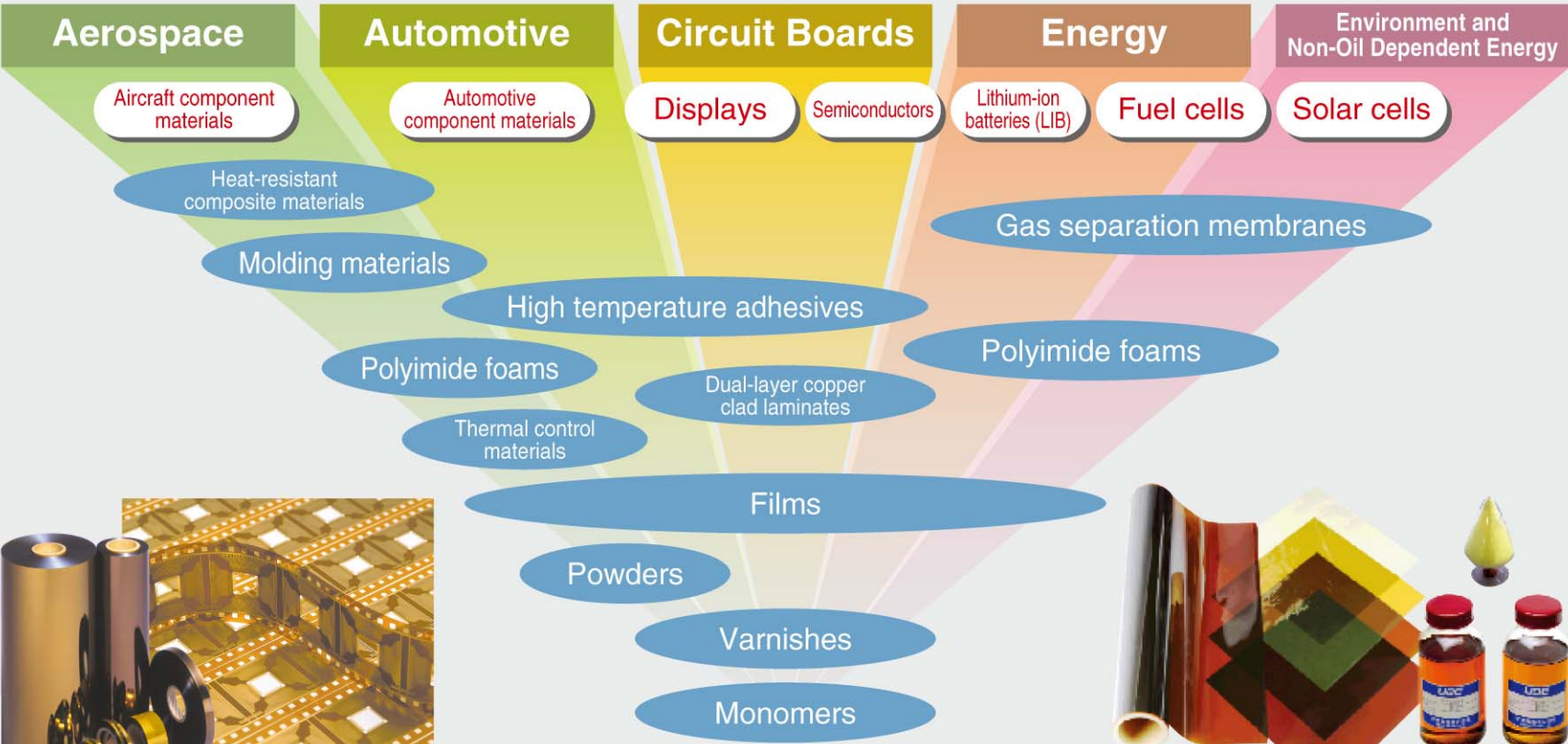
Marketed Pharmaceuticals	APIs for antihypertensive agents, Hyperucemia treatment drug, etc. Intermediates for antithrombotic agents, dyslipidemia treatment drug, anticoagulant, diabetes treatments, etc.
Pharmaceuticals Under Development	APIs and intermediates for anticancer agents, diabetes treatments, antihypertensive agent, etc.

Products for which Ube received orders from major Japanese and international pharmaceutical companies were brought to market



Business Strategy for Polyimide Chain

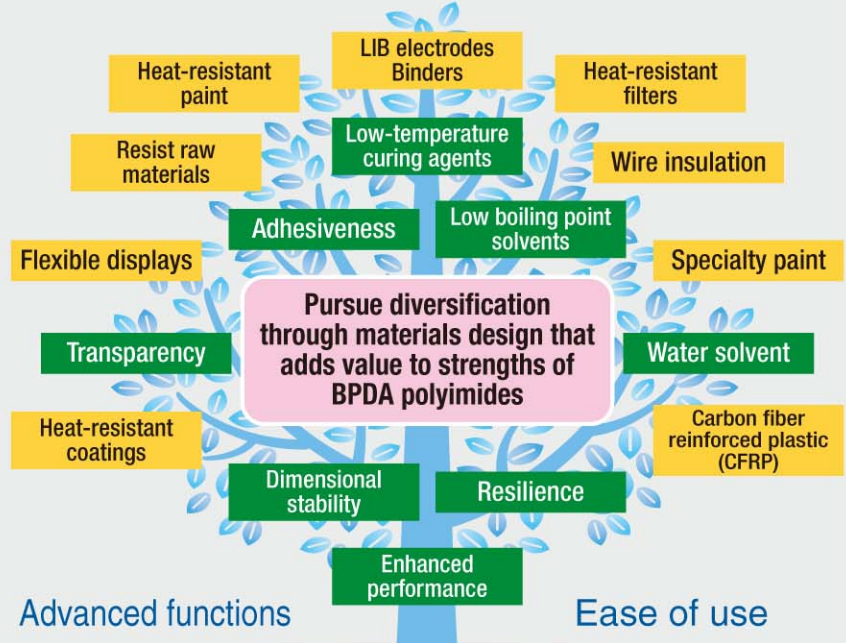
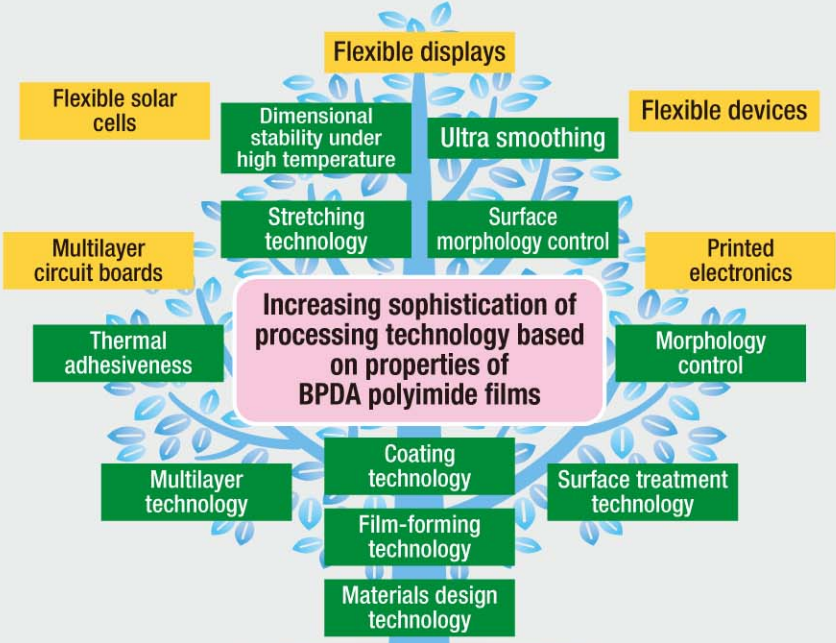
Expand applications by leveraging properties of proprietary monomer BPDA



Biphenyltetracarboxylic dianhydride (BPDA)
 Offers unique properties such as ultra heat resistance, dimensional stability, low absorption, and chemical resistance

Maintain strong share in markets for existing applications and drive development of new markets, as company specializing in BPDA polyimides

New markets
Flexible displays, flexible solar cells, flexible devices, automotive materials, rechargeable battery materials, etc.



Maintain strong share for chip-on-film for LCD TV panels
Increase sales of flexible printed circuit films (dual-layer copper clad laminates) for smartphones

Maintain leading share for seamless belts used in printers

Develop films business

Develop varnish business



Shift in caprolactam business strategy and positioning, from increasing presence in Asia market, to stable and cost-competitive supply of nylon raw material

Business Strategy for Caprolactam: Secure cost competitiveness

Current Business Conditions:

- Production capacity for caprolactam and nylon (polymers) continues to increase in China
⇒ Excessive supply of caprolactam
⇒ Shakeout of plants that are not cost competitive

Action:

- Ceased production at Sakai Factory
⇒ Rebuild global production to secure cost competitiveness
- Deliver stable supply of top-grade products suitable for high-speed spinning
- Add strong value to ammonium sulfate and conduct collaborative marketing among three global production bases
- Strengthen alliances

Business Strategy for Ammonia: Expand sales by delivering stable production

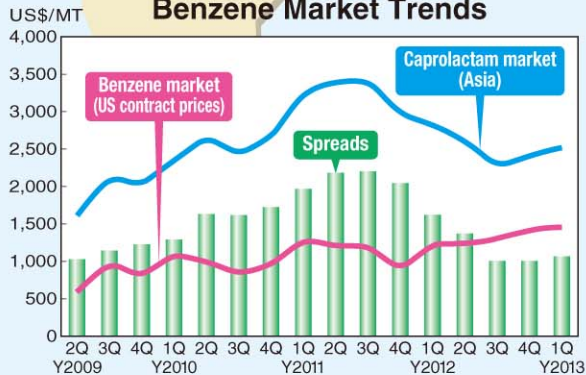
Current Business Conditions:

- Continued shortage of supply in Asia
- Plants continue to shut down in Japan

Action:

- Increase volume of outside sales by delivering stable production from Ube Group's ammonia plant, which has a strong edge for cost-competitiveness
- Refurbish production facilities
- Secure suitable prices

Caprolactam and Benzene Market Trends





Business Strategy for Nylon Resins:

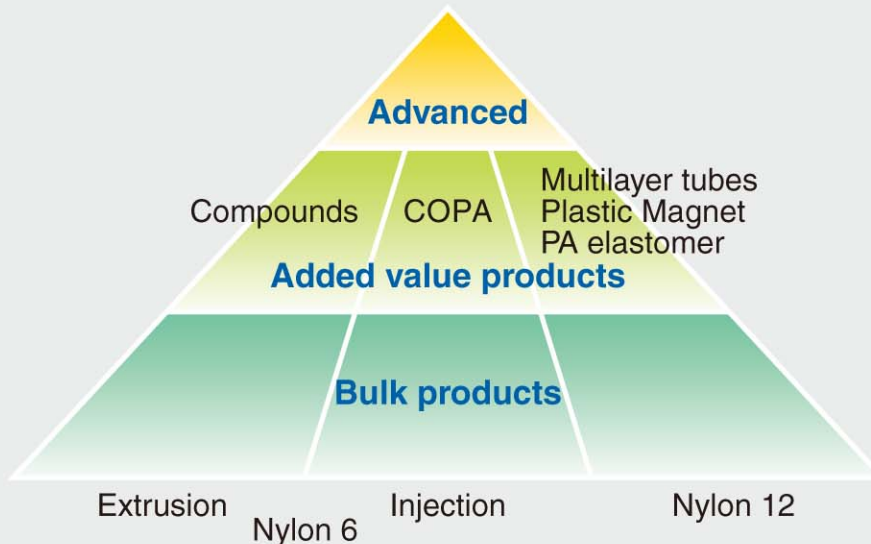
Expand the production framework by leveraging access to a competitive supply of raw materials, and actively expand the business by adding strong value

Current Business Conditions:

- Average 4% annual growth in global demand projected for next 10 years
- Growth in demand for injection applications, driven by growth of automotive market and demand for weight reduction
- Delivering stable quality from continuous polymerization, which is driving increased demand for extrusion (film) applications, where Ube products are highly rated by customers. Also, increased demand for food wrapping films and LIB package applications.

Action:

- Strengthen the three production bases in Japan, Thailand, and Spain, and establish production bases in North/Central America.
- Injection applications: Strengthen the production capacity for compounds, to accommodate global business development of Japanese automakers
- Extrusion applications: Increase sales in markets in developing countries, and develop demand in high added-value markets such as for copolymers



Important target markets for nylon 6 resins		Region (✓ : indicates market targeted for active expansion)				
		Japan	China	Asia	Europe	Americas
Extrusion	Film		✓	✓		
	Monofilament					
	Automotive tube	✓	✓	✓		
Injection	Automotive parts			✓	✓	✓

Supply base: Japan Thailand Spain

Business Strategy for Synthetic Rubber

- Secure a framework for stable supply, centering on Japanese tire manufacturers
- Expand the sales channels for original products such as vinyl cis rubber (VCR) and linear synthetic rubber
- Strengthen supply chains, such as securing stable supplies of raw material butadiene

Forecasted Demand for BR - Global

(Source: IISRP, Forecast by UBE)

		(KT)	Y2011	Y2012	Y2013	Y2014	Y2015	Y2016
World	Demand		3,086	3,140	3,342	3,553	3,730	3,864
	Supply		2,920	3,115	3,239	3,497	3,692	3,762
Asia	Demand		1,622	1,717	1,835	1,952	2,053	2,136
	Supply		1,533	1,761	1,885	2,108	2,253	2,303

Current Business Conditions

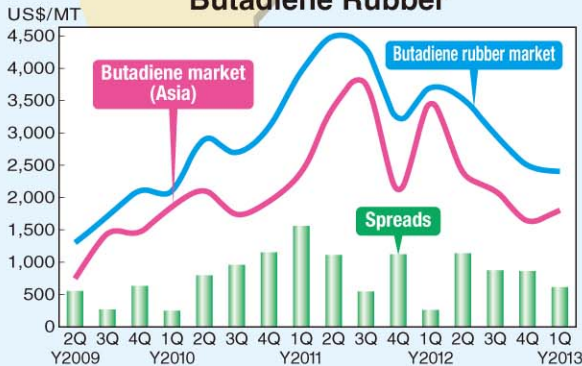
- Increase in demand due to expansion of production facilities by tire manufacturers
- Increasing need for special products for energy saving tires



Action

- Increase production of BR Chiba by expanding 16kilotons in FY2013
- Malaysia by constructing new facility of 50kilotons in FY2014
- Consider establishing fifth manufacturing facility
- Global standardization of vinyl cis rubber, and expand product lineup (from general-purpose products to specialty products)

Market Trends for Butadiene and Butadiene Rubber





Cement, ready-mix concrete

Demand for reconstruction from 2011 earthquake in Japan
Disaster management and mitigation
Aging infrastructure

Strong demand in Japan over medium-term

- Ensure that we capture demand in Japan
- Secure suitable prices to enable reinvestment
- Make increasing use of advanced waste recycling

Projected cement demand in Japan (kilotonne)



Limestone, calcia, magnesia

- Optimize the limestone chain
- Leverage Ube's high-quality limestone to strengthen calcia and magnesia business
- Target launch of mining operations in Kanayamadai mining zone in 2017
 ⇒ Secure cement raw materials to ensure continuity of business

Limestone mine in Isa, Japan



Make Ube Materials Industries, Ltd. wholly-owned subsidiary
 ⇒ **Strengthen synergies**

Specialty inorganic materials

- Strengthen cooperation within Ube Group, to achieve timely commercialization



Strengthen the connection between products and servicing, and expand products and services, to enhance customer support in global markets with aim of increasing revenues

UBE Machinery Corporation, Ltd. (Manufacturing and sales)
UBE Techno Eng. Co., Ltd. (Machinery servicing)

October, 2013 merger

- Manufacturing, sales, and servicing bases
- ▲ Sales, and servicing bases
- ★ Servicing bases

Global installed base of Ube Group machinery

	Molding machinery	Industrial machinery*
Japan	1,400	1,700
Outside of Japan	2,700	600
Total	4,100	2,300

* Data for vertical mills and water screening equipment only

Major operating asset for servicing business





Expand from Asian market to global market

North America,
Other Regions
13%

North
America

Europe
21%

East
Europe

Asia
66%

China

India

South Korea

Taiwan

- Percentage of all sales outside Japan
- Major production facilities
- ▲ Sales offices
- ★ Major service facilities for machinery

Net Sales Outside of Japan by Segment

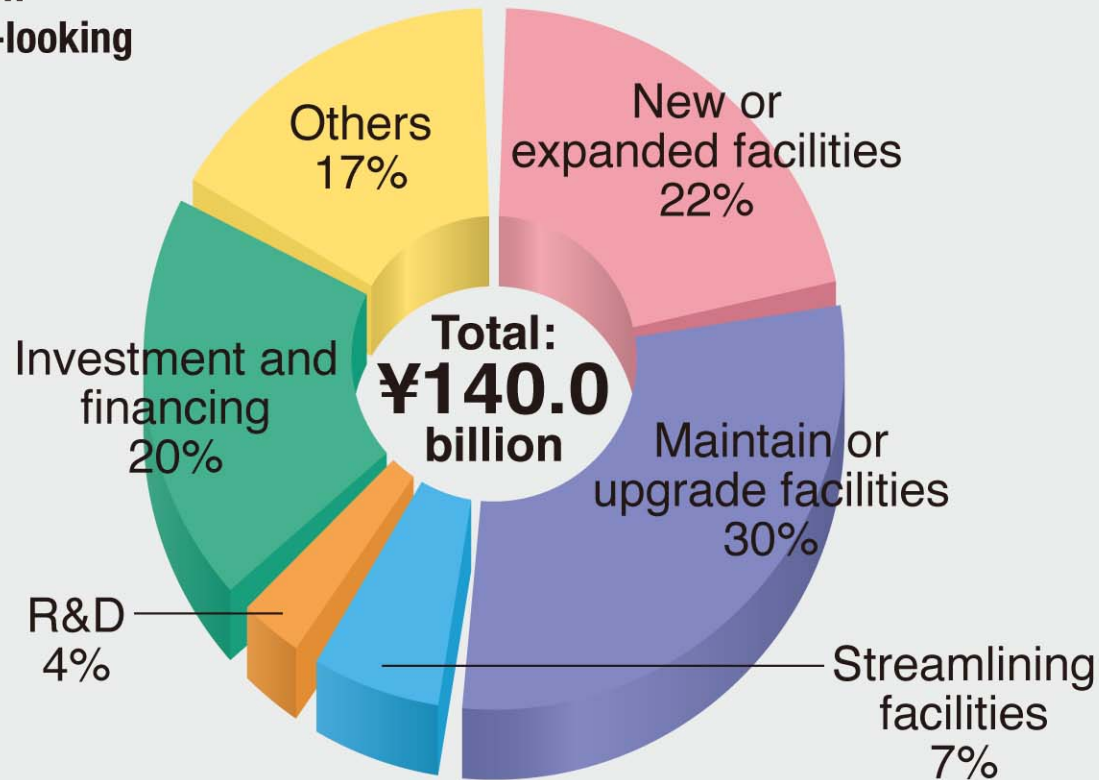
(Billion yen)

	Chemicals & Plastics	Specialty Chemicals & Products	Pharmaceutical	Subtotal	Cement & Construction Materials	Machinery & Metal Products	Energy & Environment	Others	Total
FY2012 Actual	124.5	22.4	5.0	152.1	7.7	29.3	0.1	15.8	205.2
Percentage of Overall Net Sales in Segment (Japan and Outside of Japan)	60.6%	39.2%	44.8%	55.5%	3.8%	42.1%	0.3%	69.1%	32.8%



FY2013 to FY2015 Capital Expenditures by Purpose

- ◆ Make flexible decisions about amount and timing of investment, depending on urgency and cash flow situation
- ◆ Increase forward-looking investment



(Billion yen)

Item	FY2013	FY2014	FY2015	FY2013-FY2015
Capital expenditures	45.0	51.0	44.0	140.0



Project	Site	Completion
① Increase production capacity for battery materials business		
<ul style="list-style-type: none"> ● Additional facilities for producing separators ● Facilities for manufacturing high-purity DMC and DEC/MEC 	Sakai, Japan Spain or Thailand	FY2013–FY2016 April 2015
② Strengthen nylon resin business and secure cost-competitive supply of lactam		
<ul style="list-style-type: none"> ● Additional facilities for producing nylon 6 ● Upgrade of extrusion machinery for nylon compounds ● New plant for caprolactam (investment and financing) ● Secure procurement sources for ammonia (investment and financing) 	Spain Ube, Japan undecided undecided	September 2014 FY2014 undecided undecided
③ Increase global production capacity for synthetic rubber		
<ul style="list-style-type: none"> ● Additional facilities for producing synthetic rubber ● New plant for synthetic rubber (investment and financing) 	Chiba, Japan Malaysia Thailand	February 2014 FY2014 FY2016
④ Strengthen the business platform to secure stable revenues from cement business		
<ul style="list-style-type: none"> ● Waste heat power generation equipment ● Development of Kanayamadai mining zone 	Kanda, Japan Isa, Japan	December 2015 October 2017





Strike balance between R&D projects to strengthen existing businesses and advanced R&D; selective and focused R&D to reallocate resources and accelerate R&D

① Strengthen core platform businesses and expand strategic growth businesses

Aim to deliver performance and prices to meet requirements of customers, centering on the chemicals sector

● Develop new materials and chemical products

Specialty chemicals (PUD materials, metal organic compounds), specialty resins (specialty rubbers, nylons), electrolytes and separators for automotive applications, transparent ultra heat-resistant polyimides, printable electronics, high-performance separation membranes, new pharmaceuticals

● Production technology innovations

Lactam, silicon nitride, C1 chemicals

② Rapidly foster business segments in developing field into strategic growth businesses

Accelerate commercialization efforts in three fields: aerospace, information electronics, energy and environment

③ Strengthen technology base in new target domains, and rapidly transition them into developing field

● New carbon sources and next-generation chemicals

New fine chemicals and specialty chemicals, diversified carbon sources

● Energy and environment

Specialty membranes, rare metal substitutes, energy conversion materials, next-generation battery materials

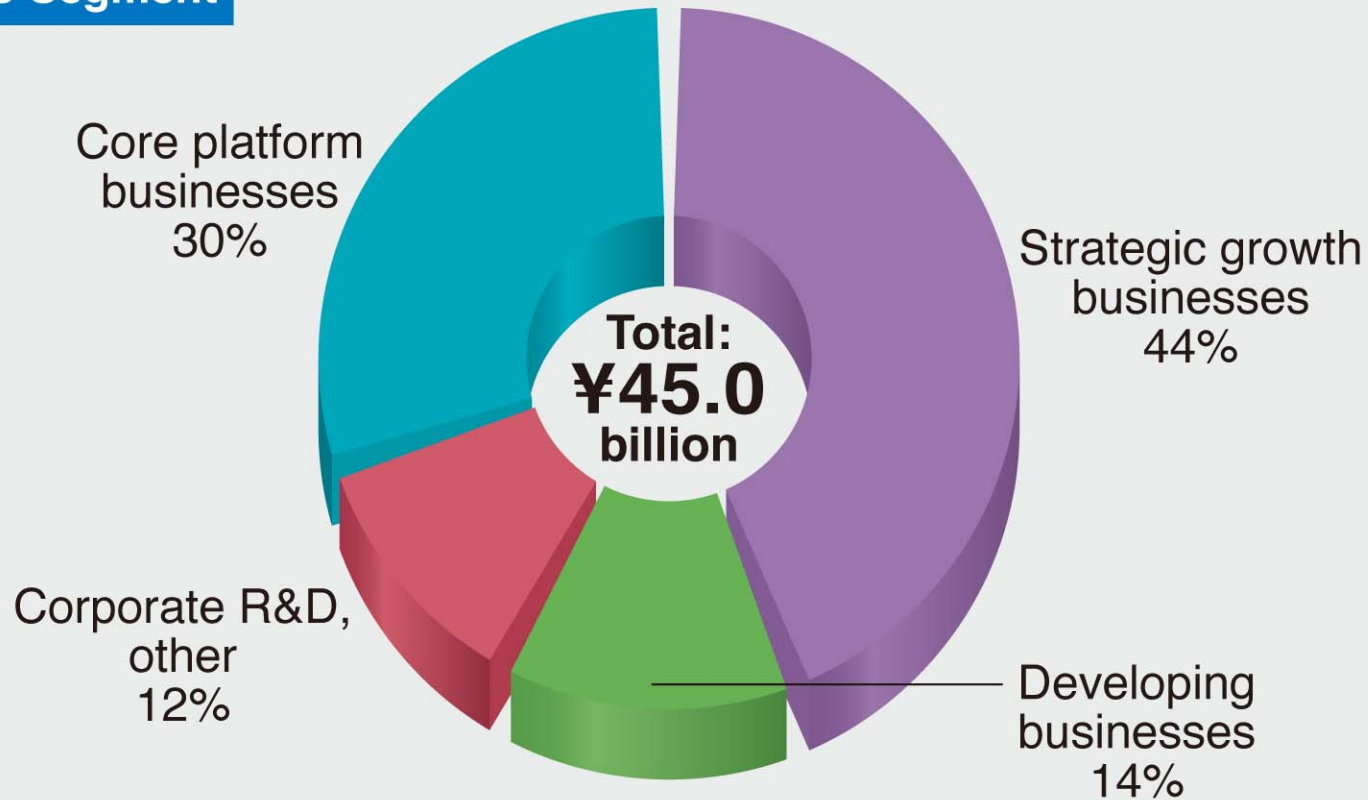
● Healthcare

Ube Group materials for healthcare applications

● Information electronics

Organic electronics materials, phosphor materials

Portfolio Segment



(Billion yen)

Item	FY2013	FY2014	FY2015	FY2013-FY2015
R&D expenses	14.5	15.0	15.5	45.0



Helping to realize a sustainable society as a socially responsible corporation

Reduce greenhouse gas emissions

- CO₂ emissions reduction target for Ube Group in Japan
By fiscal 2015:
 - CO₂ emissions from energy use: Reduce by 15% compared with fiscal 1990 levels
 - Total CO₂ emissions: Reduce by 20% compared with fiscal 1990 levels
- Further reduce CO₂ emissions through initiatives for energy conservation and increased recycling of waste
- Identify CO₂ emissions for business locations outside of Japan and study Group-wide reduction targets

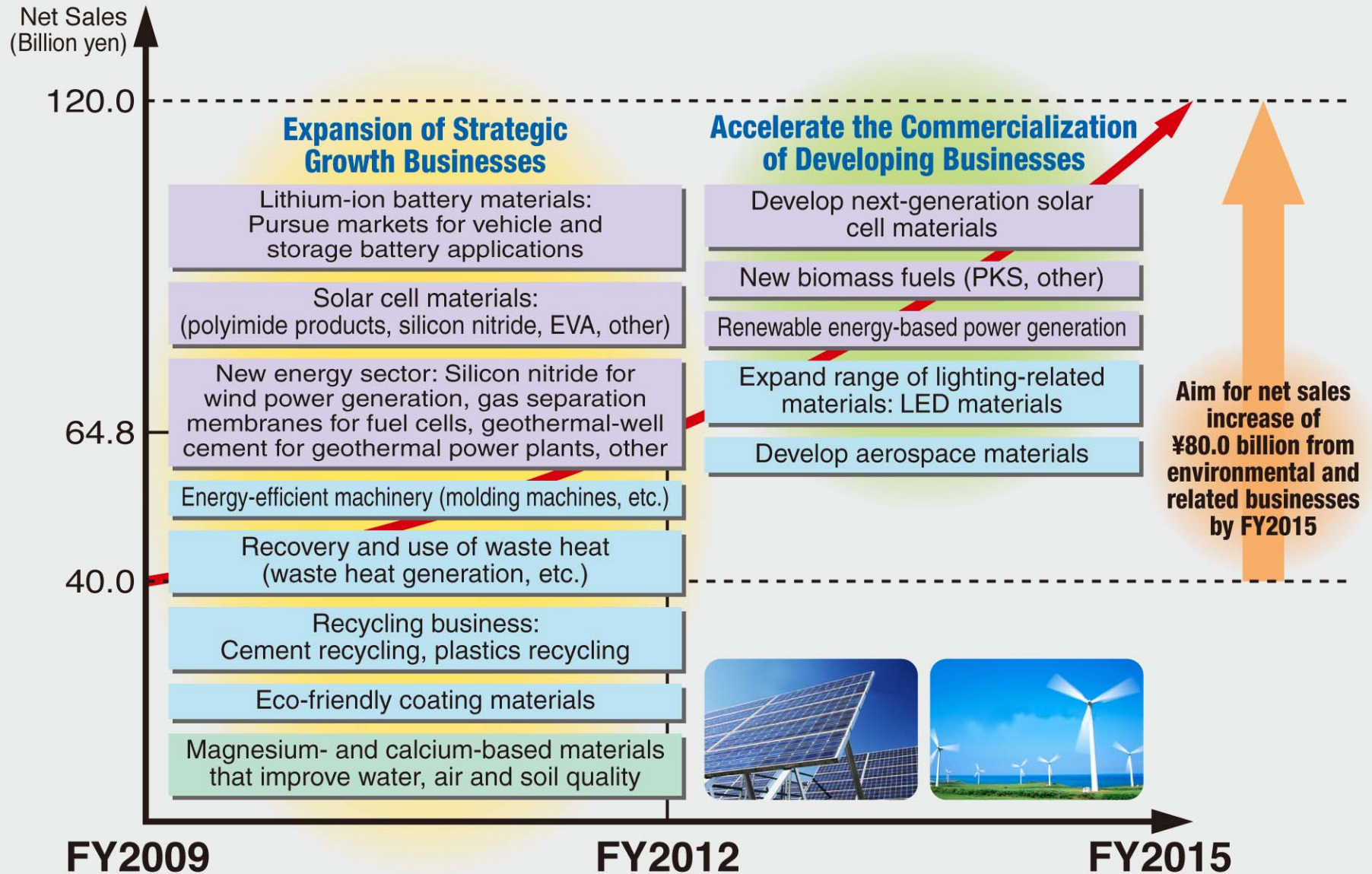
Develop eco-friendly technologies and products

Positive impact on the global environment through technologies and products of the Ube Group

- Materials and products related to advanced energy
- Materials, products, and technologies that conserve energy and reduce environmental impact
- Materials, products, and technologies that enhance and conserve the environment

Biodiversity conservation

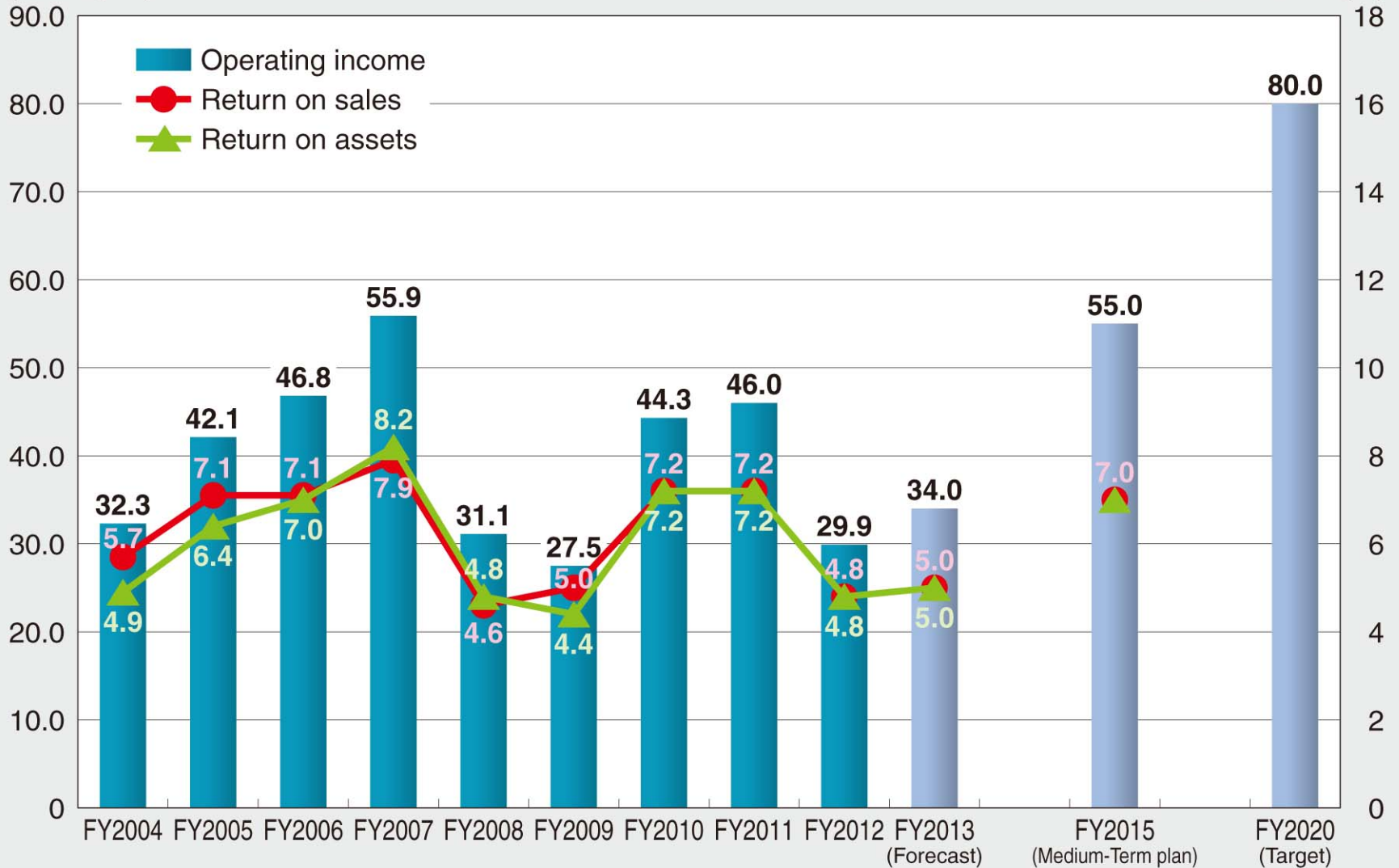
- Biodiversity-friendly business activities
- Active participation in forest maintenance activities





Operating income
(billion yen)

Profit ratio (%)



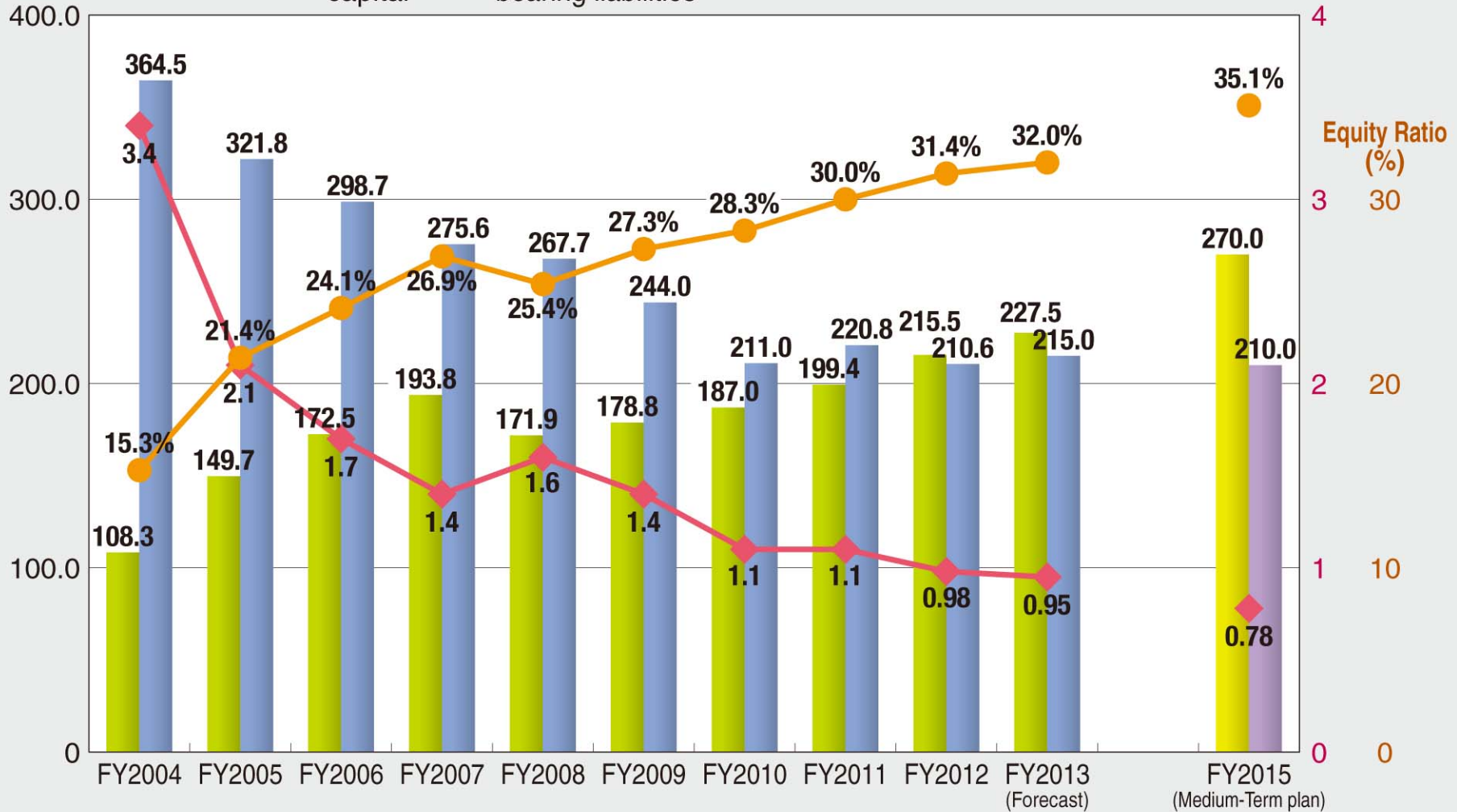


Financial Position from 2004 to 2015

Net interest-bearing liabilities
Equity capital
(billion yen)

■ Equity capital
 ■ Net interest-bearing liabilities
 ◆ Net D/E Ratio
 ● Equity Ratio

Net D/E Ratio
(Times)





Basic Policy for Dividends

Dividends according to business results.
Increase internal reserves for future business development to secure medium- and long-term profits for shareholders.

⇒ Decide shareholder dividends based on comprehensive assessment of these factors.

Increase consolidated dividend payout ratio from 20–25% before, targeting 30% or above.



Appendix


Business Indicators

Item	Unit	FY2012 Result	FY2015 Medium-Term plan
Net debt/equity ratio	Times	0.98	0.78
Equity ratio	%	31.4	35.1
Return on sales	%	4.8	7.4
Return on assets	%	4.8	7.7
Return on equity	%	4.0	13.2

**Key Figures
 for Profit/Loss
 Statement and
 Balance Sheet**

[Conditions]
 \$1 = ¥95

Net sales	Billion yen	626.0	740.0
Operating income	Billion yen	29.9	55.0
Business income	Billion yen	32.1	58.5
Net interest-bearing liabilities	Billion yen	210.6	210.0
Equity capital	Billion yen	215.5	270.0
Cost reductions (compared with FY2012)	Billion yen	—	24.0 or above



Cash Flow Plan

(Billion yen)

	New Medium-Term Management Plan Total of FY2013-2015
Cash flows from operating activities (A)	158.0
Ordinary income	118.0
Depreciation	103.0
Tax payment	- 25.0
Other	- 38.0
Cash flows from investing activities (B)	- 139.0
Capital expenditures	- 140.0
Other	1.0
Free cash flows (A+B)	19.0
Increase / decrease in interest-bearing liabilities	3.4
Dividends, other	- 18.4
Increase / decrease in cash and cash equivalents	4.0



Concentrated allocation of business resources to rapidly increase revenues and increase scale of businesses

Field	Products
Pharmaceuticals	Drugs discovered by Ube, Contract manufacturing
Battery materials	LIB electrolyte, Separator LIB electrolyte solvents (high-purity DMC, DEC/DMC) AMC (Multilayer Carbon Nanotube) Binder
Specialty chemicals	C1 chemicals (DMC, PUD etc) Dihydric Phenol Derivatives, eco-friendly coating materials (PUD) Metal organic compounds
Specialty plastics	Polyimide varnish, Nylon specialty products, Butadiene rubber specialty products
Specialty inorganic materials	Silicon nitride, high-purity calcia and magnesia MOS-HIGE(Fibrous magnesium oxysulfate) Smoke exhaust and water purification materials
Recycling and renewable energy	Advanced waste processing Recycled compound plastics (Colored recycled resin) Palm kernel shells (PKS) and other biomass materials



[Actively expand] Actively allocate necessary business resources to increase revenues and cash flow
[Strengthen business platform] Allocate necessary business resources to strengthen revenues, derive benefits from past investments, secure revenues and cash flow, and strengthen business position

Field	Products
Synthetic rubber	Butadiene rubber
Lactam and nylon chain	Caprolactam, Ammonia sulfate, Nylon resins, Industrial chemicals (ammonia, nitric acid, oxalic acid, liquefied carbon dioxide, hydrogen peroxide) Lactam-based fine chemicals (diol, hydroxylamine sulfate, MEK-Oxime etc.)
Polyimide chain	Polyimide (BPDA, film, 2-layer copper-clad laminate, shaped materials) Gas separation membrane
Semiconductor, electronic, and optical materials	High-purity chemicals Phenol resins, Polymer processed products
Cement and ready-mixed concrete	Cement, ready-mixed concrete, building materials
Limestone, calcia, and magnesia	
Coal and power	
Machinery services	
Molding machinery, industrial machinery, steel products	



Rapidly foster business segments in the developing field into strategic growth businesses or core platform businesses to achieve targets and secure sufficient profits

Field	Products
Aerospace	PETI (heat-resistant composite material) Polyimide foam Multi-layer insulation Tyranno fiber
Information electronics	MGC Light conversion materials SiAION (Silicon nitride ceramics) Porous Polyimide Membranes POMP(Porous polyamide powder) Hipresica (silica monodisperse fine powders)
Energy and environment	Next-generation battery materials Heliotropin (100% synthetic fragrances) Slide-ring materials Photocatalytic fiber

Ceramics business

- Hybrid and electric vehicles:
Power device substrate materials
- Clean diesel: Glow plug materials
- New energy: Ball bearing materials for wind power generation equipment
Materials for solar cells manufacturing process
- Advanced lighting: LED phosphor materials



Bearings



Glow plug

Gas separation membrane business

- Explosion-proofing for shale gas development and coal gasification:
Nitrogen separation membranes, hydrogen membranes
- Natural gas and biogas separation:
Decarboxylation membranes, etc.
- Bioethanol: Alcohol dehydration membranes



Oil field

Increased demand for
environmental and
energy applications

Semiconductor and electronic materials business

- High-luminosity white LED materials:
Metal organic compounds
- Power-saving LSI process materials: Boron trichloride,
high-purity chemicals (nitric acid, aqueous ammonia)
- Sealants for semiconductors: Phenol resins (Meiwa Plastics Industries, Ltd.)
⇒ Developing new application for use in shale oil field proppant



Solar cells



Business Strategy for Coal and Power

- Stable supply of competitive coal and electricity to the Ube Group
- Generate stable profits and cashflow
- Respond to energy and global environmental issues and pursue technology development

Current Business Conditions

- Rise in energy costs, due to increased demand from developing countries and review of nuclear policy across the globe
- Demand for solutions to global environmental issues

Actions on coal business

- Efficient operation of Okinoyama Coal Center
- Procure at competitive prices
- Use new biomass fuels, and develop technology for using low-grade coal such as brown coal

Actions on power business

- Increase volume of low-grade coal and types of coal, and reinforce facilities
- Strengthen biomass mixed incineration, join mega-solar project
- Continue selling power externally (maximize the volume of power generation)

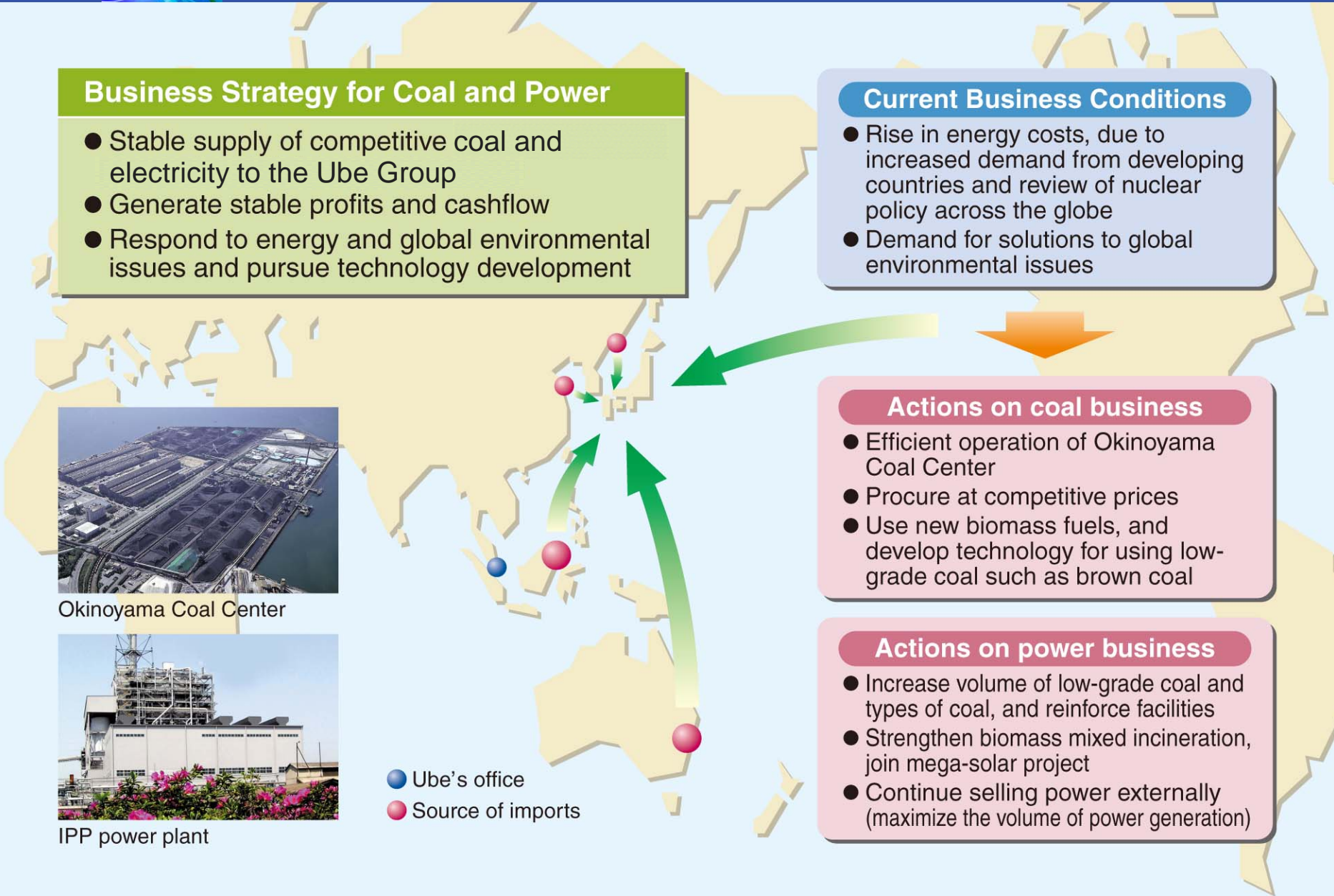


Okinoyama Coal Center



IPP power plant

- Ube's office
- Source of imports

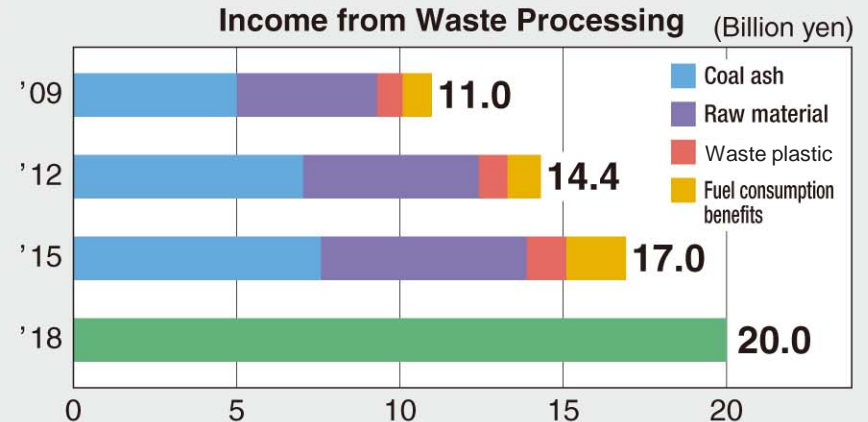


Advanced waste recycling (Demand for processing of waste in the process of production at cement kilns)

Business Strategy for Cement Recycling

- Consolidate processing facilities
- Strengthen the collection of difficult to process waste
- Recycle waste for applications other than cement materials

Target processing income of
¥20 billion by fiscal 2018

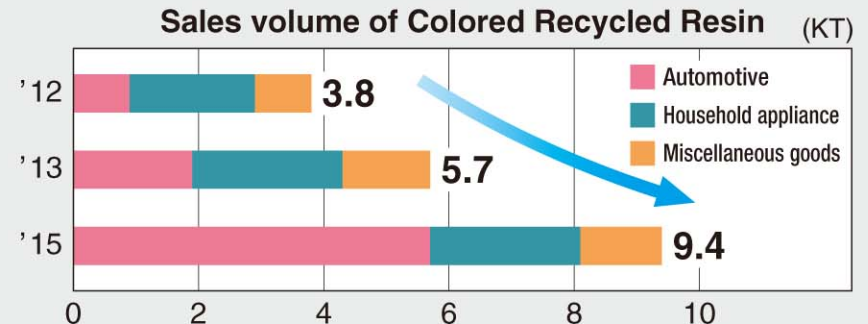


Resin recycling (UBE Composite colored recycled resin)

⇒ Meet the growing demand for recycled plastic with its proprietary compound and dyeing technologies.

Strategy for Plastics Recycling Business

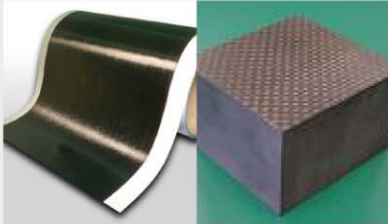
- Accommodate increased use of recycled materials in automotive sector
- ➔** Strengthen production facilities
Strengthen the collection of recycling materials



Renewable energy business

Strategy for Renewable Energy Business

- Rapidly build up business for supplying biomass fuels based on proprietary technologies
- Mega-solar project using idle land



PETI heat-resistant composite material

2009 - 2015
R&D with Boeing

- Engine nacelles
- Pylons



Polyimide foam

Adopt for
aircraft by 2013

- Aircraft Thermal and acoustical insulation for air ducts
- Insulating materials for nuclear power plants and vessels



Air duct



Heat control film

Used by JAXA
Thermal Blanket
Aerospace sheet heater

- Artificial satellites
- Rocket



Kounotori No.3(HTV)
© JAXA



Tyranno Fiber/Tyrannohex

2011 - 2015
Testing for
commercial application
→ System verification

- Next generation commercial jet engines



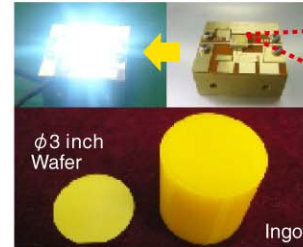
Jet engines



■ New phosphor materials for next-generation LEDs

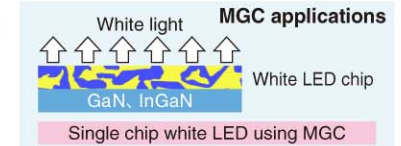
ZEBRIGHT® (MGC Light conversion materials)

- YAG phosphor for solid-state lighting made from proprietary melt growth composite with light-changing properties, for use in LEDs that offer extended brightness



◆ MGC light conversion material

YAG: Co phase (Converts blue light into yellow light)
ALO phase (Transmits blue light)

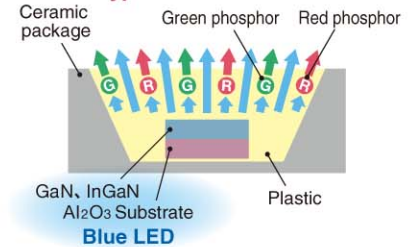


SiAlON Nitride phosphor (RGB-type white LED)

- UBE is developing nitride phosphors by leveraging the technology platform developed for silicon nitride, for use in next-generation LEDs that offer natural colors that closely resemble sunlight.

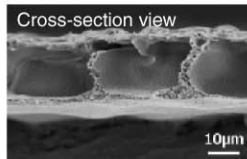


◆ RGB-type white LED

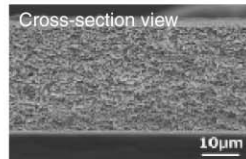


Porous Polyimide Membranes

- Excellent heat resistance, permeability, dimensional stability, and chemical stability, and controllable to realize a wide variety of multiporous structures



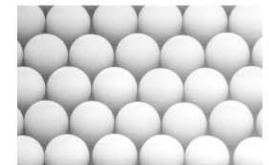
Macro Void (MV) type
(Highly permeable, high void ratio)



Micro Porous (MP) type
(High selectivity, high resilience)

Hipresica® (High-purity silica monodisperse fine powders)

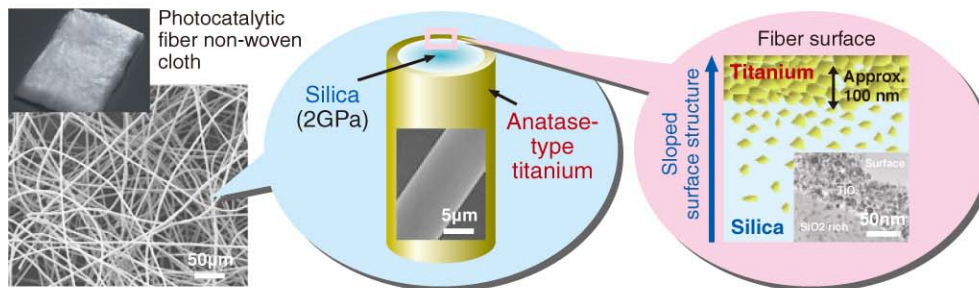
- High-purity, spherical fine silica powders made using sol-gel method
- Strong track record used as spacer material for LCDs. Offers diverse particle elasticity to match element and wiring structures such as displays, touchscreen panels, and MEMS spacers.
- Soft particles reduce damage to fine, multilayer wiring





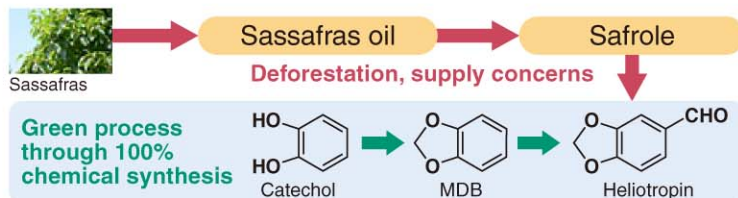
Photocatalytic Fiber

- Environmental purification catalyst which allows decomposition of all kinds of organic matter as well as various types of bacteria and viruses through oxidation using photocatalytic reaction
- Specialty inorganic fiber notable for having a sloped surface structure achieved through continuous change in composition from silica (SiO₂) in fiber to titanium (TiO₂) on surface



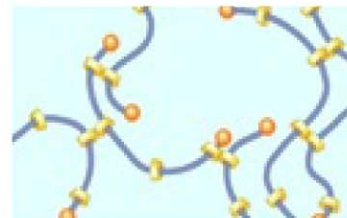
Heliotropin

- 100% chemical synthesis process helps protect forest resources by addressing deforestation and supply concerns associated with conventional manufacturing process using sassafras as an ingredient
- Uses eco-friendly H₂O₂ for oxidation



Slide-Ring Material[®]

- Excellent resiliency and impact absorption from deformities such as scratching. Developing applications for industrial products such as scratch-resistant specialty paints, elastomers, adhesives, and glues.



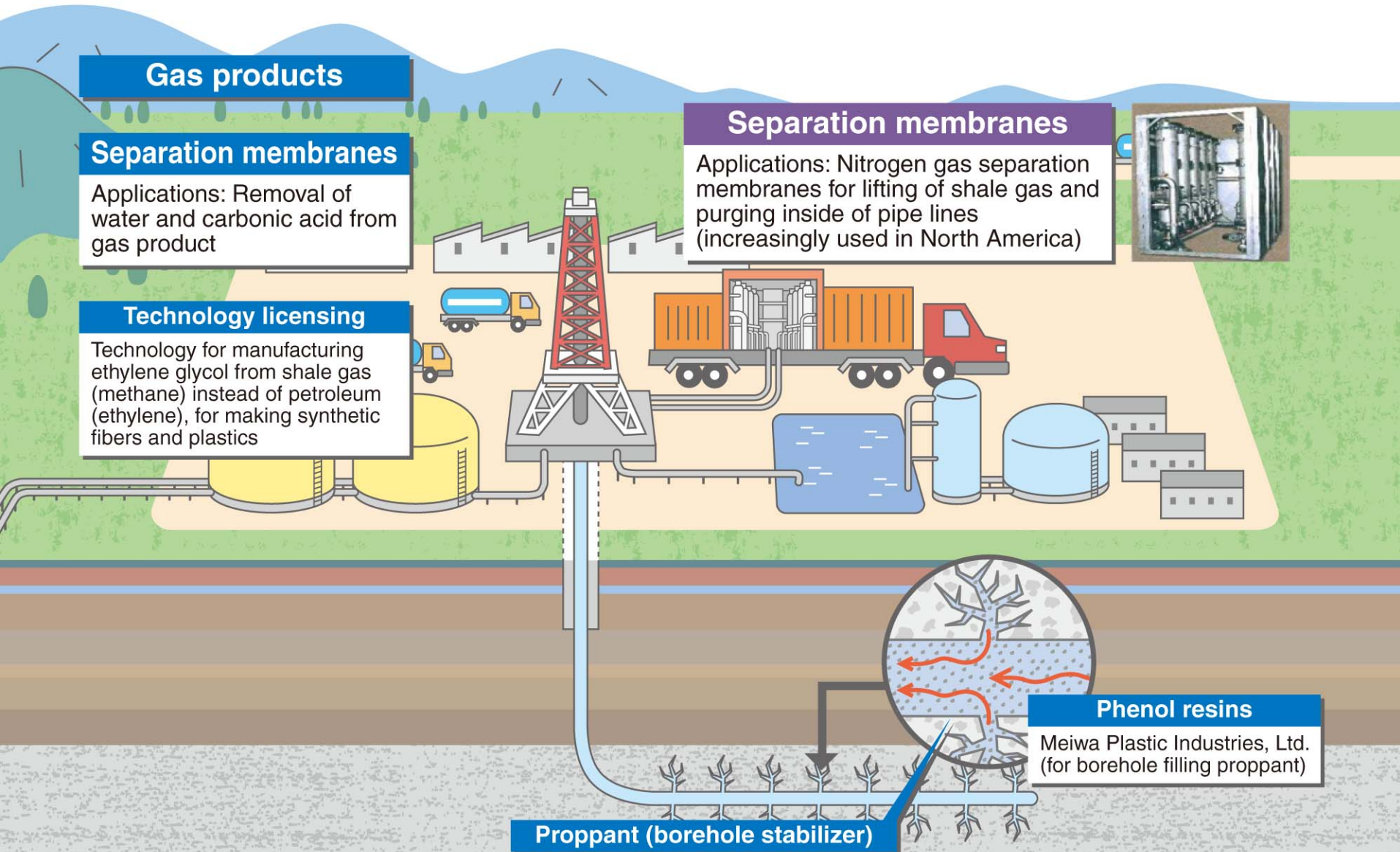
schematic diagram



application example: automotive painting

Next-Generation Battery Materials

- Development of next-generation battery materials, such as separators with new functional layers that further improve the safety and long life of LIBs, by leveraging technology and expertise developed for battery materials business





- **To provide customers additional value as a manufacturer and contribute to the global society**
- **To create and enhance new value by actively seeking new challenges**
- **To comprehend the essential issue deeply and act swiftly, thoroughly, and in a timely manner**



**Wings of
technology
Spirit of
innovation
UBE**

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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