# Progress of Stage Up 2012 – New Challenges – Medium-Term Management Plan

Fiscal Year Ended March 31, 2011

— May 17, 2011 —

UBE INDUSTRIES,LTD.

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# FY2010 Consolidated Results and FY2011 Forecast

# FY2010 Consolidated Results Major P/L & B/S Items



### Capitalized on healthy demand in Asia market to significantly increase revenues and profits

Item	FY2009	FY2010	YoY Change	Factors
Net sales	549.5	616.0	<b>66.5</b> (12.1%)	Increased sales volumes, raised selling prices for chemicals, other
Operating income	27.5	44.3	16.7 (60.8%)	Increased sales volumes, improved spreads for caprolactam (CPL), other
Ordinary income	18.9	39.1	<b>20.1</b> (105.8%)	Improved in Net interest expenses, equity method investment profits, other
Net income	8.2	17.2	9.0 (110.1%)	Withdrew from aluminum wheel business
Net interest-				
bearing liabilities	244.0	211.0	-33.0	
Equity capital	178.8	187.0	8.1	
Dividend (Yen / Share)	4.0	5.0	1.0	

# **FY2010 Consolidated Results Sales and Operating Income by Segment**



Segment data for FY2009 has been adjusted, based on management approach adopted from FY2010.

Sagmont	Sales			Operating Income		
Segment	FY2009	FY2010	YoY Change	FY2009	FY2010	YoY Change
Chemicals & Plastics	165.0	204.5	39.4	4.7	20.0	15.2
Specialty Chemicals & Products	60.3	68.7	8.4	3.2	8.7	5.4
Pharmaceutical	9.9	8.8	-1.1	3.7	2.3	-1.4
Cement & Construction Materials	188.3	200.4	12.0	6.1	8.0	1.9
Machinery & Metal Products	81.7	83.4	1.6	4.4	1.7	-2.6
Energy & Environment	54.1	59.1	4.9	4.3	4.0	-0.2
Others	19.0	26.8	7.7	0.9	1.1	0.1
Adjustments*	-29.3	-35.9	-6.6	-0.1	-1.6	-1.5
Total	549.5	616.0	66.5	27.5	44.3	16.7

<sup>\*</sup> Including offset from intersegment transactions



# FY2011 Consolidated Forecasts External Factors



(Billion yen)

Item		FY2010 (A)	FY2011 (B)	YoY Change (B) - (A)	Impacts on Consolidated OP Income	
	Exchage Rate	¥/US\$	85.7	85.0	-0.7	0.1
	(CIF)	US\$/t	762	1,050	288	-5.5
e	Naphtha (Domestic)	¥/KL	47,500	64,000	16,500	(-5.3)
Material Price	Benzene (Average of US and Euro Contract Price)	US\$/t	997	1,243	246	-8.2 (-7.3)
M	Australian Coal	US\$/t	120.0	152.1	32.1	-6.6
	(CIF)	¥/t	10,287	12,924	2,637	(-6.4)

( ): including impacts from fluctuation of exchange rate



# FY2011 Consolidated Forecasts Major P/L & B/S Items



 Supply and demand to remain firm, centering on chemicals Increased revenues from pharmaceuticals, machinery and metal products to offset quake impact, keeping profits at FY2010 levels

Item	FY2010	FY2011	YoY Change	Factors
Net sales	616.0	650.0	34.0	Increase in sales volumes, higher selling prices
Operating income	44.3	44.0	-0.3	
Ordinary income	39.1	38.0	-1.1	Decrease in equity method investment profits, other
Net income	17.2	20.0	2.8	Improvement of extraordinary profit/loss
Net interest- bearing liabilities	211.0	218.0	7.0	
Equity capital	187.0	196.0	9.0	
Dividend (Yen / Share)	5.0	5.0	0.0	



# FY2011 Consolidated Forecasts Impact of Great East Japan Earthquake



### Only light damage from quake, but concern over the following:

### Supply Chain

### **Raw Materials:**

Methyl ethyl ketoxime (MEKO) fine chemical: Urgent need to secure a substitute for raw material MEK

Machinery: Risk of procurement delays for electrical components, etc.

### **Customers' Operations**

Serious recovery of automotive and electronic materials segments projected for 2nd half of fiscal year

### **Power**

Chiba Petrochemical Factory slated to implement production adjustment in summer 2011

### Radiation

Currently responding to customer requests for proof of product safety

### **Impact on FY2011 Earnings**

### **Operating Income**

Incorporates ¥2.7 billion decrease in operating income

Note: Recorded extraordinary loss of ¥700 million for FY2010



# **FY2011 Consolidated Forecasts Sales and Operating Income by Segment**



Sagmont	Sales			Operating Income		
Segment	FY2010	FY2011	YoY Change	FY2010	FY2011	YoY Change
Chemicals & Plastics	204.5	226.0	21.5	20.0	18.5	-1.5
Specialty Chemicals & Products	68.7	76.0	7.3	8.7	8.5	-0.2
Pharmaceutical	8.8	11.5	2.7	2.3	4.0	1.7
Cement & Construction Materials	200.4	203.5	3.1	8.0	8.0	0
Machinery & Metal Products	83.4	79.0	-4.4	1.7	3.0	1.3
Energy & Environment	59.1	67.0	7.9	4.0	3.5	-0.5
Others	26.8	25.0	-1.8	1.1	1.0	-0.1
Adjustments*	-35.9	-38.0	-2.1	-1.6	-2.5	-0.9
Total	616.0	650.0	34.0	44.3	44.0	-0.3

<sup>\*</sup> Including offset from intersegment transactions



# Outlook for Main Business (1) Consolidated Forecast for FY2011



### **Chemicals & Plastics**







- Caprolactam: Continue operating at full production levels, supported by healthy demand in Asia. Ube will endeavor to maintain and increase spreads in response to fluctuations in the supply and demand situation and prices for raw material benzene, while strengthening cost competitiveness across four plants in three countries, in order to flexibly respond to changing business conditions.
- Polyamide Resin: Demand for the automotive market is down slightly, but demand for food wrapping films is firm and stable.
  - Ube will leverage cost competitiveness of new 50,000-tonne production facilities in Thailand and capitalize on brand strength built around high quality and stable supply, while endeavoring to adjust prices to reflect the rising cost of raw material caprolactam.
- Industrial Chemicals: Demand for ammonia is strong, driven by favorable conditions for caprolactam and acrylonitrile. Market conditions are also recovering.
  As the largest ammonia supplier in Japan, Ube will capitalize on a stable supply capability and its sales network to expand sales.
- Synthetic Rubber: There is continued healthy demand for both tire and non-tire markets (HIPS, footwear, etc.). Ube is maintaining and increasing spreads in response to major fluctuations in the price of raw materials. Ube will efficiently balance production between its three plants (Japan, Thailand and China) and aggressively pursue marketing initiatives.

  (Billion yen)

Item	FY2009	FY2010	FY2011
Net sales	165.0	204.5	226.0
Operating income	4.7	20.0	18.5

FY2012 (Mid-Term plan)
221.0
15.0



### **Outlook for Main Business (2) Consolidated Forecast for FY2011**



### **Specialty Chemicals** & Products







- **Polyimides:** Demand for films used in flat panels is starting to decrease. Ube will take steps to increase market share in the LCD sector both in and outside of Japan, and strengthen the polyimide chain by entering new growth markets such as solar cells, while developing markets for related products.
- Gas Separation Membranes: Recovery in nitrogen separation membranes with healthy demand for dehydration membranes. Anticipate growth in the use of decarboxylation membranes in environmental applications.
- **Battery Materials:** Ube will respond to growth in the consumer market for lithium-ion rechargeable batteries, while actively pursuing new markets for vehicle and storage battery applications. In addition, Ube will enhance cost competitiveness and strengthen electrolyte development, and increase production capacity for separators. Ube will also develop and commercialize ceramic coat separator through Ube Maxell Co., Ltd. (established in February 2011).
- Semiconductor Materials: Start construction of 2nd production facilities for metal organic (MO) compounds, in response to increased demand from LED market.
- **Ceramics:** There is firm demand for both machine tools and in the renewable energy sector, and growth in demand for LED applications.
- Fine Chemicals: Ube will endeavor to further increase prices for products that face tight supply and demand, and focus on polyurethane dispersion (PUD) materials and launching new production facilities for diol in Thailand. In addition, Ube will start construction of production facilities for artificial micro carbon (AMC) and the 2nd production facilities for polycarbonate diol (PCD) in Spain. Ube will also license dimethyl oxalate (DMO) and mono ethylene glycol (MEG) technology to major plants in China. (Billion yen)

Item	FY2009	FY2010	FY2011
Net sales	60.3	68.7	76.0
Operating income	3.2	8.7	8.5

	'2012 Term plan)
8	39.5
1	4.0



# Outlook for Main Business (3) Consolidated Forecast for FY2011



### **Pharmaceutical**







■ Ube's products from R&D: Project continued growth in volumes for Talion and Calblock.

Efficient sales commenced in other countries outside Japan, following Europe and the US, while Phase III clinical trials continue in Japan.

Increasing support for pharmaceuticals companies of partners, in order to enhance Lifecycle Management such as new formulations and indications for the three products already launched.

### Ube's products

Trade name	Indication	Partner
Talion	Antiallergy agent	Sales: Mitsubishi Tanabe Pharma Corporation
Calblock	Antihypertensive agent	Sales: Daiichi Sankyo Co., Ltd.
Effient	Antiplatelet agent	Sales: Eli Lilly and Company, Daiichi Sankyo Co., Ltd.

■ Under contract Manufacturing: Project increased net sales from both existing contracts and new orders for APIs and intermediates, including orders carried forward from FY2010.

Item	FY2009	FY2010	FY2011
Net sales	9.9	8.8	11.5
Operating income	3.7	2.3	4.0

FY2012 (Mid-Term plan)
17.0
8.0

# Outlook for Main Business (4) Consolidated Forecast for FY2011



# Cement & Construction Materials







- Cement & Ready-Mixed Concrete: Total cement demand for Japan markets is projected at near 41 million tonnes. Cement demand in Japan is projected to remain level from FY2010, reflecting a gradual decrease in public sector demand and recovery of private sector demand.
  Ube will secure a framework for supply to quake reconstruction areas, and accommodate demand.
  (Budget do not incorporate demand from quake reconstruction.)
  Driven by a healthy export market, Ube will endeavor to achieve full operating levels at production facilities, and maintain a profitable position through further streamlining and by securing ideal pricing.
- Resource Recycling: Ube will build new facilities such as for waste plastics fuel conversion and sludge drying, while strictly controlling maintenance repairs for existing facilities.
  Ube will also strengthen technology development and waste collection to steadily expand revenues, and actively pursue the processing of waste generated from the quake.
- Calcia and Magnesia: There is strong demand for the steel market. Ube will increase prices to cope with higher fuel procurement costs.
- Specialty Inorganic Products: Firm growth in high purity powders and *MOS-HIGE*, plastics filler, for the semiconductor, consumer electronics and automotive sectors.

  Ube anticipates further growth and will work to develop and bring to market new products.

Item	FY2009	FY2010	FY2011
Net sales	188.3	200.4	203.5
Operating income	6.1	8.0	8.0

FY2012 (Mid-Term plan)
195.0
8.9

# Outlook for Main Business (5) Consolidated Forecast for FY2011



# Machinery & Metal Products







- Machinery: Demand for molding machines is recovering in developing countries, and Ube will market new machines that incorporate both cost reductions and performance improvements, in order to restore profitability.
  - Net sales of industrial machinery are projected to be firm but with a challenging environment for securing orders, Ube will focus on securing orders from steel manufacturers outside of Japan, and in the segments of vertical mills for the power sector, and conveyance machinery. In the services business, Ube will enhance its service framework outside of Japan and endeavor to secure more orders.
  - In the steel market, Ube will seek to expand billet sales in southeast Asia markets.
- Aluminum Wheels: Due to upheaval in the automotive market, Ube decided in March 2011 to withdraw from the aluminum wheel business.
  - Ube will seek to minimize losses recorded in FY2010 relating to the withdrawal.

Item	FY2009	FY2010	FY2011
Net sales	81.7	83.4	79.0
Operating income	4.4	1.7	3.0

FY2012 (Mid-Term plan)
94.5
5.8

# Outlook for Main Business (6) Consolidated Forecast for FY2011



### **Energy & Environment**







- Coal: The concern is that demand will temporarily drop due to the Great East Japan Earthquake, but Ube projects increased demand from power utilities, and will endeavor to maintain and expand coal sales and coal storage volumes through efforts such as developing new customers.
  - With coal prices rising significantly, Ube will endeavor to procure coal at competitive prices including ocean freight rates.
  - Coal Center (coal storage service) will seek to increase coal handling volumes to capitalize on its expanded coal storage capacity, and will endeavor to operate at peak efficiency.
  - Ube will also pursue the business of supplying palm kernel shells (PKS) as a fuel source, as part of measures to address global warming.
- **Power:** To limit cost increases from rising coal prices, Ube will increase the use of low-grade coal and continue using biomass mixed incineration.
  - Ube will actively pursue sales of excess power from private power plants to outside customers, in an effort to increase revenues.

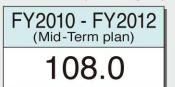
Item	FY2009	FY2010	FY2011
Net sales	54.1	59.1	67.0
Operating income	4.3	4.0	3.5

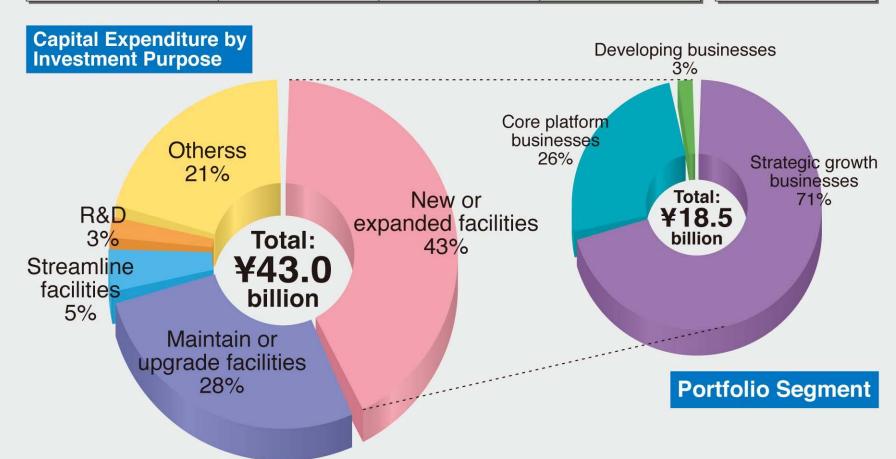
FY2012 (Mid-Term plan)	
64.0	
2.8	

# FY2009–2011 Capital Expenditures by Purpose and Portfolio Segment



Item	FY2009	FY2010	FY2011
Capital Expenditure	24.6	35.3	43.0



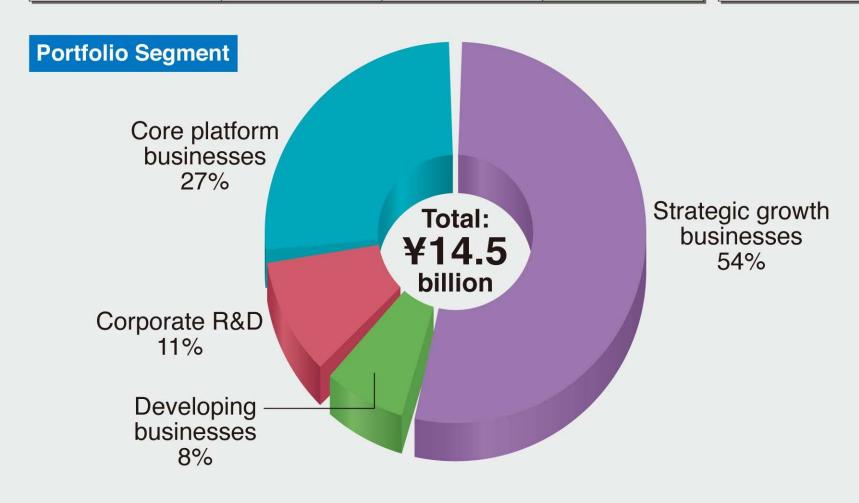


# FY2009–2011 R&D Expenditures by Portfolio Segment



Item	FY2009	FY2010	FY2011
R&D expenses	13.0	13.7	14.5









# Stage Up 2012 Mid-Term Management Plan Basic Strategies (Part 1)



### Establish a Platform for Profitability That Enables Sustainable Growth

Continue to optimize the business portfolio by striking a balance between strategic growth businesses and core platform businesses, to achieve sustainable growth.

- Place the highest priority on pharmaceuticals, battery materials, and fine chemicals, in order to drive growth
- Secure the next stage of growth for the polyimide chain
- Capture volume business in the emerging markets of developing nations, by means of technology innovation and product development
- Pursue strategies specifically tailored to each business segment
- In segments that are forecasted to have low or declining demand, the Ube Group will restructure the production framework, and merge or eliminate facilities in order to secure a certain level of profits

Strategic Growth
Businesses

Core Platform
Businesses

# Stage Up 2012 Mid-Term Management Plan Basic Strategies (Part 2)



### 2 Sustained Improvement of Financial Position

- Lower the net debt/equity ratio to below 1.0 as soon as possible Achieve a financial position that qualifies for an A credit rating
- Continue to restrict capital expenditures to a level that equals depreciation (over three years) Take a proactive stance on alliances and/or mergers and acquisitions, in order to accelerate the pace of growth and transform the business structure.
- Pursue a management strategy with a strict emphasis on cash flow Enhance inventory management, reduce logistics costs, and enhance the efficiency of management indirect processes

### Respond to and Address Global Environmental Issues

- Strengthen initiatives to reduce greenhouse gas emissions, reduce waste, and conserve energy
- Endeavor to develop environmentally friendly technologies and products Seize business opportunities to trigger growth

# Summary of Stage Up 2009 Mid-Term Management Plan (Part 1) Target Achievement



Item	Unit	FY2009 Result	FY2010 Result	FY2011 Forecast	FY2012 Mid-Term plan	FY2015 Targets
Net debt/equity ratio	Times	1.4	1.1	1.1	Below 1.0	_
Equity ratio	%	27.3	28.3	28.6	30 or above	_
Operating income ratio	%	5.0	7.2	6.8	7.5 or above	8.0 or above
Return on assets	%	4.4	7.2	6.8	7.5 or above	8.0 or above
Return on equity	%	4.7	9.4	10.4	12 or above	_
Net sales	Billion yen	549.5	616.0	650.0	670.0 or above	_
Operating income	Billion yen	27.5	44.3	44.0	53.0 or above	70.0 or above
Business income	Billion yen	29.3	47.0	46.0	55.0 or above	_
Net interest-bearing liabilities	Billion yen	244.0	211.0	218.0	Below 220.0	_
Equity capital	Billion yen	178.8	187.0	196.0	225.0 or above	_
Cost reductions (compared with FY2009)	Billion yen	_	11.3	19.0	21.0 or above	_

Stage Up 2012 Mid-Term Management Plan
-New Challenges-

**Establish a Platform for Profitability that Enables Sustainable Growth** 

### **Business Portfolio**



### **Developing Businesses**

- Aerospace materials
- Lighting-related materials
- New eco-friendly materials

### **Strategic Growth Businesses**

- Pharmaceuticals
- Fine chemicals
- Specialty inorganic materials
- Recycling

- Battery materials
- Polyimides
- Gas separation membranes
- Polyimide chain
- Semiconductor-related and electronic materials

### **Core Platform Businesses**

### Caprolactam chain

- Polyamide resins
- CaprolactamIndustrial chemicals
- Cement and ready mixed concrete
- Calcia and magnesia

- Synthetic rubber
- (Polyethylene) (ABS)

Coal

Power

- Molding machines
- Industrial machinery
- Steel products

lene) Withdrawn from business

### Rebuilding Businesses

Aluminum wheels



# **Initiatives in Key Business Segments Strategic Growth Businesses (Part 1)**



### **Highest Priority Businesses**

### **Pharmaceuticals**



- Enhance the supply capacity for APIs, to cope with larger volumes for both originally discovered pharmaceuticals and pharmaceuticals under contract.
  - ◆ 4th pharmaceuticals production line scheduled to go online in November 2011
- Launch new Global Strategies Pharmaceutical Division to strengthen supply chains and capture new customers outside of Japan
- Pursue originally discovered pharmaceuticals development

### **Battery Materials**



- Merge the battery materials business with the Specialty Battery Materials Business Unit
- Launch the Advanced Energy Materials Research and Development Center and strengthen R&D for battery materials
- Establish a development center for electrolytes in Europe, and leverage it to pursue the global electrolytes business
- Develop and commercialize ceramic coat separator films through Ube Maxell Co., Ltd.
- Increase production capacity
  - ◆ Expanded production facilities for electrolytes (under construction)
  - ◆ Expanded production facilities for separators (7th production line already scheduled, 8th production line and beyond in planning and consideration stages)
- Pursue development of other related materials to expand the scope of business



### Initiatives in Key Business Segments Strategic Growth Businesses (Part 2)



### **Fine Chemicals**



- Start operation of diol plant in Thailand
- Launch business for environmental coating materials
   Major push to commercialize polyurethane dispersion (PUD) materials, and planning to increase production capacity for polycarbonate diol (PCD) in Spain and elsewhere
- Launch production facilities for artificial micro carbon (AMC), and commercialize slide-ring materials business with Advanced Softmaterials Inc.
- Pursue technology licensing business

### **Polyimide Chain**

### Strengthen business segments throughout the chain

- Expand film sales in and outside of Japan to encompass new markets such as for solar cell substrates, automotive industry, and substrate materials for smartphones, in addition to existing thin panel market (TAB, COF)
- For varnishes, accelerate development aimed at new applications such as electronic devices
- Develop more sophisticated production technologies and reorganize production facilities to enhance cost competitiveness
- For gas separation membranes, focus on environmental-related sectors such as decarboxylation membranes for biogas, in addition to markets for nitrogen separation and dehumidification

### **Initiatives to Secure Future Growth**

- Expand the range of specialty inorganic materials
- Achieve rapid commercialization to transition from developing businesses to strategic growth businesses

Aerospace Materials Lighting-Related Materials New Eco-Friendly Materials



### **Initiatives in Key Business Segments Core Platform Businesses (Part 1)**



### **Businesses Likely to See Increased Demand in the Asian Market**

### Caprolactam Chain

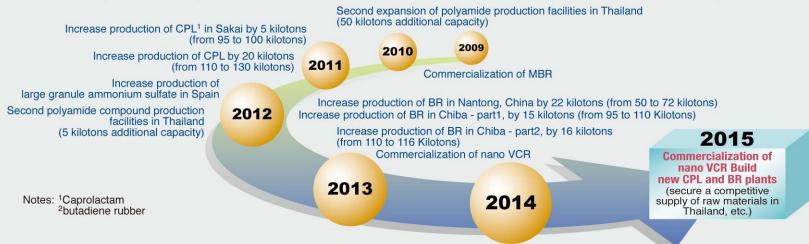
### Anchor and strengthen the market presence

- Increase production in Asia, where demand is growing (Caprolactam: Sakai, Osaka; Thailand)
- Create high added value throughout caprolactam chain: Increase production capacity for nylon compounds and shift to production of large granular ammonium sulfate in Spain
- Better accommodate markets in developing countries: Establish Brazil office, and consider for India office location

### Synthetic Rubber

### Build a supply framework to cope with rising demand

- Accommodate additional demand from customers: Increase production of butadiene rubber in Nantong, China and Chiba
- Achieve differentiation of products Metallocene catalyst butadiene rubber (MBR) as a polystyrene improver with excellent impact durability, nano vinyl cis rubber (VCR) for tires that deliver improved fuel economy, others





# Initiatives in Key Business Segments Core Platform Businesses (Part 2)



Businesses in which to Reinforce Operational Foundation and Cash Flow Creation Capability by Adopting to Market Change

Cement and Ready-Mixed Concrete



- Build a framework to match business conditions
  - ◆ Reassess the patterns for operation and regular repairs, and consolidate logistics facilities (vessels and shipping bases)
  - ◆ Pursue structural improvements: Optimize staffing and company organization, and consolidate ready-mix concrete plants
  - ◆ Take flexible approach to adapt to trends in demand both in and outside of Japan, and maintain high operating rates
- Cope with rising energy costs
  - ◆ Pursue further cost reductions from streamlining, and secure ideal pricing
- Increase revenues through waste processing business
  - Expand new processing facilities

### Machinery



- Strengthen ability to accommodate global markets, and expand services business
  - Expand sales of new products that meet market needs
  - ◆ Increase procurement from outside of Japan
  - ◆ Capitalize on demand for after-sales service and refurbishment business, by strengthening the service network outside of Japan (Brazil and India)

### **Coal and Power**



Increase the use of low-grade coal, and expand technology for biomass use

### **Development of Global Business** —Priority Businesses and Market Activities



### **Priority market** is Asia

North America, **Other Regions** 9%

 Shift to products with high added value Expand sales of polyamide resins, shift to large granule ammonium sulfate, and increase production of fine chemicals

Strengthen R&D functions

Asia 73%

Percentage of all sales outside Japan

Major production facilities

Europe 18%

**South Korea** 

China

India

 Open sales office in Sao Paulo, Brazil Chemicals, plastics, machinery, other

> South **America**

Increase production, centering on Thailand

Caprolactam, polyamide resins. synthetic rubber, fine chemicals

Strengthen R&D functions

### **Net Sales Outside of Japan by Segment**

	Chemicals & Plastics	Specialty Chemicals & Products	Pharmaceutical	Cement & Construction Materials	Machinery & Metal Products	Energy & Environment	Others	Total
FY2010 Actual	104.3	17.6	1.0	6.5	31.6	0.1	16.1	177.5
Percentage of Overall Net Sales in Segment (Japan and Outside of Japan)	54.2%	27.2%	12.3%	3.4%	38.4%	0.1%	66.8%	28.8%



# **Key Capital Expenditure Projects for FY2010–2012**



	Project	Site	Completion
Strategic Gro	owth Businesses		
Specialty Chemicals & Products	<ul> <li>Construction of new diol plant</li> <li>Second polycarbonate diol production facilities</li> <li>Upgrades to increase electrolyte production</li> <li>Upgrades to increase separator production</li> <li>2nd production facilities for metal organic (MO) compounds</li> <li>Fourth production facilities for phenol resin at Meiwa Plastic Industries, Ltd.</li> </ul>	Thailand Spain Sakai, Japan Ube, Japan Ube, Japan Ube, Japan	May 2011 December 2011 FY2010–2014 FY2010 March 2012 March 2012
Pharmaceutical	Fourth Phamaceuticals production facilities	Ube, Japan	November 2011
Cement & Construction Materials	<ul> <li>Waste plastic fuel conversion facilities at Kanda Cement Factory</li> <li>Build sewage sludge drying facilities at Isa Cement Factory</li> </ul>	Kanda, Japan Isa, Japan	November 2011 February 2012
Core Platforr	n Businesses		
Chemicals & Plastics	<ul> <li>Debottlenecking project to increase caprolactam production</li> <li>Build production facilities for large granule ammonium sulfate</li> <li>Build production facilities for specialty synthetic rubber products (MBR and nano VCR)</li> <li>Increase synthetic rubber production</li> </ul>	Sakai, Japan; Thailand Spain Chiba, Japan China; Chiba, Japan	March, November 2011 January 2012 February 2011, August 2012 June 2011, August 2012
Developing E	Businesses		
Specialty Chemicals & Products	Build production facilities for heliotropin	Ube, Japan	Under consideration

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### **Key Capital Expenditure Projects** Planning to Start Operating in FY2011





7th production facilities for separator films (Ube, Yamaguchi)



Diol production facilities (Thailand)



10th and 11th production facilities for polyimide films (Sakai, Osaka)

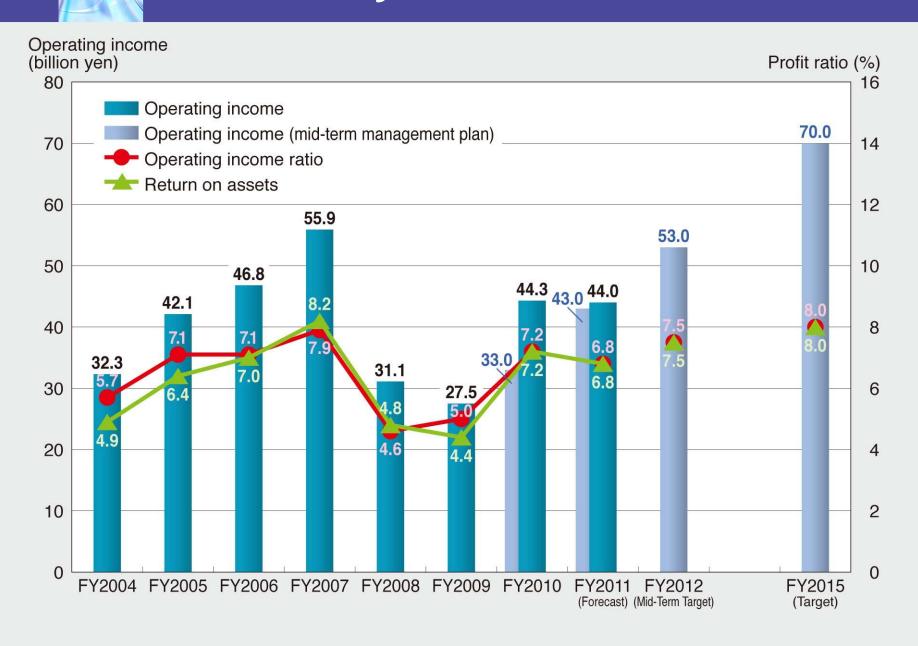


4th pharmaceutical manufacturing facility (Ube, Yamaguchi)



Waste plastic fuel conversion facilities (Kanda, Fukuoka)

### Profitability from 2004 to 2015 UBE



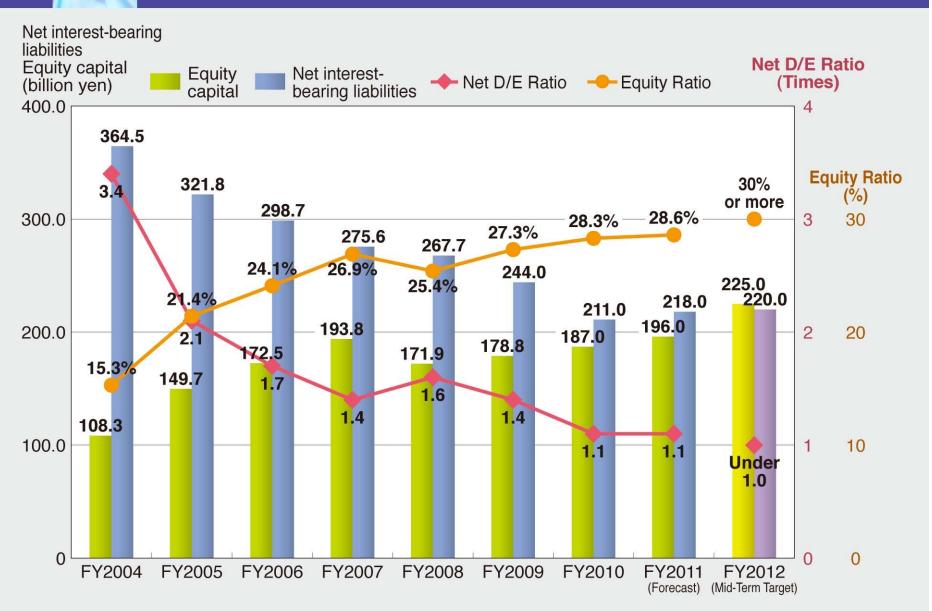
Stage Up 2012 Mid-Term Management Plan

-New Challenges -

**O Sustained Improvement of Financial Position** 

# Financial Position from 2004 to 2012





## Cash Flow Plan



	FY2010 (Result)	FY2011 (Forecast)
Cash flows from operating activities (A)	67.0	48.0
Ordinary income	39.1	38.0
Depreciation	33.1	33.5
Tax payment	- 4.8	- 6.5
Other	- 0.4	- 17.0
Cash flows from investing activities (B)	- 28.6	- 47.0
Capital investment	- 35.3	- 43.0
Other	6.7	- 4.0
Free cash flows (A+B)	38.3	1.0
Increase / decrease in interest-bearing liabilities	- 19.7	- 8.5
Dividends, other	- 6.3	- 8.0
Increase / decrease in cash and cash equivalents	12.2	- 15.5

Stage UP 2012 Total of FY2010-2012
157.0
103.5
108.0
- 21.0
- 33.5
- 116.0
- 108.0
- 8.0
41.0
- 36.0
- 17.0
- 12.0

### **Shareholder Dividends**



Improve corporate value and increase market value, while increasing shareholder dividends under the following strategies.

### **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.

Steadily increase dividends as business results improve, aiming for a dividend payout ratio of 20-25%.



### **Reduction in Greenhouse Gases**

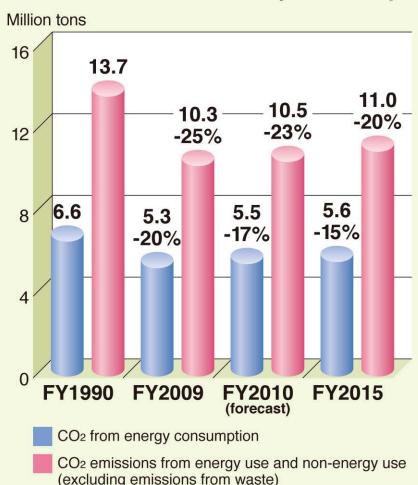


- Overall CO<sub>2</sub> emissions from energy use by the Ube Group: Reduce by 15% compared with FY1990 levels by FY2015
- CO<sub>2</sub> emissions from energy use and non-energy use by the Ube Group: Reduce by 20% compared with FY1990 levels by FY2015

#### **Initiatives to Implement by FY2012**

- Reduce 230,000 tonnes (up from initial target of 180,000 tonnes) of CO<sub>2</sub> emissions from energy use annually, through initiatives such as installation of energy-efficient equipment and facilities, and increased waste recycling.
- Launched a greenhouse gas management system in FY2009 that enables accurate monitoring of CO<sub>2</sub> emission levels for each place of business.
- Use life cycle analysis (LCA) to accurately track CO<sub>2</sub> emission levels and reductions

#### Overall CO<sub>2</sub> Emissions by Ube Group





### Development of Technology and Products that Contribute to the Environment



#### Help address global environmental issues through Ube Group technologies and products

#### **Next-Generation Energy-Related Materials and Products**

- Lithium-ion batteries: Electrolytes, separators
- Solar cells: Polyimide films for substrates, materials for dye-sensitive solar cells, other
- Wind power generation: Silicon nitride for ball bearings
- Fuel cells: Humidification separation membranes



### Materials and Technologies for Improving Energy Efficiency and Reducing Environmental Impact



- LED materials (phosphors, etc.), organic EL materials
- Materials and processing technologies for reducing component weight and improving fuel economy: Polyamide resins, synthetic rubber, molding machines, aerospace materials
- Low VOC materials: Environmental coating materials

### Materials, Products and Technologies Contributing to Environmental Conservation

- Recycling technologies:
   Cement and resource recycling, plastics recycling
- Synthetic fragrance (Heliofresh), contributing to forestry conservation
- Water, air and soil purification:
   Aqua Solution system with photocatalyst fibers,
   magnesia environmental improvers, highly reactive hydrated lime



# **Expansion of Environmental Businesses**



Net Sales (Billion yen)

120.0

45.8

40.0





### **Expansion of Strategic Growth Businesses**

Lithium-ion battery materials: Pursue markets for vehicle and storage battery applications

Solar cell materials: (polyimide products, silicon nitride, EVA, other)

New energy sector: Silicon nitride for wind power generation, gas separation membranes for fuel cells, other

Environmental coating materials

Recycling business: Cement recycling, plastics recycling

Magnesium- and calcium-based materials that improve water, air and soil quality

Accelerate the Commercialization of Developing Businesses

Expand range of lighting-related materials: LED materials, organic EL materials

Develop next-generation solar cell materials

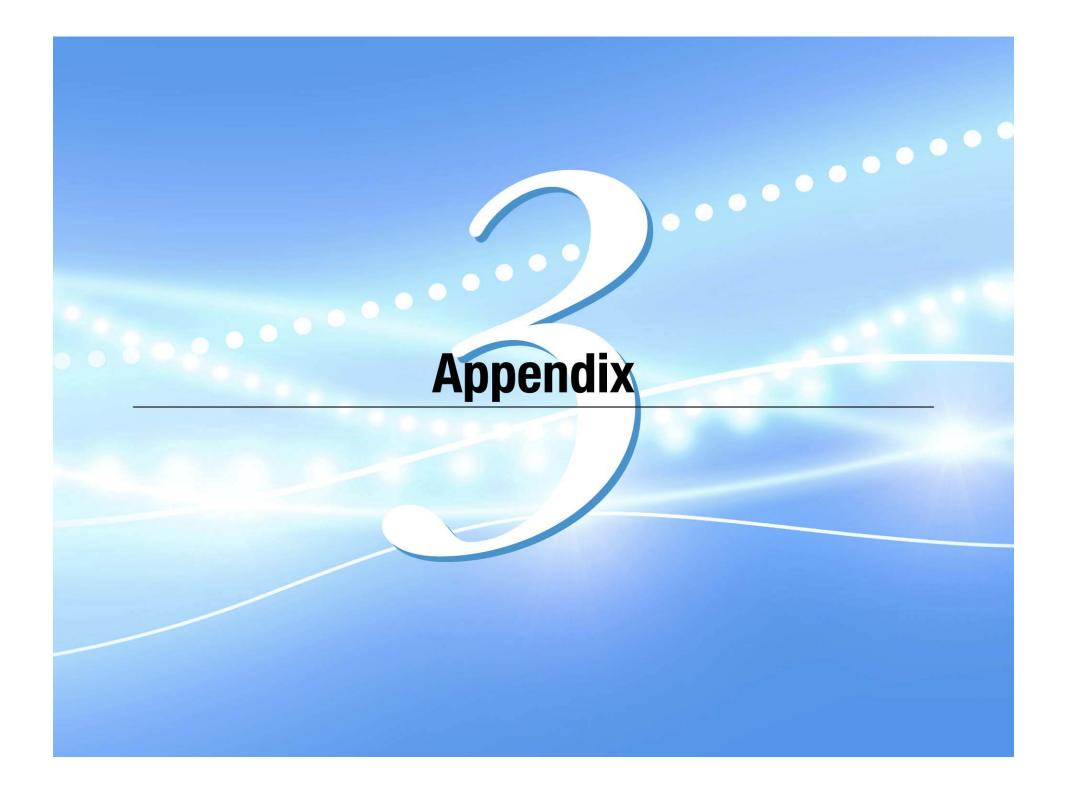
Develop aerospace materials

Aim for net sales increase of ¥80.0 billion from environmental and related businesses by FY2015



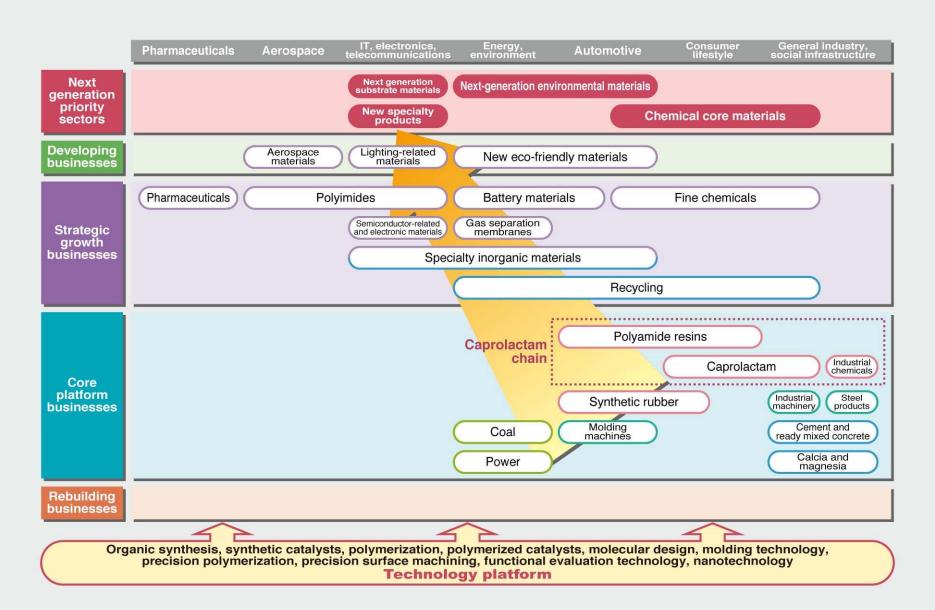
FY2009 FY2010

FY2015



# Business Portfolio and Target of Market / Technology Direction

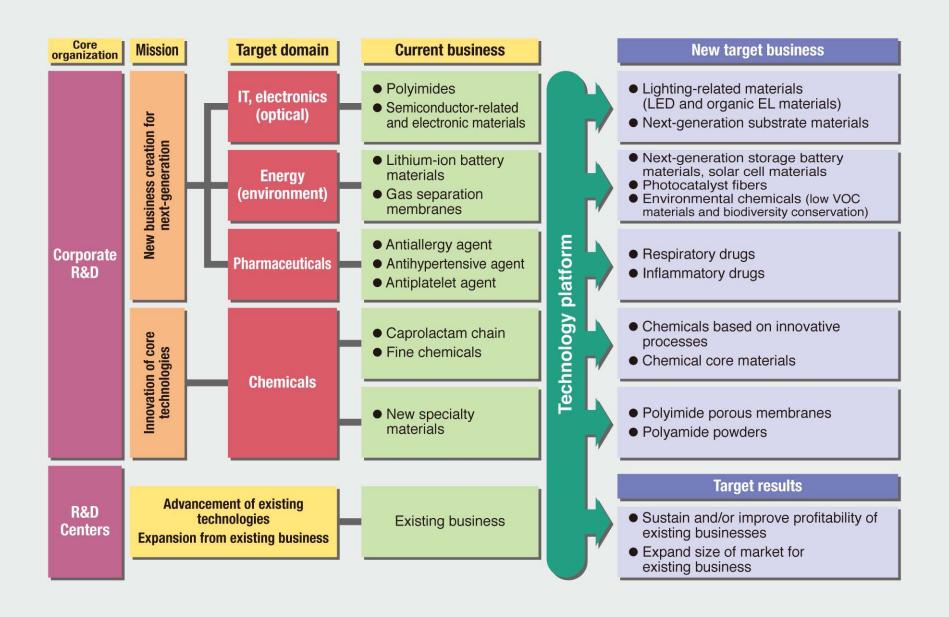




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### **R&D Portfolio**







# Strategic Growth Business: Polyimide Chain Business (Polyimide, Gas Separation Membrane)

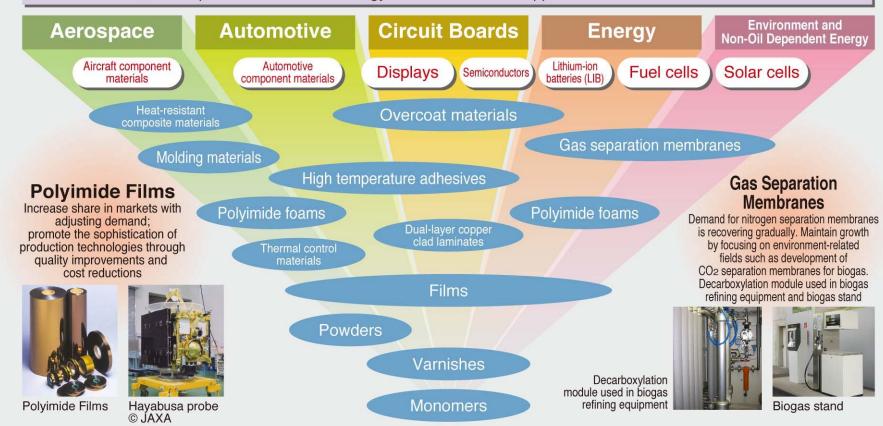


#### **Business Strategy for Polyimide Chain**

**Films:** Strengthen business in circuit board segment (such as for LCDs) as key market; accelerate expansion into new application fields (such as for solar cells and automotive component materials)

**Related Products:** Develop applications for *U-Varnish* and *Upicoat*; expand range of business to encompass powders, molding materials and foams.

**Gas Separation Membranes:** Strengthen the platform for nitrogen separation membranes and dehumidifying membranes, and expand the market for energy and environmental applications



# Strategic Growth Business: Battery Materials

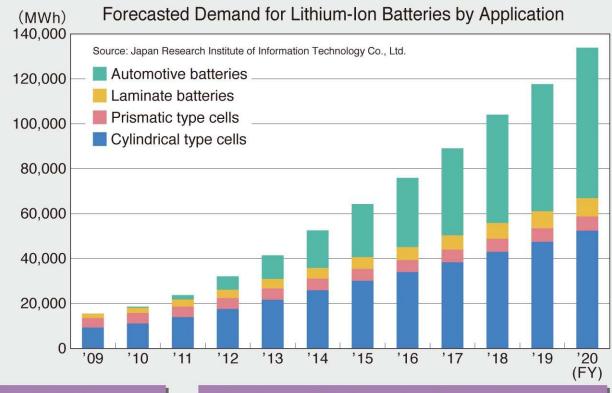




Electrolytes



Separators



#### **Business Strategy for Electrolytes**

- Maintain top market position in high performance electrolytes for high performance batteries
- Enhance cost competitiveness and further increase market share
- Lithium-ion battery electrolytes:
   Actively pursue markets for vehicle and power storage applications

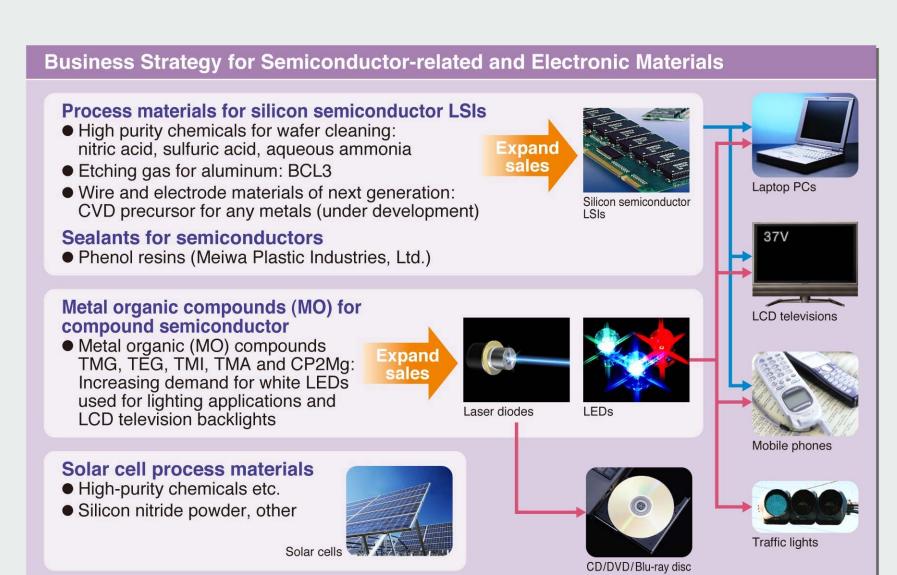
#### **Business Strategy for Separators**

- Firmly maintain the position of de facto standard in the expanding Chinese market
- Increase the sophistication of production technologies, and launch expanded production facilities
- Lithium-ion battery separators: Expand sales for vehicle and power storage applications
- Pursue development at Ube Maxell Co., Ltd.



#### **Strategic Growth Business: Semiconductor-related and Electronic Materials**







### **Strategic Growth Business:** Fine Chemicals



#### **Business Strategy for Fine Chemicals**

#### Strengthen existing businesses

- Global expansion of diol and its derivatives - Start operating new diol plant in Thailand, and develop new markets in South America
- Strengthen C1 chemical business with high-purity dimethyl carboxylate (DMC) products and develop derivatives

and elsewhere

#### Launch environmental coating materials business

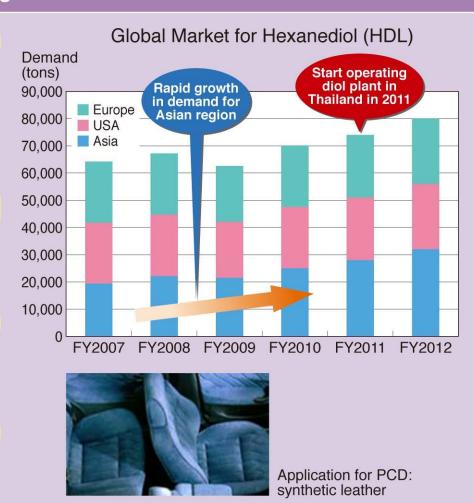
- Full business startup of water-borne polyurethane dispersion (PUD)
- Increase production of polycarbonate diol (PCD) and accelerate introduction of different grades

#### Create a new chemical business

- Partnership with Advanced Softmaterials Inc. to commercialize slide-ring materials (new polymer material)
- Launch of artificial micro carbon (AMC) business

#### Pursue technology licensing business

 License technology for manufacturing polyester feedstock mono ethylene glycol (MEG) from coal





### **Strategic Growth Business: Pharmaceuticals**



#### **Business Strategy for Pharmaceuticals**

Secure separation by firewall between Ube's products business and custom manufacturing business to:,

- Research and Development of Ube's products, focusing on immunological and respiratory area
- Enhancement life-cycle management for Ube's products
- Expand the custom manufacturing business with a focus on APIs for new drugs. by increasing production capacity and widening technologies

#### Current state of joint development and life-cycle management

Indication Trade name (development code) **Current status** (marketing countries) **Future plans** Antiallergy agent Talion tablets Talion (Japan, Korea) Allergic rhinitis Expand the life-cycle management Generic name: Bepotastine Urticaria Talion oral disintegrant New indications and formulas, penetration into besilate Skin disorders with tablets (Japan) Sales: Mitsubishi Tanabe emerging market, etc. Bepreve ophthalmic pruritus, eczema, etc. Pharma Corporation solution (US) Allergic conjunctivitis Calblock Antihypertensive Calblock tablets (Japan) Pursue sales promotion as Olmesartan/Calblock family agent Rezaltas combination Generic name: Azelnidipine marketed Daijchi Sankvo Co., Ltd. Sales: Daiichi Sankyo Co., Ltd. Hypertension tablets (Japan) Expand sales into global countries and regions Expand the range of indications beyond ACS-PCI\*: Effient/Efient Antiplatelet agent Effient tablets Extend to ACS-MM\*\* (now in phase III clinical trials) Generic name: Prasugrel Heart attack, stroke, (US, Europe and other Currently under development in Japan (phase Ilclinical trials) Sales: Daiichi Sankyo Co., Ltd. major countries) Reference: US sales of clopidogrel (Plavix) by indication Eli Lilly and Company For ACS-MM: 42% For ACS-PCI: 23% Overall net sales (2007): \$4.35 billion (DE-104) Antiglaucoma agent Suspended development for eye drops Glaucoma and ocular Co-development: hypertension Santen Pharmaceuticals Co., Ltd. \* ACS-PCI: Therapeutic agent for acute coronary syndrome (ACS) patients who are managed with percutaneous coronary intervention (PCI)

\*\* ACS-MM: Therapeutic agent for acute coronary syndrome (ACS) patients who are managed with drug therapy

#### ◆ Status of Pharmaceuticals Manufactured on Contract Basis

Marketed **Pharmaceuticals**  APIs for anti-inflammatory agents, antihypertensive agents, antibacterial agents, etc. Intermediates for cholesterol reducing agents, anticancer agents, etc.

Pharmaceuticals **Under Development** 

APIs and intermediates for anticancer agents, antithrombotic agents, diabetes treatments, and influenza drugs

Growth in large orders for new drugs, from major Japanese and international drug companies



#### **Strategic Growth Business:**

### **Specialty Inorganic Materials**



#### **Thermostructural Ceramics**



#### **High Purity**



Ube Material Industries, Ltd.



Ube Material Industries, Ltd.



**Technologies** across Ube group

# Tyranno fiber, Tyrannohex

#### **Precursor Ceramics**



Ube-Nitto Kasei Co., Ltd.



Ube-Nitto Kasei Co., Ltd.

#### **Development in new business areas**

**Optical** 

**Environmental purification** (water, air)

Information technology and semiconductor

#### **Business Strategy for Specialty Inorganic Materials**

Strengthen cooperation among Ube group



- Mobilize technologies for materials and create another function
- Implement grobal business development

# Strategic Growth Business: Recycling



■ Cement and resources recycling (Demand for processing of waste in the process of production at cement kilns)

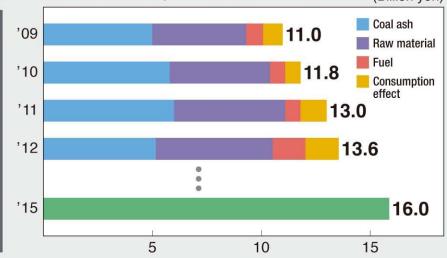
⇒ Strong, providing an important source of profits, future demand is expected to increase.

(Billion yen)

#### **Business Strategy for Cement Recycling**

- Consolidate processing facilities
- Accelerate pace of technology development
- Strengthen collection capability (fuel and city garbage ash)
- Investigate and develop new recycling businesses

Boost revenues from processing waste at cement kilns to ¥16.0 billion level (FY2015)



#### ■ Resin recycling (*UBE Composite* colored recycled resin)

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

#### **Business Strategy for Resin Recycling**

- Expanded dealings with major home appliance manufacturers
- Expanded use of recycled plastics in the automotive field
- Development of products related to the Law on Promoting Green Purchasing (office furniture etc.)



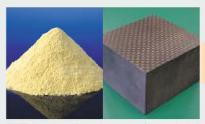
Colored recycled resin Target sales volume for fiscal 2012: 12,000 tons



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### **Developing Business: Aerospace Materials**



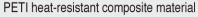






- Engine nacelles
- Pylons







Start commercial production by 2011

**Application for nuclear** power plant and vessel in addition to aircraft



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



Kashiwazaki-Kariwa Nuclear Power Station, Tokyo Electric Power Co., Inc. ©Tokyo Electric Power Co., Inc.

Polyimide foam



Used by JAXA

Starting shipment for heaters used in space

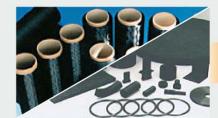


Artificial satellites



The Greenhouse Gases Observing Satellite "IBUKI" **©JAXA** 

Heat control film



Tyranno Fiber/Tyrannohex

2011 - 2013 **Testing for** commercial application → System verification



- Next generation commercial jet engines
- Missile nozzle material



Jet engines

# Developing Business: Lighting-Related Materials



#### **■** Phosphors for high-brightness LEDs

#### **MGC light conversion materials**

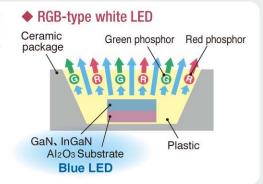
- Application: Phosphors for LEDs
- Characteristics: A fluorescent material called melt growth composite (MGC), made with a special method by adding new functionality to a single crystal ceramic composite. For new white LEDs, with superior durability and heat resistance.





#### Nitride phosphor (RGB-type white LED)

- Application: Phosphors for high color-rendering LEDs
- Characteristics: A new nitride phosphor made with Ube's proprietary method developed for silicon nitride, etc. Efficiently converts the wavelength of light, offering low power consumption, long life and superior thermal properties.



#### ■ Organic electroluminescent materials

- Application: Organic electro luminescent (EL) lighting
- Characteristics: Pure blue phosphorescent materials and peripheral materials that deliver better light-emitting efficiency and long device life (under development)

# 4

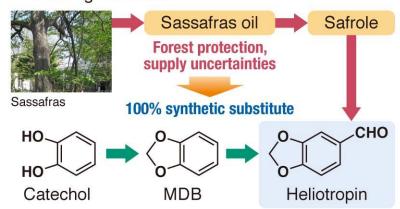
### Developing Business:

### **New Eco-Friendly Materials**



#### Heliotropin

- Compound derived from sassafras trees, with stable demand as a fragrance
- Succeeded in developing a synthetic substitute following Heliofresh



#### Photocatalytic fiber (Aqua Solution)

- Water purification system using the photocatalyst titanium dioxide
- Has a powerful oxidative decomposition effect on bacteria and organic impurities in water



Agua Solution

#### Water-borne polyurethane dispersion (PUD)

- Low-VOC resin product made of polymer particles dispersed in water
- Demand is expanding rapidly for coatings in cars and home electronics, adhesives, ink, etc.
  - Increased pace of development through introduction of technologies
  - Leverage competitive proprietary PCD
  - Develop different grades and reinforce the technology service function
  - Switch to own facilities (start of operation in January 2011)



Contribution to society through business expansion

#### Market environment

- Market regulation
- Global warming issues
- Green procurement
- Energy conservation

Expanded PUD market 6% growth rate Worldwide market 200,000 tons About ¥120 billion

#### **Dye-sensitized solar cell materials**

 Developing dyes offering high durability against light, heat and solvents

### **Core Platform Business:** Caprolactam Chain (Part 1)



#### **Business Strategy for Polyamide Resins: Strengthen Composition of Business**

#### **Current Business Conditions:**

Polyamide 6: Asian demand is up (annual 3 to 4% growth)

Polyamide 12: Niche market globally dominated by four companies

(annual 3 to 4% growth)

Action: Expand production capacity in Thailand, scrap and build production facilities at Ube Chemical

Ammonia production:

No. 1 in Japan

Factory, and boost sales of differentiated products such as copolymers and compounds



Intake manifold (Polyamide 6)

Polyamide 6, Polyamide 12 No.1 in Asia

No. 1 in Asia



Polyamide film for food packaging

### **Business Strategy for Caprolactam: Stabilize profits**

#### **Current Business Conditions:**

Asia is largest and growing market (annual 2 to 3% growth)

Action: Manage spreads, secure raw materials at low cost, maintain appropriate production volumes,

and reduce costs

#### **Business Strategy for Industrial Chemicals: Business Reposition**

#### **Current Business Conditions:**

Healthy demand for liquid ammonia, nitric acid, sulfuric acid and industrial gases

**Action:** Stabilize production and reduce costs

# Core Platform Business: Caprolactam Chain (Part 2)

Manage spreads

Maintain and/or

strengthen supply

**Drive down costs** 



**Current Business Conditions** 

Asian market: Demand continues to be steady



Secure stable profits from caprolactam chain

Business Units, Sales

Reassess market strategy and strategy for raw materials procurement

- Maintain market presence
- Secure raw materials at competitive prices
- Strengthen marketing of ammonium sulfate as by-products
- Streamline and drive down costs (aiming to save U\$\$100/tonne)
- Expansion of production facilities
- Address aging facilities and implement environmental initiatives

Prepare and reorganize both production and supply infrastructure

Manufacturing, Engineering, R&D

### **Core Platform Business:** Synthetic Rubber



#### **Business Strategy for Synthetic Rubber**

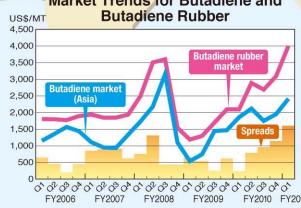
- Achieve differentiation of products and establish supply infrastructure adapted to demand
- Ensure stable supply of raw material butadiene
- Considering a fourth plant to supplement existing production in Japan, Thailand and China

BR (External sales): No. 3 in the world

#### **Current Business Conditions**

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

#### Market Trends for Butadiene and **Butadiene Rubber**





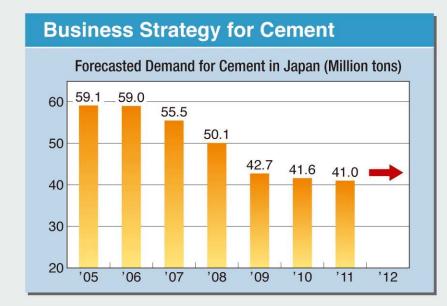
#### Action

- Commercialize metallocene butadiene rubber (FY2011), and nano VCR (FY2012)
- Increase production of BR
  - ◆ Nantong, China by 22kilotons in FY2012
  - ◆ Chiba by 15kilotons in FY2012, 16kilotons in FY2013

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# Core Platform Business: Cement and Ready-mixed Concrete, Calcia and Magnesia





Expect uncertain demand in Japan, but healthy demand outside of Japan

Increasing energy costs

Take flexible approach to adapt to demand in and outside of Japan to secure stable revenues; continue to implement streamlining and secure ideal pricing

Production

- Maintain full production levels
- Reduce coals costs

Logistics

- Continue to cut back logistics facilities
- Prepare framework for supply to quake reconstruction areas

Sales

- Expand waste processing facilities (¥5 billion investment over 3 years)
- Continue with pricing corrections

#### **Business Strategy for Ready-Mixed Concrete**

#### Achieve profitability through stringent rationalization

Amid falling demand, ensure the survival of direct-line factories

- Reduce fixed costs through adjustment of embellishments
- Pursue rationalization and cost reduction
- Ensure appropriate pricing
- Liaise with Zennamaren (ready mixed concrete industry association) and implement intensification of ready-mixed concrete plants

#### **Strategy for Calcia and Magnesia Business**

Ube Material Industries, Ltd:
Market leader in the quicklime sector
Sole domestic manufacturer of magnesia clinker

- Reinforce earning power of core businesses
- Do not italicize deployment of calcia business
- Expand into new markets and add new products
   Better penetration of magnesium oxides and
   magnesium hyrdoxides in electronic materials
   and environmental markets

# Core Platform Business: Machinery Business (Molding Machines, Industrial Machinery, Steel Products)



#### **Business Strategy for Machinery**

 Enhance the ability to adapt to globalization and expand the services business, in order to generate stable profits and cash flow



Anchor handling winch (machinery for vessel)



Steel products



Die casting machine (Molding machine)



Vertical mill (Industrial machinery)



#### **Current Business Conditions**

- Automobile sector: Continued growth in developing countries
- Investment in infrastructure continues in developing countries and resource exporting countries

#### Action

- Boost sales of molding machines in developing countries where increased demand is expected (reinforce sales staff and launch new products)
- Expand the business scope for industrial machinery (including machinery for vessels) and steel products, through expansion into Asia region
- Add more offices in developing countries such as India and Brazil

## Core Platform Business: Coal and Power



#### **Business Strategy for Coal and Power**

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



Okinoyama Coal Center



IPP power plant



- Ube's office
- Source of imports

#### **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 lowgrade coal such as brown coal

#### **Actions on power business**

- Increase volume of low-grade coal and types of coal, and reinforce facilities
- Promote biomass mixed combustion
- Promote external sale of power

Wings of technology Spirit of innovation

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.