## **Change & Challenge**

— Driving Growth —

### **FY2015 Outlook & Strategy Presentation**

May 19, 2015
UBE INDUSTRIES, LTD.
President and CEO
Yuzuru Yamamoto

# I. FY2014 Business Results and FY2015 Forecast

# 1. FY2014 Business Results and FY2015 Forecast: Key Points



#### **■ FY2014 Business Results**

(Net sales and operating income were on par with the previous fiscal year. Ordinary income and net income increased.)

#### Chemicals business rebuilding in progress

- The effect of the termination of lactam production at the Sakai Factory was as planned, but performance declines at overseas subsidiaries reduced earnings
- Higher sales of nylon and synthetic rubber increased sales and earnings
- Battery material sales volume increased, but the impact of lower sales prices significantly reduced earnings

#### Non-chemicals businesses are increasing earnings

- Cement & Construction Materials: Cost reductions and higher cement export prices increased earnings
- Machinery & Metal Products: Performance was solid due to synergies between products and services
- Energy & Environment: Sales and earnings increased due to an IPP power plant restart

#### **■ FY2015 Forecast: Key Points**

#### A certain degree of recovery in the chemicals business

- Improvements including nylon and lactam chain cost reductions and deferred periodic maintenance at the ammonia plant
- Improved earnings from higher sales of specialty products and fine chemicals

#### Further increases in earnings in non-chemicals businesses

- Cement & Construction Materials : Contribution from lower coal prices and initiatives at Group companies
- Machinery & Metal Products: Strong sales of products and services in overseas markets
- Energy & Environment : Full capacity operation at IPP power plants

# 2. FY2014 Business Results and FY2015 Forecast: Key Items



(Billion yen)

	FY2014	FY2015	YoY Change
Net sales	641.7	685.0	43.3
Operating income	24.1	36.0	11.9
Ordinary income	23.2	32.0	8.8
Net income attributable to owners of the parent company	14.6	17.0	2.4
			1
Net interest-bearing liabilities	202.7	195.0	-7.7
Equity capital	263.3	275.0	11.7
Return on equity (ROE)	5.8%	6.3%	0.5%
Net D/E ratio (times)	0.77	0.71	-0.06
Dividend (Yen per share)	5.0	5.0	
Payout ratio	36%	31%	

# 3. FY2014 Business Results and FY2015 Forecast: Sales and Operating Income



(Billion yen)

		Sales		Operating Income		
Segment	FY2014	FY2015	YoY Change	FY2014	FY2015	YoY Change
Chemicals*1	280.1	292.0	11.9	-0.9	9.5	10.4
Pharmaceutical	7.8	9.5	1.7	0.9	1.5	0.6
Cement & Construction Materials	222.4	242.0	19.6	17.0	17.5	0.5
Machinery & Metal Products	78.9	83.5	4.6	4.3	5.0	0.7
Energy & Environment	66.7	72.5	5.8	2.8	3.0	0.2
Others	17.3	14.0	-3.3	1.1	1.0	-0.1
Adjustments*2	-31.7	-28.5	3.2	-1.1	-1.5	-0.4
Total	641.7	685.0	43.3	24.1	36.0	11.9

<sup>\*1</sup> The former Chemicals & Plastics segment and Specialty Chemicals & Products segment are included in the Chemicals segment as of April 1, 2015. Results for the year ended March 31, 2014 have been restated accordingly to allow comparison.

<sup>\*2</sup> Elimination of intersegment transactions

# II. Change & Challenge– Driving Growth

Issues and Strategies



#### **Vision for the UBE Group**

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



Chemicals business:
Driving force for growth
Non-chemicals businesses:
Platform for sustained earnings

#### ■ Restructure the chemical business more quickly by integrating its organization

- Quickly rebuild results
  - Lactam: Reduce costs to ensure competitiveness as a nylon raw material
  - Battery materials: Strengthen proposal and technology capabilities to prevail over intense competition
  - Polyimide: Expand applications that leverage our competency in materials
- Promote specialty grades and global operations
  - Nylon: Expand market share by offering high added value
  - Synthetic rubber: Promote specialty grades and expand supply capabilities

#### ■ Strengthen the earnings platform of non-chemicals businesses

- Cement & Construction Materials : Continue to strengthen revenues, maintain full production by steadily capturing both domestic and export demand
- Machinery & Metal Products: Strengthen integrated management of products and services, and accelerate global business activities
- Energy & Environment: Capture coal demand from new power plants and expand in renewable energy

#### 5. Chemicals: Nylon and Lactam Chain (1)



## 1. Execute strategies to expand the nylon 6 business

**Extrusion applications (food grade film, etc.)** 

Become No. 1 in the global market Product excellence and reliability are competitive strengths

Capacity increases:

FY2014: +10kt in Europe (completed)

FY2018: +40kt in Europe

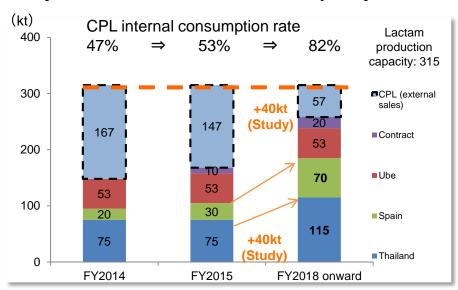
Studying +40kt in Thailand, incl. injection grades

Injection molding applications (auto components, etc.)

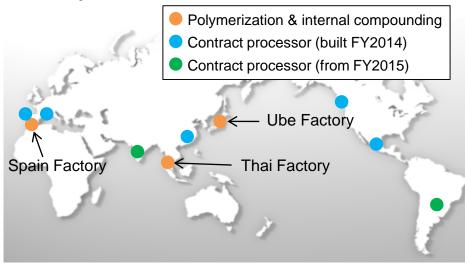
# Expand compound business and build global supply organization Keep pace with global expansion and localization among Japanese auto manufacturers

- Complemented Ube and Thailand with new bases in China, Europe, USA, Mexico and other strategic areas in FY2014. Plan: premarketing in FY2015, full marketing in FY2016.
- Study M&A and alliances with local companies that could complement internal and contract manufacturing

#### ■ Nylon 6 & Lactam Production Capacity



#### ■ Compound Business Bases



#### 6. Chemicals: Nylon & Lactam Chain (2)



#### 2. High added value nylon strategy

- Develop and market nylon 12\* and nylon copolymers
   \*We expect to broaden applications that reduce environmental loading, including automotive fuel system and multilayer brake tube uses, and expand gas pipe applications
- Consider a multipurpose polymerization plant in Ube to enhance our ability to develop differentiated products
- Establish the Chemicals Quality Assurance Department within the Chemicals Company to create and enhance a global quality assurance system

#### 3. Reduce lactam costs

→ Steadily but dramatically reduce cost of lactam to ensure it is a competitive nylon raw material

Base	Key Cost Reduction Projects	Timeframe
Japan	Auxiliary feedstock: Defer periodic maintenance at the ammonia plant to reduce fixed costs Primary feedstock: Change to phenol method for cyclohexanone production Auxiliary products: Expand production of large-granule ammonium sulfate (greater added value)	From FY2015  FY2018 (Targeted) FY2017 (Targeted)
Thailand	Primary feedstock: Improve cyclohexanone production process Auxiliary feedstock: Reduce ammonia procurement costs (incl. investments)	FY2017(Targeted) Planning
Spain	Auxiliary products: Expand production of large-granule ammonium sulfate (greater added value)	Planning

#### 7. Chemicals: Synthetic Rubber



# Become global No. 1 for high-end butadiene rubber Grow with customers by adding specialty grades and increasing supply capacity

#### Joint development with large users and more specialty grades

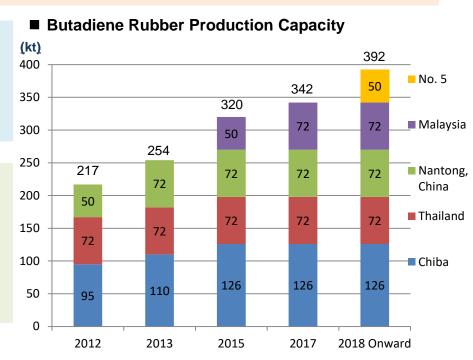
- Large users have strong confidence in our technological capabilities
- Development that addresses better tire fuel economy, improved durability, and the ECO Tire labeling system
- Increase share of specialty grades (vinyl cis, metallocene, linear, other) Chiba Factory: 70%; Thai Factory: 50%; Malaysia Factory: 20% (initial) → differentiate our products from the general purpose grades of competitors

#### **Enhance our reliable supply chain**

- Have already secured stable supply of butadiene raw material for all plants
- Enhance multiple supply source system as part of business continuity plan

#### Increase capacity as users grow

- Malaysia Factory
  - → Initiate commercial operation in FY2015 Q1
  - → Plan to increase capacity by 22kt to 72kt/year in FY2017
- Continue to study fifth plant



#### 8. Chemicals: Polyimide & Gas Separation Membranes LIBE

#### Expand business by launching new grades and developing new applications

Processing Technology (Extrusion & Coating)

#### **Polyimide**

Key market (film)
(COF, double-layer CCL
applications)

Already top share

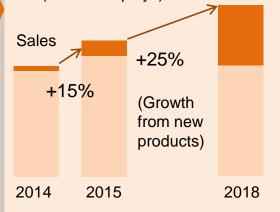
Develop new markets (flexible display applications)

#### FY2015

Launch a new grade (NVT) to further expand double-layer CCL market share

- Address expanding applications
- Fully exploit flexible display applications (alliance businesses)

- Launch new double-layer CCL grades
- Expand new applications (flexible displays)



Hollow fiber technology enables high-performance separation

Employ ultra heat resistance, dimensional stability, chemical resistance, durability

Unique material features

#### **Gas Separation Membranes**

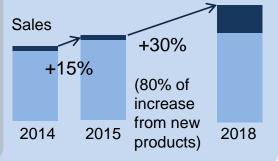
Growth markets (nitrogen separation films for explosion prevention)

Develop new markets (aircraft explosion prevention, fuel cell applications)

Commercialize new nitrogen separation film grades for high pressure applications

Customer certification and preparations for mass-production

- Expand sales of new grades (high pressure apps)
- Grow by entering new markets (automotive, aircraft)



#### 9. Chemicals: Battery Materials



#### Get back on growth track by steadily expanding share in growth markets

- Automotive market development delayed
- Intensified competition from new entrants

- Full-scale automotive market development
- Market requirements will become even more sophisticated

## Through FY2014 Building for the future

FY2015 Full-scale sales expansion Next medium-term management plan Further expansion

#### **Electrolytes:**

- Built a global supply framework (made Dow joint venture a subsidiary and completed the China plant)
- Engaged in ongoing customer evaluations for use in automotive and storage battery applications, and supported these evaluations with additive development
- Enhanced solvent (DMC) supply chain (concluded licensing agreement in China, now studying N. America supply framework upgrades)

#### **Separators (Dry Manufacturing Method):**

- Improved production efficiency and expanded capacity (wider, longer, faster)
- Coated separators: Established integrated production system at Ube Maxell

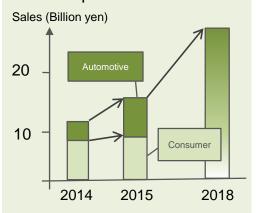
#### **Developed new materials (incl. LTO anodes)**

 Our LTO anode strengths are based on our inorganic synthesis technology and include customer channels, battery evaluation capabilities, and the ability to propose electrolyte and separator sets Improve earnings by increasing sales

- Steadily benefit from automotive projects (Start full-scale coated separator shipments. Plan operation of overseas electrolyte plant.)
- Rapid response to market requirements

Increase scale of business and stabilize profitability

- Prevail with differentiated technology
- Global business development



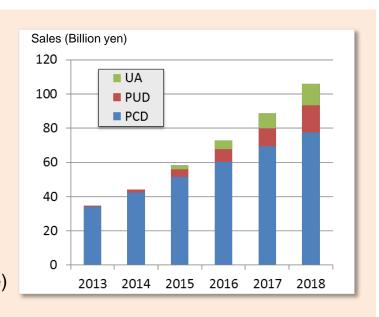


# Aggressively expand two core businesses: Existing businesses and high-performance coatings business

High-performance coatings: Build into a new core business

Use customer proposal capabilities to accelerate global business development (become a solutions provider)

- Polycarbonate diol (PCD; high-grade polyurethane raw materials): New plant in Thailand (3,000t; operations start in October 2015). Strengthen position as a leading global supplier.
- Polyurethane dispersions (PUD; apps incl. automotive exterior paints): Make into a significant source of earnings
- Urethane acrylate (UA; automotive interior materials):
   Build plant during next medium-term management plan (Ube)



#### **Existing businesses: Generate stable earnings by enhancing operating fundamentals**

- C1 chemical chain (electrolyte solvents, DMO/MEG licensing)
  - → Expand overseas bases using licensing and joint ventures
- Semiconductor materials (boron trichloride and metal-organic compounds): Aggressive expansion
  in tandem with market growth
- Lactam-related fine chemicals and dihydric phenol: Generate stable earnings



#### Get back on growth track by enhancing business model and fundamentals

Basic strategies: •Further improve process development capabilities centered on Chemistry Manufacturing & Control (CMC)

- Start operating overseas production base (improve earnings and raise productivity)
- Acquire a business base in Europe (study stage)

#### **Portfolio of Three Businesses**

Drugs discovered by Ube: Enhance pipeline, out-license early, and implement lifecycle management (LCM) for existing products

	Trade name (Development code)	Indication	Current status (Marketing countries)	Future plans
Pip	(DE-117) Partner: Santen Pharmaceutical Co., Ltd.	Antiglaucoma agent     Glaucoma and ocular     hypertension	US: Phase 2b completed	Global development
Pipeline of dr	Undetermined	<ul> <li>Inflammation &amp; fibrosis</li> <li>Cancer &amp; immunity</li> <li>Diabetes complications</li> <li>Respiratory disease, etc.</li> </ul>	Prep for Phase I clinical trial: 1 theme Pre-clinical trial stage: 2 themes (Candidate compounds identified)	<ul><li> Quickly transition to development stage</li><li> Promote out-licensing</li></ul>
drugs disco	Effient (Prasugrel) Sales: Daiichi Sankyo Co., Ltd. Eli Lilly and Company (US)	Antiplatelet agent	Effient tablets  • Approved in Japan, US, Europe and 70 countries (cardiology)	<ul> <li>Japan: Conducting Phase 3 clinical trials for cerebral syndrome</li> <li>US: Conducting Phase 3 clinical trials for pediatric use</li> </ul>
overed by	Talion (Bepotastine besilate) Sales: Mitsubishi Tanabe Pharma Corporation	Antiallergy agent	Talion tablets (Japan, Korea, China and Indonesia) Bepreve ophthalmic solution (US and Korea)	Approval expected in Japan for pediatric use for rhinitis and atopy
Ube	Calblock (Azelnidipine) Daiichi Sankyo Co., Ltd.	Antihypertensive agent	Calblock tablets (Japan) Rezaltas combination tablets (Japan)	<ul> <li>Promote sales as Olmesartan/Calblock product family marketed by Daiichi Sankyo</li> </ul>

 Contract pharmaceuticals manufacturing: Increase orders by improving facilities and technology capabilities; ultra - low temperature reaction and high potency facilities now in commercial operation

Product	Approved drugs	Manufacturing strong-selling API and intermediate formulations for antihypertensive agents, etc. In FY2015, we will begin manufacturing orders for APIs for newly approved drugs.
orders	Investigational drugs	Fulfilling over 10 orders for investigational APIs and intermediates for drugs in Phase 1-3 clinical trials, mainly high-potency anticancer agents.

• Generic API manufacturing and sales: Now developing APIs that meet quality and price requirements

#### 12. Cement & Construction Materials



#### Maximize earnings in existing operations and enter growing platform businesses

#### Cement and Ready-mixed Concrete

- · Demand in Japan slowing somewhat
- · Favorable coal prices shift
- · Export prices remain at high levels
- Heat recovery power generation has begun

Benefit from rationalization in an external environment that remains favorable

- Steadily capture demand and expand exports (maintaining full production = maximization of waste processing)
- Coal prices merits + rationalization (heat recovery power generation and use of waste)

#### Limestone, calcia and magnesia

- Reduce costs and increase sales to make up for lower prices for calcia used in steel
- Expand sales to capture increased demand (magnesium hydroxide and magnesia)
- Launch international fibrous magnesium oxysulfate business (automotive resin filler)
- Start mining in Kanayamadai mining zone in FY2018

#### Prepare for the future

- Kanda heat recovery power plant will begin operating (January 2016). Study similar plant at Isa Factory (next medium-term management plan)
- Finished dealing with unprofitable businesses
- Quickly exercise and expand synergies with Ube Material
- Continue building environmental and overseas businesses

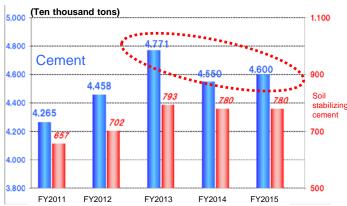
Restructure and build new

operations in Japan businesses overseas

Also prepare for lower future demand

Ensure sustainability in growing core platform businesses

#### Projected Demand in Japan for Cement and Soil Stabilizing Cement



#### **Limestone Mine**



#### **Kanda Heat Recovery Power Plant**



#### 13. Machinery & Metal Products



# Further expand earnings by accelerating business activities globally

- Strong demand for equipment in North America, China, the IPP market in Japan, and elsewhere
   Maximize earnings (make products more profitable)
- Able to respond to changes in the operating environment Strengthen earnings base (expand machinery service business)

#### ■ Core Machinery/Projects Delivered or Completed

	Molding machinery	Industrial machinery	Bridges
Japan	3,200	3,740	560
Outside Japan	4,200	610	ı
Total	7,400	4,350	560

Molding machinery: Die-casting machines, injection molding machines, extrusion presses (20% global share of target markets)

Industrial machinery: Vertical mills, water screen equipment, transportation equipment, crushers, and ceramic machinery (30% share in Japan)

Bridges: Construction projects in 41 of 47 prefectures

- Continuously develop and expand sales of competitive new products and series
  - Strengthen overseas production: Energy-efficient high-pressure oil injection molding machine (US); large die casting machines (China)
  - · Expand business cooperation
    - Molding machinery business: Die-casting machines Toyo Machinery & Metal Co., Ltd. (Japan); Injection molding machines – Tong Machinery Corp. (China)
    - Industrial machinery business: Vertical mills WIL Corp. (India), etc.
- Increase earnings by expanding the overseas service business
  - Strengthen customer responsiveness: Enhance bases, personnel and support organization (22 overseas bases)
- Expand SE Asian business with emphasis on Thailand
  - Study local die-casting machine organization (acquiring land); strengthen industrial machinery services
- Strengthen revenues at Group companies
  - Ube Steel: Increase sales of high-value-added high-quality billets and steel castings for power generation
  - Fukushima Seisakusho: Strengthen revenues in the marine machinery business



New aluminum casting system

#### 14. Energy & Environment



Intelligently address changes in the operating environment to expand existing businesses, create new businesses and increase earnings

#### **Coal Business**

- Increase earnings by operating the Okinoyama Coal Center efficiently
- Capture demand from newly built coal-fired power plants
- Implement plans for international bulk strategy harbor and enhanced Okinoyama Coal Center capabilities

#### **Power Business**

- Restart of long suspended IPP facility is contributing to earnings
- IPP plants that will be free to sell their power to the highest bidder in 2019 and beyond will generate significant revenues
- Implement power plant plan at Yamaguchi-Ube Power Generation Co., Ltd.
- Reduce medium- and long-term coal-fired plant operating risks (environmental and resource risks)



IPP power plant

#### **Renewable Energy Business**

- Help counter global warming through the megasolar business
- Rapidly commercialize biomass energy supply business including low-temperature carbonization of palm kernel shell
- Diversify raw materials for biomass fuel and secure supply sources
- Maximize feed-in tariff power generation revenues by using biomass fuel in IPP business



# Expand existing businesses & accelerate the creation of new businesses and products

#### Accelerate initiatives for continuous development of existing businesses

Take on the challenge of technological innovation (address future needs)

Nylon	Develop innovative nylon compounding methods (significantly reduce costs)
Synthetic rubber	Develop innovative particle structure control technology (lighter, more fuel efficient tires)
Polyimide	Develop next-generation displays and circuit boards (lighter & thinner)
Separation membranes	Develop new high-performance separation materials (new markets & apps)
Battery materials	Develop high-performance battery and capacitor materials (greater voltage, output & life)
High-purity chemicals	Develop new CVD materials (greater semiconductor density)

Strengthen and promote R&D through the integration of the chemical business

Establish the Strategy & Business Development Department for the new Chemicals segment



- Integrate chemical businesses and technology strategy
- Ensure that R&D departments are linked to the market

Maximize the value of Ube's technology by enhancing collaboration among research, development, technology, production and business operations

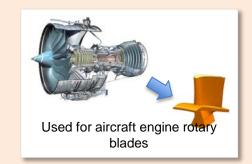


# Enhance existing businesses and accelerate the creation of new businesses and products

Initiatives to create new businesses (high value added, high performance products)

Define strategic markets and promote innovation Conduct strategic and sustained R&D to create new value

- Expand in aerospace markets
  - Ex: Develop CMC for next-generation jet engines (*Tyranno Fiber*)
- Define environment, energy and electronics markets
   Ex: Develop phosphor materials for next-generation white LEDS and specialty inorganic fillers
- Develop life science markets for Ube technologies and products
   Ex: Develop innovative cell culturing systems



#### Initiatives to enhance R&D capabilities

#### R&D in step with global trends

 Construct the Osaka Research and Development Center (tentative name) (Plan to open in 2016)



Create a lab that focuses on creating new products

Complement silicon nitride and *Tyranno* Fiber by creating new inorganic specialty materials

 Integrated Ube Materials research department with Corporate R&D (July 1, 2014)



Faster R&D with enhanced selection and concentration

#### 17. Increase Corporate Value over the Medium and Long Term



#### ■ Realize effective corporate governance

 Further strengthen corporate governance that addresses capital market requirements

#### ■ Fulfill corporate social responsibility (CSR)

Promote fair corporate activities by enhancing compliance and risk management

#### ■ Reduce greenhouse gases to support a sustainable society

- Reduce further in ways such as promoting energy and resource conservation (expand waste recycling)
- Reduce in overall supply chain by expanding environmentally friendly technologies and products

#### **■** ROE mindset

Increase ROE by generating earnings from stronger revenues

#### **■** Shareholder returns

 Maintain commitment to stable dividends and target increased dividends by improving results

# 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. ©2015 Ube Industries LTD. All Rights Reserved