

UBE

UBE INDUSTRIES, LTD.



I n t e g r a t e d R e p o r t 2018

Year ended
March 31, 2018



UBE Group Profile

Establishment	1897
Businesses	Chemicals, pharmaceuticals, cement & construction materials, machinery, and energy & environment

Consolidated results for fiscal 2017, ended March 31, 2018

Net sales	¥695.5 billion
Operating profit	¥50.2 billion
Net income per share* (Primary)	¥301.65
Employees	10,799 (consolidated) 3,555 (non-consolidated)

*The Company consolidated every 10 shares into one share, effective October 1, 2017.

UBE Group History

1897	Established in Ube, Yamaguchi Prefecture as a coal mining operation
1914	Machinery business begins by manufacturing and maintaining coal mining machinery
1923	Inaugurates cement operations by drawing on the abundant limestone resources of Ube's surrounding areas as well as coal from Ube
1933	Chemical business starts by manufacturing ammonium sulfate for chemical fertilizers
1942	Establishes Ube Industries, Ltd.
1993	Invests in Spanish caprolactam manufacturer
1997	Starts nylon and caprolactam production in Thailand

Contents

Introduction and Management Message	Basic Approach to Sustainable Growth	1	
	To Our Stakeholders: The UBE Group's Management Policies	2	
	Financial Strategy	7	
	Consolidated Financial and Non-Financial Highlights	8	
Building Value to Materialize Sustainable Growth	The UBE Group's Business Model	10	
	The UBE Group's Value Creation Process	12	
	Key Elements of the UBE Group's Value Creation:	Manufacturing and Natural Capital	14
		R&D and Intellectual Capital	16
		Human Capital	18
		Social Capital	20
Materiality	22		
Medium-Term Management Plan	25		
Initiatives to Create Value and Drive Sustainable Growth	Overview	26	
	Segment Strategies	28	
ESG: Underpinning Value Creation and Sustainable Growth	Basic Stance on Corporate Citizenship	36	
	Outside Directors and Auditors Forum	37	
	Corporate Governance	40	
	Human Resources	44	
	Coexisting with Communities	46	
	Environment and Safety Management	48	
	Process Safety and Disaster Prevention / Occupational Safety and Health	49	
	Environmental Preservation	50	
	Product Safety and Quality Assurance	54	
	Financial Section	Consolidated 10-Year Financial Summary	56
Business and Other Risks		58	
Network		60	
Investor Information		61	

Forward-Looking Statements

This report contains forward-looking statements regarding UBE's plans, outlook, strategies, and results for the future. All forward-looking statements are based on judgments derived from information available to the Company at the time of publication.

Certain risks and uncertainties could cause the UBE Group's actual results to differ materially from any projections presented in this report. These risks and uncertainties include, but are not limited to, the economic circumstances surrounding the Company's business, competition, product development, exchange rates, and revision of related laws and regulations.

Fiscal years are years ended March 31 of the following calendar year: for example, fiscal 2017 in the text is the year ended March 31, 2018.

Introduction and Management Message
Basic Approach to Sustainable Growth

The UBE Group's Business Principles

“Coexistence and Mutual Prosperity”
 “From Finite Mining to Infinite Industry”

The UBE 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 through manufacturing.

What We Want to Become in 10 Years

An enterprise that continues to create value for customers

Medium-Term Management Plan

Two basic policies of “Change & Challenge 2018”

Strengthen the business foundation to enable sustainable growth

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



Editorial Policy

From fiscal 2017, the Company is publishing an Integrated Report to replace its annual and CSR reports. The new publication focuses on environmental, social, and governance (ESG) information, as well as other non-financial and financial information that has significant impacts on corporate value.

The new format comprises five sections that deepen understanding of the UBE Group's management policies, business model, capital (operating resources), materiality, and ESG initiatives. These sections are Introduction and Management Message, Building Value to Materialize Sustainable Growth, Initiatives to Create Value and Drive Sustainable Growth, ESG: Underpinning Value Creation and Sustainable Growth, and the Financial Section.

Reference Guidelines

International Integrated Reporting Framework of the International Integrated Reporting Council (IIRC)

Reporting Period

This report covers fiscal 2017, ended March 31, 2018, and also includes activities and information before and after that term.

Scope of Coverage

Ube Industries, Ltd., consolidated subsidiaries and non-consolidated subsidiaries

About us / Investors

Management policies, finances, results, and shareholder information and investor relations (IR) materials are available in the Investor Relations section of the UBE Group's website: <http://www.ube-ind.co.jp/ube/en/corporate/>

CSR / Environment and Safety

Information regarding CSR initiatives, environmental and safety initiatives, contributions, compliance, and corporate governance are available in the CSR Activities section of the UBE Group's website: <http://www.ube-ind.co.jp/ube/en/csr/>

Yuzuru Yamamoto
President and CEO

		Medium-Term Management Plan			
		FY2016 (Results)	FY2017 (Results)	FY2018 (Target)	Progression rate
Economic Value	Net sales (Billions of yen)	¥616.5	¥695.5	¥750.0	92%
	Operating profit (Billions of yen)	34.9	50.2	50.0	100%
	Ordinary profit (Billions of yen)	33.3	50.7	49.0	103%
	Profit attributable to owners of parent (Billions of yen)	24.1	31.6	29.0	108%
	Return on sales (ROS)	5.7%	7.2%	more than 6.5%	110%
	Return on equity (ROE)	8.7%	10.5%	more than 9.0%	116%
	Total return ratio*	36.0%	24.9%	more than 30%	—
Environmental and Social Value	Greenhouse gas emissions (GHG) (1,000t - CO ₂ e/y)	12,100	12,100		
	Percentage of female managers	1.4%	1.5%		
	R&D expenses (Billions of yen)	13.6	13.2		

* Total return ratio = (Cash dividends + Share repurchase) / Profit attributable to owners of parent

To Our Stakeholders

The UBE Group's Management Policies

The Strengths Underpinning the Group's Long-Term Value Creation Capabilities

Responsiveness to Changes in the Operating Climate and the Underlying Power of Our People

The UBE Group celebrated its 120th anniversary in 2017, which represented an outstanding opportunity to renew its commitment to growth in the years ahead. We have faced numerous challenges over the years. When demand switched away from coal to oil as a prime energy source and the coal mining that had been our core business since our foundation was no longer viable, we moved forward to the next stage with our chemicals, cement & construction materials, and machinery businesses. The Oil Shocks prompted a review of fossil fuels as a primary energy source for Japan, leading to imports of coal and a swift switch from oil back to coal. Such developments illustrate the large and small ways in which we have constantly responded to changes in the operating climate and have continued to progress with our businesses. A solid responsiveness that has enabled us to

overcome business environment changes and our ensuing ongoing development has been central to our corporate culture throughout our history.

Another factor in our development to date has been the power of our people. Our ability to foster our human resources to pursue sustainable growth will shape whether we can continue to progress. With the world facing the great challenge of global warming, representing a strong headwind for our core coal business, the capabilities of our people will be vital to responding to change and transforming our businesses. By continuing to strengthen human resources we seek to accommodate change in pursuing sustainable growth.

Highlights of Progress with Change & Challenge 2018 Medium-Term Management Plan

Chemical Business Steadily Getting Back on Track to Growth

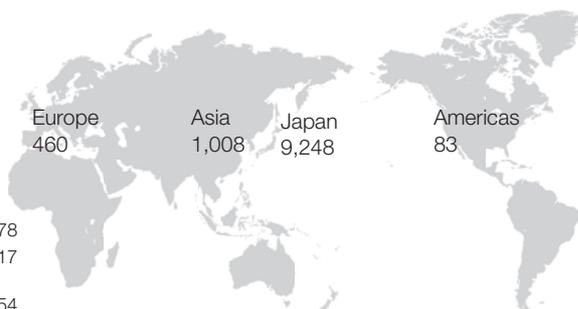
Summary of Progress in Second Year of the Medium-Term Management Plan

Our medium-term management plan will end in fiscal 2018. A key focus is to restore our chemicals business to growth, and we are pushing ahead with business portfolio management efforts that entail restructuring our businesses for growth. We made considerable progress overall in fiscal 2017, the second year of that initiative, as we initially expected. In terms of developing fields, we saw steady progress. On the active growth businesses front, we upgraded our Spanish nylon plant as well as separator facilities at the Sakai Factory. Platform business efforts included switching the production method for cyclohexanone, a raw material for caprolactam, at the Ube Chemical Factory.

Key positive external factors were expanded price spreads from favorable conditions in the caprolactam market and a temporary expansion in price spreads for synthetic rubber owing to a time lag from a rise in raw materials prices the previous fiscal year. Internally, it is worth noting that we did better than planned in rebuilding the profitability of restructuring businesses. As a result of these factors, we reached the operating profit target of ¥20 billion for our chemicals business a year ahead of the final target of Change & Challenge 2018.

Power of our people is vital to pursue sustainable growth

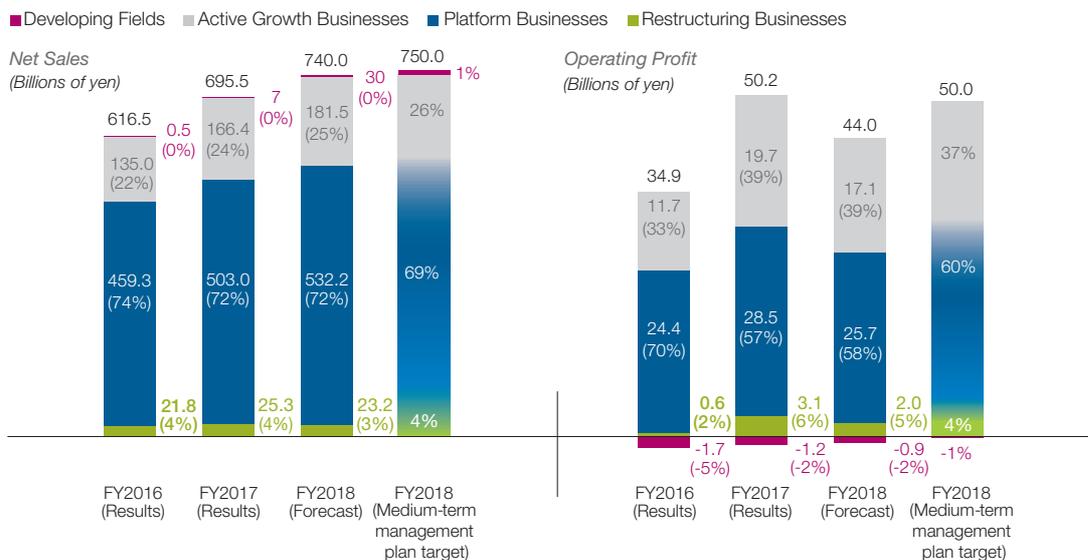
Number of Employees (Consolidated)
As of March 31, 2018



Reportable segment

Chemicals	4,878
Pharmaceutical	117
Cement & Construction Materials	2,954
Machinery	1,827
Energy & Environment	187
Other	437
Corporate	399
	<hr/>
	10,799

Progress by Business Portfolio Categorization



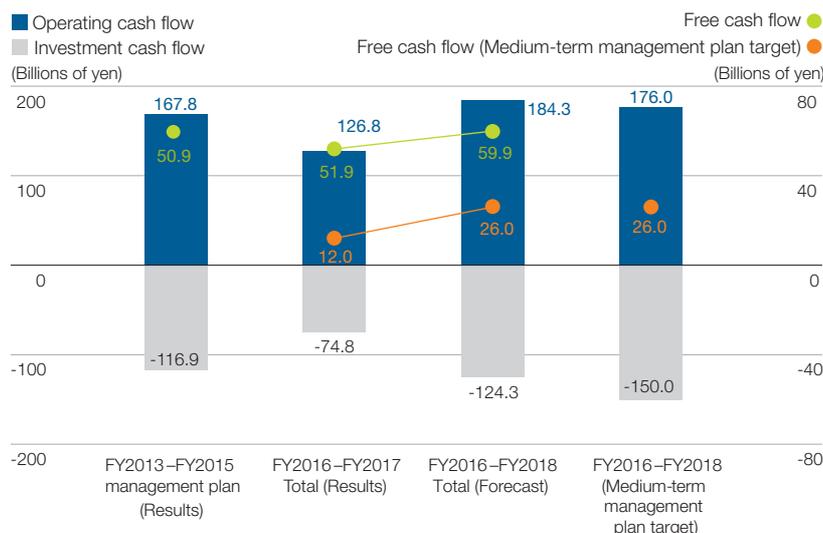
Completing Change & Challenge 2018 Tasks

In fiscal 2018, the final year of Change & Challenge 2018, our main priority will be to recoup the massive investments that we have made to date. Under the previous medium-term management initiative, we formulated investment plans. We made major investments in growth through fiscal 2017, the second year of Change & Challenge 2018, and seek to reap the rewards in fiscal 2018. We may encounter some profitability setbacks compared with fiscal 2017, one example being that price

spreads on synthetic rubber may return to normal after the temporary expansion experienced in fiscal 2017, but facilities startups as planned should contribute to earnings. The degree to which the chemicals business has recovered will form the foundation for the next medium-term management plan and will be an important barometer for the issues we tackle down the road. While undertaking initiatives and addressing other issues, we plan to complete the tasks of Change & Challenge 2018 in fiscal 2018 and formulate its successor.

Progress of Investment Plan and Cash Flow Plan

The total of free cash flows (FY2016–FY2018) is expected to double the medium-term management plan target



Our Next Medium-Term Management Plan

Positioning the Next Three Years Based on Long-Term Perspectives

We will formulate our next medium-term management plan with a view to its impact over a decade down the road. The reason for this is because it is unrealistic in process industries to expect to be able to formulate plans, invest, and reap the rewards in just three years. We therefore look ahead a decade to tackle changing customer needs and reinforce existing businesses with a view to expanding our product and marketing areas and cultivating new businesses, determining our priorities in the first three years of that time-frame. By approaching our businesses from long time horizons, we seek to deliver profitable and sustainable growth as an enterprise that can keep producing value for customers.

Statement on Quality Check Improprieties Uncovered Earlier this Year

Improprieties in quality checks of some of the Group's products came to light. We quickly established an investigative committee comprising attorneys with no conflicts of interest and an outside director in response to this issue. The committee identified two main causes for the improprieties. The first was an inadequate awareness of the Company's overall quality approach. The second was that the quality assurance system was vulnerable to improprieties. The committee presented recommendations on preventing such an issue from recurring.

By approaching our businesses from long time horizons,
we seek to deliver profitable and
sustainable growth as an enterprise
that can keep producing value for customers.

The Group takes these incidents very seriously, and is deploying measures to prevent a recurrence while endeavoring to strengthen governance and its quality management structure.

Our Stance on Safety

Focusing on Safety and Disaster Prevention

Safety is fundamental to business activities, and we accordingly focus on occupational safety at our facilities and those of our business partners.

Our plants operate with equipment at high temperatures and pressures, including high-pressure gas facilities, and accidents could cause enormous damage to business sites and neighborhoods. We formulate measures in keeping with national government guidelines to prevent industrial accidents.

Tackling Environmental Issues

Cutting Greenhouse Gases as Part of Contributions to a Better World

Overcoming environmental issues is an enduring management focus for the UBE Group, so we have long taken action in this regard. Under the current medium-term management plan, we have endeavored to lower greenhouse gas emissions. For example, we installed facilities to generate power from waste heat at the Kanda Cement Factory. We also adopted phenolic processes for cyclohexanone



manufacturing. Our efforts have extended to developing and supplying environmentally friendly products, a good example being weight-reducing materials for automobiles. One factor in taking such action is that investments and operations that do not help tackle environmental issues make no business sense.

We produce greenhouse gas emissions through our operations. We accordingly recognize the risks of global warming, formulate countermeasures, and will take the opportunity to generate new business growth by further developing and supplying environmentally friendly technologies and products.

We will help conserve the environment by increasing industrial waste recycling volumes and rates, thereby lowering final disposal.

Ensuring that We Pursue a Sustainable Growth Path

Fostering Our Human Resources

It is naturally essential to cultivate our human resources to underpin our pursuit of sustainable growth.

People change jobs infrequently in Japan, so properly hiring and fostering them is important and should be a particular focus for us domestically. On reflection, we have focused too much to date on training specialists. We look to offer people more opportunities to grow and fulfill their potential by exposing them to diverse business experiences. We wish to cultivate employees by motivating them and mobilizing their talents so they can become even more responsive to change and create new value.

At the same time, we will devote increasing attention to hiring and fostering local employees outside Japan. Overseas sales already account for more than 50% of consolidated chemicals business sales, and our foreign operations will inevitably expand.

Serving Our Stakeholders

Driving Corporate Growth Based on Coexistence and Mutual Prosperity

In keeping with the spirit of coexistence and mutual prosperity, which is one of our business principles, we believe that continuing to create products and services that are valuable for our customers and sharing the benefits accrued from those endeavors with stakeholders are of the utmost importance to pursuing sustainable growth.

We have largely completed the foundations for the Group's expansion, and are set to build new businesses on those underpinnings. It is vital for us to implement strategies based on long-term perspectives that empower us to reap the rewards of our efforts, and we greatly appreciate the long-term support and encouragement of our shareholders and other stakeholders in our endeavors.

August 2018



Yuzuru Yamamoto
President and CEO

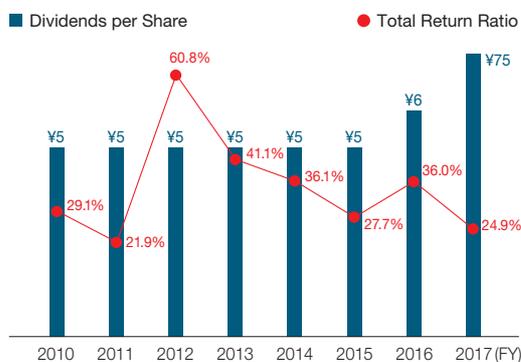


While formulating countermeasures against the risks of global warming, we will further develop and supply environmentally friendly technologies and products.

Financial Strategy

Steadily Enhancing Our Financial Soundness and Efficiency

Fiscal 2017 saw the Company reach the financial objectives of its medium-term management plan a year ahead of schedule and enhance performance. Expanded price spreads for caprolactam and synthetic rubber factored into this progress. We have maintained financial discipline, increasing our capital and lowering interest-bearing debt. We have also greatly increased our earnings, with the chemicals business being a prime driver. In the year under review, we lifted our return on sales (ROS) from 5.7% to 7.2% as well as boosted our return on equity (ROE). We will continue striving to enhance our financial soundness and efficiency to increase corporate value.



Note: The Company consolidated every 10 shares into one share, effective October 1, 2017.



Note: The Company consolidated every 10 shares into one share, effective October 1, 2017. Stock prices are adjusted for consolidation.

Reaching Our ROE Targets

In the previous annual report, I stated that we look to reach our ROE target by improving our ROS. By increasing ROS and our capital as mentioned earlier, we attained ROE in fiscal 2017 of 10.5%, which is significantly higher than the 9.0% that we targeted for fiscal 2018, the final year of our medium-term management plan. We are not resting on our laurels, however, and recognize that we must work constantly to improve capital efficiency.

Making Our First Share Buyback

Providing stable and sustainable dividends is pivotal to our policy on shareholder returns. While balancing financial soundness and preparations for investing in the future, we seek to maintain a consolidated total return ratio of more than 30%. In fiscal 2017, we changed the number of shares constituting one unit, consolidated shares, and increased dividends. We also implemented a share buyback for the first time in view of our financial soundness and earnings and cash flow levels.

Fiscal 2018 to Test Our Mettle

While we expect earnings to decline in fiscal 2018, after stripping out non-recurring factors from the previous year, we should actually improve our underlying performance. We will endeavor to capitalize on the fruits of measures to date and reach our targets.

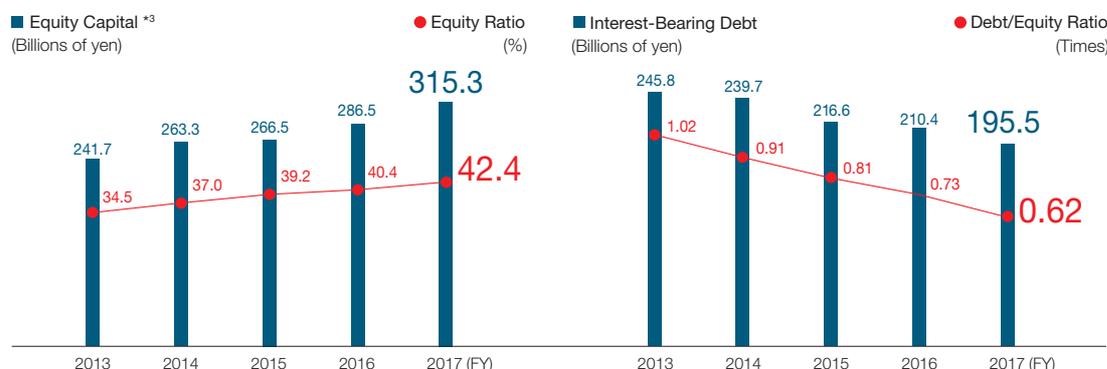
Working to steadily enhance our financial soundness and efficiency and sustainably improve capital efficiency

Masayuki Fujii
Group CFO, General Manager of
Corporate Planning & Administration Office



Consolidated Financial and Non-Financial Highlights

Financial Highlights



Notes: 1. The Company consolidated every 10 shares into one share, effective October 1, 2017.

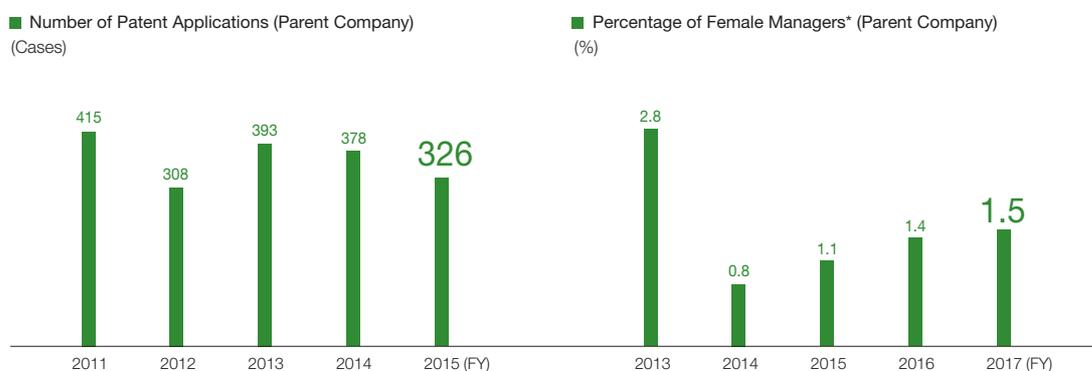
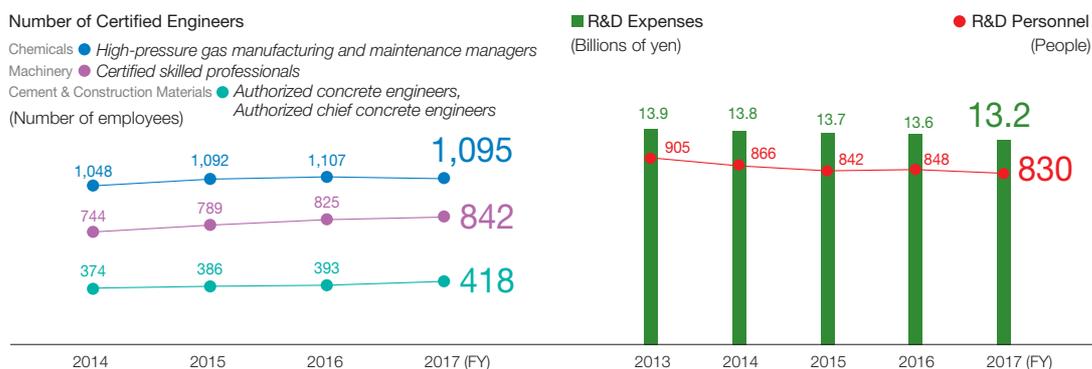
2. ROA = (Operating profit + Interest and dividend income + Share of profit of entities accounted for using equity method) / Average total assets

3. Equity capital = Net assets - Share subscription rights - Non-controlling interests

Topics for Fiscal 2017

Year	Month	Category	Details
2017	April	Cement & Construction Materials	Decided to install waste heat power generation facilities at Isa Cement Factory in Mine, Yamaguchi Prefecture
	May	CSR	Won Excellence Award at the Gubernatorial Alliance Summit in Tokushima for Youth Support to Revitalize Japan
		IR	Decided for the first time to buy back shares
	June	R&D	Received Semiconductor of the Year 2017 Grand Prix Award for n-type organic semiconductor material for printed organic integrated circuits (ICs)
		Corporate	Celebrated the Company's 120th anniversary
2017	October	CSR	Held a charity concert
		IR	Changed the number of shares constituting one unit from 1,000 shares to 100, and consolidated every 10 shares into one share

Non-Financial Highlights



* Figures for Ube-Kohsan Central Hospital Corp. are not included from fiscal 2014.

2018	November	<ul style="list-style-type: none"> Chemicals: Completed caprolactam intermediate production method conversion at the Ube Chemical Factory Pharmaceutical: Filed for manufacturing and marketing approval of DE-117, a glaucoma and ocular hypertension drug candidate CSR: Received Chairman's Award from the Japan Industrial Health & Safety Association
	January	<ul style="list-style-type: none"> Chemicals: Launched a Chinese electrolyte joint venture with Mitsubishi Chemical Corporation Machinery: UBE Machinery Corporation, Ltd., decided to expand injection molding machine facility in Ann Arbor, Michigan
	February	<ul style="list-style-type: none"> Chemicals: Completed upgrade at Spanish nylon plant and started production
2018	March	<ul style="list-style-type: none"> Chemicals: Concluded 12-volt automotive lithium-ion battery (LiB) joint development agreement with Mazda Motor Corporation and ELIY Power Co., Ltd. Cement & Construction Materials: UBE Material Industries, Ltd., decided to construct a factory in Thailand

The UBE Group's Business Model

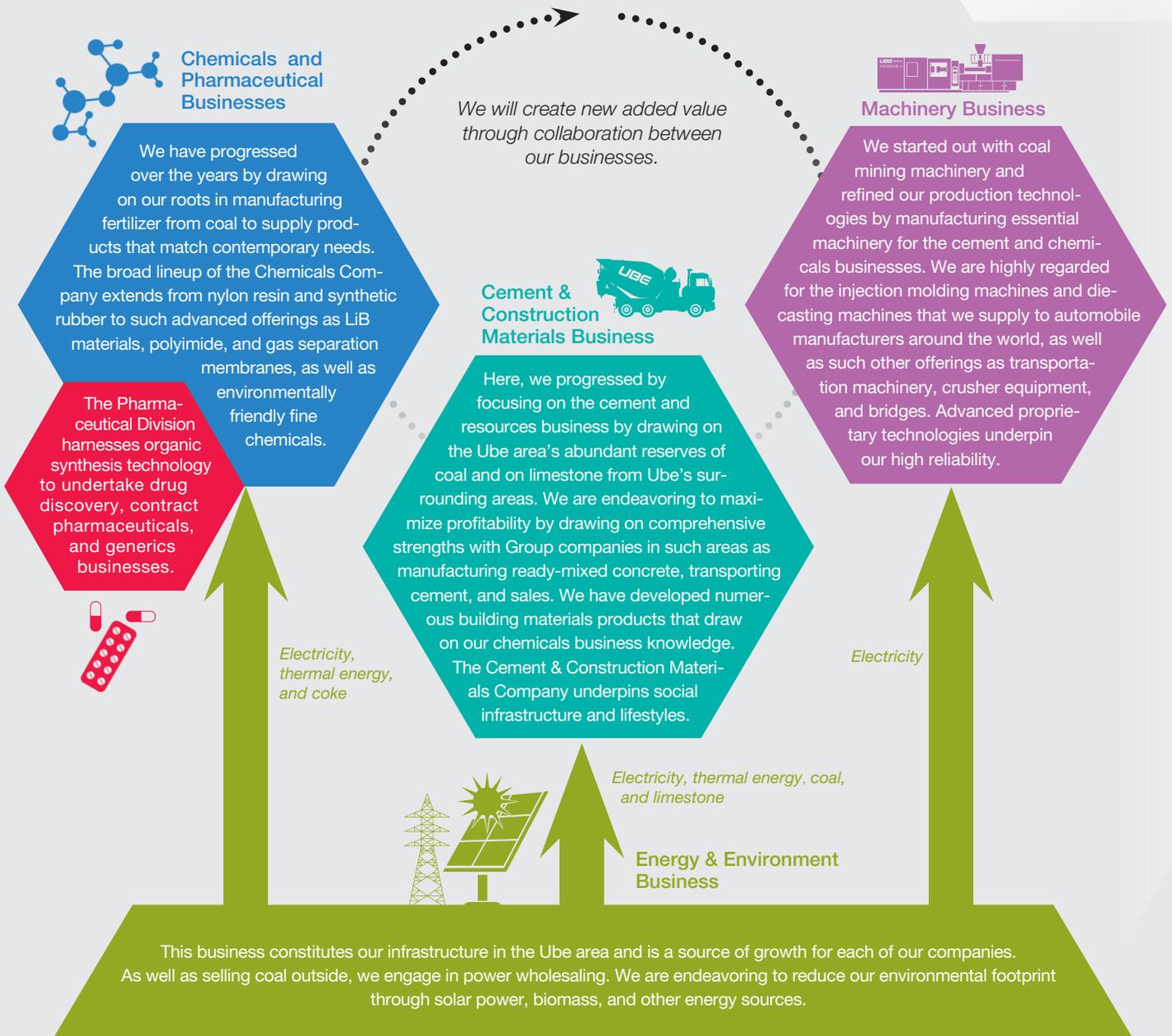
The UBE Group has five business segments. We started out in coal mining in 1897. Since then, we have built superior cost competitiveness through our segments jointly using electric power facilities, ports and harbors, and other infrastructure and by leveraging the power of our people to cultivate creative technologies and innovative manufacturing capabilities and provide diverse value to society. Our segments will continue to collaborate to generate new value that contributes to sustainable social progress.

We aim to innovate even more by leveraging our time-honored creative technologies and innovative manufacturing capabilities.

Global Network
Major Production Sites



We are transferring the technologies and expertise we cultivated in the Ube district to business sites around the world.



Target Business Domains

- Chemicals
- Pharmaceutical
- Cement & Construction Materials
- Machinery

Michigan ● U.S.A.

Americas

1



Ammonia
Group production capacity:
Ranking first in Japan



Caprolactam
Supplying top-quality, highly competitive nylon raw materials



Nylon 6
One of the world's top manufacturers



Gas Separation Membranes
Japan's sole gas separation membrane manufacturer



Injection Molding Machines
A top reputation in the global market among automobile manufacturers and other companies

Mobility
Automobiles, railways, and aviation



Separators
10% share of the global market



Polycarbonate diol (PCD), polyurethane dispersion (PUD)
No. 1 share in the PCD market

Construction and Infrastructure

Infrastructure, living environments, and smart cities



Ready-Mixed Concrete
Our key strength is a nationwide network of ready-mixed concrete plants



Healthcare

Food, pharmaceuticals, and sophisticated lifestyles



Calblock®
Antihypertensive agent

Effient®
Platelet inhibitor



Talion®
Anti-allergy agent



Polywrap
Safe and secure additive-free food wrap



Environment and Energy

Conserving resources and energy, and recycling



Synthetic Rubber (BR)
Group production capacity: Ranking fifth worldwide



Polyimide Film
70% share of the market for chip-on-films for LCD television panels

The UBE Group's Value Creation Process

The UBE Group builds new value by leveraging its technological and manufacturing capabilities in response to changes in the operating climate and the resulting social issues. We aim to contribute to sustainable growth by resolving these issues.

Changes in operating climate



FY2017
Capital components of enterprise value



Risks and Opportunities

See pages 28-35, 58, and 59 for details.

Global warming and other environmental issues:
Toward a sustainable economy

Financial Capital

Underpinning enterprise value with a sound financial position

Equity Capital **¥286.5 billion***

See page 7 for details.
*As of April 1, 2017

Proprietary technologies and manufacturing clout



Research and development



Raw materials procurement

Population growth in emerging nations, expansion of middle class, and urbanization:
Food, water, resources, infrastructure, and energy shortages

Manufacturing Capital

Infrastructure, businesses, human resources, and expertise concentrated in the Ube area

5 sites in Japan
4 sites overseas

See pages 14 and 15 for details.

Performance

See pages 26, 27, 56, and 57 for details.

Aging populations in developed nations

Human Capital

Respecting diverse people and values

See pages 18, 19, 44, and 45 for details.

Switch to shale gas and other energy sources

Intellectual Capital

Broad technological foundations

R&D Expenses **¥13.2 billion**

See pages 16 and 17 for details.

Bedrock of value creation

Diversifying work practices

Social and Natural Capital

Prizing ties with stakeholders

Products and technologies that contribute to the environment

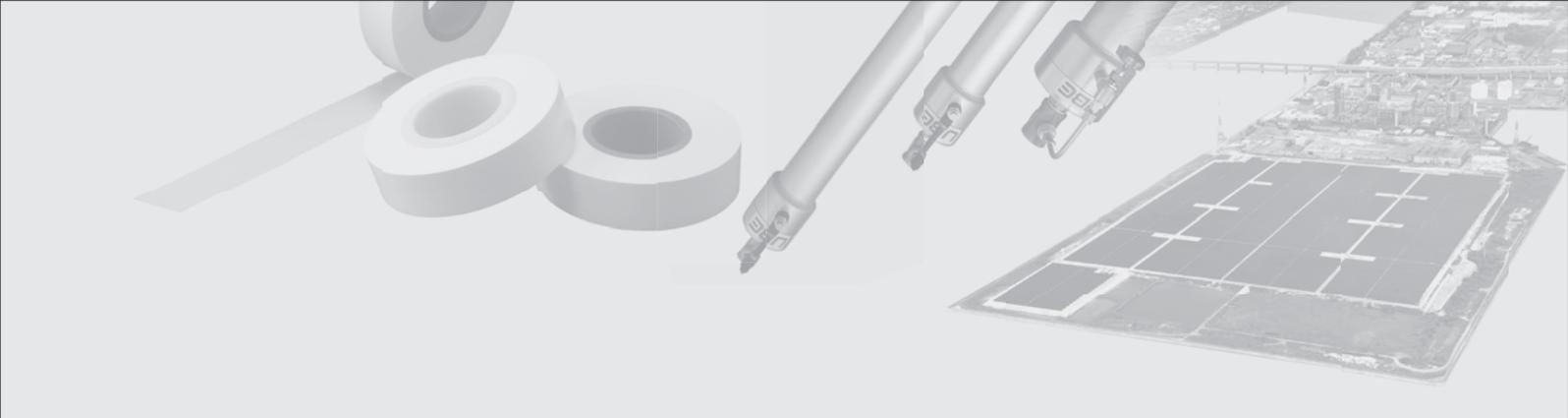
See pages 20, 21, 28-35, 46, and 47 for details.

Materiality

See pages 22-24 for details.

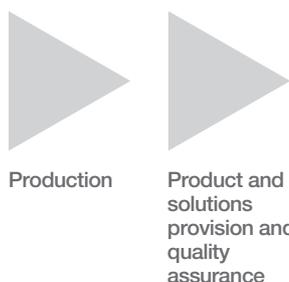
The UBE Group's Business Principles





Strategy and Resource Allocation

Medium-Term Management Plan
 “Change & Challenge 2018”
 See page 25 for details.



Products and Solutions

See pages 28-35 for details.

Corporate Governance, CSR (ESG)

See pages 36-55 for details.

“Coexistence and Mutual Prosperity”
 “From Finite Mining to Infinite Industry”

FY2017 Impact on capital components of enterprise value

Value provided to society

Sustainable Development Goal (SDG) initiatives

Profit before income taxes	¥45.0 billion
Free cash flow	¥39.4 billion
ROE	10.5%
Number of people who are newly qualified* that underpin front-line capabilities	114
*High-pressure gas manufacturing and maintenance managers (Chemicals) Authorized concrete engineers, Authorized chief concrete engineers (Cement & Construction Materials) Certified skilled professionals (Machinery)	
Number of patent applications	326*
*FY2015	
Percentage of total sales derived from eco businesses	27%
Savings from resource reuse and energy conservation	¥6.3 billion

Global warming countermeasures:

Environmentally friendly products and solutions (including LiBs and environmentally friendly tires)



Environmental contributions:

Contributions to more compact, lighter, and more durable products (such as from replacing metals with nylon and other resins and concrete pavement)



Addressing healthcare and food issues:

Contributing to health, food hygiene, and food production (such as in terms of pharmaceuticals, food packaging films, and fertilizers)



Contributing to a recycling-oriented society:

Pushing forward with resource cycles (including for raw materials for cement)



Contributing to regional communities:

Creating jobs, paying taxes, and engaging in regional development



Capital reinjections into new value creation



Key Elements of the UBE Group's Value Creation: Manufacturing and Natural Capital

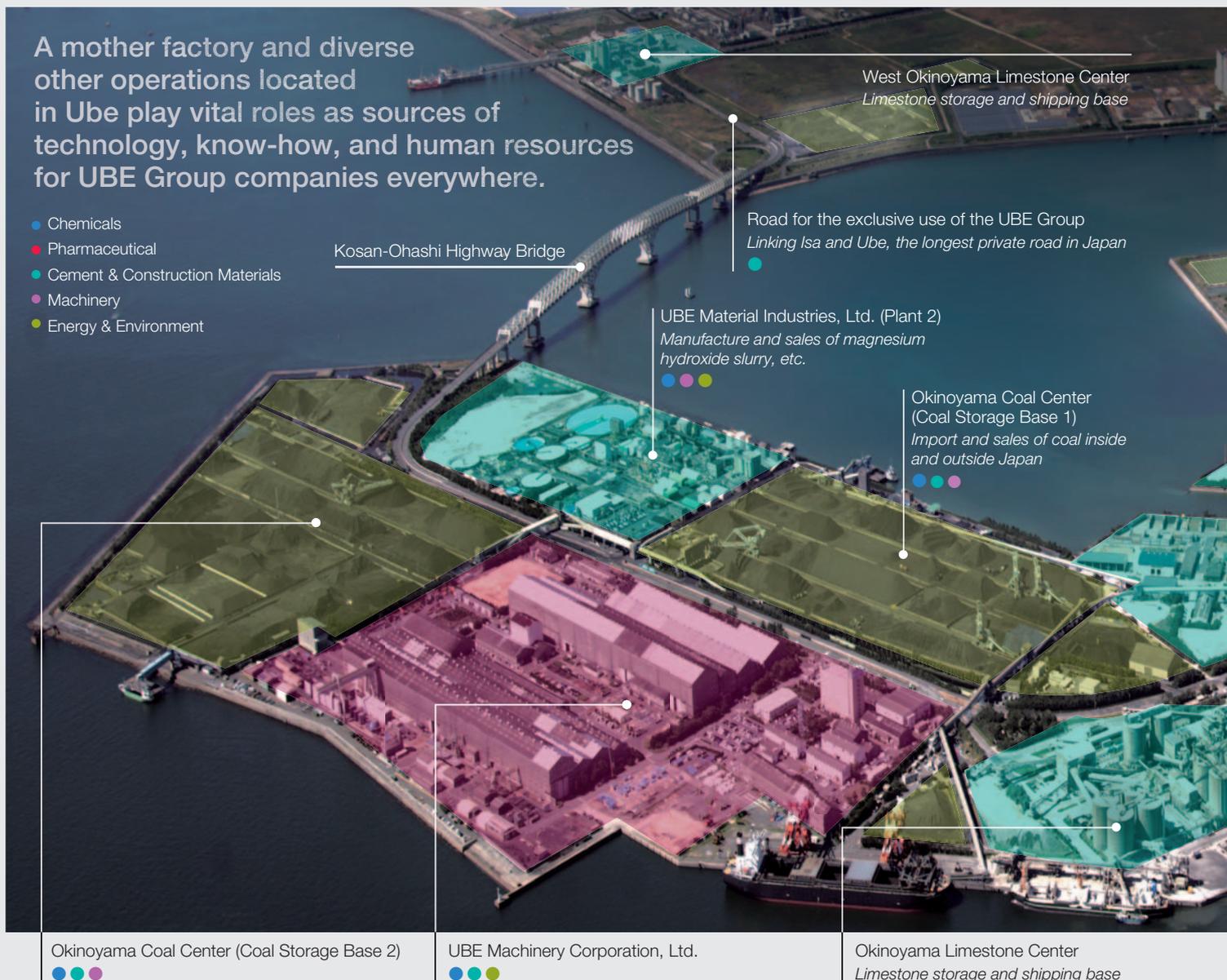
Concentrating Production Facilities and Infrastructure in Ube

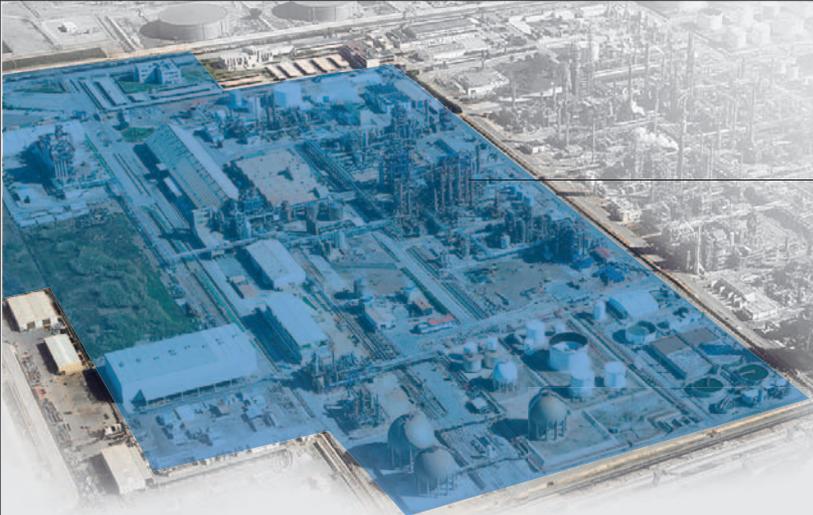
Ube City in Yamaguchi Prefecture is the manufacturing heartland of the UBE Group. It is here that we started out, and we benefit from its position as a hub for everything from coal storage facilities to chemicals, pharmaceuticals, cement, and machinery factories to electric power plants and research laboratories.

Benefits of business concentration

- Competitive edge and lower environmental impact from sharing infrastructure
- Collaboration between segments
- An ideal location whose features include ample water resources and a harbor that can accommodate large vessels

Key Facilities in the Ube Area *Note: The colored dots show the relationship between segments and the surrounding area.*





Spain

UBE Corporation Europe, S.A. Unipersonal (UCE)

Manufacture and sales of caprolactam, ammonium sulfate, nylon, and fine chemical products



Thailand

UBE Chemicals (Asia) Public Company Limited (UCHA)
 THAI SYNTHETIC RUBBERS COMPANY LIMITED
 UBE Fine Chemicals (Asia) Co., Ltd.

Manufacture and sales of caprolactam, ammonium sulfate, nylon, synthetic rubber, and fine chemical products



Our Thai, Spanish, and other production operations overseas have deployed manufacturing technologies, know-how, and human resources cultivated in Ube in delivering high-quality products to the world.



US Power Co., Ltd.
 Megasolar power plant

UBE Material Industries, Ltd. (Plant 1)
 Manufacture and sales of magnesia clinker, etc.

UBE-Fujimagari Factory (UBE Ammonia Industry, Ltd.)
 Manufacture and sales of ammonia and industrial gases

Meiwa Plastic Industries, Ltd.
 Manufacture and sales of phenolic resins and others

UBE-MC Hydrogen Peroxide Limited
 Manufacture and sales of hydrogen peroxide

Ube Chemical Factory (West)
 Manufacture of nylon and caprolactam, specialty products, etc.

UBE Steel Co., Ltd.
 Manufacture and sales of casting products, etc.

Corporate Research & Development
 Research and other activities centered on chemical and pharmaceutical products

Shipping facility for Ube Cement Factory

Coal-fired power plant
 Supplier of power to the entire UBE Group in the Ube region and IPP business

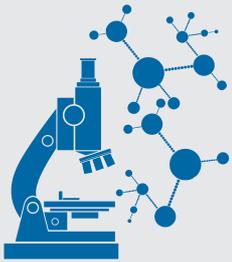
Ube Cement Factory

Ube Chemical Factory (East)

(Pharmaceutical factory: Manufacture of pharmaceuticals)

Ube Head Office

Key Elements of the UBE Group's Value Creation: R&D and Intellectual Capital



Pushing Forward with Strategic R&D and Intellectual Property Initiatives to Build Tomorrow's Businesses

The Corporate Research & Development Division is leading work in basic and advanced technologies. In-house companies and divisions handle existing product technologies. Our basic technology strengths encompass organic, inorganic, polymer chemistry, processing, and mass production fields. In advanced technologies, we leverage higher-order structural control, functional design, and evaluation technologies to generate new businesses. We pursue strategic intellectual property initiatives that are vital to corporate growth and strive to avoid infringing on the intellectual property of others.

R&D

Our Strengths

As mentioned earlier, the UBE Group operates in a wide range of fields, supplying bulk products as well as such high-value-added offerings as active pharmaceutical ingredients. Our R&D competitive advantages are the technologies cultivated in diverse businesses and our numerous sources of information. We pursue R&D that uniquely fuses findings in a range of business fields. For example, we develop construction infrastructure repair materials that employ organic materials. We also create and calibrate lightweight resins for injection molding machines.

Positioning and Strategies

Our fundamental R&D policy is to enhance customer value over the short, medium, and long terms by driving manufacturing technology advances in existing businesses and expanding in peripheral fields and beyond while building businesses across industries and in new domains. We are reinforcing

collaboration in research, development, production, and marketing while concentrating work in existing business areas at in-house companies and divisions to align goals while clarifying responsibilities and accelerating R&D progress. At the same time, the Corporate Research & Development Division specializes in R&D to generate new businesses. In the process, we compensate for limited internal resources by drawing on external resources, engaging extensively in open innovation through industry, government, and academia partnerships, and undertaking long-term research through national projects.

Key Focuses of Four Business Domains

Here, we present the R&D focuses of four business domains we have targeted under our medium-term management plan.

- **Mobility: Automotive weight-reduction components and materials**

We are exploring innovative materials that are cheaper than carbon fiber-reinforced plastics.

Morihisa Yokota
General Manager of
Corporate Research & Development,
with responsibility for Intellectual Property Dept.



Business Domains	Developing Businesses	New Businesses
Mobility	New battery materials (LTO) <ul style="list-style-type: none"> Concrete study to increase scale of facilities CMC for next-generation jet engines (Tyranno Fiber®) <ul style="list-style-type: none"> Establish framework for mass production, develop high-performance fibers for aircraft engines 	Automotive weight-reducing materials and components <ul style="list-style-type: none"> Develop composites
Environment and energy	Strontium carbonate nanoparticles for optical films <ul style="list-style-type: none"> Aim for rapid market introduction through function verification and customer assessment 	Heat management-related components and materials <ul style="list-style-type: none"> Develop high-performance insulating materials
Construction and infrastructure	Environmental, renovation, and new concrete materials <ul style="list-style-type: none"> Develop heavy metal immobilizer, neutral solidification material, and other materials 	Advanced renovation systems <ul style="list-style-type: none"> Develop materials and construction methods that prevent peeling and have waterproof coatings
Healthcare	Development of new cell culturing technology using polyimide porous membrane <ul style="list-style-type: none"> Rapid commercialization of bioreactor components and materials for manufacturing of biomedicines (establish and accelerate the project organization) 	<ul style="list-style-type: none"> Develop components and materials for next-generation healthcare applications, leveraging the functionality of polyimide porous membrane

We are selecting materials that are suitable for injection molding machines with a view to mass production.

• **Environment and energy: New insulation materials**

We look to develop materials that perform better than existing commercial offerings and deliver a smaller carbon footprint. We are also evaluating such eco-friendly raw materials as inorganic and biomass.

• **Construction and infrastructure: Advanced renovation systems**

We are developing transparent anti-peeling and waterproof coating materials that enhance appearance and can be applied to site construction methods.

• **Healthcare: Bioreactor components and materials**

We are developing new cell culturing technology that draws on the functionality of our proprietary polyimide porous membrane in efforts to swiftly commercialize bioreactor components and materials.

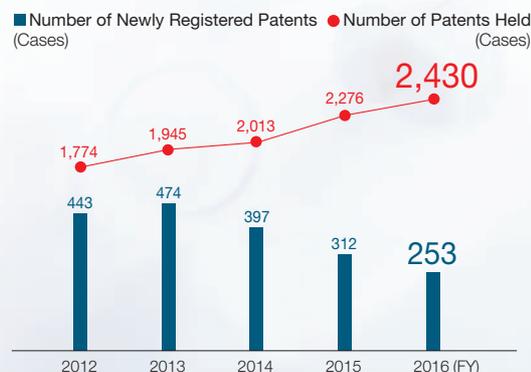
the same time, we are promoting global IP management as the UBE Group, and are advancing the sharing of activity policies and IP information with Group companies in Japan and overseas.

Note 1: IP portfolios

Patents, copyrights, know-how, and other intellectual property that corporations can use to formulate strategies and assess competitiveness

Note 2: Open/close strategies

Management strategies that give companies competitive edges by making intellectual property open or closed



Intellectual Property (IP)

Ube Industries' initiatives to reinforce and optimally leverage IP aim to enable us to create new businesses and bolster competitiveness, thereby helping to build and expand enterprise value.

We seek to maximize our enterprise and IP value by formulating IP strategies according to our business strategies and by implementing the plan-do-check-act (PDCA) cycle of IP strategy activities. Furthermore, to strengthen IP research and analysis capabilities, we are working to improve operational efficiency, including in R&D departments, by utilizing tools with artificial intelligence (AI) functions and to utilize IP portfolios^{Note 1} and open/close strategies^{Note 2} while promoting IP activities that contribute to business revenue. At



Key Elements of the UBE Group's Value Creation: Human Capital

The Expertise and Enthusiasm of Our Diverse People Are Our Greatest Asset

The UBE Group considers its people pivotal in driving business growth. They are also the Group's greatest strength. Because our people are the key to delivering sustainable growth, we focus on cultivating them so they share a common commitment to maintaining outstanding expertise, are self-directed, and fearlessly

Thailand

UBE Chemicals (Asia) Public Company Limited
(UCHA)

Charunya Phichitkul
Director (Former Chairman and CEO)

The vision of the Asia Operational Unit^{Note} is to focus on operational excellence and innovative technology. In managing our human resources, we treasure teamwork, strengthening our competitiveness, and fostering a highly productive corporate culture.

Our people are our most important asset, and we connect with them based on trust. Our family atmosphere is a key aspect of the corporate culture that unites our people and underpins the strong teamwork that drives our improvement and cost reduction initiatives.

One of our management strengths is that we can obtain production, technical, and sales support from Japan to keep enhancing our cost competitiveness and differentiate our products.

At the same time, we recognize that differences in the perspectives of Thai and Japanese people about such things as employment, motivation, work-life balance, and lifetime employment present some challenges.

We want to expand the exchange of people in the technology and sales fields with those in such countries as Japan and Spain. I also think that executive positions in Japan should be open to foreign nationals. Offering solid global career paths will help us to recruit and develop more talented people.

Hisashi Ueda
Executive Vice President

I oversee sales and marketing for nylon products and caprolactam, which is the raw material of Nylon 6. We sell these products not only in Southeast Asia but also Japan, elsewhere in Asia, and in North, Central, and South America. Another important role is to liaise with manufacturing and quality assurance units.

I really sense the dynamism that comes from operations that we maintain in the growth market that is Southeast Asia.

The languages, cultures, and business practices here differ from what we are used to in Japan, so there are many things to learn each day. I find it exciting to be involved in investment projects and other management matters, something I don't get many opportunities to do in Japan.

Note: See the note on page 47 for the names of Asia Operational Unit companies.

left:
Charunya Phichitkul
Director
(Former Chairman and CEO)

right:
Hisashi Ueda
Executive Vice President



pursue the challenges of change.

It is becoming increasingly important in developing human resources to embrace diversity and broaden perspectives as well as create environments that accept different work practices, thereby enabling our people to generate value. Non-Japanese executives head the Group's overseas production units, where employees come from diverse cultural backgrounds. Differences in attitudes and languages foster the exchange of ideas among employees and drive the creation of new value.

Spain

UBE Corporation Europe, S.A. Unipersonal (UCE)

Bruno de Bièvre
President

We encourage our managers to view problems as opportunities, take leadership in organizing a team, and make proper use of the company's resources to address issues.

We foster a culture of honesty, respect, and openness to innovation, and promote hardwork, companionship, and shared passion for progress.

In management, difference of language remains a barrier to agile and good communication with UBE's Headquarters in Japan. Cultures are different, yes, but once that is truly understood then this can become an important asset for the UBE Group. Cultural diversity helps us to better understand a variety of customers, and to take the proper actions.

UBE's competitive advantage is based on the continuous development of know-how. As such, we have increased training and coaching, and established our own in-house know-how institute.

The Global Business Leadership Program is a successful initiative that is preparing our middle management to become UBE's leaders in a world of increasing complexity.

Juan Salvador Martí

Senior Manager, Project Engineering

I am responsible for the projects of UCE's Technical Area. My role is to carry out projects on time and on budget without compromising safety, regulations, and in-house standards. UCE's people contribute much to reaching our goals.

Our work delivers tangible and enduring results by and for everyone. I am proud that our achievements symbolize the future of UCE.

I dream of contributing to social and environmental progress to benefit our families and generations to come. I am convinced that we will reach our objectives through the cooperation of all our people.

left:
Bruno de Bièvre
President

right:
Juan Salvador Martí
Senior Manager
Project Engineering



Key Elements of the UBE Group’s Value Creation:
Social Capital

Engaging with Stakeholders to Realize Sustainable Growth

In line with its commitment to coexistence and mutual prosperity, a key business principle, the UBE Group endeavors to build trust with stakeholders and fulfill its social responsibilities worldwide.

Stakeholder Engagement

The UBE Group endeavors to engage as follows with its five key stakeholders.

Stakeholders	Ube’s Mission	Main Means of Engagement
Customers	Provide safe, high-quality products and services that are useful to society at fair prices and swiftly react to customer needs	Communication through sales activities and providing information by various means (including the UBE Group’s website and product catalogs)
Suppliers	Engage in fair, honest transactions	Communication through purchasing activities
Employees	Provide fair pay and stable employment, develop human resources, share information and tasks, and support improvement in quality of life	Corporate briefings, the Central Labor-Management Conference, training, reporting and counseling systems, internal publications, and the Company intranet
Local communities and governments	Provide stable, fair employment, pay taxes appropriately, and engage in dialogue with local communities and society	Regional dialogue meetings, the local newsletter “Tsubasa,” charity concerts, and collaboration with academia
Shareholders	Continuously raise corporate value, provide timely, appropriate information disclosure, and maintain shareholder returns through stable, appropriate dividends and share buybacks	IR activities (results briefings, investor briefings, facility tours, etc.), the General Meeting of Shareholders, and providing information by various means (the UBE Group’s website, the Integrated Report, and the UBE Business Report)



Stakeholder Engagement Success Story

Contributing to Regional Progress through Research Collaboration with Yamaguchi University

An Academic's Perspectives on Ube Industries' Corporate Citizenship in Action

Ube Industries and Yamaguchi University have undertaken 263 joint research projects since concluding a comprehensive cooperative agreement in April 2004. Collaboration has extended beyond contributing to business development to encompass academic presentations and papers and patent applications, as well as improvements in research and education at the university and noteworthy contributions to regional progress. I am truly grateful for what this relationship has achieved.

Key Benefits of Collaboration with Ube Industries

Ube Industries and the university are in close proximity. This has proven very useful in enhancing communication and bearing fruit, as we frequently visit their facilities and meet for collaborative research. University researchers are generally poor at assessing the value of their work from business and commercialization perspectives, so collaboration is useful for helping to transform ideas into reality.

Joint Research Now and Tomorrow

Yamaguchi University set up its Research Center for Advanced Science and Innovation in 2015. Researchers from Ube Industries serve as professors at this facility, and have done much to revitalize its operations. In recent times, there has been greater collaboration between the Company and the mechanical, electrical, and information technology (IT) experts of the university's Faculty of Engineering to resolve technological issues at production sites.

Yamaguchi University supports the creation of cross-faculty research entities to bolster its organizational capabilities. Our goal is to undertake joint research that has a great social impact. We look forward to making progress in the area of battery research through an entity that the university will set up during 2018.

Professor Kenji Hori

*Trustee and Vice-President for Academic Research
Yamaguchi University*

Professor Hori specializes in organic quantum chemistry, and is researching the development of synthetic routes that combine computational chemistry and cheminformatics. Since his appointment in fiscal 2016 as Vice-President, his roles have been primarily to oversee industry-academia collaboration and foster research.

Academic Profile

- 2000 Professor at Yamaguchi University Faculty of Engineering
- 2006 Professor at Yamaguchi University Graduate School of Science and Engineering
- 2007 Deputy Head of Yamaguchi University Industry and University Cooperation and Startup Support Organization
- 2009 Deputy Head of Yamaguchi University Industry and University Cooperation and Innovation Organization
- 2010 Dean of Yamaguchi University Faculty of Engineering
- 2012 Director of Yamaguchi University Graduate School of Science and Engineering
- 2014 Assistant to President of Yamaguchi University
- 2016 Yamaguchi University Trustee and Vice-President and Director of Organization for Research Initiatives

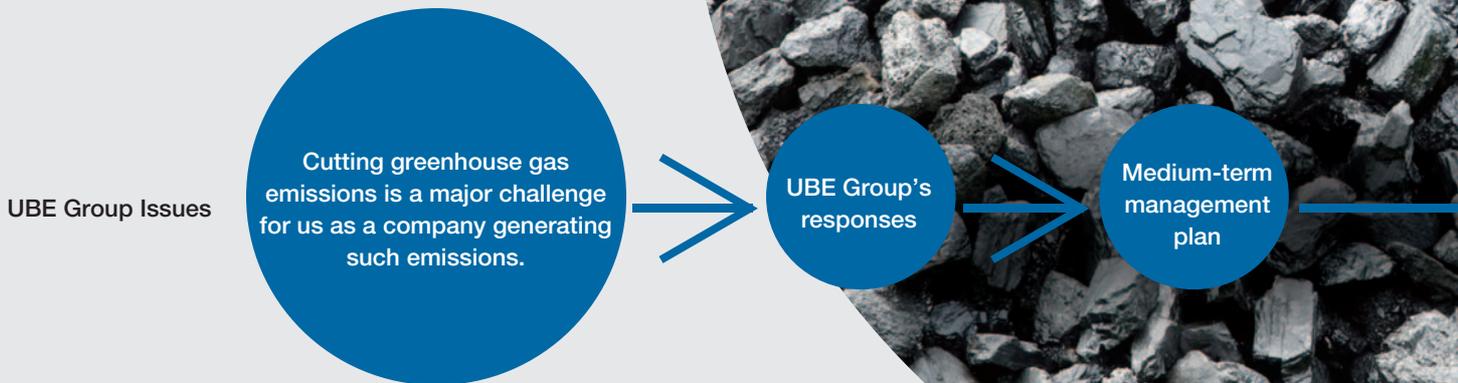
Addressing Global Warming

We aim to tackle environmental issues and enhance corporate value by cutting greenhouse gas emissions while expanding businesses that contribute to the environment.

The Paris Agreement was a historic step toward reducing greenhouse gas emissions, creating a global framework to effectively eliminate all carbon dioxide (CO₂) emissions by the end of this century.

The UBE Group has continued to roll out measures to cut greenhouse gas emissions from its energy usage. We have steadily lowered such emissions since 1990.

Ube Industries is the sixth largest emitter of these emissions in Japan, so cutting them is a major challenge. One objective of our medium-term management plan is to address environmental issues while raising corporate value by reducing greenhouse gas emissions and expanding our environmental businesses.



Toward a Low-Carbon Business Structure

The coal-based business model that we employed in our early days gave us cost and geographical advantages. Global trends of coal usage now pose significant risks for our business. At the same time, we recognize this as an opportunity to generate new business growth, and thereby consider it vital to transform into a low-carbon business structure. We will address this by setting new targets for 2030 and beyond.

Greenhouse Gas Emissions

(1,000t - CO₂e/y)



Cutting CO₂ emissions by changing production processes

We are striving to conserve energy and cut CO₂ emissions in several ways. For example, we are deploying waste heat power generation facilities at cement plants and are also expanding the use of thermal energy waste alternatives at cement plants. We are also switching to a selective phenol hydrogenation process to manufacture cyclohexanone.

Switching to waste heat power generation and a selective phenol hydrogenation process to manufacture cyclohexanone in our drive to cut CO₂ emissions by approximately

220,000 metric tons

Developing products that contribute to the environment

For example, our LiB electrolytes and separators have contributed greatly to the growth of electric vehicles (EVs) in recent years. We place a high priority on developing more environmentally-friendly technologies and products in the years ahead.

Fiscal 2017 sales of environmentally-friendly products totaled roughly

¥188.0 billion

Addressing climate change through R&D

Through the Company's R&D activities, we are participating in the New Energy and Industrial Technology Development Organization (NEDO)'s project for chemicals manufacturing processes based on inedible vegetable oils and in the Japanese Cabinet Office's Cross-ministerial Strategic Innovation Promotion Program for energy carriers. We are developing chemical products incorporating wood biomass. We are also tackling climate change by participating in industry-academia-government initiatives to develop direct combustion (co- and mixed-firing) technologies that harness ammonia as fuel.

Address global environmental issues while raising corporate value, reducing greenhouse gas emissions, and expanding environmental businesses



Materiality for the UBE Group

Materiality Overview

In light of significant global trends, the UBE Group's more than 120-year history, and the current business environment, the Group has identified materiality issues that will shape its ability to grow sustainably, as follows.

Item	Materiality	Explanation of Progress with Initiatives
Environment	Global warming measures	As a business that generates a considerable amount of greenhouse gases, we undertake measures to combat global warming. Such measures are a focus of attention around the world. Please see pages 22, 23, and 51 for details.
Society	Enhancing the power of our people	People are central to the UBE Group's growth over the medium and long terms. We consider it essential to enhance the capabilities of our people through recruitment, development, and experience. Please see pages 18, 19, 44, and 45 for details.
Governance	Strengthening internal controls	See the following special feature on reinforcing such controls relating to quality.
New business creation	Strengthening research and development	Creating new businesses is vital for the UBE Group to grow sustainably. Research and development is the foundation of such efforts. Please see pages 16 and 17 for details.

Special Feature

Strengthening Internal Controls in Light of Inappropriate Quality Inspection Practices

On February 21, 2018, the Company set up a committee comprising attorneys with no conflicts of interest and an outside director to investigate improprieties in the quality checks of low-density polyethylene. The committee expanded the scope of its probe to include Group companies. It also explored causes of the misconduct and assessed the suitability of measures to prevent a recurrence of this issue.

On June 7, the Company received and announced the committee's report, as well as its recurrence prevention measures. The Group takes these incidents very seriously, and is deploying measures to prevent a recurrence while endeavoring to strengthen governance and its quality management structure.

Measures to Prevent Recurrences

1. The Board of Directors will strengthen quality-related governance
2. Management will articulate its emphasis on quality and lead efforts to change the corporate culture
3. Change the corporate culture by instilling an awareness of quality among all Group employees and by ensuring that they make decisions from customer perspectives
4. Strengthen controls relating to Group quality assurance and reinforce cooperation between related departments
5. Strengthen the quality-related infrastructure

Please visit the UBE Group's website for more details on the report and recurrence prevention measures:
<http://www.ube-ind.co.jp/ube/en/news/2018/index.html>

Sustainable Development Goals

More than 150 world leaders adopted the 2030 Agenda for Sustainable Development at the United Nations Sustainable Development Summit in New York in September 2015. The agenda includes 17 Sustainable Development Goals (SDGs) and 169 targets.



“Change & Challenge 2018” Medium-Term Management Plan

What We Want to Become in 10 Years (around 2025)

“An enterprise that continues to create value for customers”

Basic Policies

Strengthen the business foundation to enable sustainable growth

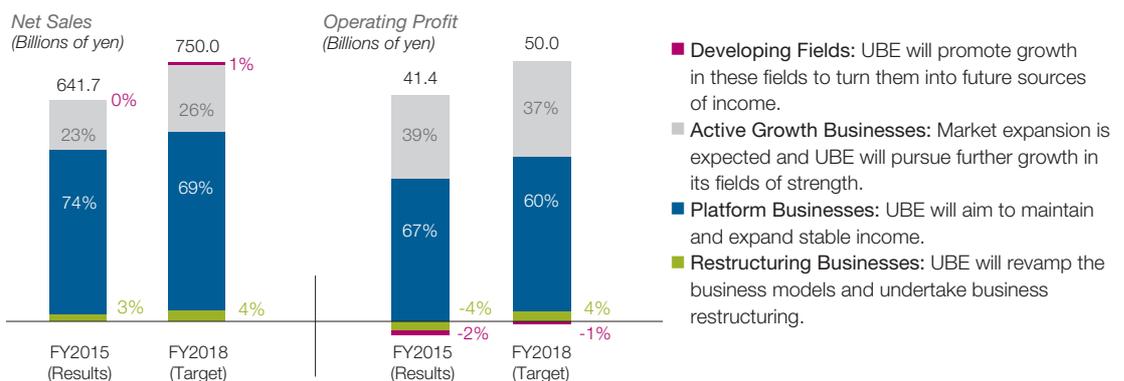
Address and be part of the solution for resource, energy, and global environmental issues

Numerical Targets of Fiscal 2018	Key Figures	Key Indicators
	Operating profit ¥50.0 billion	Return on sales (ROS) more than 6.5%
	Ordinary profit ¥49.0 billion	Return on equity (ROE) more than 9.0%

Business Portfolio Segmentation

Target business domains: Environment and energy, mobility, construction and infrastructure, healthcare

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



External Evaluations

MS-SRI (Morningstar Socially Responsible Investment Index)
 As of June 30, 2018

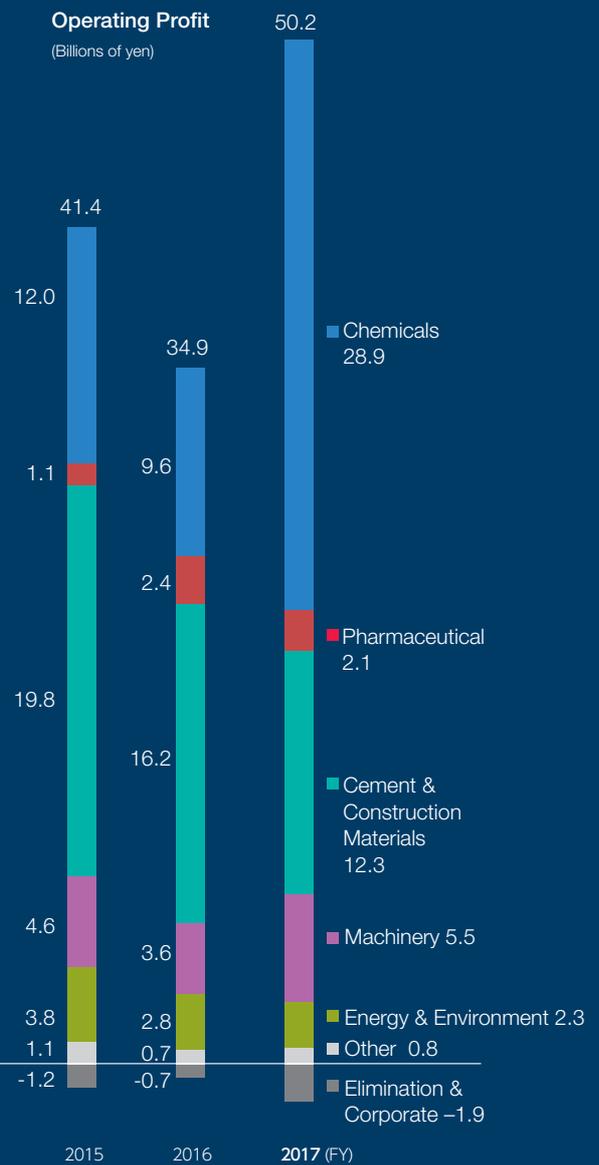
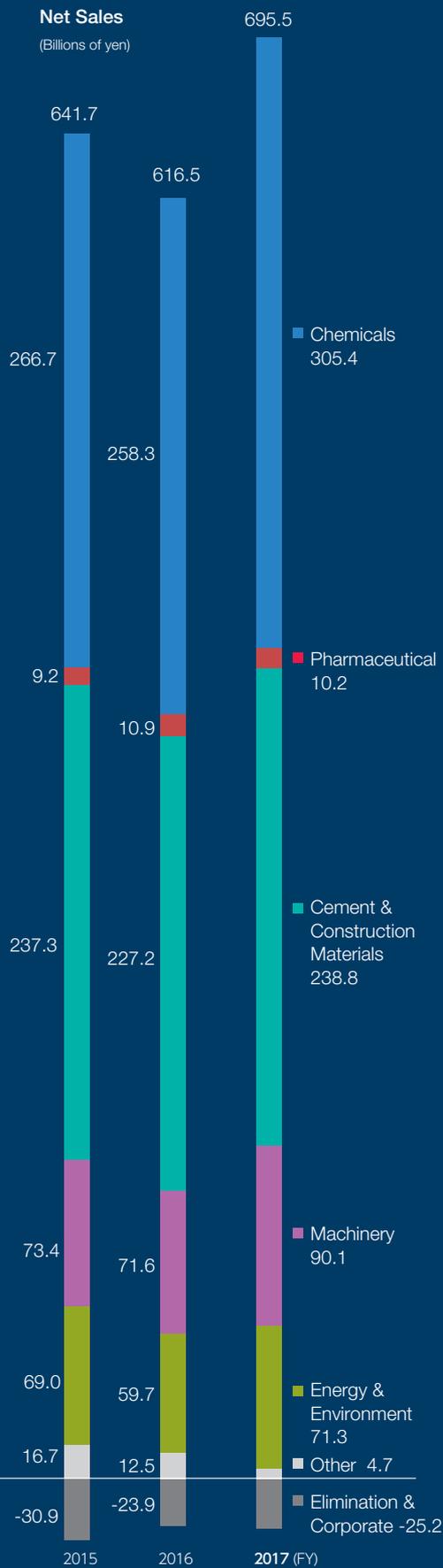


Certified as an Excellent Enterprise of Health and Productivity Management—White 500



Note: The Excellent Enterprises of Health and Productivity Management—White 500 program was created by the Ministry of Economy, Trade and Industry (METI) and certified by Nippon Kenko Kaigi.

Initiatives to Create Value and Drive Sustainable Growth
Overview



Raw materials and fuel prices rose overall during the year under review. High coal prices particularly affected the operations of the Cement & Construction Materials Company. On the upside, the UBE Group increased revenues and earnings against the backdrop of several key factors. These included improved conditions in the chemical products market amid strong demand and expanded sales of functional chemicals products. Another driver was that Chemicals Company results improved greatly in the absence of regular repairs at domestic ammonia products plants. Consolidated ordinary profit and profit attributable to owners of parent were record highs.

● Chemicals

Revenues and earnings **up**

Fiscal Year	Billions of yen			Change from FY2016
	2015	2016	2017	
Sales	266.7	258.3	305.4	18.2%
Operating Profit	12.0	9.6	28.9	200.0%

Nylon, Caprolactam, and Industrial Chemicals

- Nylon sales were up on price hikes in response to increased lactam costs, as well as because of generally solid shipments, particularly for food packaging films.
- Caprolactam sales increased, as more stringent environmental legislation in China resulted in tighter supplies and drove prices higher.
- Sales of industrial chemicals rose in the absence of regular ammonia products plant repairs in Japan and as a result of production and shipment gains amid solid demand.

Synthetic Rubber

- Synthetic rubber sales climbed amid price increases in response to higher butadiene costs and generally solid shipments, particularly of products for the domestic tire market.

Battery Materials and Fine Chemicals

- Battery materials sales were up on greater sales volumes owing to expanded demand, primarily for automotive applications.
- Sales of fine chemicals grew amid generally higher volumes.

Polyimide and Specialty Products

- Polyimide sales increased on the strength of growth in film volumes, mainly for circuit boards.

● Pharmaceutical

Revenues and earnings **down**

Fiscal Year	Billions of yen			Change from FY2016
	2015	2016	2017	
Sales	9.2	10.9	10.2	-6.9%
Operating Profit	1.1	2.4	2.1	-15.6%

- Although volumes of in-house and contract pharmaceuticals were basically unchanged, segment sales declined owing to a decrease in royalty income.

● Cement & Construction Materials

Revenues **up** and earnings **down**

Fiscal Year	Billions of yen			Change from FY2016
	2015	2016	2017	
Sales	237.3	227.2	238.8	5.1%
Operating Profit	19.8	16.2	12.3	-24.1%

- Sales of cement and ready-mixed concrete rose despite basically unchanged domestic demand, reflecting favorable sales of ready-mixed concrete. On the downside, higher coal costs hampered profitability.
- Price revisions drove higher sales of calcia, magnesia, and construction materials.

● Machinery

Revenues and earnings **up**

Fiscal Year	Billions of yen			Change from FY2016
	2015	2016	2017	
Sales	73.4	71.6	90.1	25.8%
Operating Profit	4.6	3.6	5.5	50.1%

- Sales of molding and industrial machines increased on solid demand and contributions from a subsidiary that we consolidated in January 2017.
- Higher billet steel scrap costs drove billet prices up, causing steel products sales to rise.

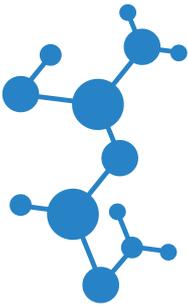
● Energy & Environment

Revenues **up** and earnings **down**

Fiscal Year	Billions of yen			Change from FY2016
	2015	2016	2017	
Sales	69.0	59.7	71.3	19.4%
Operating Profit	3.8	2.8	2.3	-17.7%

- Coal business sales were up, reflecting expanded volumes and transactions growth at our coal center, a storage and distribution facility. Another factor was favorable coal market conditions, which supported higher prices.
- Although we supplied roughly the same amount of electricity as the previous year, power sales increased on favorable coal market conditions. During the year, we conducted biennial repairs of our independent power producer (IPP) facility.

Business Strategies of Chemicals



Synthetic rubber

Medium-Term Management Plan Policies

- Generate at least ¥20 billion in operating profit.
- Spend management resources on expanding nylon, synthetic rubber, LIB separator, and high-performance coating businesses.
- Create unique value by integrating diverse materials and technologies.
- Strengthen and develop global marketing capabilities.
- Quickly materialize development themes through seamless cooperation among research, development, technology, production, and business.

Principal Products and Businesses

Synthetic rubber	
Nylon and lactam chain	<ul style="list-style-type: none"> • Nylon resin • Caprolactam • Industrial chemicals
Battery materials and fine chemicals	<ul style="list-style-type: none"> • Battery materials (Electrolytes and separators) • Fine chemicals • High-purity chemicals
Polyimide and specialty products	<ul style="list-style-type: none"> • Polyimide • Ceramics • Separation membranes • Tyranno Fiber® • Telecommunications devices

- Leverage information and communication technology (ICT) and cultivate human resources to solidify business underpinnings.

Strengths

- Our broad lineup extends from our core nylon and caprolactam product chain to specialty and fine products.
- We integrate diverse materials and technologies to supply differentiated products and services worldwide.
- We have the technology and manufacturing know-how to meet sophisticated customer needs as a trusted joint development partner.

Opportunities

- Large-scale investments in fiscal 2017 should contribute to earnings growth.
- Sales are projected to rise for specialty products, battery materials, and fine chemicals, with market conditions remaining favorable.
- In view of buoyant demand for LiB separators, we aim to significantly boost production and earnings of both raw films and coated films.

Business Strategies for Fiscal 2018

We aim to achieve or exceed ¥20 billion in operating profit, which is the final year's target of our three-year medium-term management plan.

Our strategy for the medium and long terms is to shift from commodity products that are vulnerable to market fluctuations to unique and added-value products, as well as products and services that provide customer solutions. We would thereby strengthen profitability and transform the business structure into one that can deliver steady growth even in business climate changes.

While the caprolactam market conditions should remain favorable in the near term owing to such factors as Chinese environmental regulations and raw materials shortages, we expect profit

Challenges

- Improve quality assurance system and strengthen risk management and internal controls.
- Respond to strong demand by stabilizing production and minimizing avoidable losses.

小池さん
1行減りました



Harvest from past investments
and seed for future growth

Masato Izumihara
Company President, Chemicals Company



margins to narrow due to continuous capacity expansions in China.

Due to regular shutdown maintenance at the Fujimagari Factory of ammonia, we expect manufacturing costs to rise because of higher maintenance expenses. Nonetheless, we seek to exceed the medium-term management plan's target operating profit through contributions from new facilities, increasing operation rates for existing facilities, and boosting sales volumes.

Particularly, we will harvest from major past investments for new nylon plants in Spain, for new LiB separator plants in Japan, for cyclohexanone production by phenolic processes, and for expansion of large-crystal ammonium sulfate production. For existing facilities such as for polyimide and gas separation membranes, we seek to expand sales by utilizing available capacities.

Active Growth Businesses

As for the synthetic rubber business, we plan to strengthen collaboration among manufacturing units in Thailand, Malaysia, and China. At the same time, we will explore local needs and make our best efforts to create customer value through differentiation and specialization.

We aim to fully reap the contribution from nylon plant capacity expansion in Spain last fiscal year. With regard to LiB separators, we expanded capacity at the Sakai Factory to meet customer demand growth. We will lower costs to further enhance profitability.

As for high-performance coatings, we will accelerate our global expansion and reinforce our proposal-oriented business model through collaboration with customers while cutting costs to improve earnings.

Restructuring Businesses

We have greatly improved the profitability of the polyimide business due to the demand growth for organic light-emitting diode (OLED) and other products. We will keep trying to lift earnings from film and varnish by improving technologies for stable production while cutting costs. As for the LiB electrolyte business, we will strive to swiftly benefit from business integration with Mitsubishi Chemical Corporation in China.

Regarding the administration side, we will strengthen management through the establishment of key performance indicators (KPIs) so we can respond swiftly to changes in the business climate and reach our earnings goals.

Reinforcing Our Management Foundation

We will prepare for the start of our next medium-term management plan by allocating management resources to key themes such as overhauling our quality management systems, reinforcing risk management and internal controls, leveraging ICT, and developing human resources.



ESG-Related Initiatives

- We adopted a new manufacturing method for cyclohexanone, an intermediate raw material for caprolactam. We thereby look to reduce annual CO₂ emissions by approximately 190,000 metric tons. We will continue to develop and select processes that help safeguard the environment.
- We will supply products that lower environmental impact and contribute to society. Such offerings include eco-friendly high-performance coating materials, synthetic rubber and nylon that improve the fuel economy and lower the weight of automobiles, battery materials for electric and hybrid vehicles, and separation membranes for fuel cell vehicles.

Global Product Supply Structure of the Chemicals Company

The Chemicals Company maintains production facilities in Spain and Thailand for caprolactam, nylon, fine chemicals, and other products. These products are supplied mainly to the European, Asian, and Latin American markets.

Spain

UBE Corporation Europe, S.A. Unipersonal (UCE)

In 1993, we invested in a caprolactam manufacturing company in Spain that later became a wholly owned subsidiary in 1996. The company manufactures and sells nylon, caprolactam, ammonium sulfate, fine chemicals, and other products.



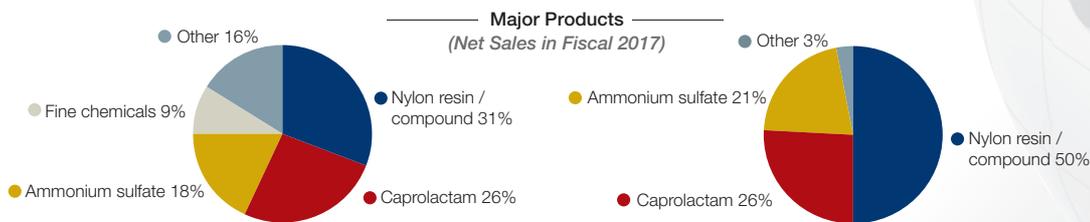
Thailand

UBE Chemicals (ASIA) Public Company Limited (UCHA)

UBE established two companies in Thailand in 1997 to manufacture and sell nylon and caprolactam, respectively, and thereafter merged into one company, UCHA. The company produces nylon and compounds, caprolactam, and ammonium sulfate. Other subsidiaries also located at the same site are THAI SYNTHETIC RUBBERS COMPANY LIMITED and UBE Fine Chemicals (Asia) Co., Ltd.



Grao de Castellon • Spain



Growth Strategy

The company maintains a stable supply of high-quality products based on UBE's technologies and know-how, and is expanding its nylon production capacity to expand sales to the Americas and other markets in the Atlantic region.

Supplies products matching local needs in the Southeast Asian market and expands production capacity according to market growth.

Characteristics of Major Products in Each Region

Nylon

The company is one of Europe's top manufacturers, with strengths in packaging film applications for meats and other food products.



The company possesses strengths in both extrusion molding and automotive compounds.

Caprolactam

The company is Spain's sole manufacturer of this product, which is mainly sold in Europe and in Latin America.



The company is Southeast Asia's sole manufacturer of this product, which is mainly sold in this region.

Ammonium sulfate

The company accounts for 80% of Spanish production of this product, which it mostly sells as fertilizer for orange and olive groves, primarily in Spain and also in Latin America.



Demand for this product is strong as fertilizer in Thailand, which has a strong agricultural industry. The product is also sold in other Southeast Asian countries.

Rayong • Thailand



Medium-Term Management Plan Policies

- Bolster our in-house drug R&D pipeline and lifecycle management.
- Overhaul operational management to address changes in the manufacturing climate (in-house, contract, and generics) and needs.

Principal Products and Businesses

- | | |
|--|--|
| Pharmaceuticals
(Active ingredients, intermediates) | <ul style="list-style-type: none"> • In-house pharmaceuticals • Contract pharmaceuticals • Generics |
|--|--|

Opportunities

- Pharmaceuticals manufacturers are reinforcing their new drug pipelines by broadly exploring and deploying external drug discovery seeds.
- These manufacturers are focusing on drug discovery R&D by outsourcing the development of active pharmaceutical ingredient and production technologies.

Challenges

- Bolster our pipeline of differentiated drug discovery seeds to maximize drug discovery value and increase success rates.
- Strengthen contract manufacturing for new drugs and active pharmaceutical ingredient marketing for generics, thereby lowering costs and solidifying our earnings platform.



Yasushi Konno
 General Manager of Pharmaceutical Div.

Strengths

- We have drawn on the technologies we have amassed as a chemicals company to undertake independent drug discovery research that emphasizes efficiency and speed.
- We can leverage our ample contract manufacturing experience to harness our capabilities in organic synthesis and industrialization to meet customer needs.

Business Strategies for Fiscal 2018

In the pharmaceutical business, we aim to transform our operations and stabilize earnings to meet unmet medical and other needs. In drug discovery research, we will pursue efficient and speedy R&D, selecting themes on the basis of value and differentiation. We will also enhance our PDCA cycles in exploring the fruits of research and will flexibly allocate human resources. We aim to develop new drugs with pharmaceuticals while seeking opportunities to generate drug discovery seeds from the fruits of independent research in line with the needs of global pharmaceuticals manufacturers.

To manufacture and sell active pharmaceutical ingredients and intermediates, we will reinforce our marketing structure to secure new business opportunities, including for generic active pharmaceutical ingredients. We will take advantage of the quality control element of good manufacturing practices and our technological development capabilities relating to organic synthesis, industrialization, and active pharmaceutical ingredients that we have accumulated over the years. We will also balance high quality and price competitiveness by harnessing manufacturing facilities that can handle an array of chemical reactions while bolstering our domestic and international supply chain, which includes our contractors.

We will resolutely and swiftly pursue customer satisfaction in keeping with our commitment to enhancing the quality of life through pharmaceuticals.



ESG-Related Initiatives

- We will leverage R&D, production, and supply of outstanding pharmaceuticals to contribute to the health of people everywhere by delivering technology solutions that are essential to manufacturing pharmaceuticals.



Business Strategies of Cement & Construction Materials



Medium-Term Management Plan Policies

- Maintain and strengthen the profitability of core businesses.
- Bolster and extend our growth strategies.
- Maintain and enhance our operational infrastructure.

Principal Products and Businesses

- Cement
- Resource recycling
- Building materials (Self-leveling materials, waterproofing materials, renovation and aseismic retrofitting)
- Limestone
- Ready-mixed concrete
- Calcia, magnesia
- Specialty inorganic materials

Opportunities

- We will integrate production, sales, and logistics to cater to rising demand, particularly in urban areas, to generate solid earnings.
- We will maintain profitability by stably supplying materials that are vital for building social capital.
- We will optimize synergies by deploying a wide range of Groupwide businesses based on limestone.

Challenges

- Minimize profitability impacts of rising coal and heavy oil costs by streamlining operations and revising prices.
- Over the medium and long terms, uphold and reinforce the profitability of core businesses, bolster and extend our growth strategies, and maintain and enhance our operational infrastructure.
- Accelerate and strengthen efforts to address energy and environmental issues.

Strengths

- We maintain a solid infrastructural setup through our coal and power supply structure and large port facilities.
- We can optimize Group synergies through our diverse Groupwide product businesses.
- We are able to harness a wide range of waste substances and draw on our advanced technical capabilities to conserve resources.

Business Strategies for Fiscal 2018

Our cement and construction materials are vital elements of social infrastructure, and by integrating production, sales, and logistics we can maintain profitability by stabilizing supplies of our offerings.

Although we anticipate construction related to the Tokyo 2020 Summer Olympic and Paralympic Games to generate some demand in fiscal 2018, the high costs of coal and heavy oil will likely drive significantly higher manufacturing expenses.

We will tackle these challenges by reconfirming our objectives and achievements and pursuing our goals under our medium-term management plan to fulfill our vision.

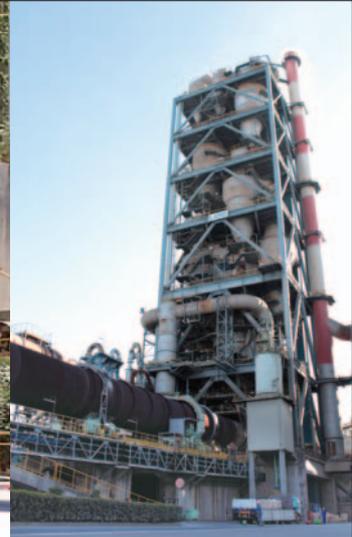
Maintain and strengthen the profitability of core businesses

- Install waste heat power generation facilities at the Isa Factory to help cut costs and rationalize operations (we started work in fiscal 2017 and plan to make these facilities operational in fiscal 2019).

We will continue to support the Group as a core infrastructure business by identifying, demonstrating, and bolstering our inherent strengths.

Tadashi Matsunami
Company President, Cement & Construction Materials Company, with responsibility for Energy & Environment Div.





Our cement factories recycle diverse waste and by-products as raw materials and they can burn and detoxify substances that conventional counterparts could not handle. Thus, we are contributing to a recycling-oriented society.

- Set up fourth-stage waste plastic treatment facilities at the Isa Factory to expand the use of waste products (work began in fiscal 2017 with a view to facilities going on line in fiscal 2018).
- Secure limestone resources by developing the Kanayamadai mining zone (mining scheduled to start in fiscal 2018).
- Upgrade the Ube Factory of UBE Material Industries, Ltd., to rationalize production. (work began in fiscal 2016 and is scheduled to finish in fiscal 2019)
- Develop new organic construction materials products for construction and infrastructure.
- Optimize Group synergies by reinforcing collaboration between Group companies and rebuilding and integrating operations (we consolidated the construction materials business at Ube Industries in April 2018).



Ready-mixed concrete



Self-leveling materials

materials, enter the gypsum board recycling business, and develop and commercialize new products and technologies.

Maintain and enhance our operational infrastructure

- In addition to strengthening R&D, cultivate human resources while building a management structure that remains robust in times of change, thereby enhancing our six operating fundamentals of earnings and capital, facilities, R&D, personnel development, information systems, and environmental safety.

Bolster and extend our growth strategies

- Expand our business area by reinforcing overseas operations (we reinforced ties with a stable buyer of cement exports and in April 2018 began constructing a Thai factory for MOS-HIGE, an automotive filler, with operations scheduled to start in fiscal 2019).
- Expand our business domains by increasing sales of environmental offerings including neutral solidifying materials and heavy metal insolubilized

This fiscal year, we will plan our next medium-term management plan. In the current business climate, we will endeavor to maintain and increase profits in existing businesses while clarifying specific approaches to expanding our business domains and areas. At the same time, we will act decisively to identify, demonstrate, and bolster our inherent strengths.



ESG-Related Initiatives

- Following a move by the Kanda Factory, we decided to install waste heat power generation and waste plastic treatment facilities at the Isa Factory. These measures should lower annual greenhouse gas emissions by 90,000 metric tons.
- We are endeavoring to greenify former limestone quarries. Since fiscal 2008, we have planted citrus trees, ivy, and other vegetation on the slopes of the Kanda Mine. Since fiscal 2011, we have planted wild cherry trees and round leaf holly on the slopes of the Ube Isa Mine.



Bridges



Medium-Term Management Plan Policies

- Reinforce product competitiveness in the global market.
- Focus on overall product lifecycles and expand service and support.
- Maximize earnings by reinforcing integrated management for the segment.

Principal Products and Businesses

- Molding machines (Die-casting machines, injection molding machines, extrusion presses)
- Industrial machinery and bridges
- Steel products
- Control boards
- Machinery services

Opportunities

- We offer products that cater to the specific needs and specifications of our customers.
- We maintain numerous business sites in Japan and abroad and run a service and support structure that encompasses global markets.

Challenges

- Reinforce and globally deploy our lineup of product businesses.
- Strengthen overseas services and bolster profitability.

Strengths

- We have a robust record in serving the automotive, steelmaking, cement, electric power, and other key sectors, and have earned solid customer reputations for our efforts.
- We can draw on our domestic and overseas operations to cater to customer needs in everything from development through after-service.



Injection molding machines

Business Strategies for Fiscal 2018

Molding Machinery Business

- In die-cast machinery, market new models for large machinery that can cater to aluminum automotive parts that meet the need for greater lightness. Roll out a new series for mid-sized machinery and step up collaboration.
- In injection molding machinery, build an optimal production structure that comprises UBE Machinery Corporation, Ltd., U-MHI Platech Co., Ltd., UBE Machinery Inc., and two original equipment manufacturing partners in China. Develop and globally expand sales of a common brand of mid-sized and large machinery. Integrate our businesses to become more competitive.

Industrial Machinery Business

- Reach quality, cost, and delivery levels suitable for large IPP projects.
- Draw on core technologies (combustion, pulverization, and materials handling) to develop new products and technologies for the environmental and recycling markets.

Steel Products Business

- Establish a structure to raise monthly billet production capacity to 30,000 metric tons and expand recycling operations.

Machinery Services Business

- For molding machines, strengthen the activities of overseas units and integrate and streamline American, Indian, and other operations.
- In industrial machinery, deploy more services overseas and offer services for products of other companies.

Tokuhisa Okada
 Company President,
 Machinery Company

We are focusing on reaping the rewards of activities under our medium-term management plan and reinforcing operations that are experiencing increasingly adverse operating climates. We aim to build the foundations for our next medium-term management plan.



ESG-Related Initiatives

- Companies in the Machinery segment are focusing on developing products that help protect the environment while providing a range of services. UBE Steel Co., Ltd., completely melts the industrial and medical waste from its manufacturing processes.



Business Strategies of Energy & Environment



Solar power plant

Medium-Term Management Plan Policies

- Help strengthen UBE Group earnings by maintaining stable supplies of competitive energy (coal and electricity).
- Strengthen and enhance our infrastructure to drive sustainable growth.

Principal Products and Businesses

Coal	<ul style="list-style-type: none"> • Import and sales • Coal center (storage and distribution)
Power	<ul style="list-style-type: none"> • Independent power producer (IPP) • In-house power plant

Opportunities

- Start demonstrating a business model that harnesses wood briquette fuel to help lower environmental impact.
- The coal and coal-fired thermal power generation business can become more efficient and a stable source of competitive energy.

Challenges

- Respond to and contribute to a low-carbon economy.
- Manage facilities more efficiently.

Strengths

- Our infrastructure, including our ports, the nation's largest coal center, power stations, and internal and external user networks.
- The cost competitiveness of our private and IPP plants, which have achieved the thermal power generating efficiency required under the Energy Conservation Act.

Business Strategies for Fiscal 2018

While CO₂ emissions are a drawback, coal is positioned as an essential energy source under the Japanese government's energy policies. The Energy & Environment segment's main business is coal and coal-fired thermal power generation, and it is a key challenge for us to address the needs of a low-carbon economy while maintaining stable supplies of this competitive energy source.

We will tackle these challenges by increasing the operating efficiency of our coal centers and power plants. We will thereby enhance the inherent competitiveness of coal as an energy source for internal and external users, and consider it vital to use more biomass fuels for co-firing with coal to ameliorate CO₂ emissions. We therefore recently decided to construct wood briquette fuel demonstration facilities in the Ube area.

It is easy to co-fire this fuel with coal, and we will use our coal centers and power plants to demonstrate a business model in which we mix, transport, crush and co-fire this fuel with coal. We thereby aim to position the Energy & Environment segment to accommodate social needs even in a low-carbon economy.

We will create energy and environment businesses that do not harm social value, even in a low-carbon economy.



ESG-Related Initiatives

- We will build on efforts to lower environmental impact in addition to our biomass and solar power and micro-hydropower operations, by starting wood briquette fuel production to push forward with biomass fuel usage.

Yuuzo Hanamoto
General Manager, Energy & Environment Div.
and Coal Business Unit



Outside Directors and Auditors Forum

Well before the application of Japan's Corporate Governance Code, the Company proactively sought outside directors and endeavored to create a climate in which such people could fulfill their roles to improve corporate value. For this report, we asked outside directors to assess the Company's progress toward sustainable growth and its challenges.

We aim to draw on diverse expertise from outside directors while enhancing corporate governance and the effectiveness of the Board of Directors to drive sustainable growth.

What do you think about the composition of the Board of Directors and its progress with deliberations?

Shoda:

Four of the eight members of the Board of Directors are outside directors, and the first noteworthy point is the diversity of the membership, including in terms of where people are from and their careers. In addition, Chairman of the Board of Directors Michio Takeshita runs things in such a manner that it is easy for us all to state our opinions.

Kageyama:

In October each year, directors and executive officers do a management study group stayover to explore and agree on where the Company should head over the next 10 or 15 years. The management culture seems forward-looking.

Kusama:

The first key point to note about UBE's approach is that while many corporations rushed to make good use of outside directors following the introduction of the Corporate Governance Code, the Company

has long had a setup for such directors. The Board maintains an open atmosphere, so even executive directors can express themselves freely in whatever business units they represent.

Terui:

All this is certainly true. The Board is conducive to free expression, even for outside directors. I think this stems partly from the Board chairman being a non-executive director.

Suda:

We complained that the support structure was insufficient as the role of corporate governance increased, and the Company was swift to increase personnel numbers to address that. As well, the work of outside auditors is becoming more substantive.

Ochiai:

Half of the outside directors are receptive to a monitoring model. As I think it's inappropriate to retain a company with a board of auditors setup that seems incompatible with a monitoring model, I would like to see us swiftly switch to a monitoring model-based Board of Directors.

Chairman of the Board of

Directors & Director

a. Michio Takeshita

Outside Directors

b. Takashi Kusama

c. Keikou Terui

d. Takashi Shoda

e. Mahito Kageyama

Outside Auditors

f. Seiichi Ochiai

g. Miyako Suda





**Outside Director
Takashi Kusama**

1971
Joined The Industrial Bank of Japan, Limited
1999
Executive Officer, The Industrial Bank of Japan, Limited
2003
President and Representative Director, Shinko Securities Co., Ltd.
2009
Chairman of the Board and Representative Director, Mizuho Securities Co., Ltd. Resigned (2011)
2012
Outside Auditor, WOWOW Inc. (current position)
2013
Outside Director of the Company (current position)

**Outside Director
Keikou Terui**

1979
Joined Ministry of International Trade and Industry (currently Ministry of Economy, Trade and Industry (METI))
2008
Director-General for Technology Policy Coordination, Minister's Secretariat, METI
2011
Director-General, Kanto Bureau of Economy, Trade and Industry, METI
2012
Director-General for Regional Economic and Industrial Policy, METI
2013
President, Japan Utility Telemetering Association. Non-Profit Organization (current position)
2014
Outside Director of the Company (current position)
2016
Outside Director, Bridgestone Corporation (current position)
Outside Director, Organo Corporation (current position)

**Outside Director
Takashi Shoda**

1972
Joined Sankyo Co., Ltd.
2001
Director, Sankyo Co., Ltd.
2003
President and Representative Director, Sankyo Co., Ltd.
2005
President & CEO, and Representative Director, Daiichi Sankyo Co., Ltd.
2010
Representative Director and Chairman, Daiichi Sankyo Co., Ltd.
2014
Senior Corporate Adviser, Daiichi Sankyo Co., Ltd. (current position)
2015
Outside Director of the Company (current position)
2017
Outside Director, Daito Trust Construction Co., Ltd.

Takeshita:

The thinking of executive teams has changed dramatically. Whereas previously they only discussed their own viewpoints, they now factor in the views of outside directors in their explanations during Board meetings. As the Chairman of the Board of Directors I consider that a positive change.

What's your assessment of UBE?

The Company targets ¥50 billion in operating profit for fiscal 2018 in keeping with a basic policy under its medium-term management plan of strengthening the business foundation to enable sustainable growth. How well is it progressing in that regard? What challenges should it tackle to generate growth?

Terui:

Many of the Company's offerings are commodities, so the business structure is very susceptible to changes in the operating climate. That said, it is experiencing expansion with separators and other new products. And I look for growth to accelerate.

Kusama:

If I have a bone to pick, it's that I believe management needs to present a clearer vision of how big it plans the Company to become over the medium and long terms. In doing so, it might be one of our roles to cheer up employees to be more responsive to change in many ways.

Kageyama:

The Company progressed considerably in tackling the issue of business restructuring. UBE has a ton of unique technologies, and I think that it has tremendous potential in developing fields that can become earnings sources down the track.

Shoda:

I think corporations that rely heavily on the Japanese market will find the going tough, as the population is aging and birth rates are falling. I think UBE needs to step up efforts to cultivate its businesses globally.

Ochiai:

In my view, management needs to make some tough calls about UBE's future as a conglomerate. Assessments and decisions would relate to things like whether the capital efficiency of business portfolios is rising sufficiently to satisfy shareholders. Then there would be the questions of whether or not the organization needs radical selection and concentration moves or whether the allocation of authority between headquarters and businesses is appropriate.

Suda:

I recognize that prospects for sustainable growth are few and far between in the domestic market, making it hard to formulate growth strategies. I'm a little concerned that the Company could find itself left behind in Asia and elsewhere unless it takes the first step soon to tackle risks so it can resolve various issues, and check if it works. And if not then get back on track.

Takeshita:

While the Company has improved its financial position, I get the feeling that it needs to devote more attention to reforming businesses while looking to expand and grow. I think it's important to harness acquisitions, open innovations, R&D, and other tools to drive success.

How well is the Company progressing in building its risk management structure?

Shoda:

Risks are part and parcel of doing business. In that respect, I think it's vital for the Company to take a systematic approach to them. It needs to reconfirm the specifics of risks, taking the ones that are worthwhile and working out how to manage them.

Kageyama:

You can only manage risks in-house if your organization is transparent. That's why the Board of Directors has committees that engage in data-driven deliberations and ensure management transparency.

Terui:

Risks not exactly about businesses themselves,



such as those relating to corporate management approaches—work practice and information security issues being good examples of this—have become major social problems. I hope to see an organization that can properly tackle such challenges.

Kusama:
UBE's record with acquisitions to date suggests that the Company has built a structure that enables it to take risks. It's important to provide awareness training about employee qualities and the corporate philosophy so the Company can avert risks. Having employees who are honest and prepared to think deeply about UBE's place in society is, I think, the most important asset for improving the Company.

Suda:
I'm not all that worried about the Company's ability to deal with risks once they materialize. The challenge is to prevent risks from becoming problems in the first place. As such, I think management needs to increase the awareness of risks among employees.

Ochiai:
Companies need to pinpoint risks while building and maintaining systems that prevent risks from materializing. Internal controls are about having risk management systems that actually work within companies. Such setups should be institutionalized rather than ad hoc, and in my view the first step for management teams must be to build the systems.

Takeshita:
The biggest concern going forward would be personnel shortages. I think the Company needs to look beyond Japan and make an effort to secure people at its overseas business sites.

What other issues should the Company address?

Kusama:
I contend that the Company doesn't have to adhere fully to all guidelines, such as the United Nations' Sustainable Development Goals (SDGs)

and ISO 14001. It's more important to determine what's essential, particularly in view of the industries in which UBE operates.

Terui:
The name of the medium-term management plan is Change & Challenge 2018, making it particularly important to change the corporate culture and pursue new challenges to generate distinctive and competitive products, thereby contributing to society.

Kageyama:
I completely agree with what Mr. Kusama said about ESG. Coexistence and mutual prosperity has been a central business principle since the Company's inception, and UBE is fulfilling its corporate social responsibilities. Making those principles a reality will drive corporate growth and contribute to society.

Shoda:
Management's role is to increase the three elements of corporate value, namely its financial, social, and human resources values. We directors also intend to consider how we can contribute to such improvements.

Suda:
UBE consumes a lot of coal in its operations. Given that overseas it may end up doing business only with companies that have reduced their CO₂ emissions, I think UBE needs to accelerate efforts to tackle global warming.

Ochiai:
It is very important to maintain a healthy, transparent, and vibrant corporate culture, and UBE needs to constantly keep this in mind. People should take a sense of pride in their work, in knowing that their actions are right and their work matters, even if no one can see it.

Takeshita:
To become more effective, the Board of Directors needs to pare down its deliberative agenda, delegate more authority to the president and other executives, and reinforce monitoring. We will consider everyone's opinions while undertaking reviews and improvements.

Outside Director
Mahito Kageyama
1972
Joined The Sanwa Bank, Ltd.
1999
Executive Officer,
The Sanwa Bank Ltd.
2002
Senior Executive Officer,
UFJ Bank Ltd.
2003
Director and President,
TOMEN CORPORATION
2006
Representative Director and
Executive Vice President,
Toyota Tsusho Corporation
2008
Chairman of the Board and
Representative Director,
TOMEN ELECTRONICS
CORPORATION
Resigned (2010)
2015
Outside Director of the Company
(current position)

Outside Auditor
Seiichi Ochiai
1981
Professor, Seikei University Faculty
of Law
1990
Professor, The University of Tokyo
Graduate Schools for Law and
Politics, and Faculty of Law
2007
Professor, Chuo Law School
Registered as an attorney (Dai-ichi
Tokyo Bar Association)
Professor Emeritus, The University
of Tokyo (current position)
2012
Outside Audit & Supervisory Board
Member of Nippon Telegraph and
Telephone Corporation (current
position)
Outside Director of Meiji Yasuda Life
Insurance Company (current
position)
2013
Outside Auditor of the Company
(current position)

Outside Auditor
Miyako Suda
1988
Professor, School of Economics,
Senshu University
1990
Professor, Faculty of Economics,
Gakushuin University
2001
Member of the Policy Board, the
Bank of Japan
2011
Special Advisor, the Canon Institute
for Global Studies (current position)
2014
Outside Director, Meiji Yasuda
Life Insurance Company
(current position)
2015
Outside Auditor of the Company
(current position)

Corporate Governance Overview

Organizational structure	Company with Board of Corporate Auditors
Chairman of the Board of Directors*	Michio Takeshita
Number of directors*	8 (of which 4 are outside directors)
Number of corporate auditors*	4 (of which 2 are outside corporate auditors)
Independent officers appointed*	4 outside directors, 2 outside auditors
Determination of compensation for each director	<ul style="list-style-type: none"> • Compensation consists of base compensation and stock-based compensation. • Total compensation for the year ended March 31, 2018 (4 directors excluding the independent directors): ¥218 million (base compensation: ¥189 million; stock options: ¥29 million)
Determination of compensation for each corporate auditor	<ul style="list-style-type: none"> • Compensation consists of base compensation. • Total compensation for the year ended March 31, 2018 (3 auditors excluding the independent auditors): ¥57 million (base compensation: ¥57 million)
Outside officers (Independent officers)	<ul style="list-style-type: none"> • Compensation consists of base compensation and retirement benefits. • Total compensation for the year ended March 31, 2018 (6 officers): ¥68 million (base compensation: ¥68 million)
Independent auditors	• Ernst & Young ShinNihon LLC

* As of June 30, 2018

Corporate Governance

The UBE Group’s fundamental mission is to achieve sustainable growth and increase the corporate value of the Group over the long term. The confidence of shareholders, customers, business partners, employees, communities, and other stakeholders is essential to this mission, so we have established effective corporate governance to maintain appropriate business activities that fulfill our obligations to stakeholders.

Board of Directors

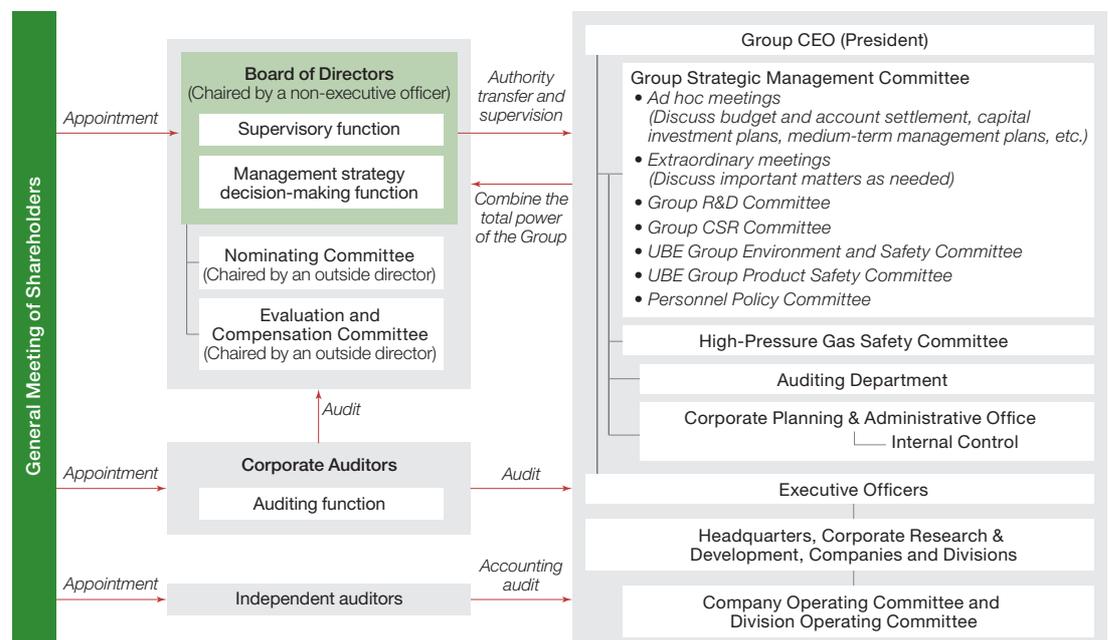
In principle, a director who does not serve concurrently as an executive officer serves as Chairman of the Board of Directors. The Board of Directors makes decisions about important management issues in accordance with laws, regulations, the Company’s articles of incorporation, and the rules

of the Board of Directors, and also supervises directors and executive officers to ensure they are performing their duties appropriately and efficiently.

Board of Corporate Auditors

Corporate auditors conduct audits based on auditing policies and auditing plans set each fiscal year to assess the decision-making process for key decisions and the execution of business. Corporate auditors attend Board of Directors’ meetings and other important meetings, examine important documents for approval, and receive reports on operations from directors and other officers. As a result of these and other activities, corporate auditors are able to evaluate whether directors are executing their professional duties in accordance with laws, regulations, and the Company’s articles of incorporation.

Corporate Governance Structure



Outside Directors

UBE has appointed outside directors to add independent, third-party viewpoints to the decision-making process and to the monitoring of management to ensure efficiency, transparency, and objectivity from June 2005. UBE does not use a committee management system, but employs a Nominating Committee and Evaluation and Compensation Committee that report to the Board of Directors. Each consists of six members (four outside directors and two directors) and is chaired by an outside director.

Executive Officers

UBE has been using an executive officer system to separate governance and management functions since June 2001. The President and CEO delegates authority to executive officers, who perform their duties based on management policies decided by the Board of Directors.

General Meeting of Shareholders and Exercise of Voting Rights

The Notice of Convocation is sent out three weeks prior to the General Meeting of Shareholders, but its contents are posted on the UBE Group's website earlier. UBE provides access to mobile phone and Internet voting in addition to voting by mail so that shareholders unable to attend can also exercise their voting rights. UBE also uses an electronic voting platform for institutional investors.

At the General Meeting of Shareholders held on June 29, 2017, a total of 18,263 shareholders exercised their voting rights (including 17,226 shareholders who exercised voting rights in writing

and via the Internet), representing 77.9% of total voting rights.

Engagement with Shareholders:

Two-Way Communication through IR Activities

Principal IR activities in fiscal 2017 are listed below. The UBE Group conducts IR activities with the goal of timely, accurate, and fair disclosure, and believes that proactive communication and engagement with investors enhances corporate value.

- Earnings briefing for institutional investors and securities analysts (after main briefing)
- Telephone conference for institutional investors and securities analysts (held quarterly)
- Overseas IR (visits with overseas investors, a total of three times yearly, in Europe, the United States, and Asia)
- Small meetings by the President and CEO (three times yearly)
- Individual meetings with institutional investors and securities analysts (about 200 times per year)

Detailed information is available in the Investor Relations section of the UBE Group's website:

<http://www.ube-ind.co.jp/ube/en/corporate/>

Internal Control System

The Board of Directors has resolved the basic policies for the configuration of the UBE Group's internal control system. Detailed information on the UBE Group's Basic Policy for Establishing Internal Control is available in the UBE Group's website:

<http://www.ube-ind.co.jp/ube/en/corporate/management/internalcontrol.html>

Directors' and Auditors' Attendance at Board Meetings

	Name	Attendance at Meetings of the Board of Directors and Board of Corporate Auditors during Fiscal 2017
Directors	Michio Takeshita	13/13 times (100%)
	Yuzuru Yamamoto	13/13 times (100%)
	Hideyuki Sugishita	13/13 times (100%)
	Tadashi Matsunami	13/13 times (100%)
Outside Directors	Takashi Kusama	12/13 times (92.3%)
	Keikou Terui	13/13 times (100%)
	Takashi Shoda	13/13 times (100%)
	Mahito Kageyama	13/13 times (100%)
Auditors	Setsuro Miyake	3/3 times (100%) of Board of Directors' meetings
		3/3 times (100%) of Board of Corporate Auditors' meetings
	Takanobu Kubota	13/13 times (100%) of Board of Directors' meetings
		8/8 times (100%) of Board of Corporate Auditors' meetings
	Atsushi Yamamoto	10/10 times (100%) of Board of Directors' meetings
	5/5 times (100%) of Board of Corporate Auditors' meetings	
Outside Auditors	Seiichi Ochiai	13/13 times (100%) of Board of Directors' meetings
		8/8 times (100%) of Board of Corporate Auditors' meetings
	Miyako Suda	12/13 times (92.3%) of Board of Directors' meetings
	8/8 times (100%) of Board of Corporate Auditors' meetings	

On June 28, 2018, Hideyuki Sugishita resigned, commensurate with the completion of his term as a director.

Compliance

The UBE Group formulated its Personal Action Guidelines outlining the Company's corporate ethics in 1998. The guidelines outline the standards and criteria for compliance in corporate activities, which directors and employees are expected to adhere to.

UBE appoints a Compliance Officer for the UBE Group and maintains the UBE Group Compliance Committee including general counsels as an advisory body. The UBE Group Competition Law Compliance Committee works to prevent acts that impede fair competition and to ensure the soundness of business operations, and the UBE Group Restricted Cargo and Export Management Committee increases awareness within the Group of the need to prevent the unauthorized export or provision of goods and technology that are restricted under export control laws and regulations designed to maintain international peace and stability.

UBE is working to upgrade and strengthen structures and frameworks for compliance. Initiatives include the introduction of the "UBE C-Line," a hotline that allows executive officers and employees to directly report compliance issues without going through normal channels. This encourages the rapid finding and swift correction of compliance issues. By providing compliance-related information, e-learning, team coaching, and other programs, UBE continuously educates and enlightens its employees.

In fiscal 2017, UBE conducted internal training and education on laws and regulations such as the Anti-Monopoly Act, Subcontract Act, and Unfair Competition Prevention Act. In addition, from fiscal 2015, on behalf of the Compliance Promotion Secretariat, in-house trained instructors conduct general compliance training at Group workplaces, with 2,900 employees receiving such training in fiscal 2017.

Directors and Auditors

(As of June 30, 2018)



Mahito Kageyama
Outside Director

Takashi Shoda
Outside Director

Masato Izumihara
Senior Managing Executive Officer & Director,
and Company President
of Chemicals Company

Michio Takeshita
Chairman of the
Board of Directors
& Director

Yuzuru Yamamoto
President & Representative Director,
President & Executive Officer,
and Group CEO

Keikou Terui
Outside Director

Takashi Kusama
Outside Director

Tadashi Matsunami
Senior Managing Executive Officer
& Representative Director,
and Company President of Cement
& Construction Materials Company with
responsibility for Energy & Environment Div.

Risk Management

UBE established the Risk Management Office in April 2017. In its first year, the office exhaustively identified risks that could impede efforts to reach business objectives, classified such risks by probabilities, impact scales, and other factors based on UBE's own perspectives, and selected key critical risks. Specialized committees under the Group Strategic Management Committee are assigned to such key critical risks in order to deploy the right countermeasures quickly.

The UBE Group Environment and Safety Committee and the UBE Group Product Safety Committee formulate policies and promote various measures across the Group concerning safety and environmental protection and product safety and quality management, respectively. The Group CSR Committee set up the Information Security, Risk Management, and other committees to tackle specific risks.

Directors, Auditors and Executive Officers

(As of June 30, 2018)

Directors		Michio Takeshita	
	Representative Director	Yuzuru Yamamoto	
	Representative Director	Tadashi Matsunami	
		Masato Izumihara	
		Takashi Kusama	<i>Outside and independent</i>
		Keikou Terui	<i>Outside and independent</i>
		Takashi Shoda	<i>Outside and independent</i>
	Mahito Kageyama	<i>Outside and independent</i>	
Auditors		Takanobu Kubota	
		Atsushi Yamamoto	
		Seiichi Ochiai	<i>Outside and independent</i>
		Miyako Suda	<i>Outside and independent</i>
Executive Officers	President & Executive Officer	Yuzuru Yamamoto	
	Senior Managing Executive Officers	Tadashi Matsunami	
		Tokuhisa Okada	
		Masato Izumihara	
	Managing Executive Officers	Junichi Misumi	
		Masahiko Nojima	
		Yukio Hisatsugu	
		Makoto Koyama	
		Hideo Tamada	
	Executive Officers	Makoto Aikawa	
		Morihisa Yokota	
		Genji Koga	
		Hiroshi Nishida	
		Masayuki Fujii	
		Yasushi Konno	
		Yuuki Nishida	
		Hidetsune Miura	
		Yoshiaki Ito	
		Yuuzo Hanamoto	
		Hisaaki Yokoo	
Masayoshi Ota			
Keiichi Nagata			
Masaro Suehiro			
Bruno de Bièvre			
Shigeru Ouchi			
Mitsuo Ono			



Takanobu Kubota
Auditor

Atsushi Yamamoto
Auditor

Miyako Suda
Outside Auditor

Seiichi Ochiai
Outside Auditor

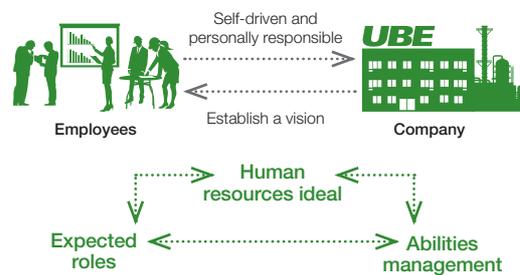
Human Resources



At UBE, we consider employees our most important resource for creating value and supporting sustainable growth. We therefore devote considerable attention to human resources development and endeavor to enhance our programs to ensure that all employees can lead fulfilling lives.

Personnel System

UBE maintains a personnel system in which it clarifies what it expects of employees and impartially evaluates individual effort. We seek to ensure that employees therefore fully understand what they need to do and create workplaces that are challenging and motivating for all our employees.



Human Resources Development

We augment on-the-job training, workshops and other off-the-job training, and self-improvement support programs with systems that empower our employees to perform at their best in an array of businesses and in an increasingly global operating climate. A good example is the Career Development Sheets that employees prepare every year, based on which they can discuss their prospects with supervisors. We rotate employees through posts to broaden their perspectives and expertise. We upgrade off-the-job training, including workshops, in keeping with specific business needs to keep pace with changes in the operating climate.

Respect for Human Rights

The UBE Group Action Guidelines for Business Conduct state our commitment to respecting individuals while fostering mutual understanding and eliminating discrimination. We established the Human Rights Education Committee, which offers executive training and training opportunities to employees by business site and job classification and draws on e-learning tools in its programs.

All members of the Group endeavor to fully respect human rights in every aspect of our operations.

Enhancing Work Style Reform

Work style reform is an important management priority. We are accordingly reviewing Company-wide approaches to ensure high productivity and enhance the skills of all employees. We have

implemented flextime, half days off, and other programs as part of our commitment to encouraging a healthy work–life balance for our employees.

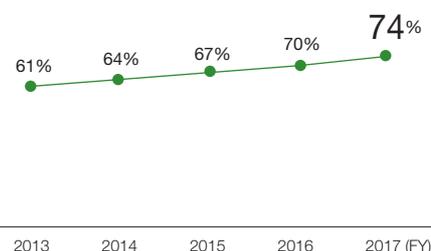
Usage of Main Work–Life Balance System (Fiscal 2017)

System	Description	Number of Employees Who Used It
Childbirth leave	Employees whose spouses have given birth can take four days of paid leave.	113 81.3% of those eligible
Childcare leave	Leave can be taken until the day before the child’s first birthday (or the child’s second birthday, in certain circumstances). The first seven days of leave are fully paid.	79 including 70 men
Family nursing leave	Employees can take leave to provide nursing care for family members (up to a total of 365 days).	0
Child nursing leave	Employees can take leave to nurse children in the third grade of elementary school or younger. (Five days per child can be taken each year, up to a maximum of ten days a year.) Employees can use this leave in half-day units.	4 including 3 men
Shortened working time	The working hours of employees caring for children in the third grade of elementary school or younger or nursing family members can be shortened by up to two hours per day.	16 including 0 men



An external expert lectures at a seminar on enhancing work style reform

Annual Paid Vacation Usage



Diversity Initiatives

Diversity is a key priority for UBE's management. We accordingly seek to build a corporate culture that respects individuality and broad perspectives and treasures creativity and ambition.

We endeavor to attract and retain diverse talent as part of efforts to overcome the looming challenges of a declining labor force and a changing business climate.

We recruit people from a wide range of backgrounds without regard to such factors as nationality or gender and provide work environments in which they can fulfill their potential.

Hiring Breakdown	Number of People		
	Fiscal Year	2015	2016
New graduate hires (generalist positions)	46 (12)	42 (9)	46 (10)
New graduate hires (key employee positions)	17 (2)	43 (5)	63 (9)
Mid-career hires	53 (4)	34 (2)	12 (1)
Hires with disabilities	5 (0)	2 (0)	2 (1)
Hires of non-Japanese nationals	2 (2)	1 (1)	2 (2)

Numbers in parentheses are the number of female hires.

Employee Turnover in First Three Years

Joined in April 2013	4%
Joined in April 2014	4%
Joined in April 2015	3%

Employing Non-Japanese Nationals

Our domestic employees need to engage increasingly with their overseas colleagues amid the increasingly global nature of our business, and we accordingly hire foreign nationals to work in Japan so Japanese can acquaint themselves with different business and cultural practices.

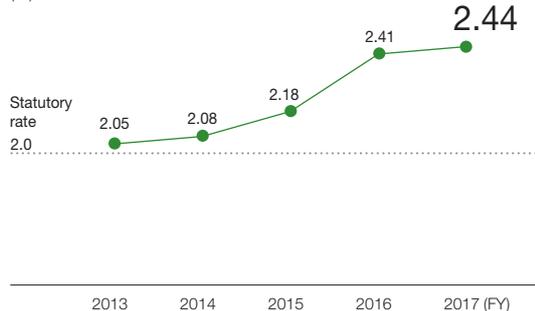
Rehiring Retirees

We are making our workplaces more conducive to rehiring employees who have reached the standard retirement age so they can continue to share their experience and skills. We rehired 78.1% of new retirees in fiscal 2017.

Recruiting People with Disabilities

We do much to foster the employment of people with disabilities, and maintain the UBE Group Support Network for Employment of People with Disabilities. Through it, we place individuals within the Group through Libertas Ube, Ltd., a special-purpose subsidiary that we established in 1991.

Percentage of Employees with Disabilities (%)



Addressing the Gender Gap

As of March 31, 2018, 7.3% of parent company employees were women, up from 7.0% a year earlier. Females represented 1.5% of our management pool, up from 1.4% a year earlier. In fiscal 2016, we launched a three-year action plan based on the Act on Promotion of Women's Participation and Advancement in the Workplace. The plan encompasses the following three benchmarks to provide greater opportunities for female employees and encourage males to engage more in family life.

- (1) Women representing at least 20% of new graduate hires for generalist positions
- (2) A paid vacation usage rate of 70% or more
- (3) At least 30% of eligible male employees taking childcare leave

As part of our efforts to be more inclusive for women, we have increased the number of female employees at our factories and overseas. Women are increasingly vital to our operations.



A female employee giving guidance to a new employee at one of our factories



A female employee overseeing operating plant equipment at one of our factories



The UBE Group contributes to local communities by working alongside them based on the spirit of coexistence and mutual prosperity that underpins its CSR efforts. This is in recognition that its viability depends heavily on engaging with local residents. Our report this year focuses on interaction between local communities and our support for culture and the arts.

Responsible Care (RC)* Regional Dialogue Meetings

Local member companies of the Japan Chemical Industry Association (JCIA) RC Committee hold biennial RC Regional Dialogue Meetings in each of that entity's districts to deepen mutual understanding with local residents about environmental preservation, process safety and disaster prevention, and other RC activities.

Our chemical factories are committee members in the western Yamaguchi, Sakai/Senboku, and Chiba districts. In fiscal 2017, we explained our activities for the year and exchanged views with participants from industry, government, academia, and the public in the 11th RC Regional Dialogue Meeting in the western Yamaguchi and Sakai/Senboku districts.

There were keynote speeches presented by two of the Graduate School of Sciences and Technology for Innovation faculties at Yamaguchi University at the November 2017 gathering in western Yamaguchi. One was by Professor Hiromori Tsutsumi, in which he discussed everything from

common everyday polymers up to leading-edge polymers. The other was by Associate Professor Takaya, covering the basics of measuring, assessing, and formulating measures to address odors and recent developments in this respect.

At the Sakai/Senboku district Regional Dialogue Meeting in February 2018, a general manager of the JCIA's RC Committee commented on RC and its communication initiatives. An official from the Citizen Autonomy Promotion Section of Sakai Ward Office finished the proceedings with a speech on disaster preparedness.

We will continue to focus on regional dialogue and maintain RC activities to foster coexistence and mutual prosperity with communities.

Support for Culture and the Arts in Japan

UBE provides financial and personnel support for the activities of the UBE Foundation and the Watanabe Memorial Culture Association. In fiscal 2017, we donated ¥500 million to the Foundation as part of our 120th anniversary celebrations. Since fiscal 2008, we have invited the Japan Philharmonic



The 11th RC Regional Dialogue Meeting in western Yamaguchi



Gathering after the 11th RC Regional Dialogue Meeting in the Sakai/Senboku district



10th annual UBE Group Charity Concert performance at the Watanabe Memorial Hall

Glossary

* Responsible Care (RC): Under RC, corporations that handle chemical substances voluntarily preserve the environment, safety, and health throughout product lifecycles, from the development of chemicals through their manufacture, distribution, use, and final consumption to disposal and/or recycling, and communicate and engage with society by disclosing activity outcomes.

Orchestra to perform in the UBE Group Charity Concert in Ube City. We commemorated the 10th such concert in fiscal 2017, inviting junior high school students to the performance and holding a premium event in which attendees were able to chat with orchestra members and try playing musical instruments. All proceeds from the concert went to the donation of musical instruments to junior high schools and local music organizations.

Corporate citizenship: UBE Corporation Europe, S.A. Unipersonal (UCE) in Spain

Community Engagement

In fiscal 2017, UCE held a range of meetings at its premises with 20 local dignitaries, including the mayors of Castellon de la Plana and Almazora. The open discussions covered everything from product handling and environmental preservation to local employment.

Social Contributions

The basic policies of UCE are to pursue social contribution activities by fostering ties that further mutual interests with stakeholders and by fulfilling its corporate social responsibilities. For the past eight years, the company has sponsored a high school drawing contest in keeping with these policies. In November 2017, the company supported an UBE BIENNALE promotion booth at Castellon de la Plana's fourth annual MARTE Fair.

UCE's employees take part in a wide range of volunteer activities, including everything from

donating blood and food to the Tree Planting Day at Spain's Almazora Beach. In fiscal 2017, the company launched a volunteer group to increase awareness of volunteerism and coordinate initiatives.

Corporate citizenship: Asia Operational Unit companies in Thailand (see note)

Community Engagement and Social Contributions

Asia Operational Unit companies engage closely with communities based on the idea that the UBE Group is an integral part of the community. An annual factory open house is a forum for providing situational explanations about the facility and its operations and sharing information and opinions with local residents. These companies also hold an annual CSR Day. The fiscal 2017 event featured sales of local produce and a drawing contest for local elementary school students.

Asia Operational Unit companies emphasize environmental activities as part of its social contribution initiatives. In May 2017, employees went to Khao Chamao-Khao Wong National Park in Rayong to undertake biodiversity preservation efforts and maintained a walking path and weir to safeguard wildlife food sources.

*Note: UBE Chemicals (Asia) Public Company Limited
THAI SYNTHETIC RUBBERS COMPANY LIMITED
UBE Fine Chemicals (Asia) Co., Ltd.
UBE Technical Center (Asia) Limited
RAYONG FERTILIZER TRADING CO., LTD.
UBE (Thailand) Co., Ltd.*



Exhibition at MARTE Fair of prize-winning works from the previous UBE BIENNALE



Commemorative photo at factory open house



As part of volunteer initiatives, UCE employees and their families take part in afforestation efforts in Almazora.



Drawing contest on CSR Day



The UBE Group has made safeguarding the environment, safety, and health top priorities so it can provide products and services that contribute to better lives and achieve solid and sustainable growth.

UBE Group Environmental and Safety Principles

As members of society, corporations must be fully conscious of their responsibilities regarding contributions to society, environmental preservation, and the maintenance of health and safety in carrying out their corporate activities.

The UBE Group shall pursue the following vision in order to fulfill its leadership role and shall work to improve the safety and the quality of the environment among all of its Group companies through the publication of performance reports and the implementation of dialogues with society.

- Operational Safety** Ensuring operational safety shall be the priority in all areas and activities under UBE's commitment to respect human life.
- Process Safety** Maintenance of process safety shall be part of the UBE Group's basic mission as a manufacturer.
- Environmental Preservation** As a responsible corporate citizen, the UBE Group shall act positively to protect and improve both community and regional conditions and work for the preservation of the global environment.
- Product Safety** The UBE Group shall pursue its corporate responsibility in providing its customers and the public with safe and reliable products.
- Health Management** The UBE Group recognizes that maintaining and promoting the health of its employees is the basis of corporate and social vitality.

Revised in April 2015

Y. Yamamoto
 Yuzuru Yamamoto
 President and CEO

Environment and Safety Promotion System

The UBE Group has established the Group Environment and Safety, Group Product Safety, and High-Pressure Gas Safety*1 committees, which are composed of members of the Group Strategic Management Committee, to determine policies and measures relevant to occupational safety and health, process safety and disaster prevention, environmental preservation, and product safety in line with our Environmental and Safety Principles.

Responsible Care Management System

We engage in Responsible Care (RC)*2 activities in all businesses to drive continual improvements in areas related to occupational safety and health, process safety and disaster prevention, environmental preservation, and product safety, which leads to improving the quality of activities through plan-do-check-act (PDCA) cycles.

Responsible Care Activities Plans and Achievements
 Pages 1 and 2 of the Supplementary Information (Environment and Safety) of the 2018 Integrated Report presents activities plans and results for fiscal 2017.

Structure of Environment and Safety-Related Committees

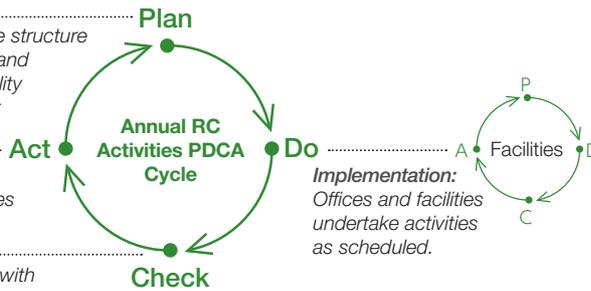


Plan
Policy deliberations and decisions: Each committee in the structure of environment and safety-related committees discusses and determines Companywide measures. Each office and facility formulates action targets and schedules for the fiscal year based on these measures.

Do
Implementation: Offices and facilities undertake activities as scheduled.

Check
Check: We conduct ES audit and inspection on progress with activities and identify areas of concern.

Act
Review: We improve areas in which we have identified issues and reflect progress with improvements in measures for the following fiscal year.



Glossary

*1 The High-Pressure Gas Safety Committee handles process safety measures outlined in a Ministry of Economy, Trade and Industry order based on the High-Pressure Gas Safety Act.
 *2 Responsible Care (RC): Please see the glossary on page 46.

Process Safety and Disaster Prevention / Occupational Safety and Health



Process Safety and Disaster Prevention

The process safety component of the UBE Group Environmental and Safety Principles for Process Safety states that, “Maintenance of process safety shall be part of the UBE Group’s basic mission as a manufacturer.” We accordingly focus process safety on preparedness for facilities-related accidents and major earthquakes. In fiscal 2017, we continued efforts to prevent industrial accidents by focusing on key measures in our fiscal 2017 action plan. These efforts entailed continuing to share accident data and confirm its impact, using information to enhance internal process safety

certification, becoming better at addressing irregularities and emergencies, and reviewing Earthquake and Tsunami Countermeasure Plans while formulating worksite recovery plans.

As well as conforming with the Industrial Process Safety Action Plan of the Japan Petrochemical Industry Association, sites certified to handle high-pressure gas adhere to the Japan Chemical Industry Association (JCIA)’s Process Safety and Accident Prevention Guidelines. Our Chemicals, Cement & Construction Materials, and Energy & Environment businesses use educational DVDs that present lessons from accidents. We will continue to harness such resources in training on process principles and safety design so that we make processes safer.

Occupational Safety and Health

Measures to Prevent Occupational Accidents Fostering a Safety-Driven Corporate Culture

To make existing safety activities more comprehensive and effective, in fiscal 2016 we launched initiatives aimed at fostering a safety-driven corporate culture, encompassing eight elements.

These are organizational governance, positive involvement, resource management, work management, motivation, learning and knowledge transmission, risk perception, and mutual understanding. We are examining existing activities in light of these elements, and are stepping up efforts to tackle and overcome weak areas.

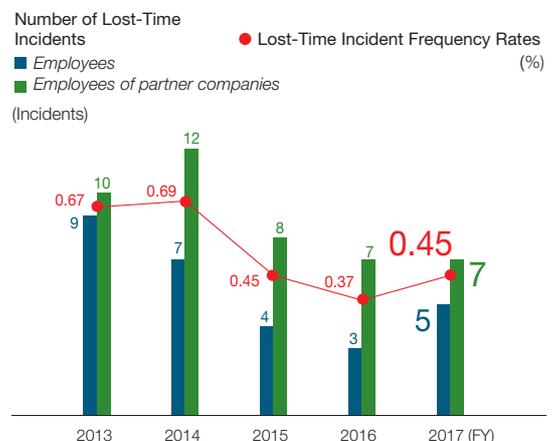
Receiving Japan Industrial Safety and Health Association Chairman’s Award

We received this honor in recognition of Company-wide initiatives we undertake each fiscal year based on the UBE Group Environmental and Safety Principles for Process Safety. These endeavors entail ongoing improvements, maintaining a solid structure to deliberate and decide on Companywide measures in the UBE Group Environment and Safety Committee, and committing to diverse RC initiatives to enhance industrial safety and occupational health. We will continue endeavoring in the years ahead to uphold safety and prevent disasters, keenly aware that remaining free of accidents and disasters is fundamental to good business practices.



Executive Officer Makoto Aikawa receiving certificate of commendation at the 76th National Safety and Health Convention

Number and Frequency Rates of Lost-Time Incidents among Domestic Operations



Environmental Preservation



Environmental Performance

The UBE Group believes that tackling environmental issues to ensure sustainable social progress and maintaining stakeholder trust by announcing outcomes are vital for continual corporate growth.

Overview of Group Environmental Impact (fiscal 2013 through 2017)

		2013	2014	2015	2016	Input 2017
Total energy (thousands of kl)	<i>As crude oil</i>	2,030	2,080	2,310	2,220	2,228
Total raw materials (thousands of tons)		16,920	16,990	16,810	16,210	16,360
Water resources (million m ³)	<i>Water used</i>	225	209	212	204	209



Business activities (manufacturing) of the UBE Group



		2013	2014	2015	2016	Output 2017
Airborne Emissions	GHG (1,000t - CO ₂ e)	12,500	12,200	12,500	12,100	12,100
	SO _x * ¹ (t)	2,660	3,010	2,850	3,000	2,840
	NO _x * ² (t)	16,740	16,280	15,910	14,860	14,970
	Dust (t)	479	462	409	393	341
	PRTR substances* ³ (t)	197	191	195	201	225
Soil Emissions	PRTR substances (t)	0	0	0	0	0
Waterborne Emissions	Wastewater (million m ³)	178	172	164	156	162
	COD* ⁴ (t)	889	779	737	724	747
	Total phosphorus (t)	15	17	12	10	11
	Total nitrogen (t)	745	591	554	500	519
	PRTR substances (t)	95	100	98	122	118
Industrial Waste Emissions	Off-site disposal volume (t)	7,600	11,000	7,190	6,130	5,190
	Recycled volume (t)	310,340	379,210	417,020	421,290	386,640

Emissions Data by Facility

Page 6 of the Supplementary Information (Environment and Safety) of the 2018 Integrated Report presents facility-specific emissions of SO_x, NO_x, dust, COD, total phosphorus, and total nitrogen.

We control air and water pollution and contaminant discharges based on levels agreed with governments and internal pollution prevention management standards to minimize our environmental footprint. Our factory operations act on all these measures, and also carefully manage water consumption and discharges.

The UBE Group will continue to promote business activities that contribute to a recycling-based economy as part of its environmental management, such as preventing global warming, reducing and recycling industrial waste, and lowering chemical substance emissions.

Glossary

*1 Sulfur oxides (SO_x) originate in the sulfur (S) component of fuels. Boilers are our main source of these oxides.

*2 Nitrogen oxides (NO_x) stem from fuel combustion, primarily from Group boilers and cement kilns.

*3 Pollutant Release and Transfer Register (PRTR) Law: This legislation requires companies to identify business site chemical substance emissions and transfer volumes and report to the government. The Ministry of the Environment discloses the submitted information on its website. Such disclosure is designed to encourage voluntary efforts to improve chemical substance management.

*4 Chemical Oxygen Demand (COD): This is an indicator of water pollution by organic substances and represents the amount of oxygen consumed in the chemical oxidation of organic matter.

*5 For Group companies covered in environmental performance data reporting, please see page 10 of the Supplementary Information (Environment and Safety) of the 2018 Integrated Report.

Preventing Global Warming / Biodiversity

Preventing Global Warming

Medium-Term Management Plan
Change & Challenge 2018

Group Greenhouse Gas Emissions Reduction Targets

Domestic and key Group business sites overseas seek to reduce greenhouse gas emissions by 15% from the fiscal 2005 level by fiscal 2021.

Creating and Expanding Products and Technologies with Smaller Environmental Footprints

We look for such products and technologies to represent at least 30% of net sales by fiscal 2021.

Policy on Addressing Global Warming

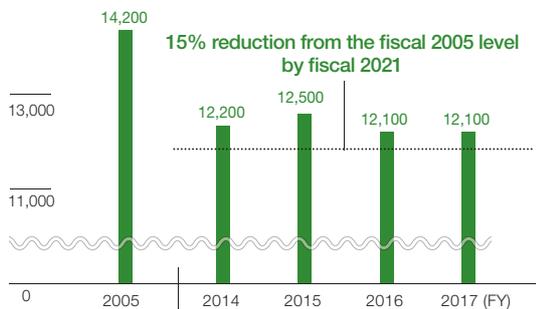
We consider cutting greenhouse gas emissions as a key issue, and have undertaken ongoing efforts to reduce these emissions. We are expanding our environmentally friendly product lineup and technologies to lower such emissions throughout the supply chain.

- Directly Reducing Greenhouse Gas Emissions**
 We set energy consumption and greenhouse gas emissions reduction targets at company and division levels. Steps thereafter include saving energy and expanding the use of waste materials as part of efforts to lower emissions from manufacturing.
- Helping Control Greenhouse Gas Emissions**
 We endeavor to reduce greenhouse gas emissions throughout the supply chain by using more environmentally friendly products and technologies and by streamlining logistics.
- Restoring and Adapting to Changes in the Environment**
 We constantly assess the risks and opportunities of global warming over the medium and long terms and develop technologies to help lower environmental impact.

Initiatives to Reduce Greenhouse Gas Emissions

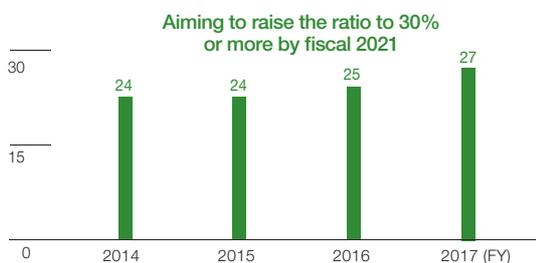
Progress toward Greenhouse Gas Emissions Reduction Targets

GHG Emissions
(1,000t - CO₂e/y)

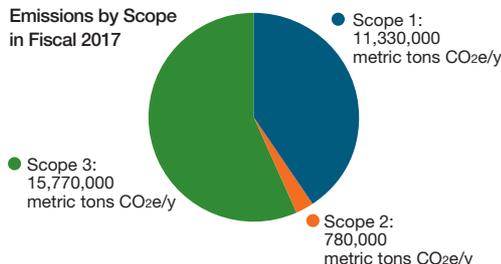


Progress in Creating and Expanding Our Lineup of Environmentally Friendly Products and Technologies

(%)



Emissions by Scope in Fiscal 2017



Biodiversity

In fiscal 2017, our employees devoted around 1,800 man-hours to engaging in efforts to preserve biodiversity. The costs of forestation and limestone quarry greenification totaled roughly ¥30 million.

Private Business Partnership to Preserve Biodiversity

We support the Declaration of Biodiversity by Keidanren (Japan Business Federation) and take part in a related private business partnership.

Forest Conservation Initiatives

In fiscal 2017, 112 employees took part in the 10th Forest Creation Experiential Activity for Water Conservation. The Mine City Office of Yamaguchi Prefecture's Agriculture, Forestry & Fisheries Department sponsors this annual initiative. The employees thinned and logged around two hectares of bamboo.



Employees participating in the 10th Forest Creation Experiential Activity for Water Conservation

Using Resources Effectively

Our cement factories recycle diverse waste and by-products as raw materials (material recycling) and alternative fuels (thermal recycling). Our cement kilns operate at up to 1,450°C, so they can burn and detoxify substances that conventional counterparts could not handle. They can also process large waste volumes. It is also possible to use ash from incineration as an alternative to the clay used in cement, thereby eliminating the need to maintain final disposal sites.

In fiscal 2017, our three cement factories harnessed 3.30 million metric tons of waste and by-products, 2.91 million metric tons of which we sourced externally, contributing considerably to a recycling-oriented society.

We are developing new businesses to use waste materials in applications other than as materials for cement. In fiscal 2017, for example, we began recycling plasterboard, for which we expect demand to increase. We will continue to boost our capacity for handling various waste as part of efforts to expand our recycling business.

See Non-Financial Highlights on page 9 for details of our usage of waste substances and by-products.

History of UBE's Waste Treatment Facility Installations

FY	Alternative Fuels	Raw Materials
1998	Kanda Factory: Waste oil treatment facility	Isa Factory: Chlorine bypass system
1999		Ube/Kanda Factories: Wastewater receiving treatment facility
2000	Ube Factory: Waste plastic treatment facility (1st train)	
2001		Ube Factory: Sewage sludge treatment facility
2002	Kanda Factory: Waste plastic treatment facility (1st train)	Isa Factory: Sewage sludge waste treatment facility (1st train)
		Ube Factory: Chlorine bypass system
		Ube/Isa/Kanda Factories: Meat and bone meal treatment facility
2003	Isa Factory: Waste plastic treatment facility (1st train)	
2004	Isa Factory: Wood chip co-combustion facility for in-house power generation	
	Isa Factory: Waste plastic treatment facility (2nd train)	
2005		Kanda Factory: High-chlorine bypass system
2006	Kanda Factory: Waste plastic treatment facility (2nd train)	
2007	Ube Factory: Waste plastic treatment facility (2nd train)	Isa Factory: Sewage sludge waste treatment facility (2nd train)
2008	Isa Factory: Waste plastic treatment facility (3rd train)	Kanda Factory: Waste for raw material loading facility
2009	Kanda Factory: Waste plastic treatment facility (3rd train)	Kanda Factory: Ash pretreatment facility
2011	Kanda Factory: Waste plastic pretreatment facility	
2012	Isa Factory: Sludge drying equipment	Ube Factory: Ash pretreatment facility
		Ube Factory: Closed sludge injection facility
2013–2014	Isa Factory: Waste plastic treatment facility	
	Enhanced shredding capability (1st and 2nd trains)	
2016	Kanda Factory: Enhanced plastic processing capacity (1st train)	
2017		Ube Factory: Waste plasterboard pretreatment facilities

Overview of Waste and By-Products Usage Flows during Cement Production

Unit: 1,000t/y (fiscal 2017)

Main Ingredients of Cement



Glossary

*Refuse-Derived Fuel: A solidified fuel made of waste plastic, woodchips, and household waste.

Reducing Industrial Waste and Chemical Substance Emissions

Industrial Waste Reductions

The Keidanren (Japan Business Federation) Voluntary Action Plan on the Environment targets a 70% reduction in the final disposal volume of industrial waste from fiscal 2000 levels by fiscal 2020. We strive through industry-led initiatives to recycle industrial waste and reduce final disposal waste to contribute to a recycling-based economy.

Industrial Waste Recycling

Our chemical factories, in-house power stations, machinery factories, and other facilities generate an array of industrial waste. We recycle most of this material at cement factories and other Group facilities.

Industrial Waste for External Final Disposal

In fiscal 2017, we lowered such waste by 84% from the fiscal 2000 level. We will keep endeavoring to cut volumes from fiscal 2018.

Reducing Chemical Substance Emissions

The Japanese government is driving efforts to cut chemical substance emissions through a combination of legislation and voluntary initiatives. Voluntary efforts include industry initiatives to constrain emissions of volatile organic compounds (VOCs)*1 and a system to disclose substances based on the PRTR Law*2.

In terms of the UBE Group's activities, 20 substances*3, which it emits in relatively large amounts, were voluntarily selected from substances subject to the PRTR Law as well as VOCs. We will focus on the Group's emissions of these substances and strive to reduce them.

Minimizing VOC Emissions

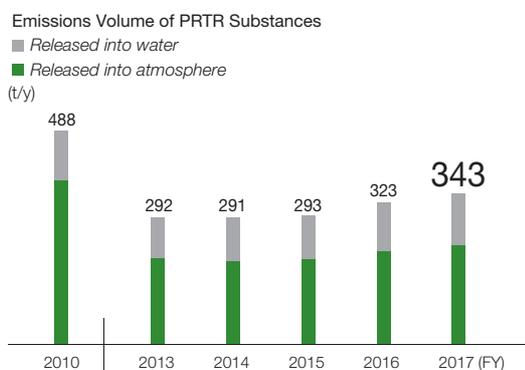
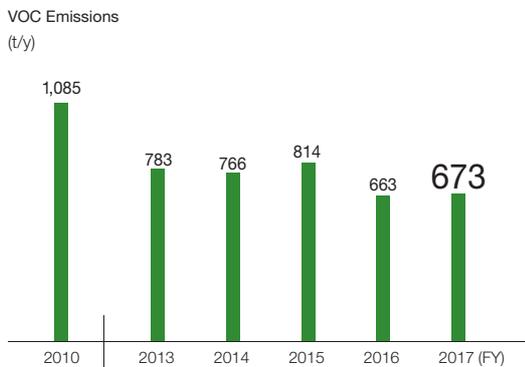
Our industry reached the Japanese government's targets for VOC emissions constraints by fiscal 2010, thereafter continuing efforts. The UBE Group's VOC emissions in fiscal 2017 were 38% lower than those in fiscal 2010.

Reducing PRTR Substances

We handle 68 of the 462 substances subject to the PRTR Law. Our emissions of these substances in fiscal 2017 were down 30% from fiscal 2010.

PRTR Substances

Page 7 of the Supplementary Information (Environment and Safety) of the 2018 Integrated Report presents emissions and transfer volumes and other data on the top 10 substances in terms of emissions volume.



Glossary

*1 VOCs: These organic chemicals evaporate or sublime easily, entering the atmosphere as gases. They are factors in the forming of suspended particulate matter (PM) and photochemical oxidant pollution.

*2 PRTR (Pollutant Release and Transfer Register) Law: Please see the glossary on page 50.

*3 UBE's 20 voluntarily selected chemical substances: See page 2 of the Supplementary Information (Environment and Safety) of the 2018 Integrated Report.

Product Safety and Quality Assurance



Product Safety Initiatives

We comply strictly with the chemical laws and regulations of Japan and the other countries in which we operate. Our stewardship of chemical substances encompasses health, safety, and environmental perspectives. We carefully manage the distribution of chemical substances and extensively disclose safety information about our chemical products.

Complying with Chemical Substances Laws and Regulations

We are digitizing our systems to handle chemical substances laws and regulations. We have constructed a domestic and overseas compliance structure that has encompassed creating a Safety Data Sheet (SDS)^{*1} production support system, in-house-developed chemical safety information, and U-CHRIP, a comprehensive database for managing safety and regulatory information about chemical substances. We accordingly seek to replace manual processes and a reliance on individual skills in handling compliance.

The electrical and electronic device and automotive sectors are leading the way in green procurement^{*2}, and as a supplier of raw and other materials we carefully monitor our offerings for harmful substances.

Stepping Up Chemicals Management

We supply local-language versions of SDSs and product labels for all products, complying with regulations in Europe, the United States, and around Asia to ensure the safe use of chemical products throughout the supply chain, and maintain websites for key product SDSs. We also extensively supply safety information for testing and research applications, and have secured safe R&D environments at universities and research institutions.

Our sales and technical personnel obtain hazardous substances information on products through our SDS database to get handling and disposal information that they convey as needed to customers.

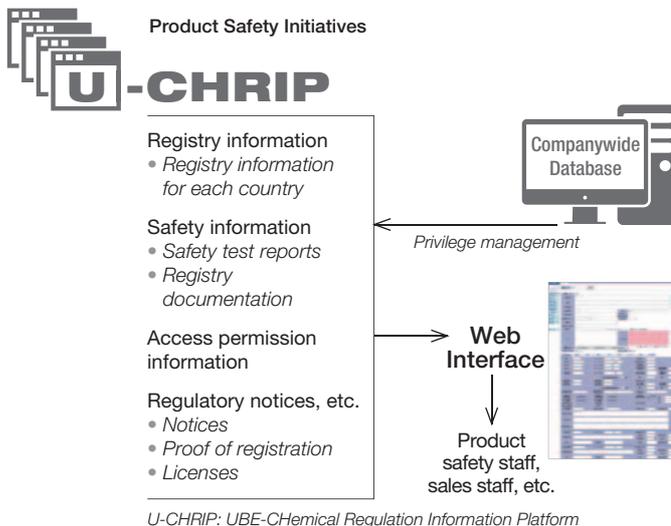
Extensively Disclosing Safety Information

We have amassed and extensively share safety information about our products, taking part in a program of the International Council of Chemical Associations (ICCA) and the Japan Challenge Program. Since fiscal 2011, we have participated in the Japan Chemical Industry Association's voluntary chemical substance risk management activities while gathering and disseminating hazard information^{*3} and risk assessments.

We participate in the ICCA's voluntary Long-Range Research Initiative, which focuses on the effects of chemical substances on human health and the environment. We thereby support research at universities and other research institutions that includes developing new risk assessment methods and studying the safety of chemical substances for infants and the elderly.

Transportation Safety

We ensure the safe distribution of chemical substances by preparing information that transportation companies and their drivers can use in the unlikely event of an accident and by endeavoring to prevent such incidents and improve distribution quality.



Glossary

^{*1} SDS: Documentation containing hazard and toxicity information about chemical substances that manufacturers disclose when supplying chemical substances and products incorporating them.

^{*2} Green procurement: Corporate purchases of raw materials, parts, and manufacturing facilities with minimal environmental footprints.

^{*3} Hazard information: Information on the inherent risks of chemical substances.

Quality Assurance

The UBE Group's operations in Japan and abroad encompass a broad range of fields, from chemicals and pharmaceuticals to construction materials and machinery.

The Group undertakes quality assurance measures in each business, adapted to the needs of individual markets. Quality assurance measures respond to customer requirements and are focused on consistently supplying safe and reliable products. The Group Quality General Manager (officer) supervises Head Office-led quality governance, and the Quality Management Department supervises the Group's quality assurance operations.

- Chemicals Company

Pursuing Customer Satisfaction through Integrated Quality Management Systems

Each of our four chemicals factories used to run their own quality management systems, which we later integrated under the Chemicals Company. In fiscal 2016, we transitioned to certification under ISO 9001 : 2015, the international standard for quality management systems, and standardized our quality assurance activities. In fiscal 2017, we were certified under IATF 16949 and JIS Q 9100, as part of efforts to match requirements in each industrial area.

We will pursue value creation unique to the UBE Group, as well as competitiveness. We will also maintain a strong awareness of quality assurance issues, and strive to ensure customer satisfaction.

- Pharmaceutical Division

Committed to Quality Pharmaceuticals

We must comply consistently with laws and regulations spanning manufacturing through sales and post-market safety measures to deliver efficacious, safe, and quality pharmaceutical products. Division managers have committed fully to our Pharmaceutical Quality Policy to meet such strict requirements.

We formulated specific initiatives under a pharmaceutical quality system to materialize this policy, and comply with relevant requirements, ensuring proper manufacturing and quality management at production sites. At the same time, we endeavor to satisfy customers and build external trust by properly running and constantly improving our pharmaceutical quality system.

- Cement & Construction Materials Company

Maintaining Manufacturing Quality

This business caters to diverse needs in Japan and abroad through a diverse lineup that includes Portland, specialty, and soil-stabilizing cement.

In fiscal 2017, we completed our transition to ISO 9001 : 2015 certification, and within each process pursued consistent manufacturing quality as demanded by our customers. We constantly respond to revisions in such areas as overseas standards and environmental regulations, and maintain a heightened awareness of quality assurance issues. We conduct quality assurance measures that are strong on a global level and resilient to changes in the environment, and work to ensure customer satisfaction.

- Machinery Company

Maintaining Outstanding Products and Services

This business develops a diverse lineup of products from a customer-centric perspective. We provide products and services across various fields, both in Japan and abroad, including molding machines, industrial machinery, and bridges. While pursuing technological innovation, we operate an integrated management structure for the ISO 9001 quality management system and the ISO 14001 environmental management system. This enables us to continuously provide high-quality products and services that are trusted by our customers. We strive to maintain our quality assurance system and to develop human resources capable of maintaining compliance with changing laws, regulations, and standards. Hence, the Machinery Company endeavors to achieve ongoing enhancements to its management systems.

The Supplementary Information (Environment and Safety) of the 2018 Integrated Report presents the quality policies of our in-house companies and divisions.

Supplementary Information (Environment and Safety) is available in the Investor Relations section of the UBE Group's website:

http://www.ube-ind.co.jp/ube/en/corporate/ir_library/integrated_report/index.html

Consolidated 10-Year Financial Summary

Ube Industries, Ltd. and Consolidated Subsidiaries
For the years ended March 31

Results of Operations

(Millions of yen) Breakdown of net sales by reportable segments

	Chemicals ¹	(Chemicals & Plastics)	(Specialty Chemicals & Products)	Pharmaceutical ²	Cement & Construction Materials	Machinery ³	Energy & Environment	Other	Adjustment
2009	¥ —	¥220,033	¥89,785	¥ —	¥213,785	¥111,042	¥76,864	¥ 5,163	(¥31,969)
2010	—	165,098	60,374	9,994	188,396	81,750	54,155	19,096	(29,307)
2011	—	204,516	68,777	8,853	200,470	83,433	59,145	26,852	(35,984)
2012	—	231,026	64,368	11,186	209,155	72,575	62,518	25,911	(38,086)
2013	—	219,368	61,111	11,452	208,364	71,310	68,769	25,294	(39,646)
2014	—	230,585	63,160	9,706	223,513	75,511	59,073	28,816	(39,854)
2015	—	215,419	63,288	7,819	222,419	78,956	66,771	33,242	(46,155)
2016	266,736	—	—	9,280	237,343	73,435	69,066	16,792	(30,902)
2017	258,364	—	—	10,975	227,236	71,668	59,782	12,520	(23,982)
2018	305,432	—	—	10,213	238,854	90,140	71,361	4,797	(25,223)

(Millions of yen)	Net sales	Cost of sales	Selling, general and administrative expenses	Operating profit	Non-operating income ⁴	Ordinary profit ⁴	Extraordinary items ⁴	Profit before income taxes	Profit attributable to owners of parent
2009	¥684,703	¥572,010	¥81,530	¥31,163	(¥10,766)	¥20,397	(¥6,887)	¥13,510	¥11,664
2010	549,556	448,328	73,633	27,595	(8,600)	18,995	(3,403)	15,592	8,217
2011	616,062	494,046	77,653	44,363	(5,263)	39,100	(10,353)	28,747	17,267
2012	638,653	512,447	80,200	46,006	(5,198)	40,808	(3,213)	37,595	22,969
2013	626,022	517,769	78,291	29,962	(1,917)	28,045	(12,203)	15,842	8,265
2014	650,510	546,340	79,757	24,413	(5,722)	18,691	975	19,666	12,623
2015	641,759	538,983	78,629	24,147	(919)	23,228	(4,737)	18,491	14,649
2016	641,750	519,960	80,382	41,408	(1,788)	39,620	(11,967)	27,653	19,111
2017	616,563	500,642	80,961	34,960	(1,612)	33,348	(415)	32,933	24,185
2018	695,574	560,100	85,224	50,250	478	50,728	(5,728)	45,000	31,680

Notes: 1. The Chemicals & Plastics segment and the Specialty Chemicals & Products segment were integrated into the Chemicals segment on April 1, 2015.

2. The pharmaceutical business was included in the Specialty Chemicals & Products segment until fiscal 2009.

3. The Machinery & Metal Products segment changed its name to the Machinery segment on April 1, 2016.

4. Based on Japanese GAAP

Financial Position

(Millions of yen)

	Assets			Liabilities and net assets				
	Total current assets	Total property, plant and equipment, net	Total investments and other assets	Total assets	Total current liabilities	Total long-term liabilities	(Non-controlling interests)	Total net assets
2009	¥277,553	¥332,418	¥68,015	¥677,986	¥269,025	¥214,238	¥22,527	¥194,723
2010	261,587	324,732	68,474	654,793	246,473	206,130	23,033	202,190
2011	281,701	313,945	65,866	661,512	249,701	200,362	24,048	211,449
2012	284,417	313,949	66,599	664,965	267,391	173,167	24,472	224,407
2013	287,399	323,717	74,768	685,884	250,936	184,195	34,736	250,753
2014	296,538	332,416	71,761	700,715	257,958	177,402	23,077	265,355
2015	282,816	347,438	81,292	711,546	239,500	182,436	25,718	289,610
2016	276,925	323,800	79,058	679,783	233,256	156,905	22,463	289,622
2017	295,041	331,443	82,895	709,379	245,828	153,150	23,179	310,401
2018	323,400	334,262	85,467	743,129	253,098	153,170	20,837	336,861

General

	Per share data ⁵ (yen)			Other data					
	Net income, primary	Cash dividends applicable to the period	Net assets	Return on sales (ROS) (%)	Return on assets (ROA) ⁶ (%)	Shares of common stock issued ⁵ (thousands)	Number of consolidated subsidiaries	Number of shareholders with voting rights	Number of employees
2009	¥ 11.59	¥ 4.00	¥ 170.92	4.6	4.8	1,009,165	65	60,202	11,264
2010	8.17	4.00	177.88	5.0	4.4	1,009,165	67	59,232	11,108
2011	17.18	5.00	186.02	7.2	7.2	1,009,165	66	57,537	11,026
2012	22.85	5.00	198.41	7.2	7.2	1,009,165	67	55,407	11,081
2013	8.22	5.00	214.35	4.8	4.8	1,009,165	67	57,243	11,090
2014	12.16	5.00	228.51	3.8	3.6	1,062,001	65	58,873	11,225
2015	13.85	5.00	248.89	3.8	3.8	1,062,001	71	64,449	10,702
2016	18.06	5.00	251.90	6.5	6.5	1,062,001	68	52,977	10,764
2017	22.85	6.00	270.76	5.7	5.5	1,062,001	70	51,769	10,928
2018	301.65	75.00	3,002.86	7.2	7.6	106,200	70	56,754	10,799

Notes: 5. The Company consolidated every 10 shares into one share, effective October 1, 2017.

6. ROA = (Operating profit + Interest and dividend income + Share of profit of entities accounted for using equity method) / Average total assets

Business and Other Risks

Business Risks

The following presents the business and other risks of the UBE Group that could materially affect investor decisions.

These factors may adversely affect the Group's results and financial position. The Group accordingly endeavors to recognize, avoid, or prevent these risks, address issues when they materialize, and seek to optimize risk transfers and crisis management.

The following statements include forward-looking information that represents management's judgment as of March 31, 2018, and does not encompass all business and other risks.

(1) Raw Materials and Fuel Market Trends

The UBE Group may be unable to pass on in a timely manner, through product pricing, the impacts of rising prices for principal raw materials and ongoing high procurement costs for coal. Specifically, international market conditions and trends in the prices of crude oil, naphtha, and other commodities influence the costs of principal raw materials used by the Chemicals segment. The continuing high costs for coal procured overseas, which the Group uses for cement production and in-house power generation, contribute to this risk factor.

(2) Chemical Business Earnings

Worsening supply and demand owing to economic fluctuations or expansion of other companies production capacity could cause the product supply-and-demand climate to deteriorate and lead to market stagnation or significantly narrower spreads.

Information technology (IT), digital appliance, and other product areas that experience fast generational changes could experience slower sales because of our inability to swiftly match customer needs, or demand could fall for IT products that are particularly susceptible to market fluctuations.

(3) Pharmaceutical Business Earnings

The pharmaceutical business covers the UBE Group manufacturing pharmaceutical bulk ingredients and intermediates under contract to pharmaceuticals companies and engaging in drug discovery independently or jointly with

such companies. Such factors unique to pharmaceuticals as an inability to obtain regulatory approval for new drugs, the withdrawal of approval, or the launches of generics after patent periods end could affect this business.

(4) Domestic Cement Demand

Domestic demand for cement, a key offering of the Cement & Construction Materials segment, is likely to increase for the time being owing to demand related to the Tokyo 2020 Olympic and Paralympic Games and other factors. However, if there were a rapid decrease in public investment and private-sector capital investment, this could cause the volume of cement sold to decrease, leading to downward pressure on earnings. Accordingly, the UBE Group has taken such steps as maintenance of production levels through exports, expansion of resource-recycling waste treatment within the cement production process (a fee is charged for the acceptance of waste to be recycled), and various cost reductions. However, if demand were to continue declining for a certain period it may have an impact on this business.

(5) Machinery Business Earnings

Although the UBE Group endeavors to expand earnings from this business in the global market, centered on emerging markets, which are experiencing ongoing growth, it could experience lower prices from intensified competition and higher raw materials and construction costs.

(6) Financial Market Fluctuations

The UBE Group uses forward exchange contracts, interest rate swaps, and other hedging transactions to minimize the risks of foreign exchange and interest rate fluctuations. Financial market fluctuations exceeding projections, however, could materially affect the Group. Overseas subsidiaries are exposed to exchange rate fluctuations when converting amounts into yen, as they produce their financial statements in local currencies.

(7) Overseas Business Activities

Overseas businesses are exposed to risks of unforeseen changes in laws and regulations, as well as economic, social, and political risks, which could hamper operations.

(8) Intellectual Property and Product Liability

Impediments to the conduct of the UBE Group's business activities may arise in cases where intellectual property rights have been unlawfully infringed, disputes arise owing to alleged violations of third-party intellectual property rights, or product recalls or compensation for damages arise owing to Group product defects.

(9) Industrial Accidents and Disasters

A major industrial accident or significant damage to production facilities from a disaster at an UBE Group plant handling hazardous materials or high-pressure gas could lead to spending on disaster remediation, lost opportunities from production downtimes, or compensation to customers, and could also erode public trust. Accidents or disasters affecting suppliers of crucial raw materials for the Group could impede its business activities.

(10) Public Regulations

The modification or reinforcement of national or regional laws, rules, and regulations, or the application of new regulations could restrict the UBE Group's business activities, increase compliance costs, or necessitate accounting or tax response to regulations.

(11) Asbestos

In the past, the UBE Group manufactured and sold products containing asbestos, and also used it as a construction material in its plant facilities. In order to eliminate asbestos from plant facilities, the Group plans to institute a series of complete or partial changes of facilities, for which certain expenditures are expected until the changes are complete. Moreover, an increase in employees receiving workers' compensation, lawsuits, and efforts to further strengthen regulations related to health hazards of employees (including retired employees) or residents in the vicinity of the plants could occur.

(12) Litigation

Although the UBE Group works to ensure legal compliance, it may be subject to litigation within its extensive business activities. Principal lawsuits in which the Group is currently involved are summarized below. The Group is unable to speculate on the final outcome or the timing of the final outcome of these lawsuits at the present time.

Since May 2008, workers engaged in construction work and the families of deceased workers have pursued litigation against the Japanese government and some 40 construction materials manufacturers, including consolidated subsidiary UBE Board Co., Ltd. The plaintiffs allege that they or their deceased family members contracted asbestos-related diseases from inhaling asbestos particles contained in building materials that were used on construction sites, and are jointly suing for compensation for damages. In judgments handed down to date, all claims against UBE Board have been dismissed. At present, there are 11 cases pending at the Japanese Supreme Court and other courts nationwide. The maximum damages being sought by plaintiffs total ¥23.0 billion.

(13) Write-Down Due to Decreased Profitability of Inventories

The UBE Group may write down the book values of the relevant inventories if fuel and raw material purchase prices rise, fixed manufacturing costs rise, and production volumes and selling prices decrease.

(14) Impairment of Fixed Assets

With regard to fixed assets held by the UBE Group, in the event of a decline in earnings owing to a marked deterioration in the operating environment or a sharp depreciation in real estate values, the Group may recognize impairment losses.

(15) Marketable Securities

Most of the UBE Group's holdings of securities are shares of listed companies, and the Group could post impairment losses if market valuations decline.

(16) Retirement Benefit Liabilities

The UBE Group's retirement benefit liabilities and payments may rise if discount rates used in actuarial calculations decline or if returns on pension fund assets decrease.

(17) Deferred Tax Assets

The UBE Group assesses the probability of recovering deferred tax assets based on projections of future taxable income and other factors. Deferred tax asset reversals may be necessary if actual taxable income differs from projections.

Network

(As of March 31, 2018)

Overseas Offices

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Major Consolidated Subsidiaries

Company Name	Business	Country	Net Sales			
			Currency	2016/3	2017/3	2018/3
UBE Corporation Europe, S.A. Unipersonal*	Manufacture and sales of caprolactam, ammonium sulfate, nylon, and fine chemical products	Spain	EUR million	350.4*	314.6	332.2
UBE Chemicals (Asia) Public Company Limited	Manufacture and sales of caprolactam, ammonium sulfate, and nylon	Thailand	THB billion	11.6	11.6	12.6
THAI SYNTHETIC RUBBERS COMPANY LIMITED	Manufacture and sales of polybutadiene rubber	Thailand	THB billion	3.5	4.3	4.7
UBE Fine Chemicals (Asia) Co.,Ltd.	Manufacture and sales of 1,6-Hexanediol (HDL) and 1,5-Pentanediol (PDL)	Thailand	THB billion	0.7	0.9	1.1
UBE Ammonia Industry, Ltd.	Manufacture and sales of ammonia and industrial gases	Japan	JPY billion	13.0	13.7	13.7
UBE Film, Ltd.	Manufacture and sales of plastic film products	Japan	JPY billion	9.2	9.5	9.7
UBE EXSYMO CO., LTD.	Manufacture and sales of polypropylene molded products, fibers, and fiber-reinforced plastics	Japan	JPY billion	12.4	12.7	13.3
UBE Material Industries, Ltd.	Manufacture and sales of magnesia clinker, quicklime, slaked lime, etc.	Japan	JPY billion	38.9	44.1	45.5
UBE Shipping & Logistics, Ltd.	Domestic shipping, harbor transportation, shipping-agent services, and customs clearing	Japan	JPY billion	21.2	20.6	18.8
UBE Construction Materials Sales Co., Ltd.	Sales of cement, ready-mixed concrete, building materials, etc.	Japan	JPY billion	56.2	55.9	59.6
Sanshin Tsusho Co., Ltd.	Sales of building materials, public works materials, etc.	Japan	JPY billion	19.6	17.4	23.0
Kanto Ube Holdings Co., Ltd. (And 4 Other Subsidiaries)	Manufacture and sales of ready-mixed concrete	Japan	JPY billion	14.6	12.7	14.8
Hagimori Industries, Ltd.	Manufacture and sales of ready-mixed concrete, concrete piles, and self-leveling materials	Japan	JPY billion	3.3	3.2	3.2
UBE Machinery Corporation, Ltd.	Manufacture and sales of and services for molding machines, industrial machinery, and bridges, etc.	Japan	JPY billion	45.0	40.6	44.1
UBE Steel Co., Ltd	Manufacture and sales of cast iron and steel products and rolled steel billets	Japan	JPY billion	16.7	17.4	21.2
UBE Machinery Inc.	Manufacture and sales of and services for molding machines	U.S.A.	USD million	64.7	60.0	69.0
UBE Machinery (Shanghai) Ltd.	Manufacture of molding machines, and sales of and services for molding machines and industrial machinery	China	RMB million	109.8	120.3	124.9
UBE COAL TRADING, LTD.	Sales of imported coal from Australia, Indonesia, and Russia	Japan	JPY billion	29.6	23.5	28.8

* UBE Corporation Europe, S.A. Unipersonal, UBE Chemical Europe, S.A. Unipersonal, and UBE Engineering Plastics, S.A. Unipersonal merged at the end of March 2016. Figures are a simple aggregation of the three companies.

Major Equity-Method Affiliates

Company Name	Business	Country
UMG ABS, Ltd.	Business pertaining to ABS resin and ABS polymer alloy products	Japan
UBE-MARUZEN POLYETHYLENE Co., Ltd.	Development, production, and sales of low-density polyethylene and HAO-LLDPE	Japan
Chiba Butadiene Industry Company, Limited	Manufacture and sales of butadiene	Japan
Lotte Ube Synthetic Rubber SDN. BHD.	Manufacture and sales of polybutadiene rubber (synthetic rubber)	Malaysia
SUMaterials Co., Ltd.	Production of polyimide for substrates to be used in next-generation displays	Korea
UBE-MITSUBISHI CEMENT CORPORATION	Sales of cement, soil-stabilizing cement, slag, etc.	Japan

Investor Information

(As of March 31, 2018)

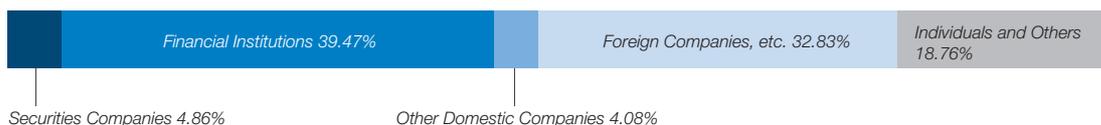
Ube Industries, Ltd.

Head Office	Tokyo Head Office (General Affairs & Human Resources Office CSR & General Affairs Dept.)	Seavans North Bldg., 1-2-1, Shibaura, Minato-ku, Tokyo 105-8449, Japan Phone: +81-3-5419-6112 Fax: +81-3-5419-6237
	Ube Head Office	1978-96, Kogushi, Ube, Yamaguchi 755-8633, Japan Phone: +81-836-31-2111 Fax: +81-836-21-2252
Establishment	1897	
Consolidated Companies	94 (70 consolidated subsidiaries and 24 equity-method affiliates)	
Fiscal Year	April 1 to March 31	
Common Stock	Outstanding: 106,200,107 shares	
Paid-in Capital	¥58.4 billion	
Number of Shareholders with Voting Rights	56,754	
Annual General Shareholders' Meeting	June	
Stock Exchange Listings	Tokyo Stock Exchange (Code: 4208) Fukuoka Stock Exchange	
Transfer Agent and Share Registrar	Mitsubishi UFJ Trust and Banking Corporation, 1-4-5, Marunouchi, Chiyoda-ku, Tokyo 100-8212	
Independent Auditors	Ernst & Young ShinNihon LLC	

Major Shareholders

Shareholder	Share Units Owned	Percentage of Voting Rights (%)
The Master Trust Bank of Japan, Ltd. (Trust Account)	6,623,500	6.29
Japan Trustee Services Bank, Ltd. (Trust Account)	6,330,000	6.01
Mizuho Securities Co., Ltd.	2,540,532	2.41
Japan Trustee Services Bank, Ltd. (Trust Account No.9)	2,412,000	2.29
Japan Trustee Services Bank, Ltd. (Trust Account No.5)	2,015,900	1.92
SUMITOMO LIFE INSURANCE COMPANY	2,000,000	1.90
BBH BOSTON CUSTODIAN FOR BLACKROCK GLOBAL ALLOCATION FUND, INC. 620313	1,881,750	1.79
Japan Trustee Services Bank, Ltd. (Trust Account No.4)	1,772,300	1.68
Trust & Custody Services Bank, Ltd. (Investment Trust Collateral Account)	1,605,000	1.53
Nippon Life Insurance Company	1,600,009	1.52

Shareholder Composition



The UBE Group publishes information for its stakeholders on its website.

Please refer to the websites on the right for additional data and information on activities and products not covered in this report.

Corporate Information <http://www.ube-ind.co.jp/ube/en/>



Shareholder and Investor Information

Management policies, finances, results, and shareholder information and IR materials are available in the Investor Relations section of the UBE Group's website:

<http://www.ube-ind.co.jp/ube/en/corporate/>

Product Information

UBE Group product information is available in the Products section of the UBE Group's website.

<http://www.ube.com/contents/en/>

CSR Activities

Environment & safety, corporate social responsibility (CSR), and compliance information are available in the CSR Activities section of the UBE Group's website.

<http://www.ube-ind.co.jp/ube/en/csr/>

Wings of
technology
Spirit of
innovation
UBE

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