



TOKUYAMA REPORT 2022

Fiscal year ended March 31, 2022



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Editorial Policy

The Tokuyama Report is published as an integrated report for the purpose of communicating the Company's management policy and medium- to long-term strategy to stakeholders in an easily understandable manner. When preparing this report, we conducted interviews with investors and a survey within the Company about last year's report, the feedback from which we reflected in our planning. We hope that this report will facilitate communication with our stakeholders as well as deepen understanding of the Company.

The report briefly outlines information that is highly relevant to the value creation story. For more detailed IR and/or CSR information, please visit the Company's website.

Period Covered

FY2021 (April 1, 2021 to March 31, 2022) Some activities and information included pertains to FY2020 or earlier, or is scheduled for FY2022 or later.

Reference Guidelines

- Ministry of Economy, Trade and Industry, "Guidance for Integrated Corporate Disclosure and Company-Investor Dialogues for Collaborative Value Creation"
- International Integrated Reporting Council (IIRC), "Integrated Reporting (IR)"
- Global Reporting Initiative,
 "GRI Sustainability Reporting Standards"
- Ministry of the Environment, "Environmental Reporting Guidelines 2018"
- Task Force on Climate-related Financial Disclosures (TFCD), "Final Report: Recommendations of the Task Force on Climate-related Financial Disclosures"

Information Framework

	Financial	Non-Financial
Overview of Strategy		porate activities for a wide range of stakeholders, and non-financial aspects of Tokuyama at present
Details and	Investors Website Useful information for shareholders and investors, organized as an IR Library • Financial summaries • Presentation materials • Annual Securities Reports	CSR Website Provides more detailed information on Tokuyama's CSR activities https://www. tokuyama.co.jp/eng/csr/
Latest Data	· Corporate Governance Reports, etc.	Sustainability Data Book Mainly includes data for understanding today's Tokuyama based on the perspectives of responsible care activities and ESG

Cautionary Note on Forward-Looking Statements

This report contains forward-looking statements on the Company's plans, strategies, operating performance and other matters. These forward-looking statements are the Company's judgments based on information available at the time of this report's preparation. They are subject to various risks and uncertainties. The Company's actual activities and/or operating performance may differ materially from these forward-looking statements as a result of various factors, including but not limited to changes in economic conditions, the operating environment, demand trends or exchange rates.

Disclaimer

This report is intended to be informational. It is not intended as a solicitation. The Company assumes no liability for any losses due to investment decisions made entirely in reliance on forward-looking statements, numerical targets or other information contained herein.

Tokuyama Value Creation

Tokuyama redefined its Mission and Vision in 2021 in light of its rapidly-changing operating environment. In accord with its New Vision, which encompasses its deeper Values in addition to its Mission and Vision, Tokuyama will create new value in harmony with the environment by supplying products that address societal problems while minimizing the environmental burden imposed by its business activities.

Mission

To create a bright future in harmony with the environment, in collaboration with its customers, based on chemistry

Vision

- ·Be a value-creative company that places first priority on R&D and marketing
- Be a company that never stops challenging new domains while refining and exploiting its unique strengths
- Be a company with healthy employees who have healthy families and take pride in their work at their company
- · Be a company that fosters bonds with people in communities and societies worldwide

Values

- · Commitment to customer satisfaction as a profit source
- · A broader, loftier perspective
- · Employees who consistently surpass their predecessors
- · Integrity, perseverance, a playful spirit and boldness



Message from the President



Transforming Tokuyama into a new company by embarking on a growth path in our three Focus Areas and leading the way toward decarbonization

In 2021, we initiated Medium-Term Management Plan 2025, formulated in conjunction with our new Mission. What is the key to radically revamping a profit structure long dependent on energy-intensive businesses, while transforming it into a value-creative organization? How can we accelerate our transition to a portfolio of energy-efficient, high-value-added businesses that are in sync with the decarbonization movement and attuned to the challenges customer face?

We spoke to President Hiroshi Yokota about Tokuyama's strategies and initiatives addressing these questions.

Representative Director, President and Executive Officer

Hiroshi Yokota

Pivoting Toward Growth Businesses

We have designated electronics, healthcare and the environment as growth businesses. The keys to increasing their share of consolidated net sales to over 50% are the resolve and decision-making of management on the one hand, and the ability of employees to take action informed by a reshaped mindset on the other.

Evolving into a Value-Creative Company in Harmony with the Environment

Progress toward carbon neutrality has been accelerating globally in recent years. In April 2022, the Intergovernmental Panel on Climate Change (IPCC) published the third installment of its Sixth Assessment Report, in which it discussed the prospects and ways of limiting global warming to no more than a 1.5°C increase in the global average temperature relative to the pre-industrial era. Given such developments, chemical companies like Tokuyama cannot hope to survive, much less grow, over the long term without being in harmony with the environment. Based on this awareness, last year we updated our Mission and Vision, and formulated Medium-Term Management Plan 2025 to foster our transformation into a value-creative company. Our Mission and Vision encompass our goal of creating new value our customers seek by placing priority on R&D and marketing; on pursuit of coexistence with communities and societies worldwide through CO₂ emission reductions and environmentallyfriendly products; and on employees who take pride and find fulfillment in their work. We are proud that this conception articulates the identity that Tokuyama has cultivated as well as its future direction in order to offer a clearer picture to our employees.

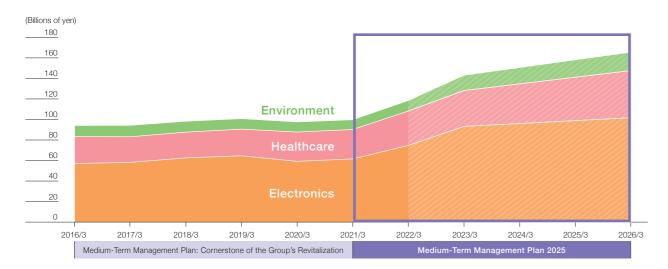
However, reflecting our Mission and Vision in our dayto-day operations has proved challenging. Although our workforce as a whole is generally supportive of our plan to overhaul our business portfolio by shifting our profit structure away from dependence on energy-intensive businesses, there are still not enough employees willing to challenge new domains and brave risks. We want more employees to eagerly embrace challenges.

We will reallocate management resources to the three domains we have designated as growth businesses: electronics, healthcare and the environment. Our progress in executing this growth strategy, which leverages Tokuyama's unique strengths, is being watched especially closely by our stakeholders. The keys to realizing our Vision while increasing these growth businesses' share of consolidated net sales to over 50% are the resolve and decision-making of management on the one hand, and the ability of employees to take action informed by a reshaped mindset on the other.

Electronic Materials Business: Expansion Plans and Global Strategy

Of our three Focus Areas, the biggest growth driver in Medium-Term Management Plan 2025 is the Electronic Materials Business. Its strengths include purification and analytical technologies that facilitate semiconductor miniaturization, and technologies for sintering thermal management materials to maintain performance by discharging heat from electronic parts and materials. Proprietary technologies like these that we have been internally amassing for over two decades are driving the ongoing expansion of the Electronic Materials Business. To broaden our thermal management materials product line, we opened the Center for Commercialization of Advanced Technology in Yanai, Yamaguchi Prefecture, in July 2021. We are also preparing to launch mass production of silicon nitride, a project that is progressing roughly as planned.

Net Sales of Growth Businesses



Additionally, we are planning to expand into downstream market segments by partnering with companies that possess technologies we lack.

The Electronic Materials Business' customers, most of which are concentrated in Asia, want us to be able to provide quick-turnaround production and technical support by locating production facilities in their proximity. Consequently, as a first step, a joint venture we formed with a Taiwanese company is commissioning a high-purity isopropyl alcohol (IPA) plant that will commence production in 2022. We have also decided to expand our production capacity in Korea, and are starting to research expansion opportunities in other countries/regions as well. Through these efforts, we intend to raise our profile as the top electronic materials supplier in Asia.

Life Science Business: Production Capacity Expansion and Switch to Consultative Sales Model

We are gaining share in the plastic lens-related materials and dental material markets, mainly in Europe and the U.S. New product development and investment are proceeding as planned. In May 2022, we completed an expansion of raw material processing capacity at our Kashima Factory, where we produce dental materials/equipment. Despite the adverse impact of the Russo-Ukrainian conflict, we will increase production capacity through additional capex.

The Life Science Business' priority goal is to lay the groundwork for healthcare operations over the next five to ten years, during Medium-Term Management Plan 2025's term. This plan comprises several components. First, in the medical diagnostics space, our focus is on generating synergies with A&T Corporation, a wholly-owned subsidiary acquired in 2021. We have already begun to reciprocally share researchers with A&T, and are working on combining our respective strengths to develop biochemical testing reagents and improve testing hardware. In addition to shoring up the foundation of the medical diagnostics business, we must broaden our reagent product line, and are exploring options to do so, including M&A.

Next, we will enhance the competitiveness of our pharmaceutical ingredients and intermediates by leveraging our strengths, namely process development and thorough GMP*1 compliance. Meanwhile, we will keep capex down by entirely outsourcing manufacturing to overseas producers. Additionally, we will utilize a consultative sales approach to inform pharmaceutical companies involved in discovery and development of new drugs how to achieve stable yields by using new process technologies we have developed.

Lastly, we are starting to supply spherical porous silica, a highly oil-absorbent material that feels pleasant on the skin, to the cosmetics industry. We will focus on expanding silica's applications as well as cultivating new sources of demand by strengthening our marketing.

*1 Good manufacturing practices: pharmaceutical production management and quality management standards

Building Foundations for the Eco Business

For the Eco Business, we have designated Medium-Term Management Plan 2025's term as a foundation-building phase to develop the business into a new pillar that will play a major role in Tokuyama's future.

Environmental regulatory tightening is driving growth in demand for wastewater purification and recovery of valuable substances using our ion exchange membranes, which are garnering strong interest from China in particular. Thus, we are planning to expand production capacity. We plan to forge ahead with further technological development and laterally expand into new businesses such as extracting resources from seawater.

Tightening of residential energy efficiency standards is a tailwind for our plastic window sashes. In this area, we aim to capture demand in the high-performance multifamily housing market in addition to the high-performance detached housing market.

As for gypsum board, we have decided to build a third waste gypsum board recycling facility, in Hokkaido. Waste gypsum board is classified as intractable waste. Given the challenges its disposal poses, we selected the new facility's site out of a desire to benefit the region by deploying our proprietary technology there. With desulfurized gypsum emissions from coal-fired power plants expected to decrease going forward, demand for recycled gypsum powder is growing. Against such a backdrop, the gypsum board market is increasingly counting on Tokuyama's technologies. Additionally, we are focusing on the impending problem presented by large quantities of photovoltaics panel waste. To this end, we are researching separation and recycling technology in collaboration with NEDO*2.

*2 New Energy and Industrial Technology Development Organization

Launch of New Business Center Set to Accelerate Value Creation

We spent the past year exploring potential new businesses to transform Tokuyama into a value-creative company, and ultimately identified three clear-cut areas where our technological prowess is aligned with societal needs: alkaline water electrolyzers (AWEs): thermal materials and biomass fuels. To expedite monetization of our efforts in these three areas, we established the New Business Center, a new organization independent from both business divisions and the Research & Development Division, in April 2022.

Capitalizing on our vast operational know-how and expertise in electrolysis technologies, we aim to develop the world's most energy-efficient hydrogen-producing AWEs that produce hydrogen. We are seeing strong interest in such AWEs from around the world, and so will swiftly commercialize them with our sights set on an overseas rollout. Thermal materials under development include ceramic-metal composite substrates with high thermal conductivity, and fillers for exothermic resins. We aim to commercialize such high-value-added thermal management materials for applications with promising growth prospects, including next-generation mobility. Next, I will discuss biomass fuels.



Tokuvama Factory

Roadmap to Carbon Neutrality

How can we build a carbon-free business model while maintaining market competitiveness?

Management's leadership will be tested during the transition to a value-creative company.

Captive Power Plants to Be Converted to Biomass Co-fired Generation

One of Medium-Term Management Plan 2025's priorities is to contribute to the mitigation of global warming. By FY2030, we plan to reduce our total CO₂ emissions by 30% and our CO₂ emissions from energy consumption by 50%, both relative to FY2019. Our basic policy to achieve this plan is to convert the Tokuyama Factory's captive power plants to biomass co-fired generation. As biomass fuels, we will mainly use palm kernel shells (PKS) among other waste biomass. In February 2022, we obtained RSB*3 and GGL*4 certifications in the belief that PKS sourced from overseas must be traceable, environmentally friendly and legally compliant. We have decided to secure adequate supplies of PKS during FY2022 and convert one of the Tokuyama Factory's four power plants to biomass monofired generation from FY2023. We plan to subsequently decide as appropriate how to upgrade the other three power plants in light of the state of development of ammonia-firing technologies, and other relevant considerations.

We also established a Biomass Commercialization Group within the New Business Center to work on development of biomass fuels. Specifically, we want to develop black pellet production technology that can torrefy biomass into a form that can be handled in the same manner as coal. Ultimately, we expect to be able to improve boiler efficiency and reduce transport and storage costs by fuel-switching to black pellets.

Decarbonization Council Activities

Ammonia has been attracting attention in recent years as a low-cost hydrogen carrier because it is easier to both transport and store than hydrogen. The Shunan Industrial Complex Decarbonization Promotion Council, a regional alliance, is currently discussing ammonia fuel. The Council comprises companies with operations at the Shunan Complex, the city of Shunan, and the Society of Chemical Engineers, Japan. Entities participating in the Council as observers include the Ministry of Economy, Trade and Industry, the Ministry of Land, Infrastructure, Transport and Tourism, the Ministry of the Environment, Yamaguchi Prefecture, and Yamaguchi University. Our involvement in the Council as one of its member companies includes developing decarbonizing technologies, deploying them in society and making policy proposals. By utilizing the Council or Shunan Complex's framework to promote open innovation without being wedded to just our own ideas, we believe we can boost the competitiveness of the Complex as a whole and contribute to harmony between society and the environment.

To spearhead societal change in pursuit of carbon neutrality from within the chemical industry, we must accelerate our own transition into a value-creative company. How, then, can we build carbon-free or low-carbon business models while maintaining market competitiveness? This question is truly our top management priority.

Socially Responsible Management and Future Sustainable Growth

We aim to transform Tokuyama into a new company brimming with vitality that can repeatedly create new businesses that provide value to customers and local communities.

Main Agenda Items for the Board of Directors

As we put Tokuyama's Mission into practice in our day-to-day work, and formulate and implement strategies aligned with our Vision, CSR will consistently play a core role. Hence our commitment to promoting socially responsible management as one of Medium-Term Management Plan 2025's priorities. We recognize that Tokuyama must comply with the UN Global Compact's ten human rights, labor, environmental and anti-corruption principles in order to survive and achieve sustainable growth. We are also stepping up monitoring of our business portfolio overhaul process to mitigate the most impactful risks to Tokuyama's survival. Even the Board of Directors devotes much of its attention to matters pertaining to reforming the business portfolio as well as the issue of decarbonization.

The Board also regularly discusses technology deployment on a granular level. The Research & Development Division briefs the Board on the progress of the development and deployment of technologies, along with current challenges and potential risks. These challenges and risks are shared among and thoroughly discussed by senior management, whereupon the Board votes to make decisions from a medium-/long-term perspective. Additionally, directors who are Audit and Supervisory Committee members relay feedback gathered largely through conversations with front-line staff. This feedback spans diverse perspectives on matters ranging from diversity and inclusion to recruitment of personnel capable of executing the business portfolio makeover. Utilizing such feedback, we then endeavor to identify and execute the most effective course of action.

Better Accident Prevention, Mindset Reform, DX and HR Development

We believe the most important step toward transforming into a value-creative company is reshaping the mindset of employees. We must drastically change how we work, recognizing that there is no future in rote perpetuation of the status quo.

Even though accident prevention and occupational health and safety are foundational business activities for Tokuyama, and will no doubt remain so, an accident occurred at the Tokuyama Factory in FY2021. In response, we established a Safety Enhancement and Improvement Department in January 2022, and are sparing no effort to implement safety precautions. That said, past practices alone may no longer be sufficient to ensure safety if our facilities become outdated, our workforce ages or we cannot train enough qualified employees. Carrying out digital transformation (DX), which is also a key component of our portfolio makeover, represents one effective means of moving beyond the status quo. By utilizing technologies such as IoT, Al and robotics, we plan to reduce hazardous work involving humans, effectively monitor the operating status of facilities, perform preventive maintenance, "smartify" our plants and otherwise ensure safety.

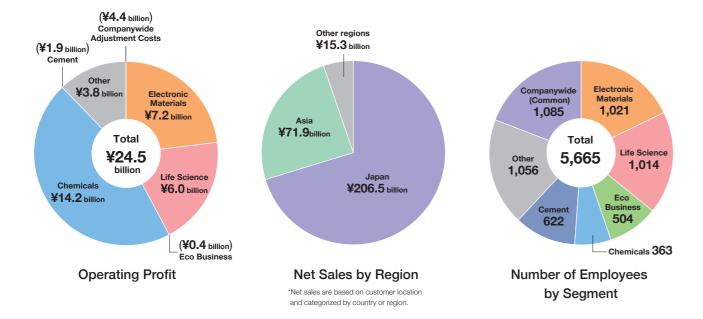
Reforms that utilize digital technologies and a wealth of data like this begin with critical thinking about work. Going forward, we must cultivate and promote, irrespective of age, personnel who excel at detecting problems from societal trends or conversations with customers. Through such an approach, we want to build an organization that can transform Tokuyama into a new company and successively create new businesses that rejuvenate the organization, brim with vitality, and provide value to customers and local communities.

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^{*3} Roundtable on Sustainable Biomaterials: Established in 2007, mainly by the Swiss Federal Institute of Technology in Lausanne, to widely promote environmental criteria for certification of sustainable biofuel production. The RSB certification is one of the third-party certifications recognized by the Japanese Agency for Natural Resources and Energy's business planning

^{*4} Green Gold Label: The biomass certification with the longest history, dating back to 2002. It encompasses every step from sustainable bioenergy production to processing, transport and enduse, ensures traceability and requires record-keeping. Like the RSB certification, GGL is a third-party certification recognized by the Japanese Agency for Natural Resources and Energy's business planning guidelines.

Silicon Overseas sales companies, etc 1 Recycling 2 15 Other Thermal Management 12% Materials 3 **# Electronic Materials 25**% Cement 14 IC Chemicals Cement FY2021 consolidated 16% net sales ¥293.8 billion ů 5 Fine Chemicals Life Science 11% Microporous Film Dental Materials and Equipment 5 **Eco Business** Medical Diagnosis Chemicals 3% 33% 9 Environment 11 Ion Exchange Membranes Plastic Window Sashes 13 12 Chlor-Alkali and Soda Ash and Vinyl Chloride Calcium Chloride



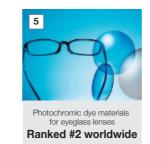


- 1 Silicon Semiconductor-grade polycrystalline silicon
- 3 Thermal Management Materials High-purity aluminum nitride
- 2 Silica Fumed silica
- 4 IC Chemicals High-purity IPA, photoresist developer TMAH

Product Share in Semiconductor Manufacturing Process







- 5 Fine Chemicals
 - Photochromic dye materials for eyeglass lenses, APIs and intermediates
- 6 Microporous Film
 Microporous film
- 7 Dental Materials and Equipment Composite resin
- Medical Diagnosis Systems
 Laboratory information system,
 diagnostic reagents

Eco Business



9 Environment
Non-kiln resource recycling

concentration

- Ion Exchange Membranes lon exchange membranes and electrodialyzers for desalination and
- Plastic Window Sashes
 Plastic window sashes and
 related products



- Soda Ash and Calcium Chloride
 Soda ash, calcium chloride, sodium bicarbonate
- 13 Chlor-Alkali and Vinyl Chloride
 Caustic soda, PVC resin, vinyl chloride monomer,
 propylene oxide (PO), sodium hypochlorite





Ranked #3 in Japan

Cement
Ranked #4 in Japan



- 14 Cement Cement, cement-type stabilizer
- Waste processing (Waste plastic recycled as alternative fuel, trash incinerator ash recycled as alternative raw material for cement)



Waste processing
1.73 million tons

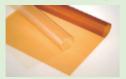
Unique Technologies in Growth Businesses

Since its establishment in 1918, Tokuyama has worked to accumulate technologies and create new products by cultivating our inorganic chemicals business and, since the 1970s, by promoting the development of fine chemicals and specialty businesses, mainly in organic and polymer chemistry. Over the course of more than a century, we have established technologies that have become the cornerstone of our growth. We will continue to evolve our technologies as we strive to create value that meets the needs of today.

Separation technology using ion exchange membranes

In the 1960s, we became the first company in Japan to commercialize ion exchange membranes. Today, we offer separation technologies for a variety of applications, through the use of selectively permeable membranes that only allow the passage of

target materials and membranes that have chemical resistance. These technologies are used in a wide range of industries, including the production of salt from seawater, the recovery of specific valuable substances, the production and refining of food products such as wine and soy sauce, and the production of acids and alkalis from neutral salt effluent.



Ion exchange membranes

2 Molecular design and organic synthesis technology

The Company has advanced technological capabilities in molecular design, which involves designing and controlling the chemical structure of photochromic dye materials according to their intended purpose, such as color tone and color devel-

opment and fading. In addition, we have advanced organic synthesis technology to manufacture products according to design, and we have a track record of delivering numerous products in the field of plastic lens-related materials. In the future, we will continue to expand these two technologies to a wider range of areas.



3 High-purity and high-sensitivity analysis technology

Our semiconductor-grade polycrystalline silicon, which is used as a raw material for silicon wafers, is of the highest level of purity in the world. In addition, the

is characterized by its low level of impurities due to a unique process for the direct hydration of propylene. Our high-purity and high-sensitivity analysis technology, which detects even the smallest amount of impurities, facilitates the development and manufacture of these products.



4 Direct nitridation and reduction-nitridation technology and powder control technology

Tokuyama holds the largest share of the global market for high-purity aluminum nitride powder and related products. Our aluminum nitride, which has excellent sintering properties due to our proprietary reduction-nitridation

method, is used in semiconductor heat spreading substrates and the manufacturing of equipment materials due to its thermal conductivity, thermal expansion properties, and other characteristics that are far superior to those of our competitors.



5 Waste processing technology

Tokuvama has been effectively utilizing and recycling waste through the cement manufacturing process since the company's inception. We are now accepting a substantial amount of waste, including waste plastic, from

outside the company. Because our kilns burn at an extremely high temperature of 1,000 to 1,800°C, the combustible components are completely burned away and the non-combustible components are used as raw materials in cement. This processing technology produces no



Ion exchange membranes: Commenced production of ion exchange membranes, for use in salt production, from concentrated seawater (first ever commercialization of ion exchange membranes in Japan)

> PVC resin: Established subsidiary to manufacture PVC resin using chlorine produced by electrolysis

> > Caustic soda: Changed manufacturing process of

Calcium chloride: Began to produce calcium chloride using distillery effluent rom soda ash production

Cement: Began to produce cement using wet process, from byproducts of soda ash business

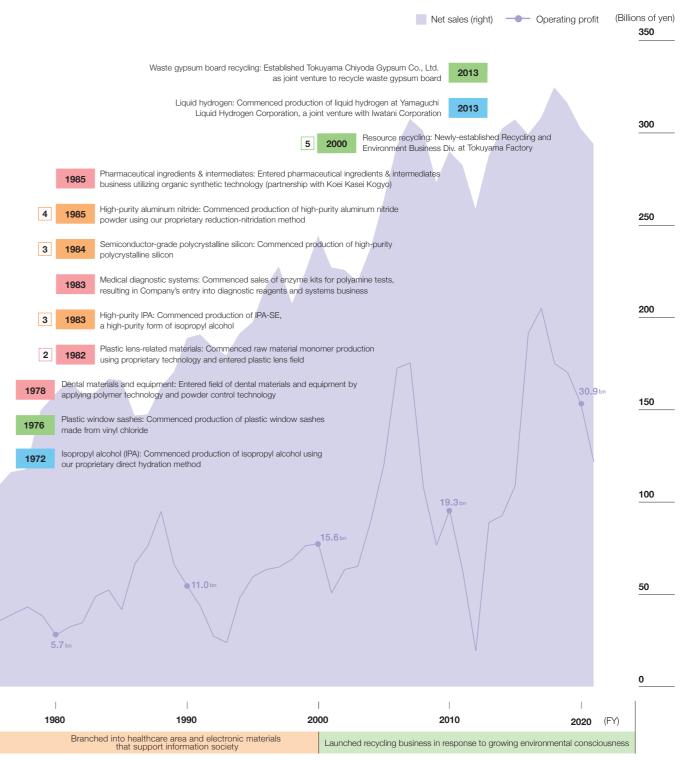
1918 Soda ash: Nihon Soda Kogyo Co., Ltd. (now Tokuyama Corporation) established to produce soda ash domestically

1918 1930 1940 1950 1960 Supplied basic materials and chemical derivatives, supporting postwar reconstruction and rapid economic growth

1970

Business History

The Company was founded as a soda ash business and utilized the byproducts to expand into the cement business. It proceeded to diversify into the petrochemical business, such as PVC resin, in the 1960s, and developed into a diversified chemicals manufacturer. Following the second oil shock that occurred around 1980, the Company expanded its business to include high-performance products such as electronic materials and fine chemicals. It made a full-scale entry into the recycling business in 2000.



* Reference values calculated by adding September and March figures until period ended March 1975 due to six-month financial periods being used

13

Target Business Model

Today, Tokuyama has reached a major milestone in our transition away from energy-intensive businesses. With this awareness, we have selected electronics, healthcare, and the environment as three new growth areas in which we can leverage our strengths. With the combination of our proprietary technologies and marketing, we will develop a solutionoriented business that provides unparalleled value to these three areas.

Through this new business model, we aim to achieve the goals of our material topics that contribute to the realization of SDGs, while reducing our own CO2 emissions. Moreover, we will continue to be a company that never stops challenging new domains while refining and exploiting its unique strengths, as we have set out in our Vision.

Six Forms of Capital (as of March 31,2022)

Investment Areas

Intellectual Capital

R&D expenses: ¥12.6 billion Number of patents held*: 2.352

* Total of non-consolidated & some group companies

Social Capital

Number of countries and regions with sales: 43 countries and regions

Amount subsidized by Tokuyama Science Foundation*: **Approx. ¥1.2 billion**

* Cumulative total for FY1988-2021

across various industries

Financial Capital

Total assets: **¥433.2 billion** Consolidated operating profit: **¥24.5 billion**

Human Capital

Number of employees (consolidated): **5,665** Overtime hours worked (monthly average,

non-consolidated): 11.1 hours

Manufacturing Capital

Capital expenditures: ¥33.3 billion Accident frequency rate (non-consolidated): 0

Natural Capital

Investment in environmental conservation (non-consolidated): ¥900 million

Total environmental conservation costs (non-consolidated): ¥6.6 billion

manufacturing technologies cultivated over a history of more than a century

Customer network

Revenue generated by chemicals and cement businesses

Human resources with shared values

Manufacturing base rooted in local community

Focus Areas

Electronics

Proprietary and

Main social issues

- · Super Smart Society (Society 5.0)
- Changes in industrial
- · Digitalization/networking

Main unique technologies

- · High-purity and highsensitivity analysis technology
- Direct nitridation and reduction-nitridation technology

Main social issues

societal aging

· Population shrinkage,

· Healthspan extension

Healthcare spending

Main unique technologies

· Molecular design and

organic synthesis technology

· Powder control technology

Main solutions

- · Performance maintenance in state-of-the-art electronic devices and energy efficiency
- · Miniaturization of semiconductors
- · Improvement of semiconductor performance













Main solutions

- · Enhancement of quality of life through improvement of eyeglass
- · Improvements in dental care
- · Support for clinical laboratories to enable rapid, accurate diagnosis











Environment

Healthcare

Main social issues

- · Global warming/climate
- Decarbonization
- Closed-loop society
- Changing values
- · Environmental regulatory tightening

Main unique technologies

- · Separation technology using ion exchange membranes
- Waste processing technology

Main solutions

- Establishment of closed-loop society through waste recycling
- · Contribution to mass waste processing
- Protection of water environment by desalination of effluent, etc.













Aspirations

Mission

To create a bright future in harmony with the environment, in collaboration with its customers, based on chemistry

Vision

Be a value-creative company that places first priority on R&D and marketing

- · Pursuit of cuttingedge information and technology
- · Expansion of external
- Contribution to evolution of the times

networks



- Accelerated international expansion
- · Contribution to development of local economies and communities

Be a company

that fosters

bonds with

communities

and societies

worldwide

people in

that never stops challenging new domains while refining and exploiting its unique strengths

Be a company

- · Differentiation of technology
- Innovation in manufacturing processes
- Expansion of customer network

· Promotion of physical &

Be a company with

healthy employees

families and take pride

in their work at their

who have healthy

company

· Respect for individuality

· Open corporate culture

Tokuyama's Aims

Electronics



We are focused on marketing informed by IP strategy while meeting customer needs for exceptional quality. We aim to create value with our technology and controls, and to upgrade our international competitiveness.

Building a Quality Management Regime across All High-Purity Chemical Processes through Product Delivery

The market for chemicals and high-performance materials for electronics manufacturing has tremendous potential. It is also marked by fierce global competition among many chemical companies. We aim to refine the quality of essential ingredients to add more value while staying above the fray of price competition.

We are currently endeavoring to improve stable production technologies, quality control technologies, and microanalysis technologies in response to customers needs for exceptional quality. We are building systems that can fulfill the responsibility of maintaining high purity across all processes through product delivery to the customer.

Additionally, we are locating new production sites in proximity to customers, as well as working on upgrading our quality control processes, technical support capabilities, and technologies for analyzing highly-purified products. In 2022, we will commence end-to-end production in Taiwan of highpurity IPA used in semiconductor cleaning processes, among other applications. We will also begin construction on a new plant in Korea. Meanwhile, we plan to open new production sites in China. We will continue to globally accelerate localization of production with the aim of increasing our competitiveness.

Generating Synergies with Three Nitride Thermal Management Materials

We have captured the top share of the global market for high-purity aluminum nitride, which is used as a thermal management material, most notably in semiconductors, but we recognize that the functionality sought from electronic materials will keep changing in tandem with society. In this regard, we are focusing on the electro-mobility domain in particular. We are commercializing silicon nitride, an exceptionally strong and durable material, as an insulator and a thermal management material for power semiconductor modules used in EVs and other applications. We have already established a proprietary energy-efficient production process for this material. We also aim to also generate synergies with a lineup of three nitride materials, the third being boron nitride. Moreover, we intend to commercialize and roll out not only upstream materials in powder or ceramic-plate form but also high-value-added products used in downstream applications.

It is crucial to incorporate IP strategy into our marketing if we are to remain an internationally competitive chemical company. To launch new products that leverage Tokuyama's strengths in a timely manner, we will put in place mechanisms to identify on a long-term basis what global markets are seeking. We see electronics as a core growth driver for Tokuyama, and recognize that it has a major role to play in the makeover of our business portfolio. Accordingly, we will focus on developing human resources able to re-conceptualize businesses from a forward-looking, global perspective.

Healthcare and the Environment



Fumiaki Iwasaki

Director and Managing Executive Officer
In charge of Life Science, Eco Business,
Research and Development

Looking ahead to 2030 and beyond, we will identify the needs of our customers' end-users and bring to market sustainable products that address social issues.

Deploying Unique Technologies to Create Value for Society

In terms of technology, the twin oil shocks of the 1970s were a major turning point in Tokuyama's history. They prompted us to embark on new R&D programs to migrate away from our traditional energy-intensive business structure. These efforts yielded three unique technologies that are now driving our growth. The first is powder control technology, applications for which include not only electronic materials but also filling materials that support the quality of materials for dental practice. The second is organic synthesis technology, which is used to manufacture products such as pharmaceutical ingredients/intermediates and plastic lens-related materials. Finally, we have ion exchange membrane technology, first used to produce salt from concentrated seawater over 50 years ago. Today, we also use it internally in related businesses.

To further promote these technologies and add more value to society, we set up a marketing organization in direct contact with customers in 2017 to enable us to identify new needs and demand trends downstream of our customers. In 2018, we opened a research laboratory in Taiwan. Its staff is jointly conducting development with local customers and researchers. Most recently, we have been intensively gathering information on healthcare and environmental markets with promising demand growth prospects, mainly in Europe and North America.

Cultivating Green Hydrogen and Medical Diagnostics Markets

Developed countries are currently facing various societal challenges associated with progressively aging populations. To help address these challenges, we are focusing on prevention and early diagnosis. Our 2021 acquisition of wholly-owned subsidiary A&T Corporation was intended to bolster our reagent and medical lab chemical commercialization program to more effectively drive growth in the diagnostics space while contributing to early prediction and prevention of diseases. The Tokuyama Group plans to provide solutions able to drive broader adoption of home healthcare, personalized medicine and point-of-care testing.

In the environmental domain, meanwhile, we aim to establish foundations for our Eco Business and develop global markets. One primary focus is hydrogen production systems. In this area, we are developing high-efficiency alkaline water electrolyzers based on electrolysis technologies that we have been working on for decades. We are also continuing to research and develop ion exchange membranes to address increasingly severe water resource problems overseas.

At the same time, we are developing CO_2 utilization technologies to compensate for a lack of chemical-based decarbonization solutions, which we see as one of the challenges faced in the environmental domain.

Contributing to Decarbonization



Conscious of society at large beyond our customers, we promote realization of decarbonization strategies through prioritized allocation of management resources.

Expediting Carbon-Neutral Strategies and Risk Mitigation

With the transition to a decarbonized society now proceeding apace internationally, we must boldly convert our captive coal-fired power plants, which have long been a source of our competitiveness, to greener fuels. In other words, we consider decarbonization to be a key management issue related to our survival.

While shifting our business portfolio toward businesses that consume less power, we aim to expedite utilization of next-generation energy technologies. We believe CO₂-emitting chemical manufacturers have an obligation to innovate using CCUS (carbon capture, utilization and storage) technologies. In April 2022, we established a new organizational unit in the aim of launching new businesses that utilize our electrolysis technology and know-how to produce hydrogen, which is seen as a promising next-generation energy source.

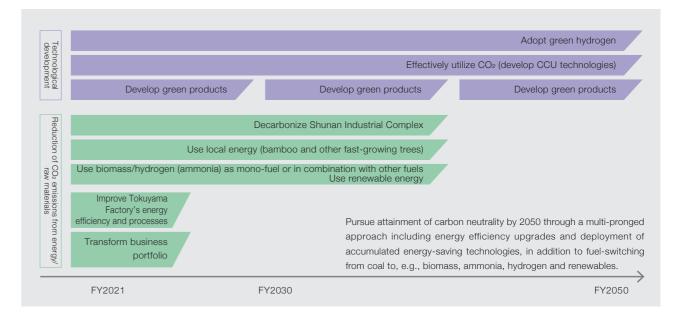
Additionally, as a company that deals in chemicals, we have long endeavored to ensure environmental, health and safety compliance, but nowadays more and more issues, including global warming and human rights abuses, need to be addressed on the level of the supply chain as a whole. In FY2022, we have identified such risks common to the entire Group inclusive of supply chains, and are strengthening safeguards to mitigate them. Recognizing that issues such as climate change and human rights abuses represent new risks outside of the purview of our existing expert committees that assess codified hard-law risks, we established a new

Sustainability Committee to discuss ways to mitigate them. Progress on sustainability issues is reported periodically to the Board of Directors and meetings are convened as needed to discuss them.

Group Optimization in Pursuit of Sustained Growth

In preparation for the business portfolio makeover, a Medium-Term Management Plan 2025 priority, we are discussing various matters, including reduction of CO2 emissions and projects in growth businesses, while optimizing allocation of human resources, capital and other management resources on a Group-wide basis. Resource allocation decisions are made based on our Mission and Vision. Specifically, we plan to prioritize allocations of management resources based on multiple perspectives within the context of awareness of society at large beyond our customers. These perspectives include whether a prospective resource allocation can (1) create value in harmony with the environment, (2) leverage our proprietary technology, and (3) build a business that engenders a sense of accomplishment and pride among employees. From the standpoint of preventing global warming, we will convert our captive power plants to biomass fuel as a first step toward achieving carbon neutrality by FY2050. In FY2022, we will source biomass fuel and invest in a biomass co-firing system.

Carbon-Neutrality Action Plan



Transform business portfolio

 Reform organizational culture based on optimal management resource allocation and new philosophy; in doing so, transform from business structure dependent on energy-intensive businesses to value-creative company driven by growth businesses of electronics, healthcare, and the environment

Improve Tokuyama Factory's energy efficiency and processes

- \bullet Increase use of combustible waste, such as waste plastics, to reduce coal consumption
- Continue promoting energy conservation, improving manufacturing processes, and considering upgrades to latest equipment with high environmental efficiency
- Establish low-temperature calcination technologies for clinker (cement component); increase cement's SCM content to reduce clinker usage; and develop calcium recycling technologies such as use of waste concrete materials

Use biomass/hydrogen (ammonia) as mono-fuel or in combination with other fuels

- Work on developing biomass fuel business to stably source palm kernel shells (PKS) and build sustainable supply chain
- Consider facility modification to expand biomass combustion
- Confirm technology trends in hydrogen and ammonia fuels

Use local energy (bamboo and other fast-growing trees)

 Promote development of technology and construction of supply chain to convert bamboo and fastgrowing trees, which are unused resources in Tokuyama Factory area, into biomass fuel as alternative to coal

Decarbonize Shunan Industrial Complex

- Work on improving complex's overall energy efficiency by strengthening cooperation and energy sharing among occupant companies
- Work on Shunan Industrial Complex Decarbonization Promotion Council's plan to achieve carbon neutrality by 2050

Develop green products

- Promote development of green products in living environment
- Create new green products through introduction of technologies that enable greening of manufacturing processes and products
- Research catalytic technologies that achieve production with low-temperature exhaust heat

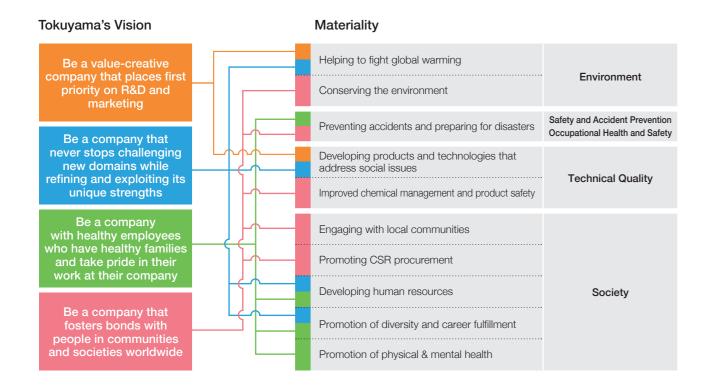
Effectively utilize CO₂ (develop CCU technologies)

- Develop CCU for capture and effective use of CO2 and survey technological trends
- Promote open innovation in next-generation carbon recycling technology
- Develop concrete that reduces CO₂ emissions and maximizes carbon fixation

Adopt green hydrogen

• Study water electrolysis technology development and commercialization

Vision and Materiality



Realizing Our Vision by Implementing Socially Responsible Management

Socially responsible management plays an important role in realizing Tokuyama's Mission, "to create a bright future in harmony with the environment, in collaboration with its customers, based on chemistry," redefined in 2021. For example, in order to create products and services that contribute to a "bright future," it is essential to not only correctly understand the expectations and needs of society, but also for each person in the Group to have a "Vision" while engaging in everyday operations with a long-term perspective and an awareness of potential social issues. Furthermore, this attitude and behavior is also important for departing from the business model that has been continually refined over the course of a century and transforming ourselves into a valuecreative company. That is, socially responsible management as defined by Tokuyama entails the creation of new value for a sustainable society, and is implemented by not only management but all employees.

Our Vision has been formulated to enable all employees of the Group to envisage the intended future image necessary for realizing our Mission. "Material topics" refer to "CSR priorities" identified for conducting socially responsible management and also constitute an action plan for the realization of our Vision, providing a guideline essential for

our long-term survival and growth.

We have set targets and KPIs associated with the business objectives of the relevant divisions and departments as material topics for the steady realization of our Vision, with measures being implemented in the relevant departments. Each year, the Corporate Social Responsibility Division compiles a report on the status of implementation, which is then reviewed by the CSR Promotion Council chaired by the President and shared with all executive officers. We will endeavor to continually raise the level of socially responsible management through a company-wide PDCA cycle based on tracking the progress toward these goals and analyzing current conditions.

The "promotion of physical & mental health," newly added in FY2021, has involved the establishment of a system for promoting health and productivity management as well as the creation and raising awareness of systems for preventing harassment. Initiatives have also been steadily implemented in other material topics. Furthermore, a Sustainability Committee was established in April 2022 to identify and discuss new risks and issues related to sustainability based on the rapidly-changing environment. This will also take action to address major risks not covered by the existing expert committees, such as global warming and human rights risks.

Growth Strategy

Tokuyama is committed to transforming into a value-creative company by providing products and services that help solve societal problems in accord with Medium-Term Management Plan 2025. We aim to set the Company on a new growth track that diverges from the past, and are forging ahead with our growth strategy. We are also striving to build a stronger foundation for growth through various materiality initiatives.



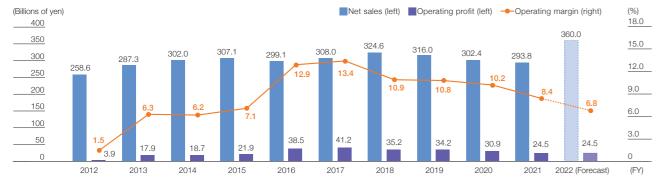
Financial and Non-Financial Highlights

Financial Analysis of FY2021

In FY2021, sales of semiconductor-related products and healthcare-related products remained solid, but increases in costs such as raw material and fuel prices and logistics expenses resulted in operating profit decreasing year on year. Meanwhile, profit attributable to owners of parent increased due to a decrease in tax expenses resulting from additional recording of deferred tax assets, and ROE was maintained at the same level as the previous fiscal year.

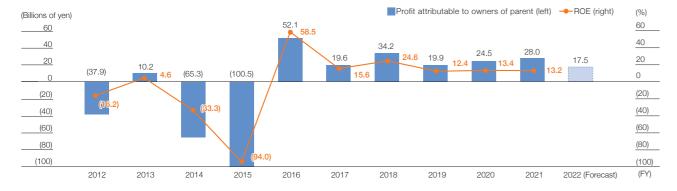
Revenue is forecast to increase year on year in FY2022, backed by strong demand for products such as semiconductorrelated products and petrochemical products. However, it is anticipated that instability will continue in the environment surrounding the business, such as raw material and fuel prices and exchange rates, with operating profit expected to remain at the same level as the previous fiscal year. We will endeavor to secure earnings by continuing to revise prices and proceed with cost reductions. Furthermore, to achieve the goals of Medium-Term Management Plan 2025, we will proceed with investment in the areas of electronics, healthcare, and the environment, which we have positioned as growth businesses.

Net Sales / Operating Profit / Operating Margin



* "Accounting Standard for Revenue Recognition" and other standards have been applied from FY2021

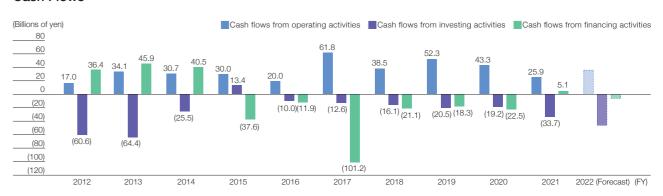
Profit Attributable to Owners of Parent / ROE



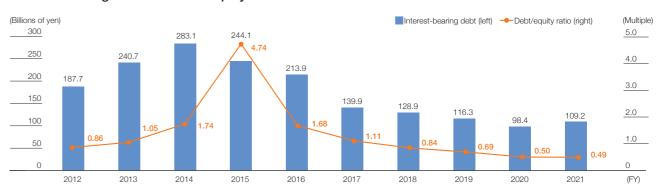
Capital Expenditures / Depreciation and Amortization / R&D Expenses



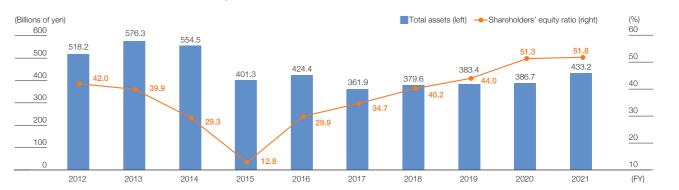
Cash Flows



Interest-Bearing Debt and Debt/Equity Ratio



Total Assets / Shareholders' Equity Ratio



Cash Dividends Per Share / Payout Ratio



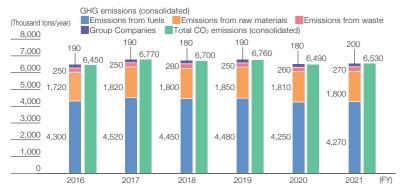
* Company consolidated its common shares at ratio of one share for each five shares effective as of October 1, 2017; cash dividend per share for PY2017 given on assumption that said share consolidation was conducted at beginning of fiscal year

* Year-end dividend per share for PY2017 included commemorative dividend of ¥10 to celebrate Company's 100th anniversary

Total Shareholder Return (TSR)

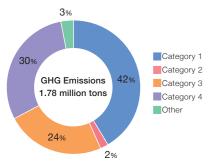


GHG Emissions / Total CO₂ Emissions



We recognize that the mitigation of global warming is one of the most critical issues today and are working hard to reduce greenhouse gas (GHG) emissions. GHG emissions are the total emissions of gases such as CO₂, CH₄ and N₂O; of these, CO₂ emissions account for approximately 99.8% of the volume of emissions. GHGs are generated mainly by the combustion of fossil fuels in captive power plants, as well as by the decarbonation of limestone (raw material) in the cement manufacturing process. GHG emissions in FY2021 were 6.540 thousand tons.

Supply Chain Emissions* (Scope 3)



* Due to rounding, sum of figures in breakdown does not equal total amount

Upstream

Scope 3 Purchased goods and services Category 3 not included in Scope 1 and 2 Category 4 Category 5 Waste generated in operations Category 8

20 thousand tons Scope 2 Energy-related indirect emissions Indirect emissions from use of purchased electricity and heat Scope 3 Category 6 Rusiness travel Category 7 Not calculated (negligible level) Employee commuting

Scope 3 Category 9 Downstream transportation and distribution Category 10-12 Processing of sold products: Not calculated Use of sold products: Not calculated End-of-life treatment of sold products: Not calculated Category 13-15 Downstream leased assets: Not applicable Franchises: Not applicable nvestiments: Not applicable

Downstream

* GHG Protocol: organization co-sponsored by World Resources Institute (WRI) and World Business Council for Sustainable Development (WBCSD); Scope 3 standard: standard issued by said protocol in November 2011 for calculating CO₂ emissions across an entire supply chain.

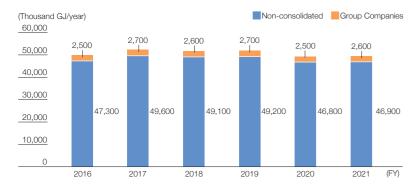
In-house

6.32 million tons of Scope 1

Direct emissions from manufacturing

Fuel use at Tokuvama

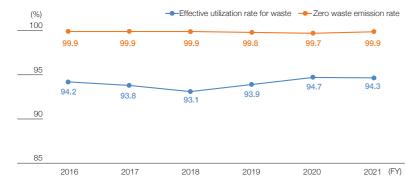
Energy Usage



We are promoting energy conservation as a measure to mitigate global warming.

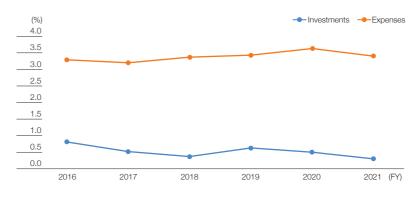
In FY2021, our plants worked to reduce electricity and steam usage, and we managed to cut energy usage by 253 000 G.I. While this accounts for 0.5% of our total energy usage, we are making steady efforts each year to reduce energy consumption. In FY2020, there were fears that the energy consumption rate would worsen significantly due to a decline in facility operation caused by COVID-19. However, we were able to maintain the same level as the previous year by steadily implementing energy-saving measures and promoting the use of alternative energy sources to coal. As a result, we achieved our target of a 3% improvement in the energy consumption rate based on FY2005 standards.

Effective Utilization Rate for Waste / Zero Waste Emission Rate



The effective utilization rate for waste and the zero emission rate remained high in FY2021 due to efforts to reduce the volume of waste and comprehensive recycling efforts. As a result of actively promoting the recycling of waste generated both internally and externally, with a focus on the reuse of waste as feedstock and fuel for cement at the Tokuyama Factory, the effective utilization rate for waste was 94.3% and the zero waste emission rate was 99.9%.

Environmental Accounting (Percentage of Net Sales)



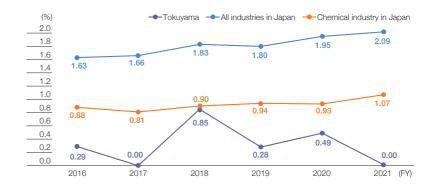
Environmental accounting has been conducted since FY2000 for the purpose of ascertaining and analyzing the investments and expenses required for conserving the environment, and for the purpose of facilitating effective investment. The amount of investment for conserving the environment is 0.3% of net sales, and the total expenses incurred for this purpose were 3.4%. The amount of investment as a percentage of net sales has ranged between 0.3 and 0.8% over the past several years, while the total amount of expenses has been at a level between 3.2 and 3.7%. In FY2021, the Company made investments in installation of an electric precipitator to address soot, smoke and dust, the installation of waste processing equipment, and PCB waste processing expenses.

Number of Employees / Percentage of Women among All Employees / Percentage of Women among All Managers



Tokuyama aims for a "diversity of knowledge," and to this end promotes diversity by utilizing the various values and perspectives of each employee in its corporate activities. In the second Action Plan for the Act on Promotion of Women's Participation and Advancement in the Workplace updated in FY2020, the Company achieved all targets, such as the percentage of women among all managers in FY2021. The Company's first female external director was elected in June 2021, and women are steadily increasing in each workplace.

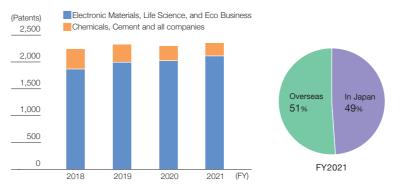
Accident Frequency Rates*



One of our safety management goals is to achieve zero accidents and lost time injuries, and we are working to identify and eliminate risk factors, as well as to understand and recognize the behavioral characteristics of each individual to eliminate unsafe behavior. There were no lost time injuries to employees in FY2021. We will continue our efforts to maintain zero lost time injuries.

* Accident frequency rates indicate frequency of occupational injuries, and are expressed as number of employees absent from work due to occupational injuries per 1 million total working hours

Number of Patents Held



Tokuyama aims to "be a value-creative company that places first priority on R&D and marketing" and recognizes that investment in intellectual property is essential for achieving this. As we proceed with efforts to expand business globally in the areas of electronics, healthcare and the environment in order to transform our business portfolio, technologies in these three areas account for much of the patent rights held by the Company. We also focus on the acquisition of patent rights in Japan and overseas.

Transform Business Portfolio Increase growth businesses' share of consolidated net sales to over 50% FY2021-25 Plans **Priorities and Initiatives** Redefine/reorganize growth businesses around Pursue added value and promote technological differentiation by collaborating more with external partners the three themes of electronics, healthcare, and the environment, and proceed to move Efficiency Pursue company-wide operational efficiency, ahead with expanding them Gains mainly through DX Chemicals and cement businesses to promote increased efficiency while generating Expand operations in growing overseas markets Expansion sustainable cash flows **Target Business Portfolio** Breakdown of Consolidated Net Sales Breakdown of Consolidated by Business Overseas Net Sales FY2030 **Targeting Growth Businesses** at least **30**% 30% 18% ≥ 50% 18% 13% 11% 10% 5% 9% 3% Flectronic Materials Life Science 24% 17% 25% 33% Fco Business FY2020 Chemicals (Results) 27% Other 19% 9% 12% 11% FY2020 FY2021 FY2025 FY2030 ⇒P14 "Tokuyama's Aims" ⇒P28 "Progress of Strategy by Business"

Contribute to Mitigation of Global Warming

Expedite development/commercialization of next-gen energy technologies Reduce total CO₂ emissions 30% (2 million tons) by FY2030*

* Reduction target: Base year FY2019 total CO₂ emissions of approximately 6.76 million tons

P16 "Contributing to Decarbonization"

P44 "Disclosures Based on TCFD Recommendations"

Practice Socially Responsible Management

Step up high-priority CSR initiatives to lay the groundwork for further growth and realize our Vision

⇒P3 "Message from the President" ⇒P38 "Materiality KPIs and Results" ⇒P42 "Message from an External Director" ⇒P43 "Risk Management"

FY2025 Targets

KPI	FY2020 results	FY2021 results	FY2025 targets	Keys to achieving target
Net sales	¥259.2 billion*1	¥293.8 billion	¥320.0 billion	Maintain growth while transforming portfolio
Operating profit	¥30.9 billion	¥24.5 billion	¥40.0 billion	Strengthen and expand highly profitable businesses
Growth business net sales growth rate	_	19.9%	CAGR ≥ 10%	Strengthen R&D, accelerate international expansion
ROE	13.4%	13.2%	≥ 10%	Balance shareholders' equity efficiency and financial base

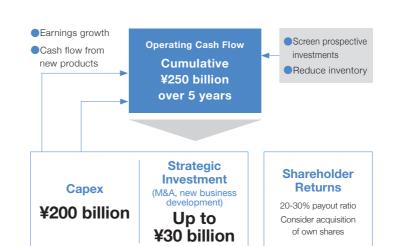
^{*} Assumptions: JPY/USD rate of ¥105, domestic naphtha price of ¥32,500/kl

Progress in FY2021

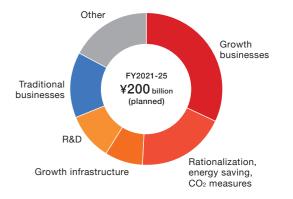
To transform our business portfolio, we are injecting resources into the growth businesses of electronics, healthcare and the environment, in addition to proceeding with international expansion. In FY2021, net sales increased compared to FY2020*2 due to solid sales of semiconductor-related products in the area of electronics, and an increase in overseas shipments of dental materials and equipment in the area of healthcare. In addition, the growth business net sales growth rate (i.e., CAGR) exceeded the target of 10%. Meanwhile, operating profit decreased due to increased costs such as raw material and fuel prices and logistics expenses, while ROE remained roughly unchanged from FY2020.

Financial Management Policy and Capital Expenditures Plan

Under Medium-Term Management Plan 2025, in order to support the transformation of our business portfolio from a financial perspective as well, we will work to generate cash flow through profit growth, and improve capital efficiency, while ensuring that group governance functions effectively. Building on our strong financial base, we plan for capital expenditures totaling \$200 billion over five years. About two-thirds of our total investment will be allocated to growth businesses, energy conservation and CO_2 measures, and R&D. Through these proactive investments, we will increase our top line and provide stable shareholder returns, while reducing CO_2 emissions.



Breakdown of Capital Expenditures Plan (Cumulative over 5 Years)



FY2021 Investment Results

- Construction of high-purity IPA JV factory in Taiwan
- Silicon nitride production equipment
- · Improvement of quality of polycrystalline silicon
- Introduction of high-purity chemical equipment at Tokuyama Chemicals (Zhejiang) Co., Ltd.

Main Future Investments

- $\boldsymbol{\cdot}$ Construction of high-purity IPA JV factory in South Korea
- · Expansion of research infrastructure
- Investment related to polycrystalline silicon, silica and silane
- · Investment related to electrolysis technology
- · Alternative energy to fossil fuels
- DX

^{*1} FY2020 net sales are approximate amounts based on application of "Accounting Standard for Revenue Recognition," etc., and are listed as reference values

^{*2} Comparison with FY2020 net sales (approximate amounts) when "Accounting Standard for Revenue Recognition" and other new standards are applied

Promoting Digital Transformation (DX)

Promoting DX in the Tokuyama Group, under the heading "Tokuyama DX Project," is one of the most important measures for the entire Group to pursue in order to transform its business portfolio. DX is being carried out in order to establish highly efficient business operations on a company-wide level, and is also necessary for innovation in R&D and supply chain management (SCM). Furthermore, digital technology can speed up decision-making and enable the succession of knowledge among various divisions in the Company.

Management resources such as cash and surplus personnel generated by DX promotion will be injected into the three growth business areas to enhance corporate value. During Medium-Term Management Plan 2025, individual DX measures are planned to be implemented through investing a maximum of ¥10 billion by FY2025.

In April 2021, the DX Promotion Department was established in the Corporate Planning Division. Key DX personnel, selected as individuals responsible for driving DX activities in each division, have been deployed across the company. The purpose of this is to strengthen information sharing across divisions to optimize various company-wide activities. Following that, several task teams have been launched under the Tokuyama DX Project, which consists of eight categories, such as manufacturing, R&D and supply chain, and so forth.

For example, one goal of "Manufacturing DX" is changing from conventional factories to "smart factories." Realizing this transition requires stable operations and

efficient planning without the know-how of experienced employees. Analysis of accumulated operational data from the plants is a first step towards this scenario. Furthermore, the Company is also working to introduce image recognition technology and AI for early detection of abnormal conditions in plant operations.

One task, to strengthen data linkage throughout the entire supply chain, has already been started to improve quality traceability from raw materials to finished products. This measure is important from a quality assurance perspective to meet customers' requirements, and can also be a trigger to make strategic proposals to customers.

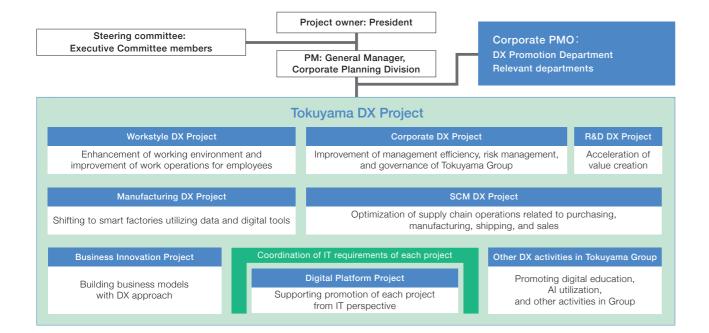
"Workstyle DX" aims to create an efficient and flexible environment for employees through shifting to paperless work from conventional formats. The key purpose of this shift is not only introducing digital tools, but also realizing ideal working conditions through all possible means. In addition, a DX education program is being planned to help train all employees to actively participate in these activities.

In "R&D DX," development of new materials has been started using materials informatics (MI), which has generated some remarkable achievements in fields such as semiconductors. In addition, digitization of experimental data is contributing to research efficiency, because it can increase collaboration among researchers which may then lead to innovations in R&D areas.



Tokuyama also obtained certification as a "DX certified business operator" by the Ministry of Economy. Trade and Industry in January 2022.

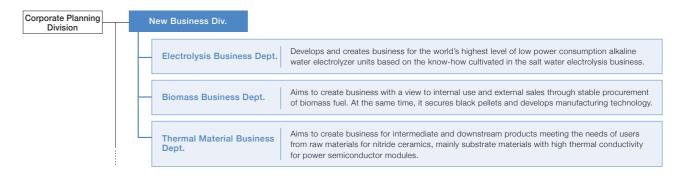
Tokuyama DX Project: Structures and Measures



Strengthening of New Business Promotion System

The New Business Division has been established for the purpose of speedily launching new businesses in growth business areas. Based on Medium-Term Management Plan 2025, three themes to strategically address were selected, and groups handling the creation of businesses for each theme were then established in the Division in April 2022. Each business creation department is currently focused

on efforts aimed at the establishment of business models and commercial distribution. Furthermore, the Marketing Department of the Research & Development Division is continuing to set and narrow down new development themes combining Tokuyama's unique technologies with market needs.



Establishment of a Human Resource Development Platform

In order to steadily execute the transformation of the business portfolio and provide solution-based products and services in the global market, Tokuyama has formulated a human resource development policy enabling the embodiment of the "four values" set forth in the new Vision.

To begin with, what is expected of employees and the direction of growth were established as our Personnel Policy in 2019. This policy is positioned and utilized as the source of the basic principles for the revision and operation of the personnel system.

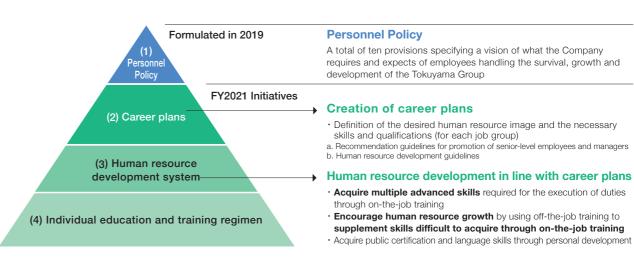
In FY2021, we focused on the establishment of career

plans and a human resource development system matching the medium- to long-term business strategy centered on the Personnel Policy. When establishing these, ideal images of the desired personnel and the necessary skills were organized by job type and department, and published within the Company. This includes not only individual skill improvements, but moreover can be utilized as a guideline for skill development required for future career advancement.

Going forward, in addition to tier-based training in line with the human resource development system, we plan to implement global human resource development training for all employees as well as video-based training.

⇒P2 "Tokuyama Value Creation"

Human Resource Development Platform



Electronic Materials

Business Goal

Push forward with globalization, and capture top share in the high-purity and thermal management materials fields supporting the miniaturization and stacking of semiconductors

Priority Measures

- Pursue aggressive expansion in overseas markets
- Develop new applications, expand product portfolio
- Produce high-quality products, pursue analysis technology



* FY2020 net sales are approximate amounts based on application of "Accounting Standard for Revenue Recognition," etc., and are listed as reference values

SWOT Analysis

- · Superior quality in semiconductor-related products
- · Unique technologies for increasing purity such as proprietary nitride reduction process (thermal management materials) and direct hydration method (IPA)
- Strengths High market share in thermal management materials

- · Promotion of 5G and IoT, increased demand for data centers
- · Growth in semiconductors due to increased functionality of electronic devices, larger memory capacity and electrification of vehicles
- · Increased level of quality requirements from users associated with advancement of miniaturization and stacking



Threats

- New entry of overseas manufacturers
- · Technological innovation in semiconductor market

Progress by Product Area

Product Area	FY2021 Results	Future Plans and Investments
Silicon	Invested in increasing quality of semiconductor-grade polycrystalline silicon	Enhance capacity for high-purity chlorosilanes and expand in Asia
Silica	Increased provision of surface- treated products	Invest in enhancement of surface-treated silica Expand CASE* and personal care applications Enter organic silicone field
Thermal Management Materials	Completed construction of silicon nitride production facilities	Launch silicon nitride productsExpand sales of silicon nitride and boron nitrideDevelop new applications and enter downstream fields
IC Chemicals	Concluded JV agreement in South Korea	Expand Taiwan and South Korea JV facilities, and other global facilities

^{*} Coatings, adhesives, sealants, and elastomers

FOCUS

Advancements Aimed at Commercialization of Silicon Nitride

Making hybrid proposals and invigorating new development with a lineup of three types of high heat dissipation and high insulation material

Satoru Wakamatsu General Manager SIN Department, **Business Division**



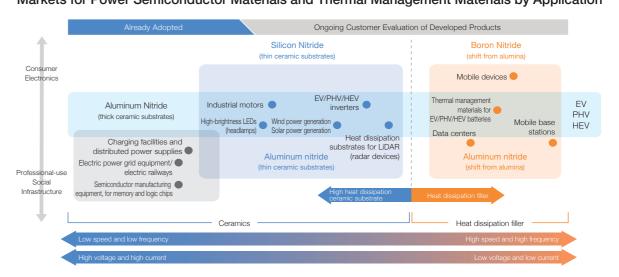
As a new lineup in the thermal management materials field, we are engaged in the commercialization of silicon nitride, expected to be used in insulated substrates for power semiconductors in EVs and so forth. Tokuyama's silicon nitride helps disperse heat from power semiconductors and insulates several kilovolts of high voltage, contributing to the extension of driving range and the enhancement of durability. Furthermore, as EVs call for components that contribute to the reduction of environmental impact, we believe our products will be chosen by the global market due to our unique, energyefficient manufacturing processes that do not use any organic solvents.

In July 2021, we completed the construction of manufacturing facilities for silicon nitride within the Center for Commercialization of Advanced Technology. We aim to provide a stable supply of products by providing integrated production, from high-purity powder

used as raw material to ceramic substrates. At present, we are scaling up from small-scale batch development units to mass production units in an effort to establish advanced environmentally-friendly manufacturing process technology.

Tokuyama has already commercialized aluminum nitride and boron nitride. With a lineup consisting of these plus silicon nitride, we believe we can form a system able to produce hybrid proposals for a variety of issues faced by customers. By continuing to meet customer expectations that "Tokuyama has everything we need" and "This company will find the answer if we ask them." we should be able to determine the needs and wants that provide hints for new products. Going forward, we will continue to focus on the development of technology based on changes in the world and market needs, while embracing the challenges presented by cutting-edge businesses.

Markets for Power Semiconductor Materials and Thermal Management Materials by Application



Strengths Supporting the Silicon Nitride Business

Strengths Cultivated in the Aluminum Nitride Business Strengths Cultivated in the Polycrystalline Silicon Business

- · Silicon materials (high-purity silicon, metallurgical grade silicon)
- Various silane materials
- Semiconductor market information
- · Silica manufacturing and surface treatment technology
- · Large-scale plant technology

- High-temperature sintering technology
- Powder analysis technology
- · Thermal management material market information
- · Powder manufacturing and control technology
- Sintered substrate manufacturing technology

Life Science

Business Goal Use unique technology to capture top niche share in areas where differentiation is possible (vision, dental, diagnostics)

Priority Measures

- Expand product portfolio for health/pharmaceutical applications
- Develop new applications for unique biaxially-oriented microporous film, expand Shanghai site
- Accelerate overseas expansion of cosmetics materials, supplements and other healthcare products, develop new product areas
- Accelerate development of diagnostic reagents through chemical integration, establish new alliances, and expand testing areas



* FY2020 net sales are approximate amounts based on application of "Accounting

SWOT Analysis



- Unique product and technology development capabilities based on chemical technology
- Able to swiftly respond to specific user requirements through close coordination of sales, manufacturing and development



 Lack of marketing capabilities and weak sales system in overseas markets

Opportunities

- Growth of healthcare due to advent of superaging society and heightened health awareness
- Expansion of emerging markets in Middle East, Asia and South America

Threats

- Rise of emerging manufacturers centered in South Korea and China
 - Destabilization of supply chain such as procurement of raw materials, production outsourced overseas, and product exports due to instability of global affairs

Progress by Product Area

Product Area	FY2021 Results	Future Plans and Investments
Fine Chemicals	Strengthened facilities for plastic lens-related materials Strengthened quality management for pharmaceutical ingredients	Aim for 25% global share of plastic lens-related materials Accelerate overseas expansion for cosmetics materials, supplements, veterinary products, etc.
Dental Materials and Equipment	Advanced global provision of composite resins led by OMNICHROMA (5% share in US, overseas accounting for 65% of sales) Boosted production facilities	Further penetration of brands, accelerate overseas sales of OMNICHROMA series
Diagnosis	Established local subsidiaries in China and South Korea for expansion of sales	Through alliances, aim to become No. 1 OEM supplier for open, automated bioanalytic testing systems Expand diagnostic items through reagent development

FOCUS

International Expansion in the Dental Area

Capture growing demand in the global market while providing value not offered by competing products

Mikio Kimura
General Manager,
Marketing Department,
Tokuyama Dental
Corporation



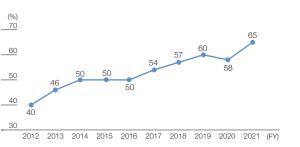
Efforts have been made to shorten treatment time and reduce costs in dental care in recent years due to the spread of COVID-19 infections. For this reason, I feel there has been heightened demand for products enabling the simplification of clinical tasks and operations.

Tokuyama Dental has positioned OMNICHROMA, a filling material for teeth after treatment of cavities, as one of the pillars for driving growth. Its ability to blend with any color of tooth simply by filling and hardening eliminates the time required by dentists to select filling material, and also provides value not offered by competing products, such as the effect of reducing inventory costs. Overseas markets such as Europe and the United States account for 65% of Tokuyama Dental's net sales (FY2021), and we plan to raise this level to 75% by 2026. Furthermore, we are currently making large-scale capital expenditures to increase

the production capacity of the Kashima Factory tenfold over the next five years.

Going forward, we intend to capture growing demand by actively expanding to countries expected to see population growth, such as India and Brazil, while seeking to increase the company's brand penetration in the global market.

Percentage of Overseas Sales



Future of Preventative Medicine and Diagnostic Systems

Promoting research in areas combining biochemistry and chemistry to create unprecedented new products

Tatsuhisa
Watanabe
Chief Executive
Officer,
A&T Corporation



A&T conducts business related to clinical testing carried out in hospitals. Since the company was founded, we have consistently worked on development, manufacturing and after-sales support for products essential to processes including the acceptance and automated transportation of specimens, analysis and data processing. The know-how for centrally managing and utilizing information generated in each process, such as the state of specimens and analysis data, and comprehensive consulting capabilities are strengths that other companies simply do not have.

In Japan, there has been a prominent expansion of medical expenses associated with the aging of society. Furthermore, no time can be lost in handling qualitative changes in home medical care and nursing. One method leading to the resolution of such issues is the analysis and utilization of clinical test data. We believe we will be presented with new business opportunities by using our know-how on analysis

and evaluation of test data to contribute to regional medical networks and preventative medicine.

We are also actively expanding automated bioanalytic testing systems overseas in response to growing global needs for clinical testing. A&T products, having met needs for accuracy and increased speed of tests with high performance, are already recognized as a top brand in South Korea. A local subsidiary was also established in China in 2021. Strengthening alliances with local companies in various countries and regions will enable us to provide sound customer support more swiftly.

When we became a wholly-owned subsidiary of Tokuyama in February 2021, we strengthened coordination between Tokuyama's Tsukuba Research Laboratory and our Development Division. Going forward, we will promote research in areas combining biochemistry and chemistry with the aim of creating unprecedented new products.

Eco Business

Business Goal

Serve as a new business pillar for the future

Priority Measures

- Respond to increasing demand for water treatment membranes due to strengthened environmental regulations
- Expand resource recycling business in waste gypsum board, photovoltaic modules and others
- Commercialize developed next-generation energy technologies



* FY2020 net sales are approximate amounts based on application of "Accounting Standard for Revenue Recognition," etc., and are listed as reference values

SWOT Analysis

S

 Unique technologies such as continuous large recrystallization technology for gypsum and ion exchange membrane water treatment technology Weaknesses

· Weak synergies among businesses

Strengths

Opportunities

 Increase of wastewater treatment demand due to environmental regulations in China and emerging countries

· Growing global environmental consciousness

Threats

- Rise of emerging manufacturers centered in
 China
- Appearance and practical implementation of alternative technologies

Progress by Product Area

Product Area	FY2021 Results	Future Plans and Investments
Environment	Waste gypsum board recycling: Decided to establish third facility in Muroran City, Hokkaido Photovoltaic module recycling: Continued joint research with NEDO	Waste gypsum board recycling: Expand business sites Photovoltaic module recycling: Establish and commercialize recycling technology
Ion Exchange Membranes	Conducted market research aimed at increase of sales in overseas areas	Boost production capacity to meet increase in demand

FOCUS

Outlook for the Waste Gypsum Board Recycling Business

Contribute to the formation of a closed-loop society through waste gypsum board recycling technology and promoting its use

Tomohiro Inoue
Representative
Director and President,
Tokuyama Chiyoda
Gypsum Co,. Ltd.

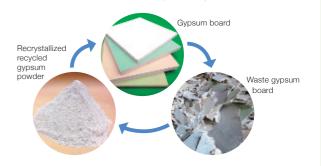


Gypsum board, a construction material that is lightweight and offers excellent heat insulation, had the shortcoming of the technical difficulty it presented after the dismantling of buildings, and the percentage of recycling had remained low. Tokuyama Chiyoda Gypsum responded by developing technology for "continuous large recrystallization" enabling use of 100% of waste gypsum powder as board material again, and has been operating a recycling business since 2013.

Demand is steadily growing, and following the factories in Mie and Chiba, a third factory will be completed in Muroran City, Hokkaido in FY2023. From 2024, we plan to build small factories in the vicinity of regional cities, to serve as "urban mines for gypsum."

In recent years, we have received inquiries from overseas board manufacturers, and we are proceeding with discussions including the provision

of technology. Going forward, it is expected that it will become difficult to obtain low-cost byproduct gypsum as the reduction of coal-fired power generation accelerates. That means the environment is becoming more receptive for the commercialization of recycled gypsum. We intend to continue to pursue technologies and business formats that contribute to the formation of a closed-loop society in the future.



Development of Photovoltaics Module Recycling

Promotion of testing and research for commercialization based on unique technology enabling recycling into sheet glass

sheet glass

The solar power generation systems initially introduced with the commencement of the FIT scheme*1 are anticipated to generate large volumes of waste from has been

Photovoltaics modules are made up of 60% glass by weight. Technologies already exist for reusing this glass portion as glass wool and pavement material, and these have also been commercialized. However, these applications lack the capacity to accept recycled glass, meaning there is a need for technology enabling recycling into sheet glass.

used modules in the 2030s.

Recycling business operators handling recycling into products such as glass wool primarily use equipment for mechanically crushing glass. However, this method is unable to recycle materials into sheet glass, which does not allow contamination by even small amounts of cells or organic matter. To address this, Tokuyama has developed an innovative separation method for photovoltaics module materials, which

consist of both inorganic and organic matter, from a chemical perspective. At present, a testing facility has been established in the Nanporo Industrial Park in Hokkaido, and testing and research with the aim of

Masaru Sasai

Manager, Eco-Business

Development Department,

*1 A feed-in tariff scheme for electricity generated from renewable energy sources
*2 New Energy and Industrial Technology Development Organization

commercialization is being conducted through joint

research with NEDO*2.

Module Structure Weight | Aluminum | Frame | Cover glass | Encapsulant (EVA) | Cell | Encapsulant (EVA) | Saaksheet | Junction box | | Source: NEDO PV Challenges 2020

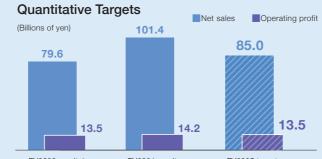
Chemicals

Business Goal

Ensure stable earnings in the existing business

Priority Measures

- Engage in innovative, sustainable and environmentallyfriendly manufacturing processes
- Improve electrolyzer unit energy efficiency to world-class levels, reduce CO₂ emissions through energy saving
- Improve manufacturing processes and supply chains through promoting DX



^{*} FY2020 net sales are approximate amounts based on application of "Accounting Standard for Revenue Recognition," etc., and are listed as reference values

SWOT Analysis

· Only domestic manufacturer of soda ash

· Electrolyzer unit, electrolysis and manufacturing technology with extensive operating record

Strengths

· Spread of fuel cell vehicles and promotion of hydrogen society

· Increase in demand for caustic soda and PVC resin due to economic growth in Southeast Asia and India Opportunities

Weaknesses

- Weak sales network overseas
 - Sales volume of calcium chloride for antifreeze fluctuates depending on weather conditions

Threats

- Decrease in domestic demand due to recession of Japanese economy and users shifting overseas
 - · Decrease in demand due to slowdown of Chinese economy

Progress by Product Area

Product Area	FY2021 Results	Future Plans and Investments
Soda Ash and Calcium Chloride	Maintained competitiveness through establishment of stable supply system	Maintain and update facilities needed for stable business continuity
Chlor-Alkali and Vinyl Chloride	Strengthened group coordination	Advance energy saving and rationalization to address environmental issues

FOCUS

Energy Saving Initiatives in the Electrolysis Business

Further refining ion exchange membrane electrolysis technology using proprietary "zero-gap technology"

Hajime Okido Chemicals Business Chemicals Manufacturing Department 1 Manager, Technical Section

The brine electrolysis business Tokuyama has been operating since 1952 is a business that creates caustic soda, chlorine and hydrogen through the electrolysis of brine. In addition, the Company also produces the primary chlorides of hydrochloric acid and sodium hypochlorite, as well as substances such as ethylene dichloride, a raw material of PVC resin. A common trend in the chemical industry is a business structure concentrated on a specific chlorine derivative. However, Tokuyama has established a structure that minimizes the impact of trends in demand for specific products by manufacturing a well-balanced set of products created through the process of electrolysis. We take pride in playing an important role in the improvement of people's lives and the development of industry using these basic

In the electrolysis business, we have vigorously proceeded with development of energy-saving

technology at each important juncture, such as changes in manufacturing methods, since operations began in 1952. Since 1985, we have been utilizing ion exchange membrane electrolyzer units using Tokuyama's proprietary "zero-gap technology." This technology uses the force of flexible cushion material being compressed and reacting to bring the anode, ion exchange membrane and cathode comprising an electrolyzer unit as close together as possible. By limiting the electrical resistance between these components, it is possible to significantly reduce power consumption. Furthermore, Tokuyama also licenses the electrolysis process using this ion exchange membrane method, contributing to raising the level of energy saving worldwide.

Going forward, we will continue to engage in the development of the world's highest level of energysaving technology with the aim of further reducing energy use while maintaining stable product supply.

Development and Application of Unique Technologies

materials essential for society.

Development of an Alkaline Water Electrolyzer Unit

Hydrogen is gaining attention as a means for achieving decarbonization. Tokuyama is currently working on development and commercialization of an alkaline water electrolyzer unit for manufacturing hydrogen and oxygen using an alkaline solution and electric power. This device utilizes the structure of the brine electrolyzer units applying Tokuyama's "zero-gap technology."

A variety of hydrogen projects are currently under way worldwide. The Company is proceeding to develop the device with the aim of contributing to the area of hydrogen production by achieving the highest possible level of energy saving performance. It is forecast that the rate of use of renewable energy as a power source will increase in the future, but one of the challenges with renewable energy such as solar power is that the volume of power generated tends to fluctuate. To address this issue, we are also proceeding to develop technology enabling stable operation using renewable energy.

Furthermore, using the knowledge gained in the brine electrolysis business, we are focusing on the creation of a solution business including operational support for hydrogen production plants planned by client companies, rather than simply selling equipment.

Characteristics and Effects of Tokuyama's Alkaline Water Electrolyzer unit

Characteristics	Effects
Zero-gap technology	Reduction of power consumption
Large current- carrying area	Increase of volume of hydrogen production per unit of site areaReduction of equipment cost
Operational know- how gained in brine electrolysis	Reduction of equipment cost Longer life of cells Operational and maintenance technical support
Extensive operating range	Improvement of adaptivity to fluctuating energy

Cement

Business Goal

Become the domestic industry leader in energy efficiency

Priority Measures

- Introduce energy-saving equipment to reduce CO₂ emissions
- Reduce use of coal by increasing combustion amount of waste plastic



^{*} FY2020 net sales are approximate amounts based on application of "Accounting Standard for Revenue Recognition," etc., and are listed as reference values

SWOT Analysis

Strengths

 Contribution to environmental preservation by accepting waste from inside and outside Company to use as cement feedstock and as thermal energy alternative

Weaknesses

· Increase of repair costs due to aging of

- Opportunities
 - Domestic demand due to national resilience and Linear Chuo Shinkansen plans
 - · Demand for establishing infrastructure associated with economic development of emerging countries

Threats

- Decrease in domestic cement demand due to decline in population
- Rising material and logistics costs
- · Criticism of cement industry due to problems with CO₂ emissions

Progress by Product Area

Product Area	FY2021 Results	Future Plans and Investments
Cement	Conducted carbon capture field tests	Maintain and update facilities needed for stable business continuity Advance energy saving and rationalization to
Recycling	Expanded acceptance of waste such as shredder dust from automobiles and discarded home appliances	address environmental issues Expand waste treatment that contributes to a closed-loop society

FOCUS

Expansion of Acceptance of Industrial Waste

We have a vision for unprecedented commercialization of recycling technology while serving as a vein for domestic industry

Tokuyama's Cement Business Division has a history of being the earliest in Japan to engage in industrial waste recycling. In the past, the byproducts generated within the company were used as cement feedstock, but we now accept a large volume of waste from outside the company as well, and utilize it as recycling material.

In 1999, we established a plant able to process large volumes of waste plastic recycled as alternative fuel, and began full-scale operation of the business. Since then, we have sought to diversify the waste handled through group management. Examples include our business converting ash from incineration of municipal waste into cement feedstock by removing dioxins and chlorine, and our waste gypsum board recycling business. As a vein for domestic industry, we take pride in playing a part in a closed-loop society while resolving customers' waste processing issues.

At present, we are focusing on expanding the

Atsuhide Sato Recycling & Environme

General Manager Promotion Department Cement Business



intake of combustible waste serving as a source of alternative thermal energy, such as shredder dust from automobiles and discarded home appliances, organic sludge and waste fluids. In addition, we also aim to be an industry leader in terms of cost competitiveness by introducing the latest technology pursuing high energy efficiency. Looking ahead, we will utilize our uniqueness as a company operating both cement and chemical businesses to commercialize recycling technologies that are not used by the cement industry or dedicated environmental companies, and turn these into new pillars of revenue.

Types of Waste Accepted

Waste plastics, sludge, glass waste, concrete waste, ceramic waste, soot and dust, waste fluids, cinders, slag, rubble, animal and plant residues, incinerator ash, contaminated soil, disaster waste, shredder dust from automobiles

The Optimal Solution for the Problem of Aging Infrastructure

Strengthening the joint development system with Tokuyama to create products that contribute to the repair and reinforcement of social infrastructure

Implementing measures to maintain and prolong the life of social infrastructure fasing significant deterioration due to age, such as bridges, underground conduits and concrete structures, is one of the most important issues faced by Japan. Moreover, repair and reinforcement work sites require skilled workers, environmental measures against dust, and so on, in addition to shortening work periods and increasing work quality. To address these issues, Tokuyama MTech provides special vehicles (plant vehicles) with equipment such as powder silos, forced mixing type mixers, and mortar pumps. Mixing powder to provide high-quality slurry*1 on-site enables rapid repair and reinforcement, contributing to maintaining and prolonging the life of social infrastructure.

Our company is focusing on concrete surface protective agent as a product that will increase the long-term durability of concrete structures. Our concrete surface protective agent, which uses sodium silicate cullet*2 manufactured by Tokuyama as a

Takashi Asada Representative Director and President Corporation



material, is more adhesive than organic paint or sheets and also suffers little deterioration from ultraviolet rays, providing excellent durability. In addition, we provide a wide range of repair and reinforcement solutions, with a lineup including floor concrete containing organic fiber offering advantages such as reduced construction time and not requiring steel reinforcement.

Much of the knowledge accumulated by Tokuyama through years of research and development on cement, concrete and chemistry can be applied to the development of new products in businesses our company is focusing upon. We have already begun to produce results in the areas of concrete surface protection and grouting. Going forward, we aim to produce products with high added value while strengthening the joint development system of our two companies.

- *1 Fluid containing powder suspended in liquid
- *2 High-concentration aqueous solution made by dissolving glassy solids using an autoclave, etc.; used in civil engineering applications such as ground reinforcement and leak prevention, and in various areas as material for industrial chemicals

Materiality KPIs and Results

Vision: 1 Be a value-creative company that places first priority on R&D and marketing

2 Be a company that never stops challenging new domains while refining and exploiting its unique strengths

take pride in their work at their company

Be a company with healthy employees who have healthy families and

4 Be a company that fosters bonds with people in communities and societies worldwide

For detailed information on our activities, please refer to the CSR page of Tokuyama's website. https://www.tokuyama.co.jp/eng/csr/

Materiality Relationship to Our Vision	Our FY2025 Vision	KPI	FY2021 Results	Responsible Department
Helping to fight global warming	Achievement of carbon neutrality by FY2050	 Reduction of total CO₂ emissions of Tokuyama Group: 30% reduction in FY2030 (compared with FY2019) Increased disclosure information, including Scope 3 	 Promoted coordination with regions, local governments and within Shunan Industrial Complex aimed at carbon neutrality Considered introduction of alternative fuels such as biomass Acquired third-party certification of GHG emissions (Scope 1, 2 and 3) Responded to CDP Climate Change Questionnaire (Score: A-) 	Carbon Neutral Strategy Division Responsible Care Management Department Factory Planning and Administration Department
Conserving the environment	Promotion of recycling and maintenance of zero landfill waste Maintenance of low emissions of environmental impact substances Compliance with legal requirements and other regulations, achievement of zero environmental accidents Contribution to biodiversity conservation	Reduction of environmental impact: Effective utilization rate for waste ≥94% Zero waste emission rate ≥99.9% Maintenance of low emissions of environmental impact substances Compliance with legal requirements and other regulations, achievement of zero environmental accidents Contribution to biodiversity conservation	 Effective utilization rate for waste: 94.3% Zero waste emission rate: 99.9% Maintained low emissions of environmental impact substances; efforts underway in each department Compliance with legal requirements and other regulations, achievement of zero environmental accidents Forest volunteers, cleanup activities, etc. 	Responsible Care Management Department
Preventing accidents and preparing for disasters 3 4	Accident prevention and disaster preparation Improvements in process safety management level Fostering and improvement of safety culture	 Zero accidents and zero lost time injuries; number of incidents: zero Deepened risk assessment Promotion of smart security 	 Number of accidents: 4 Occupational accidents Employees: 0 Contractors: 3 Created security skill maps, carried out VR hazard simulation training and disaster prevention training Implemented process risk assessment and began evaluation of equipment risks using new evaluation techniques Promotion of smart security: Matched latest ICT skills with workplace, utilized drones and considered conveyor predictive detection system Maintained Control Class I work environment, continued all I-A at Tokuyama Factory 	Responsible Care Management Department
Developing products and technologies that address social issues	Expansion of development of products and technologies that help to resolve social issues, focusing on SDGs	Promotion of development of products and technologies that help to resolve social issues, focusing on SDGs [Electronics] Expansion of product line and creation of new business in peripheral materials [Healthcare] Creation of new technologies for product line expansion and globalization [Environment] Creation of new technologies to reduce CO ₂ emissions	[Electronics] Accelerated initiatives aimed at commercialization through marketing originating from customers [Healthcare] Decided to commercialize products based on multiple themes [Environment] Promoted Medium-Term Management Plan 2025 strategies, prepared for creation of businesses based on multiple themes	Research & Development Division
Improved chemical management and product safety	Maintenance of appropriate chemical management and promotion of product safety in the Tokuyama Group	Compliance with chemical laws and regulations in each country: Zero infractions of chemical-related regulations Risk management of chemical products, including Group: Zero accidents due to product safety	 68 product reviews (second and third rounds), 396 labeling reviews Understood and responded to domestic and overseas regulatory trends (Japan and overseas) Conducted interviews with departments and Group companies regarding training and management status Created management system for chemicals contained in products 	Responsible Care Management Department
Engaging with local communities	Contribution to a decentralized society through business Providing a place where people can grow and flourish	Harmoniously co-existing and cooperating with communities: Dialogue with community Active participation and cooperation in various community (residents, government, and organization) events Solutions to community issues and contributions to sustainable development of community: Employment from community Social contribution activities Contributions to community through business	[Dialogue with community] Continued to take steps in dialogue with community using formats to address COVID-19 (dialogue via writing, etc.) Sponsored Tokuyama Summer Festival and Shunan Winter Tree Festival [Social contribution activities] Mikage Bunko book program, Tokuyama Chemical Club, and full lighting at Shunan Industrial Complex Educational support for neighboring schools (work experience for junior high school students, etc.) [Business contributions to community] Supplied electricity to Shunan City Hall and Tokuyama Station Building (ongoing)	General Affairs Department Environment & Safety Department Factory Planning and Administration Department
Promoting CSR procurement	Management of supply chains based on CSR procurement guidelines	Promotion of survey and management of supply chains based on CSR procurement guidelines: More detailed investigation of suppliers by refining assessment sheets Establishment of system to conduct on-site audits of suppliers Reduction of environmental impact in logistics	 Ongoing assessment of business partners using assessment sheets Created assessment and audit plans from FY2022 to FY2024 Refined assessment sheets because FY2022 is a year for implementing assessments of business partners Identified materials purchased in specific regions believed to have problems related to labor, human rights and the environment Audits of documents to be conducted apart from assessment sheets from FY2022 based on these results 	Procurement Department Logistics Department
Developing human resources	Development and strengthening of human resources as source of corporate competitiveness Strengthening of human resources for next generation	Activation of human resources through career planning and rotation of appropriate personnel: Improvements in education system, etc. Development of next generation of managers Training of highly skilled engineers to support business execution Enhanced initial training system by defining required human resources and job skills Establishment of culture of nurturing through work by linking goal setting and feedback: Surveys based on employee attitudes	 Resumed new business leader training Defined required image and skills for 13 job groups; published company-wide from April 2022 Conducted total of 10 training sessions for evaluators (approximately 280 employees); developed deeper understanding of appropriate goal setting 	Human Resources Department

Vision: 1 Be a value-creative company that places first priority on R&D and marketing

2 Be a company that never stops challenging new domains while refining and exploiting its unique strengths

3 Be a company with healthy employees who have healthy families and 4 Be a company that fosters bonds with people in communities and take pride in their work at their company

societies worldwide

Materiality Relationship to Our Vision	Our FY2025 Vision	КРІ	FY2021 Results	Responsible Department
Promotion of diversity and career fulfillment 2 3	Acceptance and utilization of diverse human resources	 Promotion of diversity and inclusion: Active promotion of women: 20% of new graduates, ≥2% of management positions Employment of persons with disabilities: ≥2.3% Respect for diversity of experience and skills of each individual Respect for diverse values Promotion of work-life balance: Management of actual working hours per year: annual paid leave acquisition rate ≥80% Improved childcare and nursing care support systems: At least one male employee on childcare leave or parental leave ≥75% (women ≥75%) 	 [Promotion of diversity and inclusion] Continued career hiring incorporating diverse skills and values (54 people in FY2021) Number of female managers increased by two, reaching target percentage of 2.0% Although measures to increase the percentage of people with disabilities progressed, target was not reached at 1.95% [Promotion of work-life balance] Continued raising awareness of paid childcare leave (sent e-mails encouraging eligible people and managers to take leave) Number of male employees on childcare leave: 2 (average of 83 days) [Respect for human rights] Established contact system for mandatory steps to prevent harassment, raised awareness in Group companies and implemented collective training 	Human Resources Department
Promotion of physical & mental health			 [Promotion of measures against smoking] Prevention of passive smoking, establishment of non-smoking days during working hours (once a month), non-smoking campaign [Health guidance and measures after health diagnosis] Health guidance and responses to people who fail to undergo follow-ups [Mental healthcare] Implementation of stress checks, responses and e-learning 	Health Care Center

^{*} Vision modified according to Company's health management plan

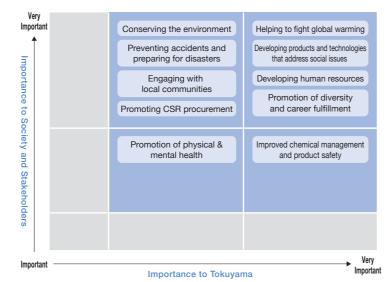
Materiality Identification Process

In 2019, the Company identified nine material topics based on important social issues, dialogue with stakeholders and third-party opinions from external experts. In 2021, we revised these in line with the new Medium-Term Management Plan 2025 to make a total of ten material topics, and formulated targets and KPIs for FY2025.

Our basic philosophy of socially responsible management

is to continuously conduct activities building a sustainable future with society, contribute to the resolution of social issues, increase trust from diverse stakeholders and aim for the enhancement of corporate value. Tokuyama aims to solidify our trust relationship with society by strengthening our efforts in material topics, while at the same time pursuing our own unique approach to socially responsible management.





Collaboration with Communities

Opening of "You You Terrace" Facility for People with Disabilities

Tokuyama established You You Terrace (Yu Yu Terasu in Japanese) within a building adjacent to the Tokuyama Factory as a facility for the employment of people with disabilities in October 2021. In addition to supporting career fulfillment and independence by fully utilizing the aptitude of each person with disabilities, its objective is to actively create employment.

The name of the facility in Japanese is derived from yu (結う, connection), yu (優う, care) and terasu (照らす, to shine) based on the idea of placing importance on connections, kindly watching over everyone, and shining a light on the surroundings.



Conclusion of J-PPP ESG/SDGs Project Promotion Partnership Agreement

Tokuyama has concluded a J-PPP ESG/SDGs Project Promotion Partnership Agreement with Renofa Yamaguchi, a professional soccer team in the J2 League, for the achievement of ESG/SDGs and the realization of a sustainable local community through sport.

We will utilize the resources of both Tokuyama and Renofa for engaging in solutions to issues in the local community and promotion of ESG and SDGs, by coexisting and co-creating with the community and local governments through such efforts as the formation and utilization of a local economy ecosystem and sound development of the local community through sport.





Highlighting Tokuyama's efforts in sporting events

Message from an External Director



An External Directors' Role

I was appointed to both Tokuyama's Board of Directors and Audit and Supervisory Committee in June 2021. I was previously an executive at a heavy machinery manufacturer, where my roles included head of IT strategy and CSR. I also have expertise in the resource and energy sectors. Drawing on my background, I help Tokuyama make and execute key decisions from both DX and GX (green transformation) perspectives.

Over the year-plus since the inception of Medium-Term Management Plan 2025, Tokuyama's operating environment has changed even more rapidly than anticipated. I believe companies have to constantly refine and update their strategies with the mindset that they are essentially facing an existential crisis. To successfully navigate today's adverse operating environment, it is essential for Tokuyama to carry out the overhaul of its business portfolio makeover that is a priority under Medium-Term Management Plan 2025. As a director with an engineering background, I often vet and offer advice on technological matters while other Board members likewise provide input from their respective standpoints. I feel that the Board thus ensures a diversity of perspectives. I am fulfilling a dual role by encouraging risk-taking essential to the portfolio makeover while simultaneously restraining management from an external perspective.

Sustainable Business Combined with Contributions to the Global Environment

With the decarbonization movement now gaining momentum, I believe chemical manufacturers have a large role to play and

big expectations to meet. Nearly all of Tokuyama's initiatives are related to decarbonization, including not only its energy transition plan but also compliance with Japan's revised Corporate Governance Code, and the listing of its stock on the Tokyo Stock Exchange's Prime Market. Accordingly, decarbonization is discussed at every Board meeting as an essential topic. I feel Tokuyama must make further progress in intensively allocating its limited financial, technological and human resources to selected businesses and projects that can drive reduction of CO₂ emissions.

Corporate governance will be important to avoid narrowly focusing on internal viewpoints in the process of surmounting the challenges of transitioning away from legacy business models. Of particular importance is a Group governance perspective encompassing the entire Group. In this regard, I intend to help lay the groundwork to efficiently implement Group strategy while maintaining the effectiveness of Group governance.

I believe the key to promoting socially responsible management, one of Tokuyama's priorities, is to both contribute to the global environment and stably supply products and services conducive to a sustainable society, without any contradiction between the two. Such a view is consistent with Tokuyama's Mission and essential to the realization of its Vision.

To simultaneously realize a sustainable society and sustainable operations, Tokuyama must also further promote diversity and inclusion. I expect Tokuyama to develop human resources that can adapt to an incessantly changing business environment, are open to ideas and perspectives different from their own, and are able to take broad-sighted action.

Risk Management

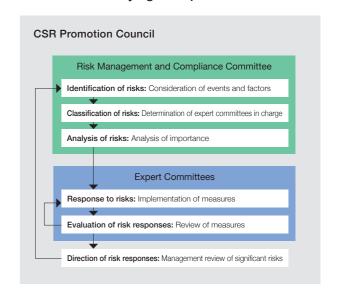
Strengthening Our Risk Management System

Tokuyama manages risk through the Risk Management and Compliance Committee, which operates under the CSR Promotion Council, as well as through expert committees set up separately from this. The Risk Management and Compliance Committee considers events and factors that have newly emerged or that have undergone a change in impact, by monitoring social conditions and coordinating with each committee. It then assesses whether these constitute risks, and determines expert committees to respond to them. These expert committees deliberate important matters and ensure management in critical and specialized areas from the perspective of risk management and compliance. In FY2022, a new Sustainability Committee was established to respond to risks that fall outside the scope of existing expert committees. The Company has designated a department responsible for regulations pertaining to management of the risk of loss for each committee, which undertakes activities based on the management regulations.

It also works to mitigate compliance risk by establishing management systems for understanding important laws and regulations that are relevant to business execution, and for keeping track of trends in amendments to those laws and regulations. To prepare for changes in the business environment as well as cyberattacks, which have become

increasingly advanced, the Company has established a Cybersecurity and IT Infrastructure Department. The Company has also established a business continuity plan (BCP) and other measures in order to ensure an appropriate response by type and severity in the event of natural disasters, accidents and other significant crises.

Process of Identifying Enterprise Risks



Expert Committees and Meeting Bodies in Charge of Risks



Business Continuity Management (BCM)

To ensure the continuation of important operations in unforeseen circumstances, the Company has formulated, and continues to update, a BCP; it also secures funding and resources to ensure business continuity, and engages in business continuity management in normal times, including the taking of preventive measures, thereby improving its ability to continue business operations.

To address the COVID-19 pandemic, the Company set up a crisis response headquarters with the President as general manager in February 2020. The headquarters held

meetings 30 times in FY2021. Actions included notification of instructions issued by the government and industry bodies, infection prevention measures, and establishment of a structure for contacts and public relations should an infection event occur. Crisis response measures included acquiring an understanding of infection responses and status of production at business sites in and outside Japan, as well as recommending work-from-home and staggered commuting policies, increasing equipment for teleworking, and imposing restrictions on entrance to manufacturing sites.

Disclosures Based on TCFD Recommendations

Management Involvement in Sustainability

Governance

Risk Management

Tokuyama positions the issue of climate change as one of the greatest management risks. In February 2021, Tokuyama announced its support for the TCFD recommendations, and in April 2021 it established a Carbon Neutral Strategy Division, reporting directly to the President. Climate-related risks and opportunities that have an impact on the Group's business have been analyzed and reflected in Medium-Term Management Plan 2025.

In FY2022, a new Sustainability Committee was established

to discuss risks such as climate change, human rights and CSR procurement, creating a framework for identifying and evaluating those risks and opportunities across organizations. Particularly important matters are discussed in the CSR Promotion Council chaired by the President, and reported to the Board of Directors. The Board of Directors confirms the progress of action plans in line with quantitative targets established to "contribute to mitigation of global warming," which is a priority issue in both Medium-Term Management Plan 2025 and future investment plans.

Framework for Promoting Carbon Neutrality



Climate Change Scenario Analysis (Risks and Opportunities)

Strategy

Risks Opportunities

Medium-Term Management Plan 2025 incorporates risks such as increased costs caused by carbon pricing, the impact of changes in customers' procurement policies, and the impact of changes in the policies of financial and investment companies on funding, as well as new business opportunities in the area of the environment. Furthermore, the Company implemented analysis of a 1.5°C scenario and

a 4°C scenario on a timeline from the present until 2050 by referring to the International Energy Agency (IEA) transition risk scenario and the Intergovernmental Panel on Climate Change (IPCC) physical risk scenario. The Company aims to mitigate climate-related risks by transforming its portfolio from that of an energy-intensive company to one of a value-creative company.

Climate Change Scenario Analysis

Scenario	Туре	Event	Impact on the Company	Countermeasures	Impact
	Policy Regulation	Strengthening of carbon tax	Increased operating costs associated with carbon pricing system (Reference: Base year FY2019 total CO ₂ emissions of approximately 6.76 million tons)	Transformation of portfolio into energy-efficient business model	Large
	Reputation	Request for large CO ₂ emitters to make improvements	Increase of funding costs associated with requests and divestment by investors	Consideration of introduction of renewable energy	Medium
1.5°C	Market	Penetration of green procurement by customers	Increase of capital investment associated with requests for changes in energy-saving manufacturing processes	Execution of planned improvements and capital investment Establishment of energy-saving manufacturing processes	Medium
	Market	Increasing demand from environmental industries	Expansion of waste treatment and resource utilization industries, expansion of industries against global warming	Commercialization of renewable resources and energy (biomass, hydrogen, ammonia, etc.)	Large
	Recycling Efficiency	Requests for CCU-related products	Entry into new business areas through establishment of carbon recycling systems	Acceleration of research and development, field trials and implementation in actual business	Large
4°C	Physical Risk (acute) Increased severity of abnormal weather, rising sea level Increased severity of abnormal windstorms, delayed production plans and increased costs due to disruption of supply chains		windstorms, delayed production plans and increased	Expansion of BCP response such as strengthening of disaster prevention measures and use of multiple procurement sources	Medium

Business Opportunities in the 1.5°C Scenario

Future Events	Spread of green hydrogen	Expansion of electrification of mobility	Rapid digitalization	Spread of energy- saving housing	Formation of a cle	of a closed-loop society	
	Rapid increase in demand for water electrolysis equipment	Expansion of demand for lithium batteries	Expansion of semiconductor demand	Increase in demand for functional materials, e.g. insulation material	Increase in demand for recycling of waste material and industrial waste	Response to large quantities of waste from photovoltaics panels	
Business Opportunities Products and Technology	Water electrolyzers	lon exchange membranes Thermal management materials	Polycrystalline silicon Photoresist developer Silica for CMP High-purity IPA Thermal management materials, etc.	Super-insulated, highly-airtight plastic window sashes Plaster sheets	Waste gypsum board recycling technology Conversion of sewage sludge into biomass	Recycling technology for photovoltaics modules	

^{*} Business opportunities in 4°C scenario include cement-type stabilizers required for disaster prevention and disaster mitigation, and diagnostic agents for addressing infectious diseases

Incorporation into Medium-Term Management Plan 2025

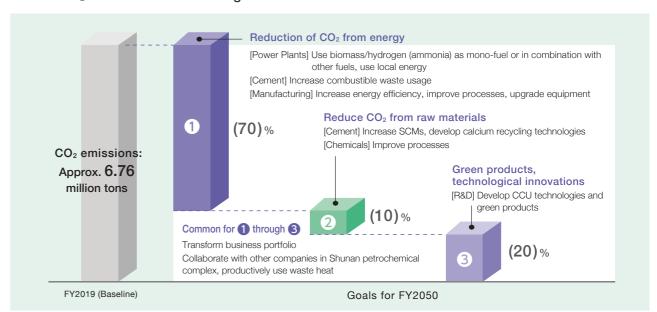
KPIs and Targets

Until now, the Company has managed greenhouse gas (GHG) emissions, the GHG discharge rate, and the energy consumption rate. Now, however, it has designated total CO₂ emissions as company-wide measurement and performance indicators in Medium-Term Management Plan 2025, and specified as targets a 30% reduction in FY2030 with FY2019 as a baseline, and the achievement of carbon neutrality in FY2050. Furthermore, emissions are calculated for categories 1 through 7 and 9 for Scope 3, and certification has been obtained from an external organization.

⇒P17 "Carbon-Neutrality Action Plan"

Emissions from Energy Consumption	Captive power plants	Zero CO ₂ emissions (target of 50% reduction in FY2030)		
Emissions from	Cement	Seek to reduce limestone consumption		
Raw Materials (limestone)	Chemicals	Explore possibility of offsetting emissions with CCU technologies, green products, etc. (already underway)		

FY2050 CO₂ Emission Reduction Target



Corporate Governance

Basic Stance

Amid the major transformations taking place throughout society, the Company, in line with the business environment it faces today, has redefined its Mission as "To create a bright future in harmony with the environment, in collaboration with its customers, based on chemistry." This redefinition incorporates the Company's desire to contribute to a sustainable society through pursuing business in harmony with the environment and working to create the future together with its customers. This is only possible with the trust and support of shareholders, customers, suppliers, employees, local communities, and all other stakeholders, which the Company believes will fuel sustainable growth and greater corporate value over the medium- to longterm. Corporate governance comprises a priority issue for management in order for the Company to realize its Mission, and the Company therefore recognizes the need to constantly strive to make improvements.

In light of the Corporate Governance Code, the Company's Basic Policy is to respect the rights and equality of shareholders, appropriately cooperate with all stakeholders, achieve a balance between proper disclosure

and transparency, maintain the independence of the Board of Directors and enhance the Board's oversight function, accelerate decision-making, clarify responsibility, and strive for constructive dialogue with shareholders.

Steps to Strengthen Our Governance Structure (most recent five fiscal years)

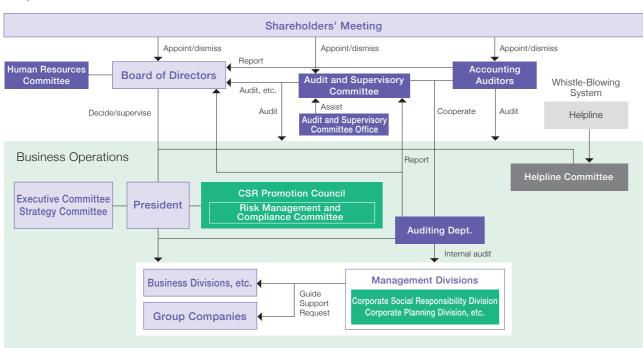
FY2018	Evaluation of effectiveness of Board of Directors conducted by external organization (conducted annually thereafter) Introduction of performance-linked share-based remuneration plan
FY2019	Revision of criteria for determining independence of external directors
FY2020	Announcement of Tokuyama's New Vision Decision to abolish anti-takeover measures
FY2021	One external director added (to strengthen diversity of Board of Directors)
FY2022	Revision to "Basic Policy on Establishing the Internal Control System" (revision to a policy focused on Group management)

Corporate Governance Structure

As a Company with an Audit and Supervisory Committee, Tokuyama seeks to enhance corporate governance at all times by making the best of its rapid decision-making, as well as through effective supervising and auditing functions. The Audit and Supervisory Committee itself is comprised of five directors, including four outside committee members, who attend Board of Directors meetings and other important meetings to monitor the business operations of executive directors.

Tokuyama introduced an executive officer system to separate the supervisory and execution functions.

Corporate Governance Structure



Meeting Bodies on Governance

Board of Directors	In addition to deliberating and making resolutions on important matters relating to the activities of the Company, the Board of Directors supervises business operations. • Number of meetings held in FY2021: 17
Audit and Supervisory Committee	Directors who are Audit and Supervisory Committee members attend meetings of the Board of Directors and other important internal meetings in order to gather information on the status of the operation of businesses. They also conduct audits on how well the executive officers are performing their duties. • Number of meetings held in FY2021: 24
Human Resources Committee	This committee holds discussions on such matters as the selection of director and executive officer candidates (excluding those on the Audit and Supervisory Committee) and their remuneration, before Board of Directors meetings take place.
Executive Committee	Members of the Executive Committee are selected by the president and executive officer (hereinafter referred to as the president) from among the Company's other executive officers. The Executive Committee serves as the Company's decision-making body with respect to the execution of business operations. In principle, the committee meets two times each month. Based on the approval-related rules and regulations determined by the Board of Directors, the Executive Committee deliberates and makes decisions on strategies and other important matters.
Strategy Committee	Members of the Strategy Committee are selected by the president from among the Company's executive officers. The committee meets once a month and serves as an advisory body to the president. In addition to deliberating on the direction of business execution, the Committee works to confirm the allocation of management resources with the aim of evaluating conditions relating to business execution in respect to important matters requiring approval. It also sets the direction of policies related to business execution with regard to specific projects.
CSR Promotion Council	Chaired by the president, the CSR Promotion Council is comprised of all executive officers. The Committee sets CSR policies and goals, while also facilitating activities to achieve those goals. The Committee focuses on maintaining appropriate corporate governance and internal controls, which together form the foundation of the Company's CSR. It also discusses important matters regarding internal controls.
Risk Management and Compliance Committee	Tokuyama's Risk Management and Compliance Committee, chaired by the director supervising the Corporate Social Responsibility Division, operates under the CSR Promotion Council. The Committee takes the initiative in promoting risk management and compliance, which are central to effective internal control.
Expert Committees	Tokuyama operates various committees focused on risk management and compliance in critical and specialized areas, separately from the Risk Management and Compliance Committee. These committees - namely, the Financial Reporting Committee, Fair Trade and Competition Committee, Security Trade Committee, Information Security Committee, Environment Committee, Safety Committee, and Product Safety and Quality Assurance Committee - operate under the CSR Promotion Council. From FY2022, a new Sustainability Committee has been established to discuss areas that fall outside existing frameworks, such as climate change and human rights.
Helpline Committee	The Helpline Committee is responsible for the administration of Tokuyama's helpline (whistle-blowing) system, which has been established for the purpose of enabling the internal reporting of legally questionable actions and behavior by Group executives and employees.
Internal Audit Department	Tokuyama established this department to be responsible for internal auditing. This department performs internal audits of individual divisions and departments of the Company as well as of Group companies.

Analysis and Evaluation of Overall Effectiveness of the Board of Directors

Amid the major transformations taking place throughout society, the trust and support of stakeholders is essential for the Company to contribute to building a sustainable society by conducting business in harmony with the environment and working to create the future together with its customers against a backdrop of today's challenging business environment. In order to earn and retain this trust and support, the Company has positioned corporate governance as a material issue for management, and consequently determined to evaluate the effectiveness of the Board of Directors every year.

Evaluation Process

In regard to the Board's evaluation for the period ended March 2022, the Company conducted a questionnaire survey and interview of all directors, after which the Board members held discussions based on the results of the interviews

Along with verifying those matters considered to be of material importance to the Board's ability to effectively fulfill its roles and responsibilities (composition and operation of the Board of Directors, discussions involving strategies, etc.), during the year under review the Company also confirmed the ways in which the Board should contribute to advancing Medium-Term Management Plan 2025, as well as related perspectives and measures. In order to objectively ascertain the opinions of each director, the evaluation utilized an external organization to conduct the questionnaire survey and interviews. In addition, the Company requested the external organization facilitate the discussions in order to objectively organize the issues and obtain opinions that would enhance the Board's effectiveness.

Overview of Evaluation Results

The evaluation results confirmed that the Company's Board of Directors consists of a diverse range of members and is characterized by a respect for free and open discussion against the backdrop of a corporate culture with a positive atmosphere. The results also confirmed that the Board functions effectively, owing to the concrete accumulation of initiatives intended to improve the effectiveness of corporate governance.

One future issue for the Board of Directors, of which the Board members share a common awareness, is the need in particular to hold deeper discussions regarding the twin management challenges of carbon neutrality initiatives and business portfolio transformation, as raised in Medium-Term Management Plan 2025. The Company has confirmed that backing self-critical and self-reforming management, as well as deepening discussions from a strategic and overarching perspective, is an important responsibility of the Board with regard to how the Company addresses these management challenges.

In order to engage these issues, the Company's Board of Directors will advance initiatives to enhance its effectiveness, including, (1) deepening insight regarding changes in the business environment in which the Company is situated, and creating opportunities to debate measures for handling the important management challenges of carbon neutrality initiatives and business portfolio transformation; (2) effectively monitoring the progress of priority measures, including human capital strategies and technology development strategies, in order to support achievening the goals set by Medium-Term Management Plan 2025; and (3) rationalizing the Board's operation method, including Board meeting agendas, materials, presentations, and so forth, in order to fulfill these responsibilities.

Adoption of Diverse Perspectives

To enable the direction of business execution as earn and retain well as appropriate decision-making with regard to the Company's business operations, which are centered on chemicals, executive officers are appointed in each business segment and area based on their knowledge and experience.

When nominating director candidates, the Company selects those who have demonstrated a high level of insight, diverse experience, and expertise, in consideration of the balance and diversity of the Board of Directors, in order to ensure the Board properly supervises and provides advice on important decisions and business operations.

When selecting and dismissing executive officers and nominating director candidates (excluding directors who are Audit and Supervisory Committee members), discussions are held at a Human Resources Committee (an entity that comprises representative directors and external directors) meeting in advance of the subject appearing on the agenda

at a Board of Directors meeting. The Board of Directors then makes its decisions in response to the Human Resources Committee's report.

In regard to the selection and dismissal of the President and Executive Officer, the President Nomination Committee deliberates on these matters, and the details of these deliberations are then presented to the Board of Directors following a report by the Human Resources Committee, at which point the Board of Directors makes a decision.

In the case of the nomination of directors who are Audit and Supervisory Committee member candidates, the Board of Directors makes its decisions after receiving the assent of the Audit and Supervisory Committee.

* See Company's corporate website for criteria for determining independence of external directors

https://www.tokuyama.co.jp/eng/company/governance/index.html

Skill Matrix of the Board of Directors

In light of the Company's Vision and Medium-Term Management Plan 2025, important skills are identified as follows in areas where directors are expected to contribute for the Board of Directors to conduct effective discussion and appropriately exhibit the required decision-making and management-supervision functions:

		Management Planning and Strategy	Sales and Marketing	Finance and Accounting	R&D, Production Technology and Engineering	CSR (Legal, ESG, Safety)	Utilization of Digital Technology	Overseas Business Operations
	Hiroshi Yokota (Representative Director, President and Executive Officer)	•	•			•		•
	Hideo Sugimura (Representative Director, Senior Managing Executive Officer)	•		•		•	•	•
Internal	Hiroshi Nomura (Representative Director, Senior Managing Executive Officer)	•	•		•	•		•
	Fumiaki Iwasaki (Director, Managing Executive Officer)	•			•	•	•	
	Youji Miyamoto (Director, Audit and Supervisory Committee Chair)	•		•		•		
	Shin Kato (External Director, Audit and Supervisory Committee Member)	•		•		•		
External -	Yuzo Kawamori (External Director, Audit and Supervisory Committee Member)	•	•	•		•		•
	Naoki Matsumoto (External Director, Audit and Supervisory Committee Member)	•		•		•		
	Nobuko Mizumoto (External Director, Audit and Supervisory Committee Member)	•			•	•	•	

Response to Chief Executive Officer Succession Plan

In August 2021, the Company established the new President Nomination Committee, which serves to formulate, implement, and deliberate on the Chief Executive Officer (President and Executive Officer) Succession Plan, and which reports to report to the Human Resources Committee.

The operations of the President Nomination Committee are regularly reported to the Board of Directors by the

Human Resources Committee, and are appropriately audited by the Board, in order to ensure that sufficient time and resources are invested in the systematic training of succession candidates based on the Mission, Vision and management strategies of the Company.

Executive Remuneration

Policy on Determining Director Remuneration on an Individual Basis

The Company has established a policy for determining the content of remuneration for directors on an individual basis (excluding those who serve on the Audit and Supervisory Committee). The following provides an overview of such, where individual remuneration is determined by the Board of Directors following deliberations by the Human Resources Committee*1. Basic Policy

- The remuneration plan for the Company's directors is based on the following perspectives:
- Ensures that directors contribute to charting sustainable growth for corporate performance and corporate value based on the Tokuyama Vision
- Provides a level of remuneration that secures and retains human resources that can support the Company's management
- · Considers the performance of the Company
- Employs a highly transparent, objective remuneration decision process

 2) Remuneration for the Company's directors consists of basic remuneration and bonuses in the form of monetary remuneration and

remuneration for the Company's directors consists of basic remuneration and bonuses in the form of monetary remuneration and performance-linked share-based remuneration in the form of non-monetary remuneration*².

Policy on Determining Director Remuneration on an Individual Basis

- The content (annual amount) of basic remuneration is determined from a comprehensive perspective that takes into account the roles and responsibilities of each director. Further, the determined basic remuneration is divided into 12 equal parts and paid on a monthly basis.
- 2) The content of bonuses is determined in accordance with the achievement level of the predetermined performance targets for each fiscal year in respect to the standard amount for bonuses determined separately for each position. The performance targets are established based on the main financial targets for Tokuyama's overall performance. Further, the determined bonuses are paid at a specific time each year.
- 3) Performance-linked share-based remuneration is based on the fiscal years covered by the respective medium-term management plan as the target period, and is provided in the form of Company shares in accordance with the achievement level for the predetermined performance targets. The performance targets are established based on the main financial targets in said medium-term management plan. Further, as a general rule, this form of remuneration is provided at the completion of the target period.
- 4) The level of remuneration takes into consideration remuneration survey data provided by external expert organizations.

Policy on Determining the Ratio of Remuneration for Directors by Type
The ratio of remuneration for Company directors by type is determined
in consideration of the ideal balance between the basic standard for the

required roles/responsibilities on the one hand, and incentives to stimulate the desire to achieve performance targets on the other.

Method for Determining Director Remuneration on an Individual Basis

- 1) The final annual amount of basic remuneration for each individual is calculated and determined by the Representative Director, President and Executive Officer, having received authorization to do so from the Board of Directors, based on a standard amount predetermined for each position. The Human Resources Committee deliberates on whether the calculated basic remuneration is appropriate or not.
- 2) Bonuses are determined by the Representative Director, President and Executive Officer, having received authorization to do so from the Board of Directors, based on performance for the target fiscal year after first determining the payment ratio in accordance with the standard bonus amounts for each position, the performance targets for the target fiscal year, and the achievement level for those targets. The Human Resources Committee deliberates on whether the performance targets, calculation methods, and calculation results are appropriate or not.
- 3) Performance-linked shared-based remuneration is calculated by the Board of Directors using points granted to directors on an individual basis based on the established executive remuneration share delivery regulations, following deliberations by the Human Resources Committee.
- *1 The Human Resources Committee is composed of a majority of external directors and deliberates matters related to human resources and remuneration regarding officers; it also serves as a voluntary advisory committee for the Company that makes appropriate reports and recommendations to the Board of Directors.
- *2 All directors, except those who serve on the Audit and Supervisory Committee, Non-executive Directors, External Directors, and those not residing in Japan, are eligible for the performance-linked share-based remuneration plan.

Amount of Remuneration Paid to Directors and Audit and Supervisory Committee Members (FY2021)

Subject of Remuneration	Number of People	Remuneration Amount	
Directors (excluding external directors)	5	¥223 million	
Directors who are Audit and Supervisory Committee members (excluding external directors)	1	¥27 million	
External Directors	4	¥52 million	

- *1 Above figures include one director who left office during fiscal year under review
- *2 Above figures include total of (1) amount obtained by deducting provision for delivery of shares disclosed in previous fiscal years from amount calculated according to level of achievement of performance targets for FY2018 to FY2020, and (2) amount of expenses recorded in fiscal year under review
- *3 Above figures do not include employee salary portion for directors also serving in employee positions

Policy on the Holding of Listed Shares for Purposes Other than Pure Investment

The Company holds shares of publicly listed companies on a strategic basis in accordance with the necessities of its business activities as part of its overall management strategy. This includes the need to maintain and bolster transactions, raise funds and stably procure raw materials. As far as the strategic holding of shares in publicly listed companies is concerned, the Company will limit its holdings to the minimum level possible, taking into consideration the need to ensure efficient corporate management. It sold all shares of one listed issue in FY2021, resulting in a

total of 21 listed issues of shareholdings as of March 31, 2022. In addition, the Board of Directors takes steps to verify the economic rationality of holding shares in publicly listed companies by comparing capital costs that factor in associated risks with accrued benefits, while confirming the propriety of its holdings based on a future outlook each year. The Company exercises its voting rights based on the contribution to corporate value for both the Company and the investee.

Compliance

Tokuyama understands "compliance" to have a broad meaning, including not only complying with laws and internal rules but also behaving sensibly in a manner that conforms with corporate ethics to meet social expectations. To communicate and spread awareness of compliance throughout the Group, the Company has put together a

handbook that includes the Tokuyama Group Code of Conduct. It is distributed to all Group officers and employees. In addition, we also conduct rank-based training and meetings with those in charge of compliance at our Group companies.

Management Team (as of June 24, 2022)



*From left to right: Hiroshi Nomura, Fumiaki Iwasaki, Naoki Matsumoto, Shin Kato, Hiroshi Yokota, Nobuko Mizumoto, Yuzo Kawamori, Youji Miyamoto, Hideo Sugimura

Hiroshi Yokota

Representative Director, President and Executive Officer In charge of Chemicals, Cement, Auditing Department

- Date of birth: October 12, 1961
- Number of Company shares owned: 27,400 shares
- Tenure as director: 7 years
- Attendance at meetings of the Board of Directors during the fiscal year ended March 31, 2022: 17/17 (100%)

Utilizing abundant operational experience in personnel and labor issues, traditional businesses, and advanced materials, he is actively working on the promotion of Medium-Term Management Plan 2025 priorities such as portfolio transformation, carbon neutrality, etc.

Hideo Sugimura

Representative Director, Senior Managing Executive Officer

In charge of Corporate Planning, Corporate Social Responsibility, General Affairs and Human Resources, Procurement and Logistics, Secretarial Department

- Date of birth: October, 22, 1959
- Number of Company shares owned: 5,403 shares
- Tenure as director: 5 years
- Attendance at meetings of the Board of Directors during the fiscal year ended March 31, 2022: 17/17 (100%)

With extensive operational experience including the introduction of an information system, management of an overseas subsidiary, and reconstruction of a domestic subsidiary, he is engaged in promoting growth by making plans and strategies as a general manager, with responsibility for corporate planning and corporate business management.

Hiroshi Nomura

Representative Director, Senior Managing Executive Officer

In charge of Electronic Materials, Tokuyama Factory, Environment & Safety and Manufacturing Technology of Kashima Factory

- Date of birth: September 30, 1957
- Number of Company shares owned: 3,500 shares
- Tenure as director: 3 years
- Attendance at meetings of the Board of Directors during the fiscal year ended March 31, 2022: 17/17 (100%)

Drawing on abundant experience in the manufacturing field, business planning, and management of overseas subsidiaries, he is actively engaged in business promotion, notably in the electronic materials field and overseas business deployment.

Significant concurrent positions: Chairman, Tokuyama Chemicals (Zhejiang) Co., Ltd.

Fumiaki Iwasaki

Director, Managing Executive Officer

In charge of Life Science, Eco Business, Research and Development

- Date of birth: June 21, 1960
- Number of Company shares owned: 2,342 shares
- · Tenure as director: 2 years
- Attendance at meetings of the Board of Directors during the fiscal year ended March 31, 2022: 17/17 (100%)

Making use of extensive experience he has gained in the field of research and development and manufacturing technology, he is actively pursuing the promotion of new research and development.

Youji Miyamoto

Director, Audit and Supervisory Committee Member

- · Date of birth: January 22, 1958
- Number of Company shares owned: 1,900 shares • Tenure as director: 5 years
- Attendance at meetings of the Board of Directors during
- the fiscal year ended March 31, 2022: 17/17 (100%)

 Attendance at meetings of the Audit and Supervisory Committee during the fiscal year ended March 31, 2022: 24/24 (100%)

With a high degree of expertise in finance and accounting gained through his years of accounting operation at the Company, he has been supervising management as an Audit and Supervisory Board member of the Company since 2013, and as a director who is an Audit and Supervisory Committee member since 2017.

Significant concurrent positions: Auditor, ASTOM Corporation; Auditor, Tokuyama Dental Corporation; Audit and Supervisory Board Member, A&T Corporation

Shin Kato

External Director, Audit and Supervisory Committee Member

- Date of birth: June 27, 1961
- · Number of Company shares owned: 1,700 shares
- Tenure as director: 5 years
 Attendance at meetings of the Board of Directors during
- the fiscal year ended March 31, 2022:17/17 (100%)
- Attendance at meetings of the Audit and Supervisory Committee during the fiscal year ended March 31, 2022: 24/24 (100%)

He has a professional perspective and abundant experience as an attorney at law, and has been supervising management as an external director who is an Audit and Supervisory Committee member since 2017.

Significant concurrent positions: Representative Lawyer, Kato Law Office

Yuzo Kawamori

External Director, Audit and Supervisory Committee Member

- Date of birth: July 25, 1947
- Number of Company shares owned: 800 shares
- Tenure as director: 3 years
- Attendance at meetings of the Board of Directors during the fiscal year ended March 31, 2022:17/17 (100%)
- Attendance at meetings of the Audit and Supervisory Committee during the fiscal year ended March 31, 2022: 24/24 (100%)
- (100%)
- Possessing extensive experience and broad insight in the manufacturing industry as a corporate manager, he has been supervising management as an external director who is an Audit and Supervisory Committee member since 2019.

Naoki Matsumoto

External Director, Audit and Supervisory Committee Member

- Date of birth: April 1, 1953
- Number of Company shares owned: 700 shares
- Tenure as director: 3 years
- Attendance at meetings of the Board of Directors during the fiscal year ended March 31, 2022:17/17 (100%)
- Attendance at meetings of the Audit and Supervisory Committee during the fiscal year ended March 31, 2022: 24/24 (100%)
- Drawing on abundant experience and broad insight as a corporate manager in financial institutions, he has been supervising management as an external director who is an Audit and Supervisory Committee member since 2019.

Nobuko Mizumoto

External Director, Audit and Supervisory Committee Member

- Date of birth: March 31, 1957
- Number of Company shares owned: 200 shares
- Tenure as director: 1 year
- Attendance at meetings of the Board of Directors during the fiscal year ended March 31, 2022:13/13 (100%)
- Attendance at meetings of the Audit and Supervisory Committee during the fiscal year ended March 31, 2022: 18/18 (100%)
- After experience as a researcher in the manufacturing industry, she gained wide and extensive experience as a manager through her career in major posts in head office divisions. She has been supervising management as an external director who is an Audit and Supervisory Committee member since 2021.

Corporate name Tokuyama Corporation Established February 16, 1918

Location [Tokyo Head Office]

Front Place Akihabara 7-5 Sotokanda 1-chome, Chiyoda-ku,

Tokyo 101-8618, Japan

TEL. +81-3-5207-2500 FAX. +81-3-5207-2580

[Tokuyama Factory (Registered Address)] 1-1 Mikage-cho, Shunan-shi, Yamaguchi

745-8648, Japan

TEL. +81-834-34-2000 FAX. +81-834-33-3790

Other Facilities in Japan

Kashima Factory, Tsukuba Research Laboratory, Osaka Office, Hiroshima Branch, Takamatsu Branch, Fukuoka Branch, Nagoya Sales Branch, Shunan Sales Branch, Center for Commercialization of Advanced Technology

¥10,000 million Capital

5,665 (consolidated basis; 636 working overseas) Number of employees

2,315 (non-consolidated)

Number of group 87 companies

* Sendai Branch was closed on March 31, 2022

Stock Information

Total number of shares

authorized to be issued

Number of shares issued

(excluding 14,275 treasury shares) Common shares: 26,619 shareholders

72,074,052 common shares

Common shares: 200,000,000 shares

Number of shareholders

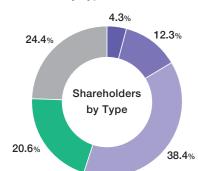
From April 1 to March 31

Fiscal vear

Dividend Policy

Dividends will be paid to the shareholders stated in the final version of the register of shareholders on March 31 and September 30. As far as the distribution of profits is concerned, Tokuyama's basic policy is to ensure the continuous and stable payment of dividends to its shareholders. In carrying out this policy, the Company takes into consideration performance trends, dividend payout ratio and the roadmap established under its medium- to long-term business plan.

Shareholders by Type



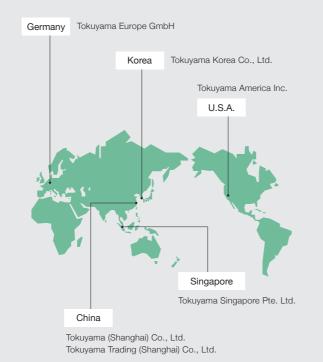
- Securities Companies (3,089 thousand shares)
- Other Domestic Corporations (8,830 thousand shares)
- Financial Institutions (27,710 thousand shares)
- Individual/Other (17.625 thousand shares)

Non-Japanese Corporations/Foreign Residents (14,832 thousand shares)

Business Sites in Japan Tokuvama Nagoya Sales Branch Shunan Sales Branch Hiroshima Branch Research Laboratory Fukuoka Kashima Tokyo Head Office Factory Takamatsu Osaka Office Branch Center for Commercialization of

Global Network

Advanced Technology



* Tokuyama Asia Pacific Pte. Ltd. and Tokuyama Electronic Chemicals Pte. Ltd. merged to form Tokuyama Singapore Pte. Ltd. on April 1, 2022

Principal Group Companies

Electronic Materials

Tokuyama Chemicals (Zhejiang) Co., Ltd.*1 Production and sale of fumed silica, high-purity chlorosilane, high-purity chemicals for electronics manufacturing

Tokuyama-Dowa Power Materials Co., Ltd. Production and sale of aluminum nitride substrates

Taiwan Tokuyama Corporation Production and sale of high-purity IPA

Formosa Tokuyama Advanced Chemicals Co., Ltd.*1

Production and sale of high-purity IPA

Hantok Chemicals Co., Ltd. *2 Production and sale of photoresist developer

Life Science

Shanghai Tokuyama Plastics Co., Ltd. *1 Production and sale of microporous film

A&T Corporation

Production and sale of diagnostic reagents, analyzers and systems

A&T Shanghai Co., Ltd.

Sale of diagnostic reagents, analyzers and systems

Tokuyama Dental Corporation

Production and sale of dental materials and

Tokuyama Dental America Inc.

Eco Business

Tokuyama Chiyoda Gypsum Co., Ltd.

Collection of waste gypsum board, production and sale of gypsum dihydrate, operation of waste gypsum board recycling business

ASTOM Corporation

Production, sale and maintenance of ion exchange membranes and related equipment

Excel Shanon Corporation

Production and sale of plastic window sashes

Tohoku Shanon Co., Ltd.

Production and sale of plastic window sashes

Figaro Engineering Inc. *2

Production and sale of gas sensor devices and related products

Chemicals

Tokuyama Soda Trading Co., Ltd. Stocking and sale of soda ash and calcium chloride

Shin Dai-ichi Vinyl Corporation*1

Production and sale of PVC resir

Sun Arrow Kasei Co., Ltd.

Production and sale of PVC resin compounds

Cement

Hiroshima Tokuyama Ready Mixed Concrete Co., Ltd.

Production and sale of ready-mixed concrete

Tokuyama Nouvelle Calédonie S.A.

Production and sale of cement

Tokyo Tokuyama Concrete Co., Ltd. Production and sale of ready-mixed concrete and

concrete products

Seibu Tokuyama Ready Mixed Concrete Co., Ltd.

Production and sale of ready-mixed concrete

Kawasaki Tokuyama Ready Mixed Concrete Co., Ltd.

Production and sale of ready-mixed concrete

Kvushu Tokuvama Readv Mixed

Concrete Co., Ltd.

Production and sale of ready-mixed concrete

Chugoku Ready Mixed Concrete Co., Ltd.

Production and sale of ready-mixed concrete

Shirokawa Co., Ltd.

Production and sale of ready-mixed concrete

Tokuyama MTech Corporation

Processing and sale of building materials and chemical products

Tokuyama Tsusho Trading Co., Ltd. Stocking and sale of cement and ready-mixed

Kansai Tokuyama Trading Co., Ltd. Stocking and sale of cement and ready-mixed

Tokushou Co., Ltd.

Stocking and sale of cement and ready-mixed

Tokushin Co., Ltd.

Stocking and sale of cement and ready-mixed

Sanyo Tokuyama Ready Mixed Concrete Co., Ltd. *2

Production and sale of ready-mixed concrete

Yamaguchi Eco-tech Corporation*2 Recycling business of incinerated ash waste

Tomitec Co., Ltd.

Production and sale of plastic molded products

(as of July 1, 2022)

Shunan System Sangyo Co., Ltd.

Civil engineering and construction work and planning, onsite contracted factory work, and stocking and sale of construction materials

Tokuyama Kairiku Unso K.K.

Shipping, transportation and warehousing

Tokuyama Information Service Corporation

Information processing services

Shunan Bulk Terminal Co., Ltd.

Warehouse operations for bulk cargoes of coal, etc.

Tokuyama Taiwan Marketing & Research Center Co., Ltd.

R&D and marketing in growth businesses

CoorsTek Tokuyama Corporation*2 Production and sale of ceramics and

electrochemical products

coating materials

Sun·Tox Co., Ltd. *2 Production and sale of polyolefin films

Tokuyama Polypropylene Co., Ltd. *2

Production and sale of polypropylene

Nishinihon Resicoat Co., Ltd.*2 Production of metal parts and anti-rust surface

*1 Specified subsidiary

*2 Equity method affiliates



Tokuyama Corporation

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