

Message from the President

Transforming Tokuyama into a corporate group that contributes to the realization of a sustainable society based on three domains: electronics, healthcare, and the environment

Tokuyama is stepping away from a business structure that is energy intensive to one that is value creative, contributing to resolving social issues through proprietary technologies. Looking ahead to 2030, we are now working on transformation in our business portfolio. President and Executive Officer Hiroshi Yokota will introduce the Group's Vision and medium- to long-term growth strategy, or where we are headed as a Group.

Representative Director, President and Executive Officer

Hiroshi Yokota

Management Approach

Business Always Grows During the Hard Times and Declines During the Easy Times

When managing Tokuyama, my primary concern is to break away from the old, energy-intensive business structure, which requires large capital investment, and to transform Tokuyama into a youthful company that can respond quickly to changes in the business environment and take on the challenge of creating new businesses.

Since our founding in 1918, Tokuyama has continued to grow progressively by supplying basic materials, such as caustic soda, cement, and PVC resin, to a wide array of industries. Throughout our history, employees have come to believe that the company would be secure for many years as long as we adhered to traditional business practices. However, Tokuyama is now facing a historic wave of change. There is a strong requirement to build a new business portfolio that is flexible, one that responds to carbon-neutral initiatives and structural changes in the economy and society. At the

same time, with a declining birthrate and an aging population in Japan, it is essential for Tokuyama to grow business globally, not only in the downward-trending Japanese market, but in overseas markets with real growth potential.

For Tokuyama to continue to prosper in the future, it is necessary to restructure. We will consolidate our management structure to include overseas expansion and new businesses, moving away from having standalone businesses, being product and Japan focused, and maintaining the familiar mindset that employees now have. To successfully restructure into a value-creative company, it is critical to include diversity into an organization with employees who are on the same wavelength. I am adamant that it is important to have diversity—employees with different genders, nationalities, values, and lifestyles—to improve our productivity and competitiveness.

Tokuyama's Mission and Value Creation

Becoming a Market-Focused Company That Places the Customer First with Products and Services Based on Market Needs

We have continued to grow by being a product-focused company developing businesses based on our strengths and proprietary technologies. For example, during soda ash production, our legacy business, quicklime (calcium oxide) is created as a byproduct. To capitalize on this byproduct, the Company began producing cement made from quicklime. By utilizing this strategy, we extended our business domains based on our own products. Using our own byproducts was an economic, rational strategy. By integrating our businesses, we strengthened the competitiveness of the Tokuyama Factory, our main factory. I believe that our previous business strategy—energy-intensive businesses based on coal-fired power generation—was sound.

Today, however, the structure of industry is changing due to the digital revolution. Being product focused is becoming outdated now that responding to ESG (environmental, social, and governance) issues is becoming more and more serious. How can we create new products and services that will be demanded by society in the future? How can we create new business models that contribute to economic development while minimizing impact on the environment? Right now is the time when the success or failure of these initiatives will

determine the fate of the company, being market and customer focused is vital for developing and supplying products and services that are based on customer needs.

To transform Tokuyama into a company focused on customers and markets, I believe we need to review our management principles, the foundation of our business. In 2021, we redefined our Mission as “To create a bright future in harmony with the environment, in collaboration with its customers, based on chemistry.” For realizing this Mission, we established our Vision, or becoming the company that we want to be. We also developed and are disseminating the “four values” that all employees must follow. At the same, we formulated and announced Medium-Term Management Plan 2025, covering the five years from FY2021 to 2025. This plan clearly presents the vision Tokuyama is aiming for and the initiatives for achieving our goals.

I believe that through these initiatives we will convey to both society and employees our management's determination for a sweeping change of course. Our founder, Katsujiro Iwai, had a saying: “Business always grows during the hard times and declines during the easy times.”* Doing things the same way does not solve problems. I will continue to lead the

transformation of Tokuyama’s business portfolio and our restructuring that is a prerequisite for that transformation.

“It is in trying times that business grows. On the other hand, if a company is content with maintaining the status quo, business will begin to decline even if conditions are favorable.”

Business Portfolio Makeover

For the Electronics, Healthcare, and Environment Domains: Enhance the Share of Consolidated Net Sales from Growth Businesses to 50%

In Medium-Term Management Plan 2025, announced in February 2021, Tokuyama set three pillars as priority issues: Transform the business portfolio, Contribute to mitigating global warming, and Practice socially responsible management. “Transform the business portfolio” is the most important management theme so that we can forge ahead to achieve sustainable growth.



Tokuyama’s basic strategy for the future is to focus on creating new businesses that help resolve social issues rather than those business that are based on conventional energy-intensive materials. Our new strategic targets are three business domains: electronics, healthcare, and the environment. While generating sustainable cash flow in the traditional Chemicals and Cement business segments, we will concentrate our management resources on the three growth segments: Electronic & Advanced Materials, Life Science, and Eco Business. We will increase the share of consolidated net sales of these growth business segments to more than 50% by FY2025 and more than 60% by FY2030. In the electronics domain, Tokuyama will capture the top share in high-purity and thermal management materials, while forging ahead with globalization. In the healthcare domain, we intend to become the industry leader in the vision, dental, and diagnostic fields, where we can differentiate ourselves with proprietary technologies. In the environment domain, Tokuyama will boost production capacity for water treatment membranes, grow the waste gypsum board recycling business, and promote recycling photovoltaic panels from the R&D stage, in

this way making the environment business a new pillar for the Group’s future. In April 2021, we reorganized to build our next-generation business portfolio, adding the Eco Business to Chemicals, Cement, Electronic & Advanced Materials (Electronics), and Life Science (Healthcare) to form five business divisions. In April 2023, we reorganized Electronic Materials and established the Electronic & Advanced Materials Business Headquarters.

Restructuring our business portfolio does not mean that our traditional businesses will be downsized or eliminated. For example, the Cement business is mature, having comparatively small growth potential. However, there is enormous potential for resource recycling. I believe that reexamining existing businesses from the perspectives of electronics, healthcare, and the environment then incorporating those businesses into a new corporate structure is another way of transforming our business portfolio.

We are currently in the third year of Medium-Term Management Plan 2025. We will mobilize the collective strength of the Group to transform our business portfolio, aiming to achieve net sales of 320 billion yen, operating profit of 45 billion yen, and ROE (return on equity) of 11% or more in the final year of the plan (FY2025).

*After a change in depreciation method, we updated the FY2025 targets for operating profit and ROE from 40 billion to 45 billion yen and from 10% to 11%, respectively (announced on April 28, 2023).


 Notice Concerning the Revision of Targets for the Final Year of the Company’s Medium-Term Management Plan
https://www.tokuyama.co.jp/eng/news/pdf/20230428_02_Release_e.pdf


Priority Issues in Medium-Term Management Plan 2025

Transforming the business portfolio	
Increase the share of consolidated net sales from growth businesses to over 50%	
Contribute to mitigating global warming Expedite the development/commercialization of next-gen energy technologies; Reduce greenhouse gas (GHG) emissions by 30%	Practice socially responsible management Step up high-priority CSR initiatives to lay the groundwork for growth and to realize our Vision
<small>*Reduction target: Base year FY2019 GHG emissions of approximately 7.26 million tonnes</small>	



Transforming the Company to Realize Our Vision

Focusing on Four Themes: “Reform Organizational Culture,” “Strengthen R&D,” “Promote DX,” and “Accelerate International Expansion”

To successfully reach the goals of Medium-Term Management Plan 2025 and realize Tokuyama’s redefined Vision, it is essential to promote the four reforms described below.

The first is “Reform Organizational Culture.” Tokuyama’s history spans more than a century, having developed a wide range of businesses centered on bulk materials. At the same time, the frontier spirit, which should be part of the Group’s DNA, has weakened, since the number of employees who focus on stability has risen during our growth. This trend has persisted among executives and mid-career employees who have experienced success in the conventional sense, so there is a tendency to view the adventurous spirit and challenges of younger employees less favorably. However, to pioneer the three new domains—electronics, healthcare, and the environment—we need an aggressive group of people who are fulfilled and satisfied by taking on challenges in unknown fields. I believe that restructuring our business portfolio will change our organizational culture and the current mindset of our employees. I envision a future where a change in awareness will lead to a change in behavior, which in turn will transform our business structure and way of doing business.

For the second theme, “Strengthen R&D,” we will encourage customer-oriented R&D (research and development) with marketing as the cornerstone. Over our long history, we have developed and built up a storehouse of technologies that have changed the nature of industry and enriched people’s lives. However, many of these technologies

have been developed and utilized only for our current businesses, so it is essential for us to always consider what we can do with our technologies in the new domains—electronics, health, and the environment—then convert those ideas into real-world products and services. There is a limit to what we can do on our own. To quickly provide the new value that society will demand in the future, we will acquire the functional strengths and development skills that we need through collaborations with other companies, open innovation, and M&As. By promoting marketing-driven R&D, we will transform into a value-creating company.

The third theme is “Promote DX.” In addition to improving our operations by introducing digital technology, Tokuyama will utilize AI and IoT (Internet of things) in various areas, including by upgrading supply chain management systems and boosting productivity at our plants. The goals are to fundamentally change the way we work and to strengthen our competitiveness. We also intend to utilize materials informatics (MI) to accelerate R&D.

For the fourth theme, “Accelerate International Expansion,” we will continue growing overseas production and sales, while developing our international markets, aiming to become a global company with growth potential Tokuyama currently has manufacturing and sales bases in eight countries and regions around the world, mainly in Asia. The percentage of overseas sales in FY2022 was 29%, and we plan to increase this to 50% or more in FY2030. We have formed joint ventures with

Formosa Tokuyama Advanced Chemicals Co., Ltd. (FTAC) in Taiwan and STAC Co., Ltd. (STAC) in Korea, both leading companies in their countries, so that we manufacture and sell

high-purity IPA for the electronics industry where the demand is.

Contribute to Mitigating Global Warming

Becoming Carbon Neutral by Decarbonizing through Developing and Supplying Environmentally Friendly Products

Tokuyama is one of the largest CO₂ emitters among Japanese companies. In addition to CO₂ from our own power plants, for example, CO₂ is emitted from our core soda ash operations. Much CO₂ is also produced when limestone and coke are calcined in lime furnaces. As well, ships that transport limestone burn heavy oil. In other words, our current business structure is the basic reason for the amount of CO₂ that we generate.

On the other hand, global industry is making major strides toward achieving carbon neutrality by 2050. For Tokuyama to remain a sustainable corporate group, it is essential to quickly determine a carbon-neutral/decarbonized business model while consistently producing and supplying basic materials that support industry, including caustic soda, PVC resin, and polycrystalline silicon. Given this recognition, we have set “Contribute to mitigating global warming” as a priority issue in our Medium-Term Management Plan 2025. By decarbonizing while developing and supplying environmentally friendly products, we intend to reduce GHG (greenhouse gas) emissions by 30% in FY2030 compared with FY2019 levels, putting us on a strong path for carbon neutrality.

One specific initiative for becoming carbon neutral is on track: converting our captive power plants to biomass co-fired generation. Using palm kernel shells (PKS), among other waste biomass, we have started to convert one of the Tokuyama Factory’s four power plants to biomass co-fired generation and are set to increase, from FY2025, the percentage of power from biomass co-fired generation. Also, the Shunan Industrial Complex Decarbonization Promotion Council, a public-private organization, has been studying a carbon-free supply chain for ammonia, a fuel for in-house power generation. We have a plan to utilize over one million tonnes of ammonia annually at the Shunan Complex (Yamaguchi Prefecture) by 2030.

In addition to developing and supplying environment-friendly products, we are developing CCU (carbon capture and utilization) technologies to recycle CO₂ into raw materials for chemical and other products while extending our environmental management. We intend to keep contributing to a sustainable global environment and industry by establishing an environmentally conscious business model that is not heavily dependent on fossil fuels.



Practice Socially Responsible Management

Aiming to Realize our Vision through Materiality Initiatives

Tokuyama has identified 10 key CSR material issues in Medium-Term Management Plan 2025 as an action plan to realize our Vision, redefined in 2021. These CSR material issues include “Helping to fight global warming” and “Conserving the environment.” We believe that a business structure with less environmental impact—from transforming our business portfolio—will result in improved CSR management. One initiative for security and disaster prevention as well as occupational safety/health is encapsulated in the material issue “Preventing accidents and preparing for disasters,” a fundamental and important theme for our business operations.

To deepen our relationship with society, we have positioned “Developing human resources,” “Promotion of diversity and career fulfillment,” and “Promotion of physical & mental health” as important issues. New businesses that

change society for the better do not come from staying the course; new products and services are born from a vibrant organizational culture with diverse employees and values that adapt over time. It will be necessary for us to hire and promote a diverse workforce. New employees will have different genders, nationalities, races, and values, and we should support their development through internal and personnel management systems. Transforming our business portfolio should go smoothly if we build an organization that welcomes diversity and offers job satisfaction.

In the past, CSR was seen as making a social contribution separate from a core business. Today, however, I view CSR initiatives as inseparable from the company’s Mission, social obligation, and growth strategy. I believe that sincerely addressing material management and social issues will be the predominant driving force behind our sustainable growth.

A Message for Our Stakeholders

My Paramount Responsibility as President and Executive Officer is to Transform Tokuyama into a New Company

My most important responsibility as President and Executive Officer is to transform Tokuyama into a new company. This statement really says it all. We will change the mindset of our employees, the organizational culture, systems, and business structure. The Company will consistently take on new challenges, while adapting to the times and communicating Tokuyama’s unique value to industry and society. I believe that this is the only way to live up to the trust and expectations of our stakeholders.

We have a mountain of work ahead of us, including streamlining our traditional technologies through DX, R&D and capital investment in growth businesses, on top of developing and growing our global operations. Improving our financial position and further enhancing shareholder returns are also

important management themes. Given the limited management resources we have, it is not possible to implement all of these measures in a comprehensive way, so we must identify businesses and initiatives that we need to focus on now by backcasting from where we want to be in 2030, and to optimally allocate funds, mainly to growth areas.

Although the business environment is likely to remain uncertain with rising geopolitical risks associated with Russia’s invasion of Ukraine, soaring raw material prices, and fluctuating exchange rates, Tokuyama is determined to promote assertive, bold management under a solid governance structure to achieve sustainable growth and maximize corporate value into the future. We sincerely ask for the continued support of our stakeholders.







Value Creation Process

The Tokuyama Group is contributing to resolving social issues through business operations and to creating a sustainable future, in line with our Mission. These steps are highlighted in the Value Creation Process.




Inputs


Business


 Financial Capital	Stable financial base Total assets: ¥478.3 billion Net assets: ¥241.6 billion Rating*: A <small>*R&I Issuer Rating</small>
 Manufacturing Capital	Regionally oriented manufacturing base Capital expenditures: ¥35.6 billion Number of production plants: 20 in Japan, 5 overseas
 Intellectual Capital	Unique technologies and manufacturing processes developed over more than a century R&D expenses: ¥13.6 billion Number of patents held: 2,537
 Human Capital	Human resources with a common sense of values Turnover*: Under 1% Percentage of female managers: 4.7% <small>*Non-consolidated</small>
 Social Capital	Long valued customer and partner network Number of countries and regions with sales ¹ : 40 countries Amount subsidized by Tokuyama Science Foundation ² : Approx. ¥1.23 billion Number of times of stakeholder engagement: 144 <small>1. Non-consolidated 2. Cumulative total for FY1998 to FY2022</small>
 Natural Capital	Efficient use of stable supply of resources Energy input: 57,300 TJ Water resources input*: 41,932,000 m³ <small>*Excluding seawater used for cooling</small>




CSR Priorities


9 INDUSTRY, INNOVATION AND INFRASTRUCTURE


12 RESPONSIBLE CONSUMPTION AND PRODUCTION


13 CLIMATE ACTION


14 LIFE BELOW WATER

- Helping to fight global warming
- Conserving the environment
- Preventing accidents and preparing for disasters

Toward Tokuyama's

Mission

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

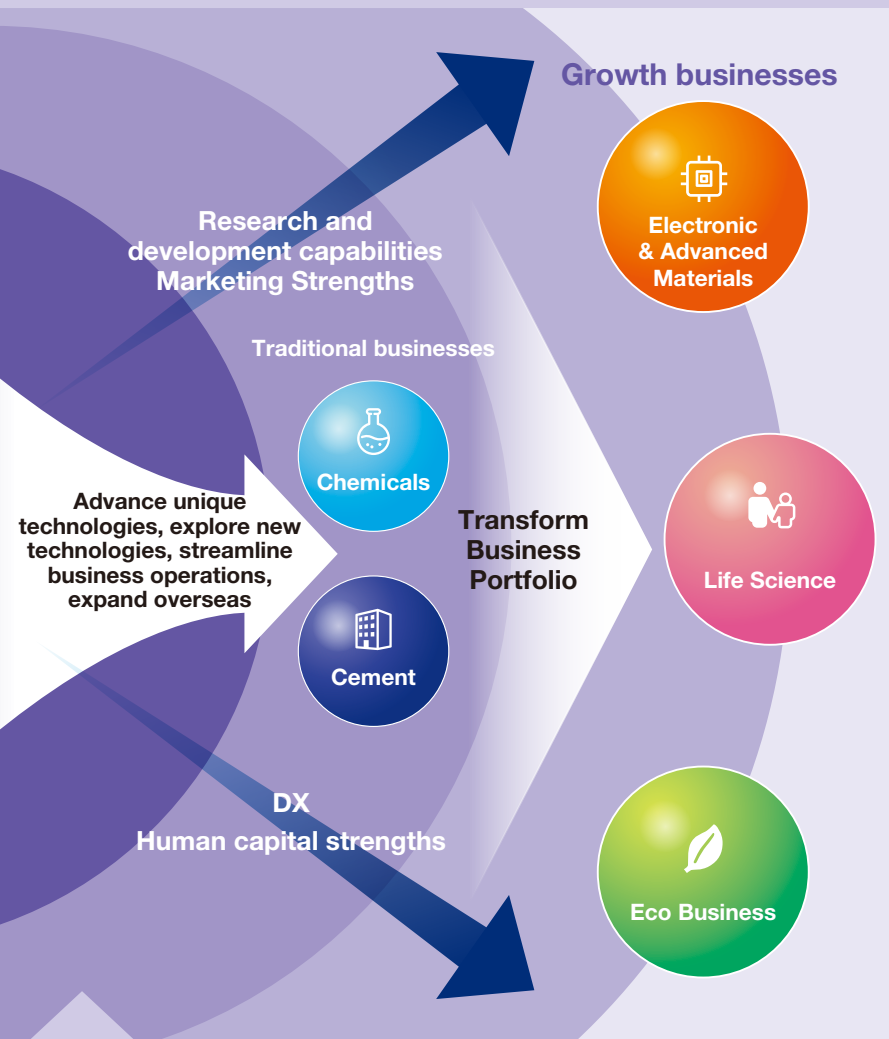
Vision

- 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

Model



- Developing products and technologies that address social issues
- Improved chemical management and product safety
- Engaging with local communities

- Promoting CSR procurement
- Developing human resources
- Promotion of diversity and career fulfillment
- Promotion of physical/mental health

Outputs and Outcomes

Supply products and services required throughout society

Maintain performance of advanced electronic equipment and energy savings through:

- Semiconductor miniaturization
- Higher semiconductor performance

Improve quality of life with better health and preventive care

- Better performing eyeglass lenses
- Enhanced dental care
- Support clinical examinations for faster and more accurate diagnosis and treatment

Contribute to a closed-loop society by recycling waste

- Develop a closed-loop society through waste recycling
- Contribute to mass-processing of waste
- Conservation of aquatic environments with initiatives such as waste liquid desalination

Outputs (FY2022 results)

Net sales	¥351.7 billion
Consolidated operating profit	¥14.3 billion
Current net income attributed to shareholders of the parent company	¥9.3 billion

FY2030 target

Percentage of consolidated net sales from growth businesses	60% or more
Percentage of consolidated overseas net sales	50% or more
GHG emissions	30% reduction (compared with FY2019 levels)

Sustainable Growth

Tokuyama's Strengths Supporting Value Creation

Tokuyama's technologies are the foundation for creating value, over the course of more than a century

Unique
technology /
manufacturing
technology

Along with the development of the Japanese chemical industry, Tokuyama has added cement and chemical products to the product lineup. The Company is currently developing businesses based on our proprietary strengths in technology, mainly in the advanced electronic materials that support cutting-edge semiconductor manufacturing, as well as the life sciences and the environment.

Separation Technology using Ion-Exchange Membranes

In the 1960s, the Company was the first in Japan to commercialize ion-exchange membranes. Today we offer separation technology for an array of applications that use membranes that are resistant to chemicals as well as selective permeation, allowing only the target substance to pass through. This advanced technology is used in a wide range of industries, including the production of salt from seawater, the recovery of specific valuable materials, refining and producing food such as wine and soy sauce, as well as the production of acids and alkali from neutral salt waste liquids.



Ion-exchange membrane

High Purity / High-Sensitivity Analysis Technology

Our polycrystalline silicon for semiconductors, a raw material for silicon wafers, has the highest level of purity in the world. In addition, high purity IPA for the electronics industry, used for precision cleaning of semiconductor wafers and electronic devices, is characterized by a low level of impurities due to a unique manufacturing method. The Company's high level of purity and high-sensitivity analysis technology, that does not overlook minute amounts of impurities, facilitates the development and manufacturing of these products.



High-purity polycrystalline silicon

Waste Treatment Technology

Since our beginning, the Company has worked hard on effectively using and recycling waste in the cement manufacturing process, as well as accepting large amounts of other waste, such as waste plastic, from sources outside of the Company. The cement kiln's combustion temperature is extremely high (1,000 to 1,800°C), so combustible materials are burned completely and the noncombustible materials can be used as substitute raw materials for cement. This processing technology leaves no residue.



Resource recycling

Molecular Design / Organic Synthesis Technology

Photochromic materials used for photochromic lenses require molecular technology to design and control the chemical structure for a specific purpose, such as color tone and fading as well as advanced organic synthesis technology to create specific substances. The Company excels in all of these technologies, having a strong track record in the eyeglass lens materials sector. In the future, these technologies will be extended for use in a wider range of applications.



Eyeglass lens materials

Direct Nitriding / Reductive Nitriding Technology

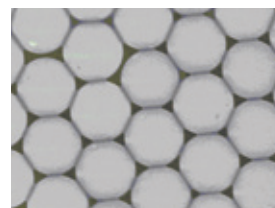
The Company's high-purity aluminum nitride has the world's top market share. Their excellent sinterability (hardens easily) is due the reduction nitridation method a proprietary manufacturing process. This material is highly valued for its thermal conductivity and thermal expansion coefficient, far exceeding competitors' products, and is used as a material for semiconductor heat dissipation substrates and semiconductor manufacturing equipment.



Thermal management materials

Powder Control Technology

Using technology gained through years of experience, we provide advanced powders, such as silica and aluminum nitride, for filling in resins and producing high-level functionality for composite materials by applying certain technologies including particle shape control and the surface modification of powders. These techniques are developing quickly, and the Company is at the frontier of the commercialization of powders with unique properties, including spherical aerogels and hollow silica.



Sunseal™



**Manufacturing
bases for
more efficient
production**



**Zero waste
emissions**

Tokuyama has manufacturing bases for production worldwide: in eight countries and regions around the world, mainly in Japan and Asia. In addition to making production more efficient at every site, the Company is reducing waste and recycling, aiming for zero waste emissions.

Tokuyama Factory

The Tokuyama Factory, located in Shunan City, Yamaguchi Prefecture, Japan, where Tokuyama was founded, is mainly responsible for producing chemical products, cement, advanced electronic materials, and products for eco-businesses. Starting with the production of soda ash, the company's original business, we expanded the product range, while responding rapidly to changes in social and economic requirements. What sets us apart from our competitors is the technology we have developed and the knowledge gained from every business; materials, including by-products; and the integrated, cooperative use of energy. These factors are the source of Tokuyama's market dominance. The Factory has a zero waste emission rate of 99% or more from processing waste at cement plants. In recent years, we have strengthened cooperation with nearby companies and local government, and are accelerating the decarbonization of the Shunan Industrial Complex.



Tokuyama Factory aerial photo

Kashima Factory

The Kashima Factory, Kamisu City, Ibaraki Prefecture, Japan started operations in 1985 as a manufacturing plant for life science products. Using organic synthesis technology, accumulated over many years as the company's core technology, we have developed more efficient production in a wide range of fields, including APIs and intermediates, eyeglass lens materials as well as dental materials and equipment. We provide these products to more than 70 countries and regions around the world. In particular, photochromic materials that change color in response to ultraviolet rays and dental materials and equipment manufactured by Tokuyama Dental Co., Ltd. have a strong presence in the global market. The Company is also working on reducing the environmental impact of manufacturing processes, and in 2023 we installed solar panels at this facility to utilize more renewable energy.



Kashima Factory building with solar panels installed

Tokuyama Chemicals (Zhejiang) Co., Ltd. (China)

Tokuyama Chemicals (Zhejiang) Co., Ltd., a subsidiary in China 100% owned by Tokuyama, was established in 2005 to fill the robust demand from local customers. This company produces advanced electronic materials, including fumed silica, high purity chlorosilane, and high purity chemicals for the electronics industry. In particular, fumed silica, with a broad range of applications, such as rubber and elastomers, maintains a solid share of the Chinese domestic market, and its superb quality is highly appreciated by our customers. This company will complete construction work in FY2023 to increase production of a hydrophobic grade of fumed silica, for which demand is expected to grow. Going forward, Tokuyama Chemicals (Zhejiang) will satisfy customer requirements with a strong production system that supports the competitiveness of local production and the consistent supply of products.



Tokuyama Chemical (Zhejiang)

Formosa Tokuyama Advanced Chemicals Co., Ltd. (FTAC) (Taiwan)

The global semiconductor industry is expected to continue growing due to the spread of 5G and the penetration of AI. Demand for the chemicals essential for precision cleaning semiconductors and electronic components is also intensifying. In light of these trends, in October 2020 the Company established and took a 50% stake in FTAC, a joint venture in Kaohsiung, Taiwan that manufactures and sells high purity IPA for the electronics industry. Together with Taiwan Tokuyama Corporation, also a manufacturer of high purity IPA, the Company has built a production and supply system for fulfilling local demand in the Taiwanese semiconductor market. FTAC will grow and intensify the business for advanced electronic materials in Taiwan by leveraging our strengths in integrated production from raw propylene.



FTAC

Marketing Strengths



**Fortifying customer-oriented marketing,
refining Tokuyama Group's unique
technologies to create new value**

Director, Managing Executive Officer, General Manager of the Research and Development Division

Fumiaki Iwasaki

Tokuyama's R&D has two "wheels." The first wheel is development groups under business divisions that are directly connected to existing businesses, and the other wheel is the R&D Division responsible for strategic medium- to long-term themes. In Medium-Term Management Plan 2025, the Company has set one part of the Vision as "being a value-creative company that places first priority on R&D and marketing." The mission of the R&D Division is to reinforce Tokuyama's technological strengths by cultivating unique technologies and acquiring new ones. The overall goals are to create new value in growth businesses and for R&D to become the driving force for transforming the business portfolio.

In the past, the Company tended to be focused on the development of existing products and was softer on marketing. There are many definitions of marketing, but generally speaking, marketing means "creating a system that sells and selects products and services (that makes customers want to buy them)." We believe that R&D in a company boils down to "the act of creating products that customers want to buy." So, the Company established a specialized marketing organization under the R&D Division in April 2021 and strengthened this system for marketing that anticipates market needs and technological change. Today, based on

information gained through marketing, the Company is evaluating a new business model: using the Group's unique technologies to create ideas for researching and developing new business. For example, our silica-based products have strengths in powder control technology, so the Company is developing new applications, including cutting-edge semiconductor materials and cosmetics. The Company has already begun making some sample shipments.

To capitalize on high-purity technology for semiconductor industries, it is necessary to improve our analysis technology. Tokuyama Taiwan Corporation, an R&D center in Taiwan, along with the Tsukuba and Tokuyama research laboratories in Japan, is now improving the ability to analyze trace impurities in semiconductor materials using new analytical equipment. For Tokuyama to steadily capture opportunities for growth in the semiconductor industry, we have a system in place that supports business growth through technology.

Technical human resources are essential for the successful transformation of organizational culture. To create new value in new markets, the Company will cooperate with external organizations, in industry, academia, and government, as well as recruit career professionals.

Focusing on new applications—Developing silica-based products for cosmetics—

The mission of the Marketing Group is to contribute to achieving the business strategies of Medium-Term Management Plan 2025 as well as formulating and executing of the Group's technology strategy. The Group marketing teams anticipate market requirements and technological trends using specialists from each business field. To develop new applications for silica-based products, the Group participated in exhibitions for cosmetics in the United States, the EU, and Japan. We exhibited cosmetics formulated from the Company's products by showing visitors to the exhibitions the outstanding characteristics of these cosmetics, such as their smoothness. The Group will capitalize on the strengths of our silica-based products by anticipating the demand to replace plastic microbeads, now being restricted to help protect the environment.



Exhibition in New York

Research and Development Capabilities

Improving and strengthening corporate development centers

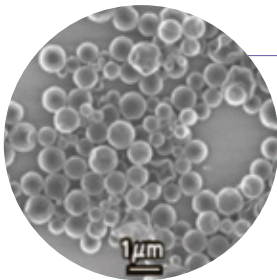
Opened the Tsukuba Second Research Laboratory

The Company will open the Tsukuba Second Research Laboratory in the fall of 2023 to transform the business portfolio and to strengthen R&D for the new domains: electronics, healthcare, and the environment. The Tsukuba Second Research Laboratory will receive some of the roles of the existing Tsukuba Research Laboratory as well as conduct R&D in the healthcare field, centered on developing medical materials and diagnostic reagents, and in the environmental field, including ion-exchange membranes used in water electrolysis to produce hydrogen.

For its part, the Tsukuba Research Laboratory will focus on R&D in the electronics domain, centered on next-generation semiconductor-related materials, while retaining R&D for eyeglass lens materials as well as dental material and equipment made by Tokuyama Dental Corporation. Tokuyama also plans to install pilot equipment at all research laboratories to build a development approach that responds quickly to customers' needs. As a result, the two research laboratories will have an R&D system with about 300 people aiming to become a unified R&D base that creates new value by integrating technology and expertise in a wide range of fields, including organic and polymer chemistry, biotechnology, and inorganic chemistry.



Tsukuba Second Research Laboratory exterior



Silica Developed Products

Strengthening the Tokuyama Research Laboratory

The Tokuyama Research Laboratory, our R&D center in western Japan, takes advantage of being located on the site of the Tokuyama Factory to research and develop new materials and technologies, while working closely with business divisions. This research laboratory, with a key responsibility for using DX for R&D, is working to speed up research and development by utilizing the latest digital technologies, such as materials informatics. At the Analytical Science Department located in this laboratory, we are refining our own unique high sensitivity analysis technology and improving the overall ability to analyze trace impurities in the advanced electronics device field, including ultrahigh purity polycrystalline silicon and chemicals for advanced semiconductor manufacturing processes.

Research at Tokuyama Taiwan

The Taiwan Research Laboratory, established in 2018 as the Group's first overseas R&D center, has been growing through stages, first becoming a local subsidiary then full-scale operations in December 2022 as Tokuyama Taiwan. As a company responsible for both sales and R&D, this center jointly develops products with the Industrial Technology Research Institute (ITRI) of Taiwan, Tokuyama's partner since the time of the Taiwan Research Laboratory, and is working on new business development in Taiwan. The number of personnel is increasing, and a new cleanroom will start operating in July 2023. Through R&D at the cutting-edge of the semiconductor industry, this center will hone our technological strengths and nurture human resources as well as bolster their technical support for customers looking toward the growth of the semiconductor industry.

In the healthcare field, Tokuyama Taiwan launched a health food business in Taiwan in January 2023 after developing a brand name called Vitura—combining the words *vivid* and *natural*—selling health food supplements through the Vitura website in Taiwan.



Health food products sold in Taiwan



Strengthening Open Innovation

To speed up our R&D, the Group conducts joint research with universities in and outside Japan, as well as with national research institutes. In Taiwan, where the semiconductor industry is concentrated, the Group has worked the Industrial Technology Research Institute (ITRI) of Taiwan since 2018 through our contact point Tokuyama Taiwan, which is responsible for research and development. We are continuing to work on technological developments for the miniaturization and sophistication of semiconductors. In recent years, we firmed up partnerships in other fields than electronics by jointly developing useful technologies in the healthcare field, and by working on next-generation technology themes in the environmental field.

DX

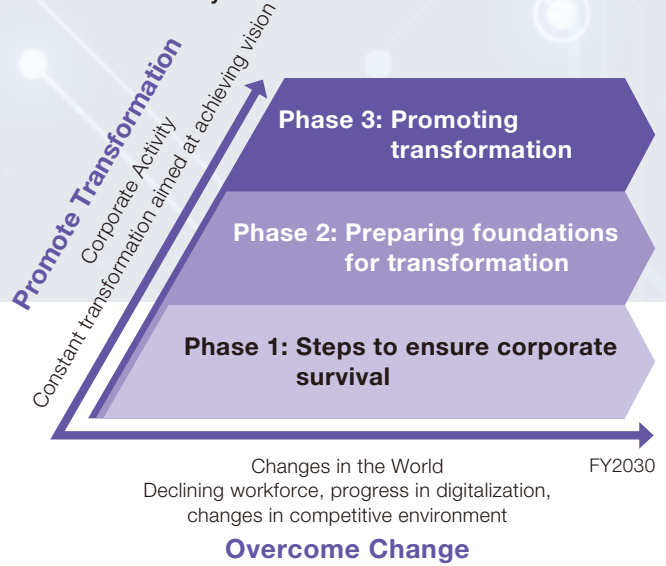
DX (Digital Transformation) at Tokuyama

For Tokuyama, DX is not simply about streamlining operations by using digital technology. We think of DX (TDX*) as using the power of digital technology to help restructure our organization and operations to achieve our medium- and long-term goals that will transform the Company's business portfolio. We are using AI and big data to ramp up our R&D, as well as to improve supply chain management. At the same time, we are using digital technologies in our corporate and sales departments to expedite decision-making and to visualize and pass on expertise.

The DX Promotion Group was established, in April 2021, and the key people who will lead the transformation were assigned to each department. The Company has established a system to accelerate DX initiatives from the perspective of overall optimization. By steadily executing a multifaceted DX strategy, Tokuyama will create new business models that anticipate the changing times.

*TDX: Tokuyama's name for DX

TDX Basic Policy



TDX Overview and Initiatives by Area

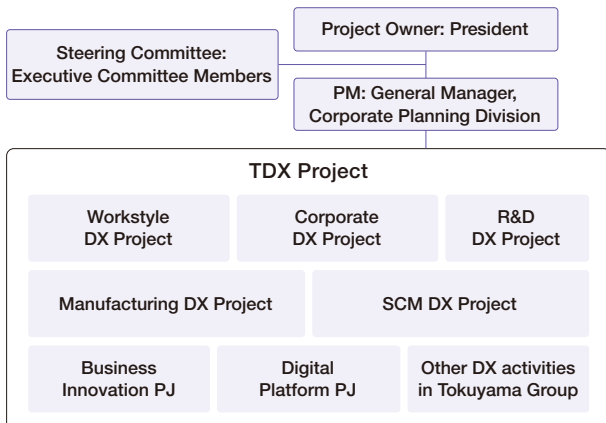
Tokuyama is now concentrating management resources on Medium-Term Management Plan 2025, which ends in FY2025. Under this medium-term plan—based on the idea of building a new business portfolio where businesses in the domains of electronics, health, and the environment account for more than 50% of sales—the Company has set using DX as a management theme for restructuring. Tokuyama will invest up to 10 billion yen over the five-year period covered by the plan and will invest the resulting cash and human resources into the three growth business domains for higher growth and to improve corporate value.

Eight categories have been set for the development of DX, such as manufacturing, workstyles, R&D, and business transformation. A project promotion team has been set up for each category to design and put into place specific initiatives. In manufacturing DX, digital technology is used to improve plant management and to stabilize operations, with the goal of making factories “smarter.”

Image recognition technology and AI are used to improve quality traceability throughout all processes, from raw materials to products. Workstyle DX focuses on building an efficient, comfortable work environment for going paperless, while R&D on DX focusses on innovative new materials using materials informatics (MI) and information sharing among researchers. For these initiatives, the Company has set 15 quantitative targets to be achieved by FY2025, and we are working hard to achieve them.

Tokuyama was designated as a DX certified business operator by the Ministry of Economy, Trade and Industry (METI) in January 2022 in recognition of transforming the Company through DX. Tokuyama will continue to improve productivity, enhance functionality, and speed up corporate initiatives by utilizing data and digital technology, with the goal of becoming a corporate group that grows sustainably.

TDX Promotion System



DX Certification (Acquired January 2022)



Quantitative Target: DX Promotion Index

Improve to 3.5 points by FY2025 (perfect score of 5 points)

FY2020 0.80 pts. → FY2022 2.43 pts.

(Average score of 2.04 points for large Japanese corporations)

*DX Promotion Index: Simplified self-diagnostic metrics for promoting digital management reforms (formulated by the Ministry of Economy, Trade and Industry, Japan)

Human Capital Strengths

Our Approach to Human Capital

Tokuyama sees employees as indispensable for sustainable growth because they are the most important “management capital.” Employees, or human capital, need the courage to change themselves, the courage to change the system, and the courage to take on challenges in new fields in order for us to transform our business portfolio and provide solution-oriented products and services in the global market. The Company expects and supports the growth of employees who embody the “four values” set out in our Vision.

The Tokuyama Group Human Resources Policy states clearly what the company expects of executives and employees who will

realize our Vision, as well as the direction for growth. This policy includes 10 articles as the basic principles of the human resources system and our policies, and underscores our maximum support for the success of executives and employees.

In FY2022, we developed a formal Human Resources Management Strategy that links to our Medium-Term Management Plan 2025. This strategy includes initiatives such as collaboration with business divisions, the revitalization of human resources accustomed to Tokuyama, proactive recruitment, retention, and the development of strategic human resources.

Investing in Human Capital

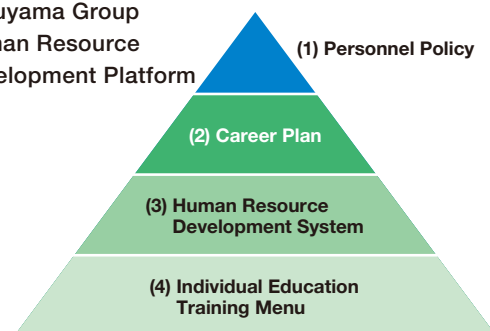
Tokuyama has set up training programs to foster and strengthen human resources, the source of our corporate competitiveness, and to help improve the next generation of employees.

In April 2022, we developed and released the Tokuyama Group Human Resource Development Platform within the Company. This platform includes and aligns the types of employee that the Company expects and the skills required for each type of employee. The platform is also used for guidelines that help develop current job skills, as well as the skills required for career development.

While nurturing the advanced engineers who support business execution, the Company is focusing on global human resources and conducting training for the skills necessary for the global market. In addition, we reviewed the content and restarted next-generation leader training (NBL training) in FY2018 to cultivate the managers, at an early stage, who will be responsible for the future development of the Company.

The human resources system that supports the goals of Tokuyama’s Vision was introduced ahead of Medium-Term Management Plan 2025, and assessing behavior in relation to the “four values” has been added to the evaluation items for human resources.

Tokuyama Group Human Resource Development Platform



Initiatives for Revitalizing the Organization

In FY2022, the Company examined our job rotation system and organized personnel information using a talent (HR) management system. And in April 2023, we established HRBPs (Human Resource Business Partners) in growth business divisions to bolster cooperation between business divisions and the Human Resources Division. The Company encourages individual growth, including through job rotation, as well as placing the right people for restructuring the business portfolio based on training programs from the career development system.

Tokuyama’s promotion of diversity creates an environment where all employees can thrive and be more assertive, emphasizing diversity of knowledge (knowledge and wisdom) as well as improving productivity through workplace reforms for more comfortable and satisfying work. For the active participation of women, the Company has formulated an action plan in line with the Act on the Promotion of Women’s Active Engagement in Professional Life. We are working hard to achieve several targets, such as the percentage of women in management. The Company, to employ more people with disabilities, intends to reach the legally mandated employment level, and we are working to improve the work environment by, for instance, making offices and plants barrier free. In addition, the

Company has started new initiatives, such as opening You You Terrace, a place of employment for people with disabilities, and we founded an agricultural corporation, Tokuyama You You Farm Co., Ltd. to support the independence of people with disabilities and contribute to local communities. As well, Tokuyama received Platinum Kurumin Certification from the Minister of Health, Labour and Welfare in July 2022, as an excellent child-rearing support company that is improving the work-life balance of employees.

The Company uses health management to encourage better mental and physical health of employees and their families and for a more comfortable work environment. In recognition of the management of health and productivity, the Company has been certified by White 500 as an outstanding Health and Productivity Management Organization (Large Enterprise Category) for two years in a row and as a Health and Productivity Stock for the first time.



Progress of Medium-Term Management Plan 2025

Transform Business Portfolio

Increase growth businesses' share of consolidated net sales to over 50%

FY2021-25 Plans

- Redefine/reorganize growth businesses around the three themes of electronics, healthcare, and the environment, and proceed to move ahead with expanding them
- Chemicals and cement businesses to promote increased efficiency while generating sustainable cash flows

Priorities and Initiatives

Technology

Pursue added value and promote technological differentiation by collaborating more with external partners

Efficiency Gains

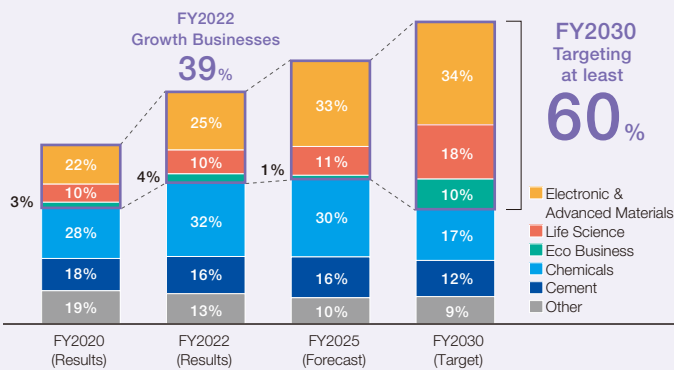
Pursue company-wide operational efficiency, mainly through DX

International Expansion

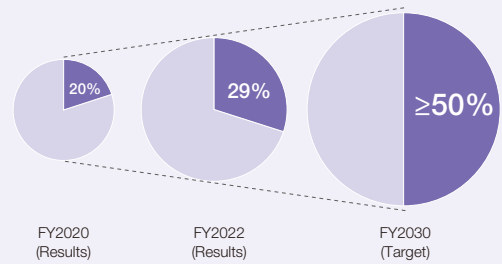
Expand operations in growing overseas markets

Target Business Portfolio

Breakdown of Consolidated Net Sales by Business



Breakdown of Consolidated Overseas Net Sales



FY2020 was created using reference values that include the financial impact of the current Accounting Standard for Revenue Recognition, etc.

- [pp. 6-11 | Message from the President](#)
- [pp. 24-33 | Progress of Strategy by Business Segment](#)
- [pp. 44-45 | Dialogue with External Directors](#)

Contribute to Mitigation of Global Warming

Expedite development/commercialization of next-gen energy technologies Reduce GHG emissions 30% by FY2030*

*Reduction target: GHG emissions of approximately 7.26 million tonnes base year FY2019

- [pp. 34-35 | Message from the Executive in Charge of Sustainability](#)
- [pp. 40-42 | Disclosures Based on TCFD Recommendations](#)
- [pp. 52-55 | Financial and Non-Financial Highlights](#)

Practice Socially Responsible Management

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

- [pp. 36-39 | Vision and Materiality](#)
- [pp. 50-51 | Risk Management](#)

Progress toward Achieving Targets

KPI	FY2020 results	FY2021 results	FY2022 results	FY2025 targets ²	Keys to achieving target
Net sales (billion)	259.2 ¹	293.8	351.7	320.0	Maintain growth while transforming portfolio
Operating Profit (billion)	30.9	24.5	14.3	45.0	Growth toward FY2025
Growth business net sales growth rate (CAGR) ³ (%)	—	19.9	20.1	≥ 10	Strengthen R&D, accelerate international expansion
ROE (%)	13.4	13.2	4.1	≥ 11	Balance efficiency of shareholders' equity and financial base

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

² Due to changing the depreciation method, the targets for operating profit for FY2025 (target) were updated from 40 billion yen to 45 billion yen and ROE was changed from 10% to 11% (announced April 28, 2023).

³ CAGR (compound annual growth rate): The annual geometric mean rate calculated from the growth rate over multiple years

Progress in FY2022

To transform our business portfolio, we are investing management resources in promoting international expansion as well as three growth business domains: electronics, healthcare, and the environment. In FY2022, net sales increased year on year due to aggressive actions taken to adjust the sales prices of chemicals, cement, and semiconductor-related products in response to soaring raw material and fuel prices triggered by

Russia's invasion of Ukraine. The growth rate of sales (CAGR) for growth businesses was 20.1%, far exceeding the target of 10%. On the other hand, despite passing on raw material and fuel costs through sales price adjustments, operating profit fell due to higher logistic costs and a decline in overseas market conditions for chemical products. ROE also fell below the previous year's level.

Initiatives for Business Portfolio Transformation

High-Purity IPA for the Electronics Industry

Start of shipments from Taiwan JV factory and construction of South Korea JV factory

Formosa Tokuyama Advanced Chemicals Co., Ltd. (FTAC) is a joint venture with Formosa Plastics Corporation for the production of high-purity IPA for Taiwanese semiconductor manufacturers. Commercial operation has begun and customer approval is progressing smoothly. Our intention is to begin full-scale operations by the end of FY2023. Similarly, STAC Co., Ltd. (STAC) was established in South Korea as a joint venture with SK Geo Centric Co., Ltd. (SKGC). Construction of the factory in South Korea is already underway, and work is going smoothly for the start of operations in summer 2024. We intend to put the operations of these two plants on track as planned, which will help transform our business portfolio and increase the percentage of net sales coming from overseas.



Groundbreaking ceremony at JV factory in South Korea

Dental Materials and Equipment

Expansion of production capacity

At the Kashima Factory, a new building for Tokuyama Dental Corporation will be constructed to increase the production capacity of composite resins. Sales of dental materials have been growing steadily because of rising demand for OMNICHROMA and resin blocks for CAD/CAM crowns, mainly in Europe and the United States. To respond to this growing demand, we are now boosting production capacity with this new building, which is scheduled to start operations in October 2024. When expansion is complete, production capacity is expected to approximately double, establishing a robust production system to meet the strong demand.



Rendering of new building for Tokuyama Dental Corporation



Resin block for CAD/CAM crowns

Message from the CFO



Maximizing corporate value by improving earnings from traditional businesses and aggressively investing in growth businesses based on a sound financial position

Representative Director, Senior Managing Executive Officer
General Manager, Corporate Planning Division

Hideo Sugimura

What I Value as CFO

As CFO, I specifically focus on implementing a dynamic business strategy based on future investment plans while maintaining sound financial discipline. The Corporate Planning Division is responsible for corporate planning as well as accounting/finance. Since I have the responsibility for these two roles—much like the gas pedal and brakes of an automobile—I recognize that balancing them is also essential for risk management. As well, I keep an eye on our ability to generate cash, in this way maintaining a more stable financial foundation while closely watching ROE, an indicator of management efficiency.

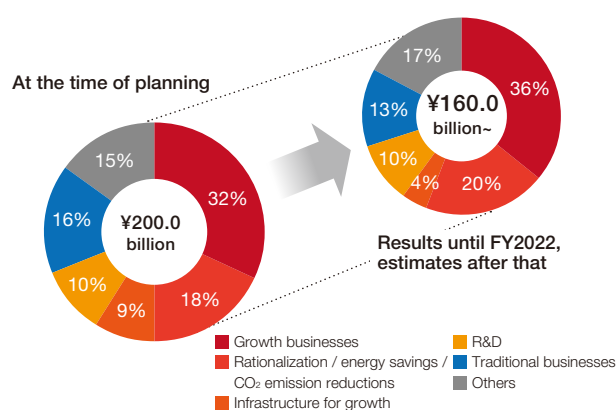
In FY2015, Tokuyama recorded a significant impairment loss related to Tokuyama Malaysia Sdn. Bhd, our former subsidiary that we were worked with in polycrystalline silicon operations in Malaysia. Since that loss was recorded, the Company's financial position has improved through consistent profits. However, as the equity increases in the future, whether or not the Company will be able to generate returns in proportion with this increase will become an important part of our financial strategy. Although it is not possible to predict future business conditions, including trends in the costs of energy and resources, as CFO, I will take the lead in realizing sustainable growth and increasing corporate value.

Review of FY2022 and Outlook for FY2023

We continued to face tough business conditions in FY2022. International concerns over energy and resource shortages following Russia's invasion of Ukraine triggered global inflation, while in Japan the weak yen caused price hikes for imported goods, putting pressure on corporate earnings. Given these conditions, we came together as a group to work on tackling the priorities of Medium-Term Management Plan 2025. As a result, net sales increased year on year due to successfully revising sales prices for chemicals, cement, and semiconductor-related products. However, operating profit and other profit measures fell due to higher raw material and fuel costs, logistics costs, and lower market prices. FY2022 was a year when we learned many lessons, including the apparent weaknesses of the energy-intensive business model.

For FY2023, we expect that the methods we have been focused on—boosting profitability and setting proper pricing—will gradually produce tangible results. Nonetheless, there is a lingering uncertainty over trends in raw material and fuel prices as well as the slow semiconductor market. We expect net sales to increase 8% year on year and the various profit indicators to rise significantly, all exceeding 100% year on year. On the financial front, I want to see the Company continue to manage funds effectively and carefully in preparation for redeeming a subordinated loan of ¥60 billion in September 2023.

Capex Plan Breakdown (FY2021–2025)



Keywords are priority investment in growth fields, reduction of CO₂ emissions, and energy savings

Major Capex Results

- Construction of the factory of joint venture company in Taiwan for high-purity IPA
- Construction of the factory of joint venture company in Korea for high-purity IPA
- Production capacity expansion of dental materials
- Waste gypsum board recycling business Construction of a new plant in Muroran
- Establishment of the Center for Commercialization of Advanced Technology

Financial and Capital Strategy

Since experiencing an impairment loss related to Tokuyama Malaysia Sdn. Bhd., our former subsidiary, we have focused on restoring our financial strength by limiting capital expenditures to within the operating cash flow. As a result, our ability to generate cash as well as avoid taking on interest-bearing debt have both been reinforced, and a solid financial base is supporting our medium- to long-term business strategy. The transformation of our business portfolio and initiatives that are contributing to the mitigation of global warming—set as Medium-Term Management Plan 2025 priorities—will require significant funding. While maintaining the basic policy of making investments using our own funds, we intend to bring about sustainable growth by investing

management resources in nurturing growth businesses and in initiatives for creating a carbon-neutral society.

In addition to investing resources in the three growth businesses, electronics, healthcare, and the environment, we will improve the efficiency of traditional businesses and secure stable earnings through an energy transition plan that is focused on carbon neutrality. At the same time, we will invest in DX to support our business model transformation as well as human capital and R&D, the sources of corporate competitiveness. Total capital investment during the period covered by Medium-Term Management Plan 2025 is expected to exceed ¥160 billion.

Basic Policy on Shareholder Returns

Our basic shareholder return policy is to increase retained earnings while providing consistent dividends to shareholders. During the past several years, we have worked hard to gain equity by positioning the cultivation of growth businesses and improving our financial base as priority initiatives. From FY2023, we will consider, once our business strategy achieves results, revising our shareholder return policy, such as improving dividends or raising the dividend payout ratio, the result of an increase in the ratio of consolidated net sales

of growth businesses and accelerated global expansion.

I am aware that having an appropriate share price is also an important issue for improving shareholder value. As of March 2023, the price-to-book ratio has been between the 0.6x and 0.7x level, which is below 1x. However, I do not believe this is an accurate reflection of our business results or potential. We communicate information on the progress and results of our business strategy to capital markets to encourage understanding and a shared among investors.

A Few Words for Our Stakeholders

One of Tokuyama's strengths is a well-balanced business portfolio that does not rely on a specific market. We will continue to develop growth businesses through investments that fully consider financial soundness, while increasing the earnings of traditional businesses through efficient business operations. This basic policy will never change. The subordinated loan redemption will broaden our financial options and allow the Company to further increase investment in growth businesses with the goal of boosting our top line. To further develop our unique value creation process, I would like

to see the Company formulate and execute an effective financial strategy for total optimization.

Tokuyama has achieved steady growth with support from many stakeholders, including shareholders, investors, customers, business partners, and local communities. We will continue to communicate information at shareholders' meetings and investor relations briefings to deepen our dialogue with stakeholders. I sincerely ask for your continued support.

Cash Flow Generation and Allocation (when Medium-Term Management Plan 2025 was formulated)

