Progress of Medium-Term Management Plan 2025

Initiatives for addressing priority issues

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
  Progressing and growing with strength
- 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
Global Expansion	Expand operations in growing overseas markets

Progress in FY2024

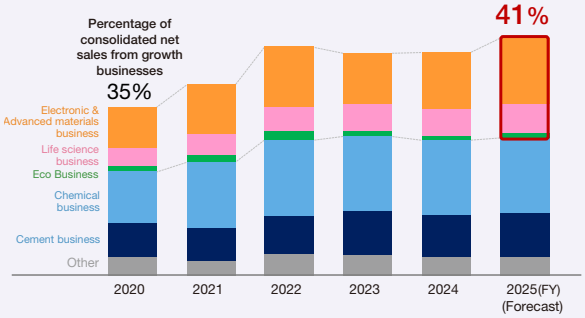
Although the semiconductor market has been sluggish since FY2022, it is showing signs of recovery centered around the cutting-edge fields, driven by demand for generative AI. Thanks to these factors, we managed to increase sales and profits in FY2024, as compared to FY2023, in Electronics and Advanced Materials. As for the Life Science segment, we completed a new production facility amid growing demand for dental filling composite resin produced by Tokuyama Dental Corporation, particularly in Europe and the United States. By implementing robots and automated systems, we will work to expand supply while keeping personnel increases to a minimum. As described above, this year has been marked by steady progress toward transforming our business portfolio.

Global Expansion

To strengthen the supply system for semiconductor-related products, we established a subsidiary that will manufacture and sell semiconductor-grade polycrystalline silicon in Vietnam in August of 2024, and are working to establish a company in Malaysia that will jointly produce semiconductor-grade polycrystalline silicon with the South Korean OCI Group.

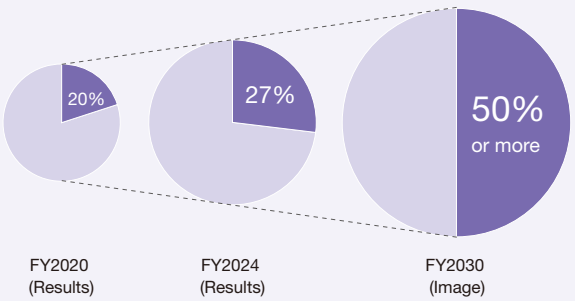
We also decided to establish a subsidiary to sell Group products in the growing market of India. By establishing this company, we will further enhance local marketing for growth businesses in the areas of electronics, healthcare, and the environment, work to foster growth in the Indian economy, and accelerate our international expansion.

Breakdown of Consolidated Net Sales by Business



* Percentage of net sales for each segment is calculated including inter-segment sales
* FY2020 was created using reference values that include the financial impact of the current Accounting Standard for Revenue Recognition, etc.

Overseas Share of Consolidated Net Sales



	Efforts in FY2024	Details Page
Technology	• Relocating and expanding Tokuyama Taiwan to strengthen cooperation with external parties in Electronic and Advanced Materials	P19
	• Launching radiation protection materials using bismuth (for medical goggles) • Accelerated efforts to realize business that utilizes low-temperature thermal decomposition recycling technology for PV panels	P24-25
Efficiency Gains	• Advanced automation at the new building of the Tokuyama Dental Kashima Factory • Built a remote maintenance infrastructure that utilizes A&T's cloud environment • Developed the "Tokuyama AutoML" data analysis tool that contributes to expanding the use of AI	P17, P23
Global Expansion	• Established TOKUYAMA VIETNAM CO., LTD., a Vietnamese subsidiary that manufactures and sells semiconductor-grade polycrystalline silicon • Decided to establish a subsidiary to sell Group products in India.	P28

Helping to fight global warming

Expedite the development/commercialization of next-generation energy technologies Reduce greenhouse gas (GHG) emissions in FY2030 (Scope 1 and 2) by 30%*

* Base year: FY2019 GHG emissions of approximately 7.26 million tonnes CO_2e

P38 - 39 Message from the Executive Officer in Charge of Sustainability
P44 - 46 Response to Climate Change

In FY2024, we conducted a study on the commercial viability of constructing a pilot plant for semi-carbonized black pellets made from biomass and modifying facilities for biomass co-firing, starting to consider fuel conversion in cullet production, developing a low-carbon process for soda ash production, developing an environmentally friendly sidewalk paving material called “interlocking biochar blocks” (in collaboration with Fujita Corporation) that produces virtually zero GHG emissions from materials such as cement, and co-firing ammonia as fuel.

GHG emissions (Scope 1 and 2) were reduced by 19% compared with FY2019 levels through biomass co-fire generation and aggressive energy conservation activities. We also achieved 6% reductions in categories 1, 3 and 4 of Scope 3 in comparison with FY2022.

Main Reduction Targets	Initiative Policy	Efforts in FY2024
In-house power generation facilities	Reduce GHG emissions from in-house power generation by 50% in FY2030*	Biomass Co-firing Construction of a black pellet pilot plant Studying the feasibility of an ammonia co-firing business
Cement and Chemicals, etc.	Reduction of limestone use and coal use and improving processes	Using waste and by-products Starting to consider fuel conversion in cullet production Developing low carbon processes for soda ash production
Carbon offsets	Consider implementing CCS technology and offsets	Development of carbon negative concrete Development of biochar interlocking blocks

* Base year: FY2019

Practice Socially Responsible Management

To realize our Vison, we are strengthening initiatives addressing material issues that form the foundation for sustainable growth.

P8 - 13 Message from the President
P40 - 43 Tokuyama’s Materiality
P58 - 59 Risk Management

Our Group is implementing a variety of sustainability measures, including materialities, to promote CSR management. In FY2024, we changed our meeting bodies to strengthen sustainability governance and proactively disclosed initiatives focused on materialities. These efforts gained recognition, and our Group has been selected for the first time as a constituent stock of the ESG investment index “FTSE Blossom Japan Index” and has also been selected yet again as a constituent stock of the “FTSE Blossom Japan Sector Relative Index.” Furthermore, we have been selected for the first time as a Supplier Engagement Leader, the highest rating in the 2024 Engagement Rating conducted by the CDP.

Progress toward Achieving Targets

Due to significant changes in assumptions such as raw material and fuel prices when we first formulated the plan, not to mention the impact of the sluggish semiconductor market beginning in 2H of FY2022, we have made only lack luster progress on each indicator since FY2022.

Our business outlook for FY2025 has us achieving record high net sales and operating profits despite falling short of our targets for the final fiscal year because the semiconductor market is showing signs of recovery, particularly in cutting-edge fields, and, our Life Sciences business is growing, driven by factors such as increased production capacity for dental materials and equipment.

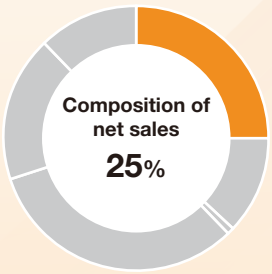
KPI	FY2021 results	FY2022 results	FY2023 results	FY2024 results	FY2025 forecast	FY2025 targets[1, 2]
Net sales (billions of yen)	293.8	351.7	341.9	343.0	364.5	**400.0**
Operating profit (billions of yen)	24.5	14.3	25.6	29.9	41.5	**45.0**
Growth business net sales compound annual growth rate (CAGR)(%)	19.9	20.1	10.5[*3]	9.6[*3]	10.0[*3]	**10.0 or higher**
ROE(%)	13.2	4.1	7.4	9.2	10.9	**11.0 or higher**

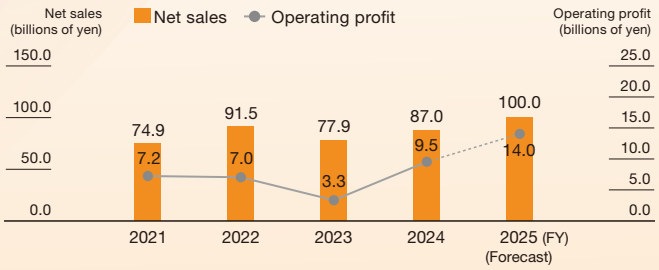
1. Due to changing the depreciation method, the targets for operating profit for FY2025 were updated from ¥40.0 billion to ¥45.0 billion and ROE was changed from 10% to 11% (announced April 28, 2023)
2. In consideration of business performance trends and the business environment, we have changed our net sales forecast for FY2025 from ¥320.0 billion to ¥400.0 billion (announced on April 26, 2024)
3. In consideration of business restructuring in Medium-Term Management Plan 2025, the results for fiscal 2023 and fiscal 2024, as well as the forecast for fiscal 2025, have been revised from the previously announced figures

Progress of Medium-Term Management Plan 2025 by Business Segment

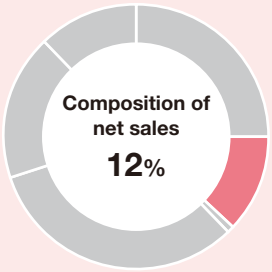
Performance Trend

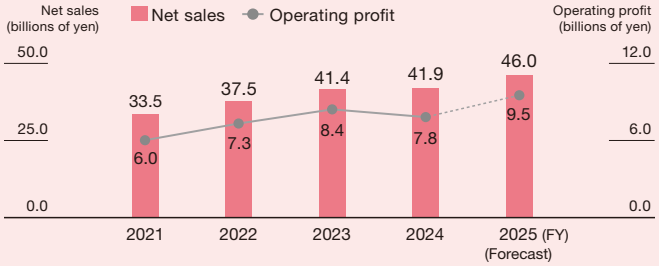
Electronic & Advanced Materials



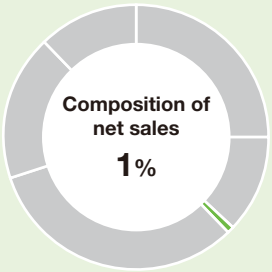


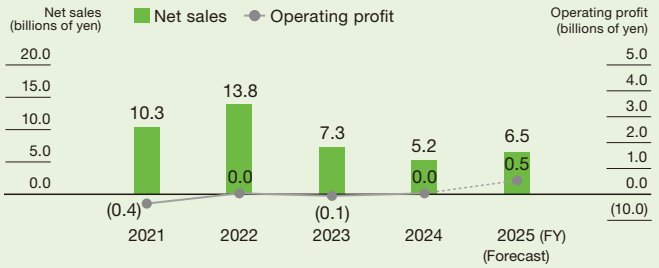
Life Science



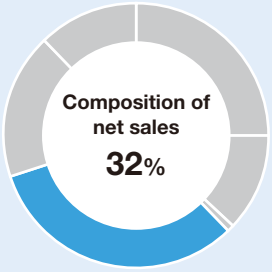


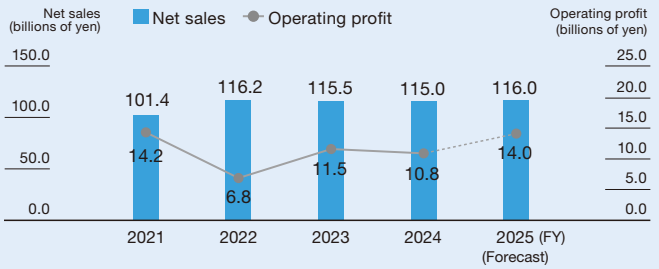
Eco Business



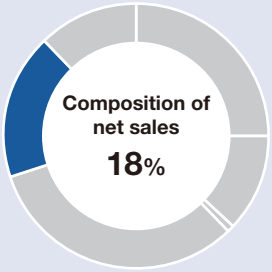


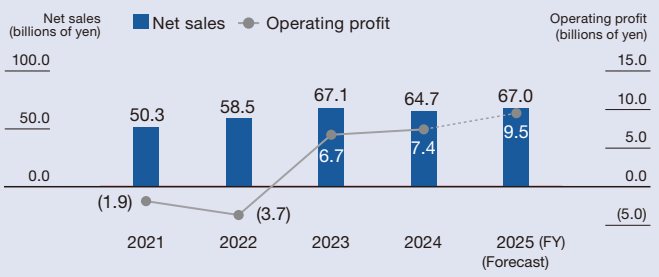
Chemicals





Cement





Progress of Strategy by Product Area

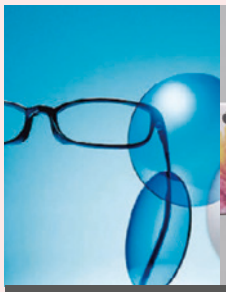
Product Area	FY2024 Results	Future Plans and Investments
Silicon	• Established a subsidiary in Vietnam for the semiconductor-grade polycrystalline silicon business • Developed a system for supply of high-purity chlorosilane in China	• Establishment of second location for semiconductor-grade polycrystalline silicon • Global expansion of high-purity chlorosilane at two locations in Japan and China
IC chemicals	• Developed a stable system for supply in global bases	• Start of supply of high-purity IPA for the electronics industry by the South Korea JV • Expansion of global bases • Accelerate efforts to realize recycling IPA
Silica	• Developed a system for supply of hydrophobic silica	• Expansion of CASE* and personal care applications • Expansion of sales of hydrophobic silica • Entry into the field of organic silicone
Thermal management materials	• Expanded lineup of aluminum nitride/boron nitride fillers	• Launch of silicon nitride • Application development and expansion into downstream fields • Consideration of capacity expansion to meet growing demand

* Coating, adhesive, sealant, elastomer


High-purity polycrystalline silicon

High-purity IPA

Product Area	FY2024 Results	Future Plans and Investments
Fine chemicals	• Sales performed well due to recognition of the quality of generic APIs • Continued to expand global market share due to high photochromic materials performance for eyeglass lenses	• Developed rare APIs and strengthened competitiveness • Improved added value and obtained overseas market share through the introduction of next-generation photochromic materials
Dental materials and equipment	• Tokuyama Dental completed construction of a new production facility • Global deployment of composite resins, and increased sales for Europe, the United States, and emerging markets • Expand the domestic market by strengthening sales of resin blocks for dental crowns	• Strengthen sales structure and accelerate supply systems to further increase market share • Accelerate material development to expand the digital dental field
Medical diagnosis systems	• Consider M&A to strengthen the in vitro diagnostics business and accelerate business portfolio transformation • Start construction of a production building to meet increased demand in the electrolyte business	• Accelerate development and maximize synergies through M&As in the in-vitro diagnostic pharmaceuticals and materials businesses • Expanded production capacity to increase sales of medical diagnostic systems in Japan and expand electrolyte business


Photochromic materials for eyeglass lenses

Dental materials and equipment

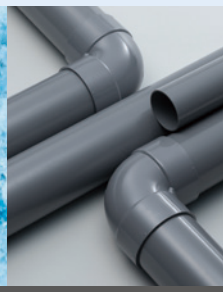
Product Area	FY2024 Results	Future Plans and Investments
Environment	• Waste gypsum board recycling: Start full-scale operations at the third domestic site in Muroran City, Hokkaido • PV panel recycling: Complete joint research with NEDO. Start preparations to apply for an industrial waste treatment license	• Waste gypsum board recycling: Secure stable operations and revenue at three domestic plants • PV panel recycling: Further improve recycling quality and build a business model, and apply for an industrial waste disposal business license
Ion exchange membranes	• Respond to replacement demand from existing customers, improve productivity, and promote new membrane development	• Cultivate environmental-related demand such as for organics recovery and decarbonization • Strengthen the promotion of new membrane development


Waste gypsum board recycling


PV panel recycling

Product Area	FY2024 Results	Future Plans and Investments
Soda Ash and Calcium chloride	• Demonstrate soda ash process model for reducing CO_2 emissions • Decide on investment in cullet fuel conversion	• Maintenance and renewal of equipment necessary for stable business continuity • Energy saving and rationalization in response to environmental issues
Chlor-alkali and Vinyl chloride	• Transfer of sale of chloro-alkali products to Tokuyama Soda Trading • Developed manufacturing technology package for paste PVC resin	


Sodium hydroxide (image)


PVC compounds

Product Area	FY2024 Results	Future Plans and Investments
Cement	• Maintained appropriate sales prices • Reduced electricity consumption rate by introducing advanced automatic control of finishing mills • Suspended one kiln line	• Maintained appropriate sales prices • Established optimal production system using two kiln lines • Maintenance and renewal of the equipment required for stable business continuity • R&D and introduction of technology aimed at environmental issues and carbon neutrality • Expansion of waste treatment that contributes to a closed-loop society
Recycling	• Enhanced collection of waste plastic • Utilized liquid fuel from waste and byproducts	

Cement


Recycling

Progress of Strategy by Business Segment

Electronic & Advanced Materials

Growth businesses

Business Goal

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

Risks and Opportunities

Risks

- Entry of overseas suppliers
- Impacts on the supply chain caused by geopolitical risks

Opportunities

- Increased demand related to cutting-edge IT infrastructure driven by generative AI and big data
- 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 advancements in miniaturization and stacking

Strengths

- Superior quality in semiconductor-related products
- Differentiation through such proprietary technologies as reductive nitridation method (thermal management materials) and direct hydration (IPA)
- Capture high market share in aluminum nitride powder in thermal management materials

Priority Measures

- Aggressive expansion into overseas markets
- Expansion of new applications and product lineup
- Pursuing high-grade product production and analysis technologies

Message from the Executive Officer in Charge

Accelerating global expansion and expanding the product lineup to improve market presence

Katsumi Nagase
Managing Executive Officer, General Manager, Electronic & Advanced Materials Business Headquarters and Advanced Materials Business Division

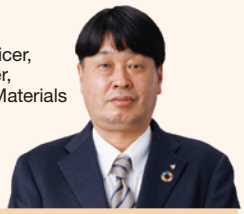
Although market sentiment differs significantly between advanced and general-purpose semiconductors in FY2024, for silica, shipment volume for CMP (semiconductor-grade polishing slurry) has begun to increase after hitting bottom in FY2023. Volumes for silicone and other materials recovered somewhat compared with FY2023, but only slightly due to the impact of the stagnant Chinese economy. To expand applications, which has been identified as a priority measure in our Medium-Term Management Plan 2025, Tokuyama Chemicals (Zhejiang) Co., Ltd. is building a system to increase production of hydrophobic surface-treated silica to meet the needs of the markets for adhesives for wind turbine blades and paint inks, both of which are areas that are expected to see continued growth, and is working to grow sales, including the expansion of sales to new customers. To expand sales areas, we are working to expand sales of spherical silica for cosmetics through exhibitions in each region, and have begun sales in South America following Europe and North America. In terms of heat management materials, demand for aluminum nitride powder for semiconductor manufacturing equipment components has been showing signs of recovery, and demand for power semiconductor substrates and LEDs is also increasing, leading to increased sales volumes domestically and overseas as well.

Going forward, cutting-edge semiconductors for the manufacture of high performance computing (HPC) and high bandwidth memory (HBM), which support the expansion of AI data centers and other cutting-edge IT infrastructure, will continue to become more miniaturized and multi-layered, so the quality requirements for the semiconductor materials used will also become increasingly higher. In addition, although demand for power semiconductors for automotive applications is experiencing a temporary stagnation, growth is expected in the future. Demand is also expected to increase steadily in areas such as high-voltage machinery, green energy such as solar and wind power generation, power transmission, and electric railways. Although FY2025 will be a turbulent year globally, we intend to seize on growth and change in these markets as opportunities to expand our business. With respect to silica, we expect sales for CMP and other applications to increase, and we will also begin sales for use as insulation material in EV battery modules as part of our efforts to expand applications. In terms of heat management materials, we intend to further expand sales of aluminum nitride powder for semiconductor manufacturing equipment, and aluminum nitride bare substrate for power semiconductors manufactured and sold by TD Power Materials Co., Ltd. Furthermore, by aligning our strengths in powder control technology (particle control and surface treatment) and ceramic sintering technology with customer needs in cutting-edge fields, we will further refine our aluminum nitride powder quality to levels that no other company can match. We will also accelerate development of mass production technologies for aluminum nitride and boron nitride filters, as well as silicon nitride, while also improving our supply system, and expanding our heat management materials business to meet diversifying heat management needs.

Message from the Executive Officer in Charge

Consistently maintained efforts to improve quality while contributing to the expansion of the semiconductor business. Making Tokuyama the Customer's First Choice

Seiji Teranishi
Managing Executive Officer,
Deputy General Manager,
Electronic & Advanced Materials
Business Headquarters
and General Manager,
Electronic Business
Materials Division



In FY2024, the Electronic Materials Division recorded an increase in revenues and profits over FY2023. Regarding the silicon business, as the inventory adjustment phase continued from the second half of FY2022, silicon wafers shipments also showed negative growth of Δ2.7% year-on-year. However, shipments of polycrystalline silicon for semiconductors increased significantly by approximately 20% compared to FY2023, driving performance of the electronic materials division forward. Meanwhile, in the IC chemicals business, Formosa Tokuyama Advanced Chemicals Co., Ltd. (FTAC), a new production and sales base for high-purity IPA in Taiwan, achieved a full-year profit, contributing to improved earnings. Additionally, STAC in South Korea has already shipped samples for customer qualification to a major customer and is proceeding with plans to begin mass production and sales within FY2025. Summarizing the results for FY2024, our business plan appears to be progressing smoothly. However, the semiconductor market is facing an unprecedented number of uncertainties, including end customers postponing investments due to the sluggish market, supply chain disruptions triggered by US-China relations, US tariff issues, as well as the rise of Chinese manufacturers, creating a very challenging and competitive environment for the final fiscal year of our Medium-Term Management Plan 2025.

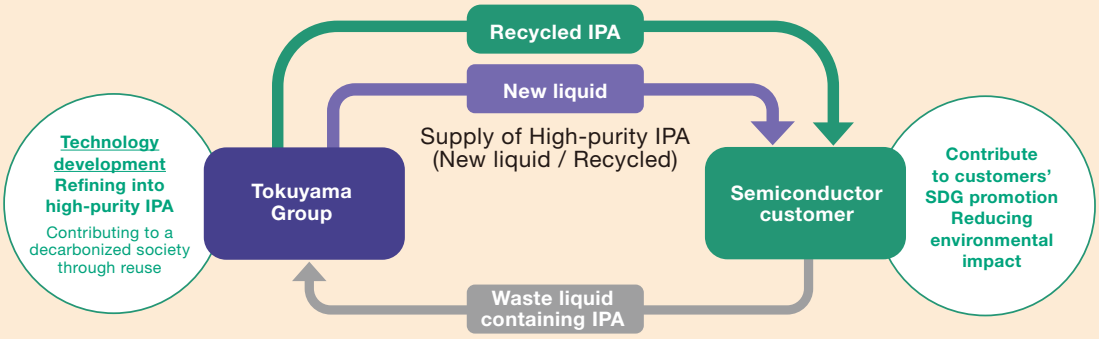
For the Electronic Materials Division to become a driving force behind Tokuyama's performance, we must not only steadily meet customer demands, but also thoroughly coordinate with customers, especially in cutting-edge products, to solve problems together and improve the quality of both companies, thereby becoming a company that customers can choose to purchase by name. With respect to the silicon business, as the quality requirements for polycrystalline silicon have become increasingly higher in recent years, we are working with our customers to improve quality. In addition to further improving semiconductor-grade polycrystalline silicon, we are also working to enhance the analytical capabilities required to ensure this quality, thus contributing to improved quality for the silicon wafers produced by our customers. In the IC chemicals business, the world's most advanced 2 nm factory has already begun operating in Taiwan, the region with the greatest demand for high-purity IPA, where FTAC's products are being used. However, there is now a need to establish a system for quality control and stable supply in anticipation of next-generation 1.4 nm technology. Furthermore, since cutting-edge products use large quantities of high-purity IPA, there is also a growing demand for recycling in order to maintain sustainability. By reliably responding to these demands, we intend to keep up with our customers' growth strategies and further expand our IC chemicals business.

TOPICS High-purity IPA environmental initiatives

In the IC chemicals business, we have established our own unique recycling technology and are working to achieve process return by re-purifying IPA-containing waste liquid discharged from our customers' semiconductor factories into high-purity IPA.

We are building a recycling plant at FTAC (Taiwan) that is scheduled to begin full-scale supply in FY2027 after it undergoes quality evaluations and is certified. We will help reduce our customers' environmental impact by proposing optimal business models for each market.

Business Model Vision



Progress of Strategy by Business Segment

Life Science

Growth businesses

Business Goal

Use unique technology to capture top niche market share in areas where differentiation is possible: vision, dental, and diagnostics

Risks and Opportunities

Risks

- Rise of emerging manufacturers mainly in Asia
- Destabilization of supply chain such as procuring raw materials, outsourcing production overseas, and exporting product due to geopolitical risks

Opportunities

- Growth of healthcare due to advent of super aging society and increasing need for preventative care
- Expansion of emerging markets in the Middle East, Asia, and South America
- Developments in the digital dentistry field
- Promotion of DX in the medical field in line with work style reforms at healthcare facilities

Strengths

- Highly unique product and technology development capabilities based on chemical technology
- Close collaboration between sales, manufacturing and development to enable a rapid and detailed response to user requests

Priority Measures

- Conducting M&As and accelerating the transformation of the business portfolio to expand in-vitro diagnostic pharmaceuticals and materials businesses
- Strengthen sales structure and accelerate production capacity to further increase share of the overseas dental materials and equipment market
- Strengthen new product development and increase added value to further expand the photochromic market overseas
- Develop rare pharmaceutical ingredients and business for non-medical applications based on organic synthesis technology

Message from the Executive Officer in Charge

Strongly promoting business portfolio transformation through expansion of existing businesses and acquisition of in vitro diagnostics business

Fumiaki Iwasaki
Representative Director,
Senior Managing
Executive Officer,
General Manager, Research &
Development Division and
Life Science
Business Division

This is the final fiscal year of our Medium-Term Management Plan 2025. Although there are variations between products, the Life Sciences Business Division as a whole is progressing largely according to plan.

However, as a division responsible for the “healthcare” business, which is expected to be a growth sector, we need to rapidly transform our structure in order to achieve further growth. First, to expand our diagnostic business, we acquired the in vitro diagnostic pharmaceuticals business and the in vitro diagnostic pharmaceutical materials business of JSR Corporation, and defined the in vitro diagnostic reagents business as the core of growth businesses in the healthcare sector in our next medium-term plan. The Tokuyama Corporation has traditionally focused on active pharmaceutical ingredients and intermediates in the healthcare sector, but due to the slowdown in growth of the low-molecular-weight generic drug market, we have set our sights on diagnostic reagents as a new business area and have begun developing new diagnostic reagents. By inviting the target business into our Group so that they may complement our ability to commercialize immune reagents using particles and antibodies, we expect to significantly shorten development times and achieve synergies with our core technologies. Additionally, the company will collaborate with Tokuyama Dental Corporation to develop diagnostic reagents for dental care and introduce new products into A&T Corporation’s distribution channels. We believe that this will allow our Group to quickly build a highly profitable diagnostic reagent business.

At the same time, we will not neglect our API and intermediate businesses, and will seek new sources of revenue by expanding into highly pharmacologically active APIs, while also developing our intermediate business for non-pharmaceutical applications based on the organic synthesis technology we have cultivated thus far.

In the plastic lens-related materials business, we will maintain high profit margins by developing products on schedule and in line with the technical roadmap and providing high-end products to each user. In the microporous film business, we have decided to discontinue Shanghai Tokuyama Plastics Co., Ltd., which had previously been a pending issue, in FY2024. From FY2025, we will focus on domestic business and aim to improve the profit margins of each product by implementing cost reductions.

In A&T’s diagnostics business, we will work to increase the profitability and productivity of our clinical laboratory information system and specimen testing automation system businesses, while also building a foothold for overseas expansion by successfully expanding our electrolyte business into China.

As for the dental materials and equipment market, we will be able to solidify our business foundation in Europe by acquiring European Medical Device Regulation (MDR) certification in FY2025, and by expanding and improving our product lineup, we will be able to enhance our marketing and sales capabilities in overseas markets to further expand our business.

Progress of Strategy by Business Segment

Eco Business Growth businesses

Business Goal

Serve as a new business pillar for the future

Risks and Opportunities

Risks

- Rise of emerging manufacturers centered in Asia, against the backdrop of environmental regulations
- Rampant competition as end-of-life PV panels become a social issue

Opportunities

- Increased wastewater treatment demand due to tougher environmental regulations in China and emerging countries
- Growing global environmental consciousness
- Global awareness for creating a recycling-oriented society

Strengths

- Continuous large crystallization technology for gypsum (for 100% recycling of waste gypsum boards)
- Ion-exchange membrane water treatment
- Unique technologies, such as PV panel recycling using low-temperature thermal decomposition treatments

Priority Measures

- Respond to expanded demand for water treatment membranes due to strengthened environmental regulations
- Expansion of recycling business for waste gypsum boards and PV panels, etc.
- Commercialization of next-generation energy technologies that have been developed

Message from the Executive Officer in Charge

Promoted commercialization by leveraging unique technology. Enhancing profitability and realizing a sustainable society

Naoki Tamura
Executive Officer,
General Manager,
Eco Business Division

In FY2024, the Eco Business Division showed a degree of progress in technological development toward commercialization, and we are seeing the establishment of a system that will lead to future sales and revenue. Going forward, in addition to PV panel recycling technology, we will continue to develop, and work to commercialize, superior waste processing technology.

As for PV panel recycling, we have completed joint research with the New Energy and Industrial Technology Development Organization (NEDO) at the recycling commercialization experimental facility in the town of Nanporo in the Sorachi District of Hokkaido. In the future, we will begin full-scale operations in this area after applying for an industrial waste disposal license. At this facility, recycled grall plates can be reused as high-quality plate glass material, and other components can be processed and extracted at high quality levels, realizing a recycling system which prevents anything from becoming waste. We will also continue to develop technology to improve equipment and reduce costs, and expand our business with an eye towards overseas expansion.

Tokuyama Chiyoda Gypsum Co., Ltd., which operates a waste gypsum board recycling business, has been able to maintain stable operations at its Yokkaichi and Kanto plants. Current challenges for the Muroran Plant, which began operating in FY2023, are increasing collection volumes and improving profits. We will work to secure stable operations and profits at three plants by, among other efforts, optimizing treatment processes, and adjusting prices. It is becoming increasingly difficult to secure gypsum, which is produced as a by-product of domestic metal refining and coal-fired power generation, and we expect that our recycling technology will become increasingly necessary. The company's large crystallization technology enables us to produce recycled gypsum of the same quality as regular raw gypsum, which means that it can be effectively used as raw material not just for gypsum boards, but also in all industries that require gypsum, including cement.

ASTOM Corporation achieved major improvements in both revenue and profit with continued demand from the use of specialized membranes with distinctive characteristics to recover a valuable resource lithium (Li). There was also firm demand for ion-exchange membranes used in the production of salt, foods, and potable water. In addition to the extremely strong demand from both Japan and overseas, the demand for technological improvements is likely to continue to remain strong. We will further promote development, and will establish and strengthen our supply system in order to respond to robust demand as much as possible.

The semiconductor industry generates a large amount of waste that is difficult to treat. Further, the use of biomass fuel in coal-fired power plants is being promoted as a measure to combat global warming. However, this fuel conversion then changes the properties of the incineration ash produced, making it difficult to apply to the recycling systems currently in use, particularly in the cement industry. We are working to develop treatment technologies for this difficult-to-treat waste, and are aiming to establish new and unique recycling technologies.

Progress of Strategy by Business Segment

Chemicals

Traditional businesses

Business Goal

Ensure stable earnings in the existing business

Risks and Opportunities

Risks

- Decreasing domestic demand due to macroeconomic changes
- Excessive supply due to expansion of caustic soda and PVC facilities, particularly in Asia
- Impacts on the supply chain caused by geopolitical risks

Opportunities

- Promotion of a hydrogen society
- Increased demand for caustic soda due to increased demand for lithium-ion batteries and aluminum

Strengths

- Only domestic manufacturer of soda ash
- Electrolyzer, electrolysis and manufacturing technology with extensive operating record

Priority Measures

- Strengthen business and increase efficiency to maximize revenue
- Reduce CO_2 emissions and waste by improving manufacturing processes
- Improve the supply chain through the promotion of DX

Message from the Executive Officer in Charge

Fulfilling supply responsibilities and strengthening profitability by responding to changes in the business environment

Hirotaka Nishihara
Managing Executive Officer,
General Manager, Chemicals
Business Division

In FY2024, both sales and operating profit fell significantly short of planned values. This was caused by a continued slump in the overseas PVC market and sluggish domestic sales volumes for mainstay products such as soda ash, caustic soda, and PVC resin. Although the surge in raw material and fuel prices since FY2021 has subsided, the real estate slump in China continues, and the global supply and demand balance has been significantly disrupted in the PVC market in particular, thanks to oversupply, resulting in an extremely challenging business environment.

It was under these conditions that our Group absorbed Shin Dai-Ichi Vinyl Corporation via merger, newly established the Chemical Sales Control Division and the PVC Sales Department, and transferred the sale of chloro-alkali products such as caustic soda to Tokuyama Soda Trading Co., Ltd., thereby establishing a sales system that cut across the entire Group and strengthened our sales capabilities. We are grateful to everyone involved for their efforts that made this transition possible, and we intend to take even greater action in this now more compact organization.

Furthermore, with respect to carbon neutrality, the GX League will be fully operational in FY2026. Tokuyama as a whole will implement measures including fuel conversion for our in-house power generation facilities, and, in our Chemicals Business Division, we will accelerate efforts to reduce GHG emissions, by, for example, introducing a new process for soda ash that uses CO_2 as a raw material and converting fuel for cullet, the raw material for water glass.

As we enter the final fiscal year of our Medium-Term Management Plan 2025, we view this as an important turning point for the Chemicals Business Division in building the foundation for passing the baton to the next generation of our fellow employees as we head into the next 100 years. Like in FY2024, the outlook for the future remains uncertain, thanks to ongoing world events such as the circumstances in Ukraine and Israel, the real estate slump in China, and the issue of U.S. tariffs. However, not only do we intend to achieve our performance forecasts for the final fiscal year of our Medium-Term Management Plan 2025, everyone at the Chemicals Business Division is committed to further improving our profits. Just as we have before, we will continue to act with the customer's perspective foremost in mind, advance DX utilization proactively in the production departments to allow all our departments to better address the needs of users in both Japan and overseas, maintain safe and stable operations, and ensure a stable supply of products to customers. Sales departments will utilize informational tools to further accelerate information gathering so that we may facilitate even faster decision-making. In keeping with one of our core values of "integrity, perseverance, a playful spirit, and boldness," in addition to maintaining a proper defensive posture, we will also remain front-facing and bold in our actions as we work to acquire new users and new applications.

Progress of Strategy by Business Segment

Cement Traditional businesses

Business Goal Become the domestic industry leader in energy efficiency

Risks and Opportunities

Risks

- Decreased demand in cement due to effects of increased construction costs, work style reforms, and other changes
- Increased costs stemming from realizing carbon neutrality

Opportunities

- Domestic demand due to national resilience (disaster prevention and mitigation), responses to aging social infrastructure, and urban redevelopment
- Demand for building infrastructure associated with economic development in emerging countries

Strengths

- Contribute to environmental preservation by accepting waste from inside and outside the Company for cement feedstock and as a thermal energy alternative
- Enabling technological development from a chemical standpoint based on chemical manufacturing

Priority Measures

- Introduction of energy-saving facilities to reduce CO_2 emissions
- Reduction of coal consumption by increasing the acceptance of alternative heat energy waste such as waste plastic

Message from the Executive Officer in Charge

By accelerating increased energy efficiency and utilizing two-kiln cement production systems, realize a stable line of production

Takahide Taniguchi
Director, Managing Executive Officer, General Manager, Cement Business Division

In FY2024, domestic demand for cement continued to decrease, resulting in decreased sales volumes for cement, solidification agents, and ready-mix concrete. For cement and solidification agents, we prioritized a sales policy that was commensurate with profitability, and we continued to make price adjustments to ready-mix concrete, but this was not enough to compensate for the decline in sales volume, resulting in a decrease in revenue. On the other hand, coal prices were on a downward trend, and as a result of our continued self-help efforts, such as increasing our use of alternative energy products and reducing costs, we were able to realize an increase in profits.

As domestic demand for cement falls due to factors such as longer construction periods and labor shortages, material prices and logistics costs are rising further. In addition, there is a growing need to address environmental issues and work toward becoming carbon neutral. It is in this environment that in FY2024 we continuously made investments to update aging manufacturing equipment and repair and strengthen infrastructure facilities in order to realize a more stable supply. In addition, we began accepting liquid fuels derived from waste and by-products, and increased our waste plastic transportation capacity. Further, as part of our carbon neutral response, we also started participating in a consortium using the GI fund to develop a special CO_2 fixing additive for use in carbon negative concrete. In FY2024, we constructed an experimental building with a small kiln for research and development, and also conducted manufacturing tests of special cement admixtures using an actual kiln.

The gradual decline in domestic demand for cement continued in FY2024, falling to 32.6 million tonnes, or around 40% of peak levels. To address these structural changes to the cement business, we took steps to reduce production capacity by shutting down one of our three cement kilns, curbed fixed costs, and advanced the construction of an efficient production system. To remain competitive in this challenging environment, we prioritized improving efficiency and productivity, and in FY2024, we installed an automatic control system in one of our cement grinding finishing mills, just as we did with our cement kilns. As we have confirmed that use of this automatic control system improved efficiency, we will install this system into all of our finishing mills in FY2025 and all of our raw material mills in FY2026, thereby reducing electricity consumption and establishing a more efficient production system.

We will continue to focus on increasing our use of alternative energy products in order to achieve our business goal of top-class energy efficiency. Furthermore, to realize stable production using two cement kiln lines, we will need to continue making large investments to renew and modify our manufacturing facilities, and in FY2025 we will solidify our revision of cement sales prices and strengthen our system for stable acceptance of waste and stable supply of cement.